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Essays on Foreign Direct Investment, Financial Development and Economic Institutions

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Heather Mirsaidi Wickramarchi

Dissertation Committee:
Associate Professor Charles Anthony Smith, Chair
Professor Bernard Grofman
Professor Amihai Glazer

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CURRICULUM VITAE

Heather Mirsaidi Wickramarachi

2002 B.A. in Political Science, University of Hawaii at Manoa

2012 M.A. in Political Science, University of California, Irvine

2016 Ph.D. in Political Science, University of California, Irvine

FIELD OF STUDY

International Political Economy and Quantitative Methodology

PUBLICATIONS

Savard, K. and H. Wickramarachi. 2013. "Global Opportunity Index: Attracting Foreign Investment." Milken Institute.

Prabha, A., K. Savard, and H. Wickramarachi. 2014. "Deriving the Economic Impact of Derivatives: Growth Through Risk Management." Milken Institute.

Markwardt, D., K. Savard, H. Wickramarachi, and P. Wong. 2014. "Will the Next Asian Tiger Please Stand Up? Emerging Economies Poised to Advance." Milken Institute.

Wickramarachi, H. and K. Savard. 2015. "Global Opportunity Index: Attracting Foreign Investment. 2nd Edition." Milken Institute.

ABSTRACT OF THE DISSERTATION

Essays on Foreign Direct Investment, Financial Development, and Economic Institutions

By

Heather Mirsaidi Wickramarachi

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Associate Professor Charles Anthony Smith, Chair

This dissertation seeks to highlight the relationship between foreign investment, financial development, and economic institutions in developing countries. The determinants and impact of foreign investment has been of particular scholarly interest over the past two decades, with only recent focus on developing countries. The first two chapters focus on the institutional determinants (domestic and international) of foreign direct investment (FDI) in developing countries. The third chapter accesses the domestic distributional consequences of foreign investment in developing countries.

The first chapter focuses on the domestic institutional determinants of foreign direct investment and financial deepening. Specifically, I create an institutional quality index that addresses investors desire to know more about the institutional environment within developing countries. Building upon and expanding previous theoretical frameworks for determinants of foreign and domestic capital flows, I utilize cross-sectional empirical analysis to assess the role that institutions play in promoting financial

development and foreign direct investment. I find that institutional quality has a positive and significant on both foreign direct investment and financial deepening.

This second chapter examines the significance of bilateral investment treaties (BITs) in promoting FDI between developing (South-South) countries. Drawing on intra-regional investment data from MENA countries, this paper initiates the examination of South-South BITs, their impact on FDI, and the theoretical channels through which changes in FDI occur. The results of my time-series cross-sectional analysis suggest that the signing of South-South BITs have a positive impact on FDI flows, but under different circumstances than North-South agreements.

The final chapter considers the distributional consequences of foreign direct investment in developing countries. Specifically, I access the impact of foreign investment on the level of democracy and the level of income inequality. Additionally, I estimate the intervening impact of domestic financial development and how this interacts with FDI and the dependent variables. I find that in a sample of developing countries, FDI increases levels of democracy, as well income inequality, and that domestic financial development has an interactive effect.

Introduction

This dissertation seeks to highlight the relationship between foreign investment, financial development, and economic institutions in developing countries. The determinants and impact of foreign investment has been of particular scholarly interest over the past two decades, with only recent focus on developing countries. The chapters contained herein seek to expand this focus. More specifically, the first two chapters focus on the institutional determinants (domestic and international) of foreign direct investment (FDI) in developing countries. The third chapter accesses the domestic distributional consequences of foreign investment in developing countries.

In the first chapter, I contribute to the literature on the domestic institutional determinants of foreign direct investment by examining the theoretical and empirical link between institutions, FDI, and financial development. First, I construct a novel institutional quality index, comprised of three proxies of institutional quality that focus on the implicit and explicit costs of doing business, the quality of financial markets and regulations, and strength and efficiency of governance and policy enforcement. Building upon and expanding previous theoretical frameworks for determinants of foreign and domestic capital flows, I utilize cross-sectional empirical analysis to assess the role that institutions play in promoting financial development and foreign investment. Further, I extend the analysis on financial development by utilizing a broad measure of financial development which accounts for both private lending and capital market development, which has been neglected in most previous studies.

The second chapter examines the significance of bilateral investment treaties (BITs) in promoting foreign direct investment between developing (South-South) countries. Current literature reveals significant increases in FDI flows between developed and developing (North-South) countries. Bilateral Investment Treaties can act as credible commitments, providing investors access to third party dispute settlements, which ensure compliance to protections guaranteed by the BIT. Others argue that BITs are more political, acting as a signaling device to all investors that a host state is committed to liberal economic and political reforms. However, while there has been significant analysis on the impact of North-South BITs on investment into the host state, there has been a surprising lack of analysis on the impact of South-South BITs, particularly surprising given the dramatic increase in both South-South BITs and FDI flows. Drawing on intraregional investment data from the Middle East and North African (MENA) region, this chapter initiates the examination of South-South BITs, their impact on FDI, and the theoretical channels through which changes in FDI occur. The results of the dynamic panel regressions suggest that the signing of South-South BITs have a positive impact on FDI flows.

The final substantive chapter moves beyond the determinants of inward FDI in developing countries to assess the domestic distributional consequences of both FDI and financial development and addresses several questions that are central to the literature on the domestic distributional consequences of globalization. First, does financial globalization, which includes foreign direct investment and foreign portfolio flows, impact levels of democracy? Second, does financial globalization impact levels of income inequality? Lastly, does the level of domestic financial development influence any impact of financial globalization on democracy or inequality?

Using instrumental variable regression via two-stage least squares, as well as system-GMM, I find that foreign direct investment has a positive impact on democracy, but only in a sample of

developing countries. Foreign portfolio investment shows no significant relationship with democracy. The interaction variable of financial development and FDI on democracy is negative and significant for all sample, implying that as domestic financial development increases, FDI has an increasingly negative impact on democracy. For income inequality, I find that both FDI and portfolio investment increase inequality. The interaction variable between financial development and FDI on income inequality is positive for all samples, suggesting that as domestic financial development increases, FDI stock has an increasingly positive impact on inequality.

Chapter 1. Institutions, FDI, and Financial Deepening: An Indexed Approach

I. INTRODUCTION

Over the past three decades, emerging market economies have accounted for an ever greater contribution to the global economic growth. Between 1950 and 2012, the emerging world grew at an average rate of 5% in real terms and per capita GDP in real US dollar terms more than quadrupled. This growth in economic development depends to a large extent on both profitable domestic and foreign investment. Foreign Direct Investment (FDI) to developing countries has increased significantly over the past three decades, rising from US$35 billion in 1990 to over US$775 billion in 2013, surpassing total inflows to developed countries. Financial development in developing countries has similarly increased - as of the end of 2013, outstanding private credit accounted for close to 50 percent of GDP and stock markets have averaged around 40 percent of GDP. While the general trend across the developing word has been positive, when one examines individual countries, the pace of this advancement varies dramatically.

Economic theory alone is far from sufficient to provide a full account of such dramatic discrepancy, since social, historical and cultural factors often play important roles in defining the path of growth and development for countries. However, within the established framework of development theories, economists have found in numerous empirical studies that the main drivers of long-term economic growth are increases in human capital productivity, physical capital/infrastructure accumulation, growth of the labor force and technological progress. More recently, economists and policy makers have noted that the above drivers of growth can be

significantly boosted through the creation of robust and inclusive financial systems and implementation of policies promoting fluent inflows of foreign capital.

Indeed, studies on both aggregate and bilateral FDI suggest a positive impact on economic growth. Blomstrom et al (1994) show that FDI has a positive effect on growth, but varies at different levels of wealth. Borensztein et al (1998) find that FDI, as a vehicle for technology transfer, contributes more to growth than domestic investment, but only when the host country has a minimum threshold of human capital (have the capacity to absorb said technology). Alfaro et al (2003) find that FDI increases growth when domestic capital markets are sufficiently developed. However, Carkovic and Levine (2008) do not find a robust, positive influence in a cross-country assessment.

Similarly, the role of financial sector development in economic growth has received considerable attention since the 1950s. Gurley and Shaw (1955) argued that development of the financial sector can promote economic growth by increasing physical capital accumulation. This was followed by studies (Mackinnon, 1973; Shaw, 1973) that suggest this impact is dependent on financial liberalization. Recent studies have shown that both stock market and banking sector development impact private investment (Serven and Solimano, 1990; Khan and Kumar, 1997; Arestis et al., 2011) and economic growth (Atje and Jovanovich, 1993; King and Levine, 1993; Obstfeld, 1994; Levine, 1997 and 1998; Demirguc-Kunt and Maksimovic, 1998; Levine and Zervos, 1998; Misati and Nyamongo, 2011; Nyamongo et al., 2012). This is not to suggest that FDI and financial sector development work separately – Alfaro et al. (2003) find that FDI promotes economic growth in economies with sufficiently developed financial markets.

Ever greater importance has been attached to improvements in country governance and institutional factors, which is believed to have significant impacts on the active participation of

private and foreign capital in a country's economic system. In particular, it is often argued that the quality of a developing country's policy making process, cost of doing business, legal and accounting system and general quality of governance can help secure stable economic growth by facilitating the steady buildup of private and foreign capital stocks.

1.1 Institutions and FDI

A growing body of literature has highlighted why the quality of institutions matters for attracting FDI.[1] First, poor institutions can bring additional costs to FDI. In the case of corruption, Wei (2000), using a sample of bilateral investment from twelve source countries to 45 host countries, find that an increase in a country's corruption level from that of Singapore to that of Mexico would have the same negative impact on inward FDI as raising the tax rate by fifty percentage points. Although higher degree of corruption is often associated with lower direct investments, previous studies have pointed out that firm behaviors as well as the interaction between firms and governments can lead to somewhat different outcomes. Barassi and Zhou (2011) concluded that corruption has a different impact on FDI stocks for the different quantiles of the FDI stock distribution. They also found that corruption could act as a "helping hand" in the sense that multinational firms can bribe host country governments in order to obtain competitive advantages. Furthermore, Smarzynska and Wei (2000) uses firm data for a set of firms in Eastern Europe and former Soviet countries and finds that corruption not only cause ineffective protection of investor assets, but also necessitates the use of a local partner in a joint venture type of corporate structure.

[1] See Blonigen (2005) for a comprehensive review of the literature on the determinants of FDI.

Foreign direct investment is also vulnerable to uncertainty, including expropriation risk and a weak property rights regime (Chang, 2003; Neiman and Thies, 2012), as well as weak investor protection (Lee and Park, 2013). However, as Lee and Park (2013) point out, a firm's decision to invest abroad is not solely based on the host country's investor protection regime. Also important is the interplay of market power, free riding, contractual uncertainties, and other features of international markets for information (see Maskus 2000). Chang (2003) argues that the property rights regime on its own is an independent determinant of FDI although it is not as important as other factors such as market size, the quality of the existing infrastructure, and human capital. Nieman and Thies (2012) suggest that the role of institutions is often neglected when discussing property rights. They examine the effects of democracy, property rights, and their interactive effect on attracting FDI in 124 countries between 1970 and 2008 and find that in the absence of democratic institutions, property rights protections actually exert a negative impact on FDI. However, as the level of democratic institutionalization improves, the effect of property rights on FDI becomes increasingly positive. Rather than acting as an independent factor, democracy enhances the effects of property right protections by providing a framework of legal protection of property rights and managing conflicts through legal channels. Property rights and legal system are therefore intertwined and reinforce each other.

Relative to corruption and property right protection, empirical studies on the role of courts and rule of law for the developing world is more limited. This is partly due to the fact that it is relatively more difficult to quantify rule of law and judicial independence. However, general consensus concludes that a more developed legal system often implies better protection for foreign and small investors. Staats and Giblaiser (2012) utilize panel data and a survey on US corporations and find that judicial strength and rule of law positively impact FDIs in Latin America. In addition to

protecting property rights and enforcing contracts, they find that foreign investors also judge the host country's economic outlook based upon the country's legal system. This is because a country's growth potential often depends on to what extent the government can give credible assurances that it will uphold the rule of law and protect investors. In contrast, Wang et al (2011) finds evidence that regional variations in tax rates and the perceived quality of formal contracting institutions are not correlated with regional inflows of FDI, but leadership characteristics are. Furthermore, they indicated that better economic fundamentals can partially compensate for the fact that weak rule of law in host countries sometimes is associated with higher levels of foreign direct investment. Benassy-Quere et al. (2007), in assessing bilateral FDI flows between host and source countries, find that the quality of institutions in a host country, including bureaucracy, corruption, and legal institutions has a sizable impact on inward FDI.

1.2 Institutions and Financial Deepening

The amount of empirical studies that examine the relationship between country institutional factors and financial deepening is not as extensive. The results from these studies, however, are somewhat ambiguous and often depend on the data sample and model selection. For example, La Porta et al. (1997 and 1998) suggests that common law-based systems, originating from English law, are better suited for development of financial markets than civil law systems. In contrast, Roe and Siegel (2009) find that legal origin is not as powerful an explanatory variable as political instability. Using a sample of 129 countries over 25 years, Djankov, MacLiesh, and Shleifer (2007) show that creditor protection via the legal system and information sharing institutions are associated with higher private credit as a percentage of GDP. Farla (2014), utilizes principal component analysis to assess the impact of three types of institutions (property rights, contracting, and competition) on financial deepening, finding that all three are positively related to an increase

in credit to the private sector as a percentage of GDP. However, what is lacking from this and most earlier studies is a robust measure of domestic financial development that takes into account not just bank credit, but the development of debt and equity markets.[2]

This paper examines the theoretical and empirical link between institutions, foreign direct investment, and financial development. In particular, I construct a composite institutional quality index, comprised of three new proxies of institutional quality that focus on the cost of doing business, the quality of financial market rules and regulations, and strength and efficiency governance and policy enforcement. Building upon and expanding previous theoretical framework for determinants of foreign and domestic capital flows, I utilize a cross-sectional empirical analysis to assess the role that institutions play in promoting financial development and foreign direct investments. Further, I extend the analysis on financial development by utilizing a broad measure which accounts for both private lending and capital market development, which has been neglected in most previous studies.

The rest of the paper proceeds as follows. Section 2 consists of an examination of the data, index construction, and methodology. In section 3 I present the results for the main models as well as robustness checks. Section 4 concludes.

2. DATA AND METHODOLOGY

2.1 Data: FDI and Financial Deepening

For the dependent variable, *Foreign Direct Investment*$_i$, I use net FDI inflows as a percentage of gross domestic product (GDP), averaged from 2002-2011. In an alternate model specification,

[2] . While bank lending has typically been the largest and most important source of financial development, capital markets (both debt and equity markets) and nonbank financial institutions now play substantive roles (IMF, 2015).

the natural log of total FDI inflows is used. The primary model assesses FDI intensity while the alternate assesses total levels. Data is from UNCTAD.

For the dependent variable, *Financial Deepening*$_i$, I take the sum of private sector credit to GDP, outstanding domestic private debt securities to GDP, and stock market capitalization to GDP[3], averaged from 2002-2011. In alternate model specifications of financial development, I use stock market capitalization plus outstanding domestic private debt securities to GDP, as a measure of the size of financial markets, and stock market capitalization plus outstanding domestic debt securities (as a percentage of GDP) to bank assets (private sector credit to GDP), as a measure of the importance of financial markets compared to the banking sector. Data is from the World Bank's Global Financial Development Database.

2.2 Creation of institutional quality index[4]

This paper extends the literature on both institutions and capital access by creating a composite index of three proxies for institutional quality that matter for both foreign direct investment and domestic financial development, covering 123 countries.

1. Government Policy and Enforcement – this subcategory assesses the effectiveness of policymaking and enforcement in a country, focusing primarily on the rule of law and legal enforcement. It reflects the extent to which a country's legal system protects investors and property rights to support and enhance investment and financial development.

This subcategory is constructed from 11 indicators that include the following:

- Judicial Independence and Efficiency of Legal Framework
- Law and Order

[3] See Cihak, Demirguc-Kunt, Feyen, and Levine (2012) for an assessment of financial depth candidate variables and their construction of the World Bank's Global Financial Development Database.
[4] See Wickramarachi and Savard (2015) for a detailed list of category variables and discussion of the full index.

- Property Rights
- Government Stability
- Corruption/Bribery
- Public Trust of Politicians

2. Ease of Doing Business – this category measures explicit and implicit costs of starting and operating a business as imposed by the domestic regulatory environment. It specifically assesses rules and regulations overseeing both domestic and foreign firms. It is predicted that policies and regulations in place to govern local and foreign businesses should impose the minimum of costs in terms of money and time to have the greatest impact on foreign investment and domestic financial development.

The Ease of Doing Business is constructed from 10 indicators that include the following:

- Accounting and disclosure requirements
- Credit facilitation and information
- Time and cost to resolve insolvency
- Tax burden
- Costs of starting a business[5]

3. Market Regulation – this proxy reflects the extent to which a country's laws and regulations prevent the free flow of trade and investment. In particular, it captures the burdensomeness of a country's regulatory regime.

This subcategory is constructed from 10 indicators that include the following:

- Credit Market Restrictions
- Labor Market Restrictions
- Business Restrictions
- Restriction of Security Exchanges

[5] . The data for this subcomponent come from the World Bank's "Doing Business" report and database, which is updated annually. Note that its variables (cost of starting a business, number of procedures, and number of days) track the implicit and explicit costs for domestic firms only. For the cost to foreign firms, the World Bank has created the Investing Across Borders (IAB) database. Both sources are important for FDI. However, I did not include the IAB database due to the limited number of countries tracked (87 versus 189 for "DB") and that the public data is available for only one year, preventing comparison. In statistical analysis, the two databases are highly correlated. Further, the IAB index includes measurement for several variables tracked in the index, including capital control regulations. Thus, I feel confident including the one data source for business costs.

- Clarity, Ease, and Extent of Investor Protection

Each variable is normalized from 0 to 1. Within each category, the normalized variables are then given equal weight and aggregated, resulting in a normalized category score between 10, indicating the most favorable institutional environment for investment/deepening, and 0, signaling the least favorable. The assigned composite index value is the average score of the three categories.

2.3 Empirical Models

To estimate the impact of institutions on foreign investment and financial development, I utilize cross-sectional regressions with robust standard errors for 123 countries. The dependent variables are averaged over 10 years while the explanatory and control variables are averaged over 5 years. Model specifications are as follows:

$$Foreign\ Direct\ Investment_i = \propto + \beta_1 Institutions_i + \sum_{j=1}^{7} \gamma_j X_{j,i} + \varepsilon_{i,t}$$

$$Financial\ Deepening_i = \propto + \beta_1 Institutions_i + \sum_{j=1}^{5} \gamma_j X_{j,i} + \varepsilon_{i,t}$$

It is expected that a higher level of institutional quality will be associated with higher levels of foreign direct investment. It is also expected that higher levels of institutional quality will be positively associated with higher levels of financial development. Regarding the impact of the disaggregated institutional proxies, it is expected that they are all positively associated with both FDI and financial deepening. However, I anticipate that impact of the cost of doing business proxy may be ambiguous. Financial development, especially when considering the issuance of corporate bonds, bank lending, and equity, is tied to the development of domestic firms, but the strength of

these regulations may not be as essential for market development the same way it is for foreign investment.

We cannot rule out that the quality of institutions might be endogenous to FDI. Once investors are located within a country they may demand better institutions, creating a feedback effect on intuitional quality. Further, outward looking countries (those embracing and seeking foreign investment and capital market development) may well have higher quality institutions. In order to address these issues, I re-estimate the base models for FDI and financial deepening with instrumental variables. I follow the institutions and growth literature (see Acemoglu et al. 2001 for an overview), as well as more current research into institutions and FDI (Benassy-Quere et al., 2007; Daude and Stein, 2007; Busse and Hefeker, 2007), in the choice of instruments. Benassy-Quere et al. (2007) utilize latitude since it is correlated to most institutional variables than it is to FDI, as well as the number of ethnicities and religions. Daude and Stein (2007) use the fraction of the population that speaks either English or a European language as well as the country of legal origin, similar to La Porta et al. (2009). I use both latitude and the country of legal origin.[6]

Control Variables:

Economic Growth: Research into the determinants of FDI has found economic growth to be a strong predictor of inward FDI, measured here as the annual growth rate in a country's GDP (WDI). Considering that high (or increased) growth is taken to represent investment opportunities, and the push and pull factors that are directing investment flows between developing countries, we anticipate economic growth to affect FDI positively in this model. Further, I anticipate higher rates of growth to be positively associated with our measure of financial development.

[6] Acemoglu et al. (2001) and others employ the mortality rate of settlers as instruments, however this variable is specific to former colonies and would reduce the sample size and is therefore not used.

Economic Development: Research has also shown that wealthier countries attract more FDI, however, developing countries may prove the opposite, where investors of vertical FDI seek labor-intensive production in countries with low-wages. Thus, FDI into developing countries may be due to low levels of economic development instead of higher levels (Blonigen and Wang 2005). The sign for this case could be ambiguous. Here, economic development is measured by the natural log of GDP per capita in constant 2005 $US (from the WDI database). For financial development I anticipate countries with higher levels of economic development to have higher levels of financial development. Therefore it is predicted to be positively associated with our measure of financial development.

Market Size: Another determinant of FDI that has persistently been found to be a significant factor is the size of the host market, with larger markets attracting a larger share of FDI. Market size is typically captured two ways: either by GDP or population. While the dependent variable takes into account GDP, to fully capture market size, the model includes population, in logarithmic form, with data from the World Bank's World Development Indicators (WDI) database. However, there are suggestions that the sign for population can be ambiguous given that higher populations given the association in the economic growth literature with population size and poverty. For financial development, I anticipate a positive association given that the larger the population, the greater potential for loans and market liquidity.

Trade Openness: Trade openness is measured as the sum of exports and imports as a percentage of GDP (WDI). Research has consistently argued that this is more than a measure of trade flows, but functions more as an indicator of economic policy (openness), since 'trade doesn't just happen' (Buthe and Milner 2009). I anticipate a positive relationship between economic openness and both foreign investment and financial deepening.

BITs: Bilateral Investment Treaties – treaties made by two partner countries and often enforced by a third party – in the hope of increasing investment between the two. BITs impose a set of conditions and guarantees that function as a form of external institutions. Annual BIT numbers were calculated from the UNCTAD database and kept at their level form. Theoretically I assume that BITs provide protections for investors potentially not available in the host country, such as a credible arbitration court. Theoretically the effect on FDI should be positive, however recent research into BITs have shown that while BITs can attract FDI, the greater the number of BITs a host country is party to, the less effect they become, perhaps signaling to source countries that they do not take them seriously (Hallward-Driemeier, 2009).

Total Natural Resources: The presence of natural resources, as is the case in many Sub-Saharan African and MENA countries, may spur investment in extractive industries. This variable is measured by total natural resource rents as a percentage of GDP. The total includes the sum of all rents from oil, natural gas, coal, minerals, and forest (World Development Indicators).

Taxation: Excessive and ineffective taxation can be a hurdle for investment, with foreign firms looking elsewhere to avoid unwanted extra costs. This is especially the case if said taxation is put to ill use, with little to show in terms of infrastructure and development. I use the World Economic Forum's Global Competitiveness Index indicator for the extent and effect of taxation to assess to control for the impact of taxation on investment.

English: English is included as a control variable in the foreign investment model. Being able to communicate in a host country lower transaction costs to entry and English has become the de facto language of business. I use a dummy variable to denote countries where English is either an official and/or primary language. I anticipate a positive relationship between English and Foreign Investment.

Inflation: Inflation is included in the financial development model due its repressive characteristics. I anticipate a negative association since inflation can repress financial intermediation and lead to policy decisions that can distort the financial sector (Rousseau and Wachtel, 2001).

Macroeconomic Policy: Current account balance as a percentage of GDP is included as a control variable in the financial development model since the government budget balance is a good indicator of domestic economic policy which has implications for the financial sector. The anticipated sign for our sample is ambiguous, however, since one would expect budgetary surplus to be positively associated with financial development, but the years under consideration (average of 2007-2011) include the financial crisis and sluggish economic recovery.

3. EMPIRICAL RESULTS

Table 1.1 presents the results of the cross-sectional model assessing the impact of institutions on foreign direct investment. Model 1 shows that the aggregate measure of institutions has a positive and significant effect on investment. This indicates that a one-unit increase in total institutional development is associated with a 0.98 percentage point increase in FDI as a share of GDP, *ceteris paribus*. Models 2, 3, and 4 assess the disaggregated institutional measures. The results show that both Ease of Doing Business and Market Regulation are positively and significantly associated with foreign investment. The coefficient for Government Policy and Enforcement is positive, but not significant. This result is somewhat surprising given the perceived importance of a strong legal system and property rights protection against the threat of expropriation. However, given the expansion of bilateral investment treaties, it is possible the weak domestic legal and property rights regimes could be compensated by the use of international investment treaties with external enforcement mechanisms. Further, as mentioned previously, corruption may sometimes

act as a helping hand and less open policy making which is normally associated with less egalitarian regimes can be beneficial to firms (Barassi and Zhou, 2012). Appendix table 1 shows the results of the baseline model with the inclusion of an interaction term between BITs and the Government Policy and Enforcement institution score. The interaction term is negative and significant, suggesting that the more BIT coverage one country has, the less domestic legal/enforcement institutions matter for FDI.

Table 1.1 Results: Institutions and FDI as a percentage of GDP

	Model 1	Model 2	Model 3	Model 4
Ln(GDP per capita)	-0.624	-0.391	-0.127	-0.439
	(0.480)	(0.350)	(0.459)	(0.409)
GDP Growth	0.286	0.309**	0.280	0.263
	(0.175)	(0.147)	(0.151)	(0.176)
Trade	0.068***	0.060***	0.067***	0.063***
	(0.012)	(0.012)	(0.013)	(0.012)
Taxation	-2.040***	-1.091	-1.588**	-1.785**
	(0.738)	(0.655)	(0.799)	(0.711)
Ln(Population)	-0.289	-0.322	-0.450	-0.418
	(0.338)	(0.332)	(0.340)	(0.362)
BITs	-0.012	-0.013	-0.004	-0.003
	(0.016)	(0.016)	(0.018)	(0.017)
Natural Resources	0.056	0.020	0.014	0.019
	(0.038)	(0.035)	(0.043)	0.036
English	-1.125	-0.992	-0.309	-1.807
	(0.920)	(0.724)	(0.852)	(0.983)
Institutions (Composite)	0.983**			
	(0.406)			
Institutions (Doing Business)		0.855***		
		(0.312)		
Institutions (Government Policy)			0.152	
			(0.329)	
Institutions (Market Regulation)				1.068***
				(0.406)
Constant	9.966	6.188	11.492	10.397
	(7.364)	(6.754)	(7.706)	(7.360)

Note: Models estimated using cross-sectional OLS with robust standard errors and. Robust standard errors are listed in parentheses.
Significant figures: ** p < 5%, ***p < 1%

For the country specific control variables in all models in Table 1.1, I find growth[7] and trade to be positive and significant and the extent/level of taxation to be negative and significant, all as predicted. The negative, yet not-significant, coefficient on logged GDP per capita is consistent with research showing that low levels of development, and therefore lower wages, can be a pull factor

[7] Significance noted for 5% and less. Models 1 and 3 are significant at the p < 10% level.

for investment in developing countries. English is negative and not significant, which is surprising. However, considering the time-frame under consideration, with increasing flows to developing markets during the financial crisis in the search for yield, and the increase in flows between developing countries, particularly regional neighbors, English may be less of a driver than theorized.

In alternate specifications, I also assess the impact of institutions on investment by economy. Table 1.2 shows the results of the institutional indicators on FDI as a percentage of GDP for both OECD members and non-OECD countries. When accounting for OECD status, the coefficients for both Ease of Doing Business and Market Regulations are positive and significant for non-OECD countries, signifying the importance of institutional development for emerging and developing economies. Neither institutional proxy is significantly associated with investment for OECD member countries. However, this is most likely attributable the already high levels of institutional development in these countries and the little variation in terms of both institutions and FDI/GDP. Future panel regressions may tease out any significant association.

Table 1.2 Institutional indicators and FDI/GDP: OECD and non-OECD countries

	Model 1 OECD	Model 1 Non-OECD	Model 2 OECD	Model 2 Non-OECD	Model 3 OECD	Model 3 Non-OECD
Institutions (Doing Business)	0.694	0.762*				
	(0.605)	(0.412)				
Institutions (Government Policy and Enforcement)			0.100	-0.056		
			(0.735)	(0.444)		
Institutions (Market Regulation)					0.324	1.291***
					(0.660)	(0.481)
Constant	5.065	8.352	1.414	17.085	1.611	11.249
	(22.814)	(9.270)	(23.651)	(10.393)	(22.264)	(9.034)

Note: Models estimated using cross-sectional OLS with robust standard errors and. Robust standard errors are listed in parentheses.
Significant figures: * p < 10%, ** p < 5%, ***p < 1%

Table 1.3 presents the results of the cross-sectional model assessing the impact of institutions on financial deepening. Model 1 shows that the aggregate measure of institutions has a positive and significant effect on financial deepening. The result indicates that a one-unit increase in overall institutional development is associated with a 17% increase in financial deepening. Models 2, 3, and 4 assess the disaggregated measures of institutions on financial deepening. The results show that both Government Policy and Enforcement and Market Regulation are positively and significantly correlated with financial deepening. The coefficient for Doing Business is positive, but not statistically significant. Considering that the rules and regulations involved in setting up or running a business may not directly influence financial deepening in terms of loans and bond/stock markets, the results in Table 1.3 make sense. This shows that financial markets and intermediaries are more dependent on the impact of market regulations and overall government policy and legal regime.

Table 1.3 Results: Institutions and Financial Deepening

	Model 1	Model 2	Model 3	Model 4
Ln(GDP per capita)	0.416***	0.549***	0.402***	0.465***
	(0.092)	(0.076)	(0.067)	(0.082)
GDP Growth	0.004	0.010	0.006	-0.013
	(0.036)	(0.021)	(0.025)	(0.036)
Trade	0.003***	0.003***	0.003***	0.003***
	(0.001)	(0.001)	(0.001)	(0.001)
Inflation(CPI)	-0.021	-0.040**	-0.019	-0.037**
	(0.018)	(0.019)	(0.017)	(0.019)
Fiscal Balance/GDP	-0.013	-0.016**	-0.016	-0.014
	(0.011)	(0.007)	(0.009)	(0.009)
Ln(Population)	0.193***	0.202***	0.182***	0.204***
	(0.048)	(0.040)	(0.041)	(0.047)
Institutions (Composite)	0.172***			
	(0.062)			

Institutions (Doing Business)		0.016		
		(0.055)		
Institutions (Government Policy)			0.161***	
			(0.042)	
Institutions (Market Regulation)				0.125**
				(0.054)
Constant	-3.552***	-3.912***	-3.166***	-3.633***
	(1.175)	(0.855)	(0.975)	(1.104)

Note: Models estimated using cross-sectional OLS with robust standard errors and. Robust standard errors are listed in parentheses.
Significant figures: ** p < 5%, ***p < 1%

For the country specific control variables in all models in Table 1.3, I find economic development (natural log of GDP per capita), trade, and population to be positive and significant, as predicted. Inflation is negative across all models, suggesting that high inflation hampers financial development, yet only significant for models 2 and 4. The current account balance-to-GDP is similarly negative across all models and only significant for models 2 and 4. This may be because most ratios are negative due to negative account balances and may be impacted by the years being looking at.

In alternate specifications of financial development, I assess the impact of institutions on the size of financial markets (bond and stock), as measured as a percent of GDP, and on the importance (size) of financial markets (bond and stock) in terms of the size of the banking sector ([bond market + stock market]/bank assets). Tables 1.4 and 1.5 show the results of these regressions. For each dependent variable, the composite institution indicator is positive and significant, as well as for Government Policy and Enforcement and Market Regulation – similar sign and direction as our main model of financial deepening in Table 1.3, thus highlighting the importance of these institutions for financial development.

Table 1.4 Institutions and Bond/stock market intensity

	Model 1	Model 2	Model 3	Model 4
Institutions (Total)	0.331*** (0.112)			
Institutions (Doing Business)		0.066 (0.105)		
Institutions (Government Policy)			0.247*** (0.077)	
Institutions (Market Regulation)				0.212** (0.089)
Constant	-6.471*** (2.046)	-7.488*** (1.621)	-5.686*** (1.933)	-7.120*** (1.809)
Observations	86	96	90	92

Note: Models estimated using cross-sectional OLS with robust standard errors and. Robust standard errors are listed in parentheses.
Significant figures: ** p < 5%, ***p < 1%

Table 1.5 Institutions and Bond/Stock market to Bank Assets

	Model 1	Model 2	Model 3	Model 4
Institutions (Total)	0.089* (0.051)			
Institutions (Doing Business)		-0.005 (0.042)		
Institutions (Government Policy)			0.091** (0.039)	
Instititutions (Market Regulation)				0.107*** (0.041)
Constant	-4.112*** (0.908)	-4.365*** (0.731)	-4.004*** (0.894)	-4.040*** (0.736)
Observations	100	120	106	112

Note: Models estimated using cross-sectional OLS with robust standard errors and. Robust standard errors are listed in parentheses.
Significant figures: * p < 10%, ** p < 5%, ***p < 1%

As previously mentioned, we cannot rule out that the quality of institutions might be endogenous to FDI. In order to address this issue, I re-estimate the base models for FDI and financial deepening with instrumental variables, using *Latitude* and *Legal Origin* for both, and also

including *English* for financial deepening. Appendix table 2 presents the results of the first-stage relationships between the institutional quality variable and the chosen instruments. While Latitude is positive for both FDI and financial deepening, it is only significant for the latter. There is no relationship between Legal Origin and institutions for both FDI and financial deepening. The strongest relationship is between the institutional variable and English language use. Appendix tables 3 and 4 present the results for the IV estimations. The results for both estimations are positive, but is only significant in the case of financial deepening, in line the OLS estimation for this model. This result shows that the quality of institutions has a significant and substantive impact on financial development. The lack of a significant result for the IV estimation for FDI is surprising, but could be a function of the chosen instruments and is worth investigating further in future panel estimations.

4. Conclusion

This paper utilizes cross-sectional regression on 123 countries to examine the impact of three new institutional measures on foreign direct investment and financial development. From this assessment I am able to conclude two things: first, institutions matter for both FDI inflows and domestic financial development; second, the type of institutions that matter for both differ, since the varying proxies of institutional development operate according to different mechanisms, which should have differing effects on capital access. For foreign investment, the costs of doing business and market regulation are positively significant, while government policy and enforcement is not. For domestic financial development, government policy and enforcement and market regulations are positively significant, while the costs of doing business is not. More importantly, these results show that institutions may influence economic development through the channels of investment and financial development. The limitations of cross-sectional analysis are understood in that is

impossible to control country and time specific effects. Much more needs to be done to extend the analysis.

Appendix

Appendix Table 1. Interaction variable and FDI/GDP

	Model 3
Ln(GDP per capita)	-0.241
	(0.411)
GDP Growth	0.283*
	(0.148)
Trade	0.066***
	(0.013)
Taxation	-1.675**
	(0.802)
Ln(Population)	-0.527
	(0.337)
BITs	0.068
	(0.043)
Natural Resources	0.020
	(0.041)
BITxInstitutions(Gov Policy and Enforcement)	-0.010*
	(0.006)
Institutions (Composite)	
Institutions (Doing Business)	
Institutions (Government Policy)	0.526
	(0.338)
Institutions (Market Regulation)	
Constant	11.516
	(7.702)

Note: Models estimated using cross-sectional OLS with robust standard errors and. Robust standard errors are listed in parentheses.
Significant figures: * p < 10%, ** p < 5%, ***p < 1%

Appendix Table 2: First-Stage Regressions for Institutional Variables

	Composite
FDI/GDP	
Latitude	0.005
	(0.004)
British Legal Origin	-0.114
	(0.222)

Financial Deepening	
Latitude	0.006*
	(0.004)
British Legal Origin	0.113
	(0.240)
English	1.089***
	(0.234)

Note: Models estimated using instrumental variable regression via two-stage least squares and robust standard errors. Robust standard errors are listed in parentheses.
Significant figures:* p < 10%, ** p < 5%, ***p < 1%

Appendix Table 3: Instrumental Variables and FDI/GDP (Second Stage)

	Model 1
Ln(GDP per capita)	-3.323
	(2.790)
GDP Growth	0.073
	(0.299)
Trade	0.059***
	(0.015)
Taxation	-2.585**
	(1.042)
Ln(Population)	-0.066
	(0.532)
BITs	-0.023
	(0.031)
Natural Resources	0.138
	(0.084)
English	-4.691
	(4.022)
Institutions	4.277
	(3.412)
Constant	14.973
	(8.617)

Note: Models estimated using instrumental variable regression via two-stage least squares and robust standard errors. Robust standard errors are listed in parentheses.
Significant figures: ** p < 5%, ***p < 1%

Appendix Table 4: Instrumental Variables and Financial Deepening (Second Stage)

	Model 1

Ln(GDP per capita)	0.326** (0.113)
GDP Growth	0.021 (0.038)
Trade	0.003** (0.001)
Inflation(CPI)	-0.015 (0.016)
Fiscal Balance/GDP	-0.017 (0.013)
Ln(Population)	0.225*** (0.047)
Institutions	0.296** (0.112)
Constant	-4.133*** (1.180)

Note: Models estimated using instrumental variable regression via two-stage least squares and robust standard errors. Robust standard errors are listed in parentheses.
Significant figures: *p < 10%, ** p < 5%, ***p < 1%

Chapter 2. Do South-South Bilateral Investment Treaties Increase Foreign Direct Investment? Intra-regional Evidence from MENA Countries

1. INTRODUCTION

Bilateral investment treaties (BIT), which offer specific protections and rights for foreign investors in host countries with the hope that doing so will attract foreign direct investment (FDI), have increased tremendously since the conclusion of the first BIT between Germany and Pakistan in 1959. Since then, the number of BITs has increased to 2750 by 2009 (UNCTAD 2010) (see fig 1 in appendix). While most previous studies have focused on the effects of BITs between developed capital exporters and developing host countries, little research to date has focused on the effects of BITs between developing countries[8]. These so-called 'South-South' BITs are proliferating. Yet the impact of these BITs on investment flows is largely unknown.

Do BITs between developing countries lead to increases in FDI? Using intraregional FDI data from the MENA region, this paper estimates the impact of South-South intraregional BITs on levels of foreign direct investment. I find that while BITs do have a positive and significant effect on intraregional FDI, their substantive effect is greatly lower than traditional macroeconomic and institutional variables.

BITs – Theory and effect

Bilateral investment treaties have been touted as tools for attracting foreign direct investment; that aspiring host countries sign BITs in the hopes that doing so would boost their overall attractiveness to foreign investment firms. The subsequent proliferation of BITs between

[8] See Jhandyhala et al 2008 for an analysis of the origins of second wave (BITs mostly between developing countries) BIT adoption.

developed and developing countries is claimed to be the result of competition between host countries for a limited to pool of FDI (Elkins, Guzman and Simon 2006).

Yet the empirical literature has come to conflicting conclusions about the effect BITs have on levels of foreign direct investment. Salacuse and Sullivan (2004) and Neumeyer and Spress (2005) find strong correlations between BITs and FDI using both aggregate and bilateral data. Whereas Hallward-Dreimeier (2003) and Tobin and Rose-Ackerman (2005) find little correlation between BITs and FDI inflows. In a subsequent study, however, Rose-Ackerman (2009) show that these conflicting findings are the result of underdeveloped conceptual frameworks, finding that, in contradiction to her earlier results, that BITs do indeed stimulate FDI inflows, but under complex domestic circumstances. Also attempting to tackle these earlier discrepancies, Buthe and Milner (2009) advance a theoretical argument concerning the political nature of BITs to explain the varied results of previous studies, ultimately finding that BITs substantially increase FDI inflows from developed countries to developing host countries, using monadic data.

The United Nations Conference on Trade and Development (UNCTAD), in 1998, first examined the impact of BITs on FDI using bilateral data for 14 home and 72 host countries. Their time series study found that BITs have a positive, yet slightly weak, effect on total FDI flows. A separate cross-sectional analysis of the study found a positive impact of BITs on total FDI flows and FDI flows relative to GDP. Their overall conclusion is that while BITs do play a role in attracting FDI, the impact is minor compared to leading determinants such as market size.

Hallward-Driemeier (2003) reaches a similar conclusion after examining the impact of BITs on bilateral FDI flows between 20 home countries to 31 host (developing) countries from 1980 to 2000. Her findings show both negative and little positive impact of BITs on increasing levels of FDI and argues that this impact is partially obscured by other interactions between home and host

countries, including trade barriers, other economic treaties, and imperfect information. She further finds that BITs act as compliments rather than substitutes for strong domestic institutions, leading her to conclude that "This undermines the central rational for some of the less developed countries to enter into these agreements hoping to bypass the need to strengthen property rights and institutions more generally (pages 21-22)".

Other more recent studies have found a positive impact of BITs on FDI. Egger and Pfaffermayer (2004), in another dyadic analysis, look at signaling effects and find that both signed and ratified BITs have a positive effect on the stock of outward FDI of 19 home countries and 54 host countries from 1982-1997. While both treaty types have an effect, they find that ratified treaties have a greater impact than those merely signed, indicating that investment treaties act as a mechanism of credible commitment and enforcement, than signaling. Similarly, but with monadic data, Neumayer and Spress (2005) look not just at whether BITs increase FDI, but whether they are compliments or substitutes for strong domestic political and economic institutions. They find that BITs do increase FDI between capital exporters and host (non-OECD) countries, but that results are inconclusive as to whether BITs are substitutes for good governance and institutions. Tobin and Rose-Ackerman (2006) find that the number of treaties has a positive impact on FDI in early periods, but that their marginal effect diminishes and the number of global treaties increases. Further, they find that BITs and political environments for investment are compliments.

Why would BITs increase FDI flows as predicted? Bilateral investment treaties could be seen as legal instruments that are part of the fairly recent legalization of international politics (Goldstein and Martin 2000; Buthe and Milner 2009). As legal instruments, they signal to potential investors that host countries are prepared to provide a favorable host environment to foreign firms, without fear of expropriation and excessive taxation. Looking at investment treaties between the

US and developing countries, Haftel (2007) argues that BITs act as credible commitments that increase FDI when they are ratified, not just signed: only when BITs are in force do they carry strong legal obligations and are capable of being penalized for non-compliance, which is important for investors. Elkins, Guzman and Simmons (2006) and Neumayer and Spress (2005), on the other hand, find that all BITs (signed and in force) act as signaling devices to foreign investors, indicating that the host country is prepared to undertake liberal reforms and/or honor investment provisions outlined in the treaty in anticipation of signing more BITs in the future.

Buthe and Milner (2009) take a comprehensive look at previous studies on the relationship between BITs and FDI and propose a political theory of BITs and investment to explain why investment treaties should affect FDI flows. As legal instruments that establish specific rights and obligations, they are part of the "legalization" of international politics in the recent decades (Goldstein et al 2001). From the provision of most favored nation status, to the inclusion of arbitration clauses, allowing private parties to initiate binding arbitration proceedings against the government of the other signatory, these treaties serve an international legal function. But while they are firmly legal instruments (created to address legal concerns), Buthe and Milner argue that they exist to address a political problem: that host country concerns mainly arise from a lack of knowledge regarding the host government's future commitment to economically liberal policies. Including the provisions they do, BITs give foreign investors rights that go well beyond unimpeded capital flows and guarantee compensation for expropriation. Rather, they constitute a commitment to economically liberal policies across a broad range of issues, as underlined by arbitration decisions.

South-South Investment and BITs

These studies are primarily concerned with BITs between developed (primarily OECD member countries) and developing countries. It is generally assumed that FDI flows in this direction (due to economies of scale/competitive advantage) and that host countries are primarily concerned with attracting FDI, through BITs, from firms that originate from the developed world. Looking at historical levels of investment between developing countries, South-South BITs would be unlikely to lead to increases in investment due to small economies of scale. Arguments made to trade levels between developing countries are applicable here: since developing countries tend to have similar factor endowments and economies of scale, the incentive to invest with each other is smaller than it would be with dissimilar countries (Mayda and Steinberg 2009). However, the amount of FDI and number of South-South BITs between two developing (mostly intra-regional) countries, has increased dramatically (UNCTAD 2005) (see Fig. 1 in appendix), bringing the total number of signed South-South BITs to date (including transition countries) to 776, encompassing 28% of total BITs.

South-South foreign direct investment has increased substantially since 1990 (Refer to Figure 2 in appendix). UNCTAD estimates that total FDI from developing countries, including transition economies, has grown from $12 billion in 1990 to $304 billion in 2007 (UNCTAD 2008) and accounted for more than one third of all foreign investment flows by 2000. While some of this investment went to developed (primarily OECD) countries, most of the flows went to other developing countries, a good portion of which is located in the immediate region (UNCTAD 2008). Investment from one developing country to another is driven by similar push and pull factors that characterize North-South investment. Push factors, those factors that motivate firms from the South to invest abroad, include expansion due to domestic competition, portfolio diversification, and the procurement of natural resources. Pull factors include market access, low labor costs, and various

investment incentives (UNCTAD 2008; Aykut and Ratha 2004). Factors particular to South-South investment include 'geo-cultural affinity' and similar business environments, which increases intra-regional flows.

Paralleling the increase in South-South investment (UNCTAD 2008) is an increase in bilateral investment treaties among developing countries. Since the first BIT was signed between two developing countries in 1964, the number of these agreements have increased dramatically, particularly in the past 20 years, increasing from 42 in 1990, to over 950 in 2008 (UNCTAD 2008).

The countries of the MENA region are no exception to the trend of rising BITs, particularly with developing countries, having signed 778 BITs globally to date (28.26% of all global BITs), and is the regional leader in the number of BITs of which it's members are signatories (see Table 2.1). The increase of global BITs highlights the importance of FDI for the MENA region, where a number of countries, including UAE and Saudi Arabia, are attempting to diversify their economies away from extractive industries (Eid, 2008). Others, such as the northern Africa states of Algeria and Tunisia, are placing more focus on infrastructure and telecommunications, Qatar is investing in Dubai, and GCC countries are branching out regionally, investing in real estate, finance, telecommunications, and transport (UN WIR, 2011).

The region is also a leader in terms of the number of South-South BITs which member countries are signatories. To date, 430 of all BITs in the region are between other developing countries (including 180 between MENA members), accounting for 55% of all signed BITs in the region (UNCTAD database 2011) (see Table 2.1), second only to Southeast Asia. Further, when we consider the total number of South-South BITs, the MENA regions is party to the highest percentage, 28%, of these agreements (see Table 2.1).

While the region can be considered leaders in terms of BIT membership, the same cannot be said about investment trend compared to global averages. Total FDI inflows to Arab countries increased over the past ten years, from 5.5 to 72.4 billion US dollars, yet these inflows remain limited. In 2007, the proportion of global FDI inflows did not exceed 4%, which is slightly higher than that going to Africa or Oceania. Of these inflows, 36% are intraregional. Arab FDI inflows are very erratic but tend to grow dramatically over the period. Greater intraregional FDI flows are partially driven by the excess of domestic liquidity, resulting from high oil prices and repatriated money since Sept 11 (Labbas 2010). Arab investment has thus helped offset its relative unattractiveness to foreign investors. Intraregional flows are further supported by the reform stance adopted by many MENA countries, as regional oil-importing countries are pushing ahead at varying paces with economic liberalization and more investor-friendly policies. Notably, Egypt launched an ambitious reform package in July 2004 that has helped offer investors a markedly more business-friendly environment (Eid, 2008).

Table 2.1. Total BIT and South-South BIT membership by region (total and % total by region), 2011

Region*	Total BITs**	Percent Total BITs	Total South-South BITs	Percent Total S-S BITs***	Percent Regional BITs that are S-S
Europe	1861	34	N/A	N/A	N/A
MENA	805	14.5	449	28	56
Africa	581	11	306	20	52
CIS	505	9	113	7	22
LAC	435	8	196	13	45
SE Asia	354	6	204	13	58
East Asia	332	6	166	11	50
N. America	216	4	47	3	22
SEE	208	4	N/A	N/A	N/A
S. Asia	190	3	101	7	53
Oceania	34	.06	2	.001	6

Source: Self-compiled from UNCTAD BIT database (www.unctad.org)
*Region descriptions: EU – European Union; MENA – Middle East North Africa; Africa – all African states not included in MENA; CIS – Commonwealth of Independent States; LAC – Latin America;

SE Asia – South East Asia; North Am – North America, including Central America; SEE – Countries of South East Europe; S. Asia – South Asia. See attached Excel file for complete country list.
** Total for each region indicates the total number BITs member countries are signatories
*** Total S-S percentage here is 102%, which is due to rounding errors.

While it has been noted that FDI is increasing between developing countries and that South-South bilateral investment treaties have increased dramatically, it still has not been determined whether these BITs lead to an increase in FDI inflows. While, preliminary analysis of South-South BITs show that they differ in the comprehensiveness of several key provisions that are normally present in North-South BITs, such as national treatment and payment terms due to expropriation, which tend to constrain the host state, they almost always contain the Most Favored Nation provision which is favorable to investors (Poulsen 2010; Guzman 1998).

Besides historical assumptions concerning the level of investment between developing countries, another reason for the lack of scholarly research on this topic is due to the dearth of statistical data on South-South investment flows. While the OECD keeps up-to-date statistics on where investment funds from member countries go, developing countries vary in terms of FDI record keeping. For many countries the only reliable statistic of FDI is the aggregate measure of total FDI by the IMF or World Bank, which is not disaggregated between flows from the North and flows from the South. This makes tracking the impact of S-S BITs on S-S FDI particularly difficult to measure (Aykut and Ratha, 2004). However, a number of regional bodies have tracked inter-regional, south-south, FDI flows, including the Middle East and North Africa (MENA) region. This data (interregional FDI flows and BITs) will allow us to begin to study the effect that BITs between developing countries have on south-south investment flows.

The goal of this paper is to determine, using the MENA region as plausibility probe, whether South-South bilateral investment treaties promote FDI inflows. While this is a small piece in the

puzzle and a larger selection of developing countries would be helpful, this study will provide a good starting point for future research into the nature of south-south investment. Further, it will help contribute not only to the literature on both bilateral investment treaties and the determinants of FDI, but also to the literature on south-south and regional economic cooperation.

Model:

$$FDI_{it} = Intraregional\ BITs_{it-1} + Macroeconomic\ Control\ Variables_{it-1} + Institutional\ Variables_{it-1}$$

Data and Methodology

Sample/Dependent Variable

To test the stated hypotheses, I conduct statistical analyses of annual flows of inward intraregional foreign direct investment into individual countries in the MENA region. My dependent variable, inward intraregional FDI, is the sum of monetary, capital, stock, and various other transactions, minus strict trade, that flow from one MENA country to another and is captured by the term investment. Total intraregional FDI statistics were gathered for MENA countries by The Arab Investment & Export Credit Guarantee Corporation and are listed in current $US.

Total inflows between developing countries would be the preferred indicator of south-south investment flows; however, as stated earlier, this data, dyadic or aggregate, is sporadic at best. Considering that the majority of south-south investment flows are regional, I restrict my analysis to countries within the MENA region[9]. This sample includes 15 countries within the MENA region, excluding certain countries (such as Kuwait) due to excessive missing data for certain control variables.

[9] Countries include: Algeria, Bahrain, Egypt, Jordan, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates, and Yemen.

Explanatory Variables

BITs: My main explanatory variable is the cumulative number of BITs an individual MENA country has signed with other countries in the region, per year, for 1995 – 2009. Annual BIT numbers were calculated from the UNCTAD database and kept at their level form. Theoretically I assume that BITs provide protections for investors potentially not available in the host country, such as a credible arbitration court[10]. The effect on FDI should be positive.

The chosen control variables are consistent with both the literature on BITs (Buthe and Milner, 2009; Neumayer and Spress, 2005; Gallagher and Birch, 2009) and the determinants of FDI literature (Blonigen 2005) and are theoretically consistent with investment drivers in the MENA region (Labbas 2009; Mina 2009):

Economic Growth: Research into the determinants of FDI has found economic growth to be a strong predictor of inward FDI, measured here as the annual growth rate in a country's GDP (WDI). Considering that high (or increased) growth is taken to represent investment opportunities, and the push and pull factors that are directing investment flows between developing countries, I anticipate economic growth to affect FDI positively in this model.

Economic Development: Research has also shown that wealthier countries attract more FDI, however, developing countries may prove the opposite, where investors of vertical FDI seek labor-intensive production in countries with low-wages. Thus, FDI into developing countries may be due to low levels of economic development instead of higher levels (Blonigen and Wang 2005). The sign

[10] The Arab Investment Court has been undertaking reforms due to investor dissatisfaction (League of Arab States Working Group 2010).

for this case could be ambiguous. Here, economic development is measured by the natural log of GDP per capita in constant 2000 $US (from the WDI database).

Market Size: Another determinant of FDI that has persistently been found to be a significant factor is the size of the host market, with larger markets attracting a larger share of FDI. To capture market size, I use the log of real GDP for the host country, with data from the World Bank's World Development Indicators (WDI) database.

Trade Openness: Trade openness is measured as the sum of exports and imports as a percentage of GDP (from WDI). Research has consistently argued that this is more than a trade flows measure, from which an intraregional measure may be more preferable, but functions more as an indicator of economic policy (openness), since 'trade doesn't just happen' (Buthe and Milner 2009).

Lagged DV: A lagged dependent variable is included in the empirical model for two reasons[11]. First, the dynamic nature of FDI flows dictate the need to control for previous levels of investment. Second, methodologically it helps control for serial correlation.

Total Natural Resources: The presence of natural resources, as is the case in many MENA countries, may spur investment in extractive industries. This variable is measured by total natural resource rents as a percentage of GDP. The total includes the sum of all rents from oil, natural gas, coal, minerals, and forest (World Development Indicators).

Labor: Human resource endowments are another location advantage of MENA countries and these levels differ dramatically within the region (Mina, 2009). Labor is measured as the total labor force

[11] While Achen (2000) argues that a lagged dependent variable biases coefficient estimates, others (Keele and Kelly 2004 and Yackee 2009) argue that if theory necessitates, the inclusion of the lagged DV is justified. Considering that previous FDI is expected to affect future decisions, including it on the right side is warranted. Regardless, the results are robust to the removal of the lagged DV and the coefficients are actually larger with this removal.

of those over 15 years of age and who meet the International Labor Organization's definition of the economically active population, logged (World Development Indicator).

Political risk/institutional stability: Research shows a concern about political risk and investment, meaning that BITs can be compliments or substitutes. However, neighborhood effects could make institutional stability inconsequential. I include three different measures of political stability and institutional quality which are estimated separately and alongside BIT as an interaction variable. These measures: control of corruption, regulatory quality, and political stability are taken from the World Governance Indicators (WGI) dataset, compiled by the World Bank. The WGI dataset comprises six aggregated measures of governance for the years 1996-2009, however three indicators that are theoretically relevant to FDI and are not heavily correlated are included. Scores range from 2.5 (highest level of governance) to -2.5 (lowest level of governance).

The institutional variable *Regulatory Quality* captures the perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. *Control of corruption* captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as 'capture' of the states by elites and private interests. *Political Stability* measures the perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including domestic violence and terrorism.

Table 2 provides summary statistics for all variables.

Estimation Methods

I estimate all models using panel-corrected-standard-errors (PCSE) and include a lagged dependent variable (Beck and Katz 1995, 1996; Yackee 2009) and country-fixed effects (Yackee,

2009). Due to the theoretical argument that a given developing country should experience higher inward FDI after signing one or more BITs with other developing countries (in this case countries within the same region), this suggests an effect within countries over time and therefore the use of a country-fixed effect model. A Hausman test confirms that such a model is appropriate. Employing country-fixed effects safeguards against unobserved differences between countries by including a dichotomous 'dummy' variable for each country. The coefficients of these dummy variables predict the average FDI flows and thus absorb cross-national variance in the dependent variable (Wooldridge 2002; Buthe and Milner 2009).

Results

Table 2.2 presents the results of six models that estimate the effect of economic and political indicators on intraregional foreign direct investment between MENA countries. The baseline model of intraregional FDI (Model 1) assesses the effect of domestic economic and political indicators on total intraregional inflows, as measured by lagged intraregional FDI, economic development, growth, market size, trade openness, and the three governance indicators. As predicted, lagged intraregional FDI is statistically significant (and is for all subsequent models), confirming that FDI flow is determinant on prior levels of investment. Both economic openness and market size are statistically significant and in the predicted direction with positive coefficients. Regulatory quality is also significant and in the predicted direction, indicating that sound economic policies and regulations are important for investors. Political Stability is significant at the .01 level, but with a negative coefficient, indicating that FDI goes to countries in the region with increased levels of instability. While this is not intuitive considering the findings of previous research on North-South

flows, the negative finding could be capturing 'neighborhood effects': investors may be inured to potential threats that are similar in their own home country.[12]

Table 2.2: Effect of BITs on Intraregional FDI Flows Between MENA Countries (natural log of FDI inflows)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Lagged DV t-1	.395***	.370***	.359***	.359***	.358***	.354***
	(.099)	(.097)	(.096)	(.096)	(.096)	(.096)
Economic Development t-1	3.361***	3.25***	2.103*	2.112*	2.116*	2.100*
	(1.06)	(.999)	(1.13)	(1.128)	(1.123)	(1.123)
Economic Growth t-1	-.028	-.030	-.015	-.015	-.015	-.014
	(.020)	(.021)	(.022)	(.022)	(.022)	(.022)
Market Size t-1	1.907**	1.821**	2.234***	2.244***	2.221***	2.283***
	(.878)	(.829)	(.775)	(.766)	(.718)	(.796)
Trade Openness t-1	.002	-.009	-.006	-.006	-.006	-.006
	(.007)	(.009)	(.009)	(.006)	(.009)	(.009)
Regulatory Quality t-1	.741*	.454	.657*	.653	.649	.602
	(.393)	(.395)	(.398)	(.417)	(.411)	(.415)
Control of Corruption t-1	.126	.208	.234	.247	.243	.325
	(.237)	(.226)	(.219)	(.245)	(.217)	(.265)
Political Stability t-1	-.492***	-.665***	-.776***	-.780***	-.779***	-.814***
	(.182)	(.185)	(.183)	(.187)	(.183)	(.184)
Natural Resources t-1		.037**	.034**	.034**	.034**	.035**
		(.014)	(.015)	(.015)	(.015)	(.015)
Labor t-1		-.061	-1.048	-1.049	-1.026	-.994
		(.607)	(.732)	(.737)	(.715)	(.725)
Cumulative Intraregional BITs t-1	-		.083**	.083**	.081*	.074*
			(.042)	(.041)	(.043)	(.044)
BITs*Regulatory Quality t-1	-		-	-.002		
				(.032)		
BITs*Control of Corruption t-1	-		-		-.009	
					(.038)	
BITs*Political Stability t-1	-		-			-.017
						(.024)
N	225	225	225	225	225	225
R2	.6376	.6471	.6539	.6539	.6540	.6546

Note: Models estimated using OLS with panel-corrected standard errors and country fixed effects. Results for country dummies not listed. Panel-corrected standard errors are listed in parentheses.
Significant figures: * p < .1. ** p < .05, ***p < .01, two-tailed

[12] This could also speak to potential bias in institutional measures since they may be tracking perceptions from 'Western' firms and what a what a stable political environment means for them. These perceptions may be different from investors in more or less developing areas.

Model 2 incorporates two common measures of host country factor endowments: natural resources and labor. Given the particulars of the region, both variables are important to consider. While Labor is not significant, total natural resources are significant and in the expected direction: MENA countries that have more total natural resources will have more FDI, even after controlling for previous FDI and Market Size. The significance for all other variables is the same with the exception of Regulatory Quality, which loses significance.

Model 3 includes the baseline model (plus factor endowments) and the addition of cumulative regional BITs. The lagged DV (logged intraregional FDI), economic development, market size, regulatory quality, and political stability are all statistically significant. Cumulative intraregional BITs, our main explanatory variable are also statistically significant, with a positive coefficient. Since employing country-fixed effects essentially account for average levels of FDI in each country, these results show that, *ceteris paribus*, the greater the number of intraregional BITs to which a MENA country is a signatory, the greater the amount of inward regional FDI into the country (Buthe and Milner 2009). Table 4 shows the effect of one standard deviation of cumulative BITs on intraregional FDI. While the effect of BITs on FDI is significant and positive, the effect is not as large as other macroeconomic indicators, meaning that traditional economic and institutional variables may be more important than the conclusion of BITs, and, therefore may not be the panacea for increased investment that previous research has made it out to be (at least not between the developing countries in this case).

Models 4, 5, and 6 incorporate interaction terms of cumulative BITs and each institutional variable. Questions regarding BITs have occasionally focused on whether they are complements or substitutes for institutional quality (Neumayer and Spress, 2005). Each interaction term was found to be insignificant and in the negative relation. This indicates that we cannot conclusively say

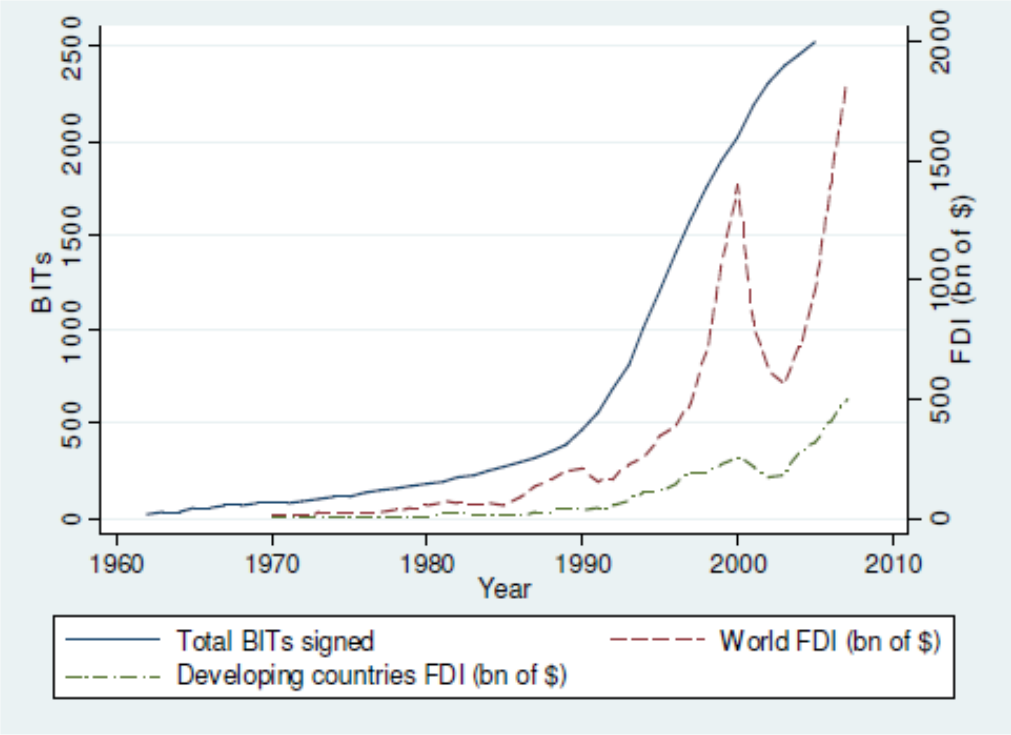
whether BITs are either substitutes or complements to institutional quality and it preliminarily indicates that BITs have effect beyond local institutional capacity.

Conclusion:

Using the MENA region as a plausibility probe, this research employed time-series-cross-sectional regression to examine the effect of bilateral investment treaties on intra-regional foreign direct investment. I found that while BITs do increase south-south (in this case intra-regional) FDI, their substantive effects are smaller than other macroeconomic and institutional variables (see Appendix Table 2). While this finding shows that there is a payoff for BIT negotiations, the bigger payoffs come from reforms in regulatory quality and economic development. These results also show that political instability is not a detriment to regional investment in this case and is something that needs to be addressed in greater detail, but is outside the small scope of this chapter. While BITs look promising, more needs be done to assess the effect BITs on FDI between developing countries as a whole – we cannot broadly generalize from this case alone and further research into the determinants of South-South FDI is warranted.

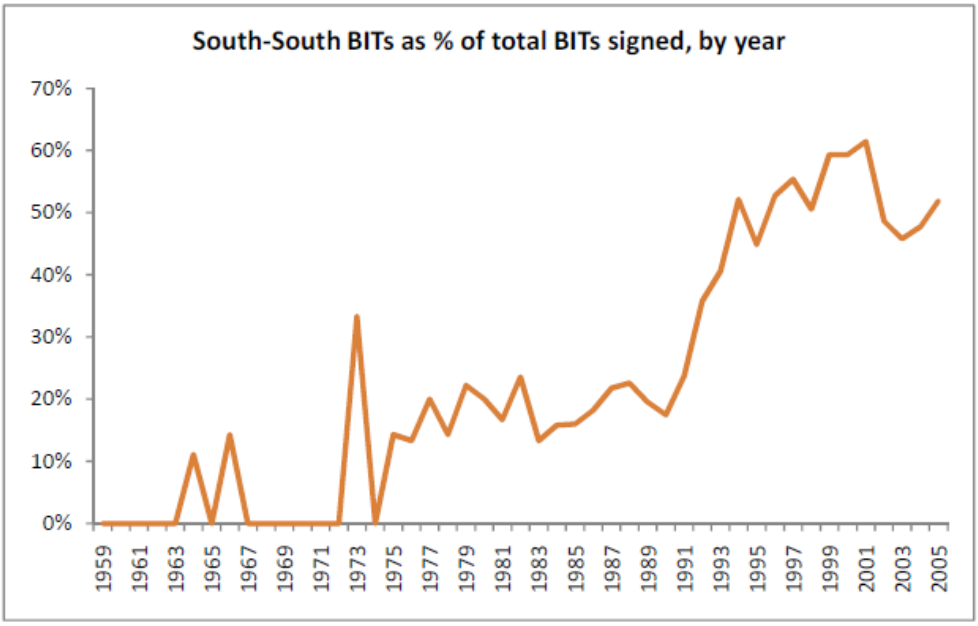
Appendix

Figure 2.1: Cumulative BITs and FDI flows



Source: UNCTAD Statistics

Figure 2.2: South-South BITs 1959-2005



Source: UNCTAD BIT database/ Jandhyala, et al, 2010

Appendix table 1: Descriptive variable information

Variable	Obs	Mean	Std. Dev.	Min	Max
ln FDI flow	225	5.14	1.69	0	10.27
BITs	225	6.96	4.21	0	15
ln GDP	225	24.05	.92	22.55	26.24
ln GDP p.c.	214	8.07	1.26	5.68	10.57
Econ. Growth	212	5.04	3.82	-6.58	26.75
Trade Open.	214	83.88	34.97	14.77	175.96
Natural Resources	225	22.89	17.88	.003	69.87
ln Labor	225	14.93	1.23	12.48	17.13
ln Population	225	15.95	1.37	13.17	18.23
Control of Corruption	225	-.18	.65	-1.47	1.64
Regulatory Quality	225	-.20	.73	-2.19	1.08
Political Stability	225	-.45	.95	-2.71	1.12
Rule of Law	225	-.17	.71	-1.64	.96

Appendix table 2: Estimated Substantive Effects, Model 3

1 standard deviation in…	which is equal to…	results in this change in intraregional FDI…	which is equal to this percentage of a std. dev. in intraregional FDI

Cumulative Intraregional BITs	4.21	+.349**	21%
Market Size	.92	+2.065***	122%
Economic Development	1.26	+2.650*	156%
Economic Growth	3.82	-.057	3%
Trade Openness	34.97	-.006	12%
Natural Resources	17.88	.608**	36%
Labor	1.23	-1.290	76%
Control of Corruption	.65	.152	9%
Regulatory Quality	.73	.480*	28%
Political Stability	.95	-.737***	44%

Chapter 3. Domestic distributional consequences of foreign financial flows and financial deepening: an empirical investigation

1. Introduction

Since 1980, foreign direct investment (FDI) and foreign portfolio investment have increased more than thirty-five-fold. This increase in financial globalization has been part of a broader globalization – a diffusion of goods, people, business, and information. Given the increase and reach of global finance, what are the domestic distributional consequences of such flows? It is not difficult to see that globalization in general would have distributional consequences, especially in developing countries, and this holds for financial flows. Indeed, foreign investment, whether long-term in the case of FDI, or short term in case of portfolio investment, can influence the interests of many domestic actors, including policy-makers, business leaders, and both high and low skilled workers. This can have a direct impact on both democracy and income inequality.

However, the direction in which globalization acts on democracy and inequality is unclear and prior research has been inconclusive. Foreign capital may promote domestic economic opportunities and economic development; it may strengthen and enforce democratic institutions such as property rights protection and the rule of law; it may increase the opportunities and influence the interests of disadvantaged groups. It may also constrain state autonomy by putting investors' needs before societies' and foreign capital may crowd out local firms. It is also possible that foreign capital has no impact, or that any impact can be mitigated by distributional policies, such as welfare spending.

This chapter addresses several questions that are central to the literature on the domestic distributional consequences of globalization. First, does financial globalization, which includes

foreign direct investment and foreign portfolio flows, impact levels of democracy? Second, does financial globalization impact levels of income inequality? Lastly, does the level of domestic financial development influence any impact of financial globalization on democracy or inequality?

Using instrumental variable regression via two-stage least squares, as well as system-GMM, I find that foreign direct investment has a positive impact on democracy, but only in a sample of developing countries. Foreign portfolio investment shows no significant relationship with democracy. The interaction variable of financial development and FDI on democracy is negative and significant for all sample, implying that as domestic financial development increases, FDI has an increasingly negative effect on democracy. For income inequality, I find that both FDI and portfolio investment increase inequality. The interaction variable between financial development and FDI on income inequality is positive for all samples, suggesting that as financial development increases, FDI has an increasingly positive effect on inequality.

This paper proceeds as follows. Section 2 reviews the literature on globalization and democracy, globalization and inequality, and the role of domestic financial development. Section 3 presents the data and research design. Section 4 presents the empirical results and sensitivity analysis. Section 5 concludes and evaluates potential policy implications based on the findings.

2. Literature Review

2.1-Foreign Financial Flows and Democracy

Literature on the impact of globalization on democracy and democratic institutions come to contradictory conclusions, finding that globalization either increases, decreases, or has no substantive effect on democracy. Most of this literature is theoretical and the majority focus on either trade flows or general question about internationalization and market integration. For

example, internationalization can influence interests and political coalitions that then compete to influence policy (Keohane and Milner, 1996). The same international integration can also shift the interests of unskilled workers and other disadvantaged groups (Rodrik, 1997), holders of mobile capital (Frieden, 1991) and between the tradeable and non-tradeable sectors in an economy (Frieden and Rogowski, 1996).

Literature focusing directly on the impact of foreign capital flows, or financial liberalization, on the levels of democracy in the host country are conflicting. On the one hand, larger foreign capital flows may increase support for the existing regime, regardless of whether the regime is authoritarian or democratic (Armijo et al, 1994). Others suggest that increased foreign investment has direct effects on regime type, finding that portfolio investment has a positive relationship with democracy (Maxfield), while Armijo (1999) finds that increases in foreign portfolio investment may lead to balance of payment crises, which may in-turn lead to a shift toward authoritarian rule. Financial openness may increase the probability of transitions away from democracy (Quinn, 2001), or increase the level of democracy provided there are sufficient levels of domestic social spending (Rudra, 2005).[13] Li and Reuveny (2003) empirically assess the effects of foreign capital flows (FDI and portfolio investment) on democracy, finding that FDI positively affects democracy, while foreign portfolio investment has a negative impact. However, both Rudra (2005) and Li and Reuveny (2003) use total FDI inflows or FDI inflows as a percentage of GDP, as opposed to FDI stock. FDI stock may be a more appropriate measure for questions of political economy (Kerner 2014).

[13] Rudra (2005) takes globalization, both in trade and financial openness, as exogenous. This assumes that financial globalization 'just happens', which is a spurious conclusion to make considering the considerable findings on the relationship between foreign financial flows and host country institutional strength, as will be discussed in depth in section x.

Eichengreen and Leblang (2008), in assessing the impact of capital account liberalization on democracy, find a positive and significant effect of a country's capital account openness of democracy. They employ instrumental variable regression to account for the endogeneity of capital account openness in a sample of developed and developing countries. They suggest that financial liberalization may generate domestic political support for democracy in autocratic states and that this may improve prospects for democratization. Milner and Mukherjee (2009) follow Eichengreen and Leblang (2008) in looking at capital account openness and democracy, but only in developing countries. They find little evidence to suggest a robust relationship between the two. However, the question that arises is whether capital account liberalization is a sufficient measure of the impact of financial globalization on democracy. Whether dichotomously measured (does a country have foreign restrictions on capital or not) or a variable measure of restrictions (such as the Chinn-Ito index), if foreign investment increases economic growth and opportunities, increases or decreases un/skilled jobs or wages, and or crowds out local firms, then the number of capital restrictions is less appropriate then a measure of total inward flows or stock. Capital restrictions may not represent the actual openness of a country, especially since concessions in developing countries can be made to firms/investors on a case by case basis and even countries with a liberal capital account (see Kenya) can receive little foreign investment.

The inconclusive results of these previous studies can be the result of several factors. First, as alluded to briefly above, there is no consistently applied measure of financial openness. The majority of studies either utilize total FDI inflows, FDI inflows as a percentage of GDP, or use a constructed index of capital account liberalization. Few studies have used FDI stock, which is argued to be a preferred measure of inward investment when answering political questions (Kerner, 2014). Second, the econometric models and estimation techniques vary considerably. The

majority of studies do not account for endogeneity and FDI inflows are assumed to be exogenous (Rudra, 2005, and Li and Reuveny, 2003).

2.2-Foreign Financial Flows and Income Inequality

Does financial globalization increase inequality? In answer to this question there has been less ink spilled than in reference to democracy. A number of studies have analyzed the effects of foreign direct investment on both wage and income inequality and come to differing conclusions. Tsai (1995), focusing on a sample of least developed countries, finds that the effect of FDI on income inequality varies geographically, with a positive association only in East and Southeast Asian countries. Choi (2006), analyzing a sample of 119 countries, finds that FDI and inequality are positively related. Similarly, Basu and Guariglia (2007) find that FDI promotes both educational inequality and growth. However, other authors, in studies focusing on Mexico (Aitken et al., 1996; Feenstra and Hanson, 1997) and Indonesia (Lipsey and Sjoholm, 2001), conclude that capital flows generally increase the demand for skilled workers, causing their relative wages to rise, and wage inequality to be reduced. However, wage inequality is not the same as income inequality. For example, FDI may be more likely to impact skilled, middle income groups, who would be made better off with higher wages, and will therefore move closer to higher income groups, thus reducing income inequality there, but would move further away from lower income groups, thus increasing inequality. Little research has assessed the impact of FDI stock and foreign portfolio investment on income inequality, especially in developing countries.

2.3-Domestic financial development

Domestic financial deepening may impact the effect foreign financial flows have on both democracy and income inequality.[14] Considering that domestic financial development has become an important development tool alongside and/or because of increasing financial globalization, it may be that they do not work separately – that the impact of private financial flows is strengthened or mitigated by the level of domestic financial development. On the one hand, empirical research posits that increasing access to finance (i.e., improving capital markets and access to private credit from banking) can expand economic opportunities for previously disadvantaged groups, reduce inequality, and increase economic growth (see Becker and Tomes, 1986; Demirguc-Kunt and Levine, 2009). On the other hand, the development of, and improvements to, financial markets may only benefit the well-off - those already accessing either domestic or international financial markets, thus potentially increasing income inequality and reducing (or not increasing) economic opportunities for disadvantaged groups. Considering these potential effects, the impact of foreign financial investment on democracy and inequality may be contingently effected by the level of financial development in a host country: if foreign investment has ill-effects on the host country, do deepening financial markets mitigate these effects? If deepening financial markets only improves capital access to already advantaged groups, does it increase any ill-effects of foreign financial flows? While research has addressed the impact of financial development on FDI flows, and vice versa, to the best of my knowledge, little to no research has been done to empirically assess the contingent relationship of the two on levels of democracy and inequality.

3. Data and Methodology

[14] See Demirguc-Kunt and Levine (2009) for a critical review of the literature on finance and inequality.

This study uses a panel of 130 countries, both developing and developed, for the period 1980 – 2013 to explore the domestic distributional consequences of financial liberalization, specifically the relationship between financial openness and democracy, financial openness and inequality, and the influence of domestic financial development.

3.1-Data: Democracy and Inequality

The dependent variable, *Democracy*, denotes the level of democracy for a country in any given year, as measured by Polity IV data. I follow previous studies (Li and Reuveny, 2003; Mansfield and Snyder) and measure democracy as the difference between the 10-point democracy index (DEMOC), which measures the democratic characteristics of a regime, and the 10-point autocracy index (AUTOC), which measures the autocratic characteristics of a regime. This generates a democracy index ranging from - 10 (for the most autocratic regime) and 10 (for the most democratic regime).

The dependent variable, *Inequality*, denotes the level of income inequality in a given country as measured by Standardized World Income Inequality Database (SWIID).[15] The SWIID incorporates comparable Gini indices of net (post-tax, post-transfer) and market (pre-tax, pre-transfer) income inequality. Only the net measure is utilized in this paper in order to account for pre-tax distribution that reduces income inequality. The index ranges from low (less unequal) to high (more unequal).

3.2-Data: Explanatory Variables

Foreign direct investment stock: For the main explanatory variable I use total inward FDI stock, which represents the value of foreign director's stake in the foreign affiliates operating in a host

[15] See Solt (2014).

country at any given time. Data is from the United Nations Conference on Trade and Development (UNCTAD).[16] Compared to traditional FDI flow data, FDI stock should account for capital gains and losses and other changes in the value of the parent corporation's equity position beyond those attributable to financial transactions alone. Thus, stock data may provide a better conceptual fit to questions pertaining to FDI's influence on politics.[17] In alternate specifications, FDI stock as a percentage of GDP is used as a measure of the intensity and importance of FDI to the host economy.

Foreign portfolio flows (debt and equity): Portfolio investments (excluding foreign reserves) cover transactions in equity securities (the sum of country funds, depository receipts, and direct purchases of shares by foreign investors) and debt securities (publically guaranteed and non-guaranteed debt from privately placed bonds). Data is from the International Monetary Fund's (IMF) Balance of Payment and International Investment Position statistics. In alternate specifications, foreign portfolio investment as a percentage of GDP is used as a measure of the intensity and importance of foreign portfolio investment to the host economy.

Financial Deepening as interaction variable: I take the sum of private sector credit to GDP, outstanding domestic private debt securities to GDP, and stock market capitalization to GDP[18]. In alternate model specifications of financial development, I use stock market capitalization plus outstanding domestic private debt securities to GDP, as a measure of the size of financial markets, and stock market capitalization plus outstanding domestic debt securities (as a percentage of GDP)

[16] UNCTAD defines FDI stock as follows: "For associate and subsidiary enterprises, it is the value of the share of their capital and reserves (including retained profits) attributable to the parent enterprise (this is equal to total assets minus total liabilities), plus the net indebtedness of the associate or subsidiary to the parent firm. For branches, it is the value of fixed assets and the value of current assets and investments, excluding amounts due from the parent, less liabilities to third parties."

[17] See Kerner (2014) for an appraisal of the use of different FDI data in questions of political economy.

[18] See Cihak, Demirguc-Kunt, Feyen, and Levine (2012) for an assessment of financial depth candidate variables and their construction of the World Bank's Global Financial Development Database.

to bank assets (private sector credit to GDP), as a measure of the importance of financial markets compared to the banking sector. Data is from the World Bank's Global Financial Development Database.

Instrumental variable: Because we cannot rule out that the level of FDI stock inflows might be endogenous to democracy and democratic institutions, instrumental variable regression must be considered in the main models. The choice of instrument for inward FDI stock must be correlated to the main explanatory variable, but not democracy. Following the logic from recent research on the impact of globalization on democracy (Eichengreen and Leblang, 2008), I utilize the level of remaining global FDI stock. Domestic FDI stock may be influenced by more general global trends in FDI flows, but this global trend should have no direct influence on domestic democratic trends. It is expected that foreign portfolio flows operate similarly, as such I utilize the level of remaining global foreign portfolio investment as an instrument.

Control Variables

I control for the standard variables employed in both the democracy and inequality literature. *Economic development* is measured as the log of GDP per capita in constant 2005 $US (from the World Bank's World Development Indicators database). Numerous previous studies have found the level of economic development to be a determinant of democracy. *Economic Growth* is measured as the annual percentage growth rate of real GDP. *Inflation* is the yearly growth rate of the GDP deflator, which shows the rate of price change in the economy as a whole. Several studies have used inflation as a proxy for economic crises, the impact of which on democracy is debated. *Population* is measured as the logged yearly total population. *Openness* is measured as the sum of exports and imports as a percentage of GDP. *Natural Resources* is measured as total natural resource rents as percentage of GDP. Dummy variables for *British Colonial Heritage* and *French*

Colonial Heritage are included since previous studies (Acemoglu et al) have shown that British colonies lean more democratic than French colonies, as well as have lingering impacts on inequality. *Year* and *Region* dummies are included in most models and control for trends in democracy over time and place.

2.3-Empirical Models

To estimate the impact of financial globalization on the level of democracy and income inequality, I utilize instrumental variable regression via two-stage least squares for a sample of 130 countries, covering the years 1980-2013. Following previous studies that assess globalization and democracy using IV regression, for instruments I employ the log level of either world FDI stock (minus country amount) and the log level of world portfolio investment (minus country amount).[19] Model specifications are as follows:

$$Democracy_{i,t} = \propto + \beta_1 Financial\ Globalization_{i,t} + \sum_{j=1}^{13} \gamma_j X_{j,i,t} + \varepsilon_{i,t}$$

$$Income\ Inequality_{i,t} = \propto + \beta_1 Financial\ Globalization_{i,t} + \sum_{j=1}^{11} \gamma_j X_{j,i,t} + \varepsilon_{i,t}$$

In alternate specifications I estimate a system Generalized Method of Moments (system-GMM) model (Blundell and Bond, 1998), using robust standard errors. The system-GMM model combines a regression in first-differences and a regression in levels. For the regression in first-differences, the instruments employed are the lagged levels (here, two lags) of the endogenous explanatory levels. For the regression in levels, the instruments employed are the lagged

[19] In robustness checks I also employ other common instruments, including country size, budget deficits, and latitude.

differences in endogenous explanatory variables. Since lagged observations of the variable do not enter the formula for the transformation, they remain orthogonal to the transformed errors and available as instruments (Roodman, 2006). According to Blundell and Bond (1998), estimating these two equations in a single system reduces potential bias and corrects for potential endogeneity as well as unobserved time-invariant country-specific fixed effects.

4. Empirical Results

Table 3.1 summarizes the findings for the second stage[20] instrumental variable regression for the impact of inward FDI stock on democracy for the total sample and only developing countries. In the second stage regression for Model 1 (all countries) FDI stock has a positive, but not significant effect on democracy. I repeat this for Model 2, which substitutes the sample of all available countries with developing countries only.[21] This time the results are positive and highly significant. These results suggest that long-term inward capital flows only have a significant effect on democracy for developing countries. These countries may benefit the most from gains (jobs, wages, economic opportunities, strengthened institutions) from FDI and this is reflected in the positive impact on democracy. This differs from previous literature (Eichengreen and Leblang 2008; Milner and Muhkerjee 2009) that takes capital account openness as the measure for financial globalization.

Table 3.1 Democracy and Total FDI Stock (all countries and developing countries)

	Model 1 2nd stage	Model 2 2nd stage
Log(inward FDI stock) (*t-1*)	0.107 (0.165)	0.658*** (0.139)

[20] See Appendix Table 1 for 1st stage IV 2sls regression results.

[21] Separate regressions were also run interacting GDP per capita with FDI stock. The interaction term was negative and highly significant, suggesting that at lower levels of GDP per capita, FDI stock has increasingly positive impact on levels of democracy. This is consistent with the results in Table 1.

Log(GDP per capita) (*t-1*)	0.606*** (0.222)	-0.190 (0.174)
GDP growth (*t-1*)	0.016 (0.017)	-0.007 (0.019)
Log(inflation) (*t-1*)	0.553*** (0.086)	0.193** (0.094)
Log(natural resource rents) (*t-1*)	-0.935*** (0.053)	-0.819*** (0.073)
British colonial heritage	0.685*** (0.229)	0.706** (0.324)
French colonial heritage	-1.058*** (0.237)	-0.604** (0.269)
Spanish colonial heritage	1.646*** (0.418)	1.803*** (0.502)
Socialist legal origin	-1.614*** (0.317)	-1.931*** (0.414)
Ethnic fractionization	-0.699* (0.384)	-0.634 (0.501)
Latin America	-1.914*** (0.440)	-1.645*** (0.516)
MENA	-9.685*** (0.307)	-11.342*** (0.420)
SSA	-4.694*** (0.339)	-4.953*** (0.381)
Asia	-3.604*** (0.319)	-4.028*** (0.382)
Constant	2.741** (1.077)	4.790*** (1.188)
Obs	3202	2474

Note: Models estimated using instrumental regression with 2sls.
Significant figures: * p < 10%, ** p < 5%, ***p < 1%

Table 3.2 summarizes the findings for the second stage[22] instrumental variable regression for the impact of inward foreign portfolio flows on democracy for the total sample and only developing countries. In the second stage regression for Model 3 (all countries) foreign portfolio investment has a positive, but not significant effect on democracy. I repeat this for Model 4, which substitutes the sample of all available countries with developing countries only. The results are negative and not significant. This suggests that portfolio investment, which includes investment in domestic debt and equity securities does not have an observable effect on democracy. These results differ from Li and Reuveny (2003) who found portfolio investment to have a positive, but increasingly negative impact on democracy over time using a dynamic panel model.

Table 3.2 Democracy and portfolio flows (all countries and developing countries)

	Model 3 2nd stage	Model 4 2nd stage
Log(inward portfolio flows) (*t-1*)	0.257 (0.183)	-0.307 (0.180)
Log(GDP per capita) (*t-1*)	-0.173 (0.360)	0.738** (0.375)
GDP growth (*t-1*)	0.059* (0.033)	0.037 (0.047)
Log(inflation) (*t-1*)	-0.009 (0.122)	-0.068 (0.206)
Log(natural resource rents) (*t-1*)	-0.673*** (0.061)	-0.204 (0.114)
British colonial heritage	0.215 (0.282)	-0.612 (0.692)
French colonial heritage	-1.256*** (0.463)	-0.739 (0.782)
Spanish colonial heritage	0.616 (0.465)	0.203 (1.036)
Socialist legal origin	-0.677	-4.412***

[22] 1st stage of IV 2sls regression is located in the appendix

	(0.461)	(0.970)
Ethnic fractionization	-2.891*** (0.541)	-3.458*** (1.018)
Latin America	-0.425 (0.599)	-2.764** (1.258)
MENA	-6.520*** (0.446)	-13.823*** (1.071)
SSA	-0.682 (0.520)	-3.534*** (0.937)
Asia	-3.309*** (0.509)	-3.707*** (0.865)
Constant	4.955** (1.877)	12.540*** (2.480)
Obs	1011	580

Note: Models estimated using instrumental regression with 2sls.
Significant figures: ** p < 5%, ***p < 1%

In Table 3.3 I consider the contingent effects of domestic financial development, as measured by the sum of credit to the private sector, outstanding debt securities, and market capitalization, on inward FDI stock and the impact of this interaction on democracy.[23] As previously mentioned, domestic financial development may have an amplifying or minimizing effect on the impact of financial globalization on democracy. On the one hand, financial development may increase capital access for a wide swath of the population, potentially reducing any negative impact of financial globalization on democracy. On the other, if financial development has only benefited the few, especially large firms, financial development may exacerbate or diminish any negative or positive effect, respectively, that financial globalization has on democracy. Only the results for the

[23] Because of the reduction in sample size (financial development data is missing for number of developing countries), the results here cannot and should not be compared to the results in the previous section.

second stage instrumental regression are provided.[24] The result for the interaction of inward FDI stock and financial deepening on democracy for all countries in the sample is negative and significant, albeit weakly – that the impact of FDI on democracy is contingent on the level of domestic financial development. Specifically, the higher the level of financial development, the more negative the impact of FDI stock on democracy. This suggests that financial development may exacerbate the impact of financial globalization on democracy. This exercise is repeated for a sample of developing countries. The result is the same but the coefficient is larger and it is highly significant. The negative contingent effect of FDI and financial development on democracy is even more so in developing countries. This is not surprising given that the level of financial development, especially in terms of banking access and capital market maturity, may be more beneficial to a few already large firms.

Interaction effects were not included for financial development and international portfolio investment as domestic financial deepening, especially capital markets, can be substantially comprised of foreign investment. An interaction variable including credit to the private sector and foreign portfolio investment, the results were not significant for the full sample or non-OECD countries.

Table 3.3 Democracy - interaction variables for conditional effects of financial development on FDI stock/dem

	Model 5 2nd stage	Model 6 2nd stage non-OECD
Log(inward FDI stock) (*t-1*)	1.984**	2.743***

[24] Because the interaction variable is created using the endogenous explanatory variable, the interaction variable must be considered endogenous, thus a second instrumental variable is required. Here, I use latitude, which is a common instrumental variable for both FDI and financial deepening. The literature is inconclusive on the correlation between latitude and democracy. Analysis of the two variables shows little correlation. Regardless, I rerun the models using other instrumental variables that have been utilized in the investment and democracy literature: size and budget deficits (see Eichengreen and Leblang, 2006). The coefficients are consistent and significant across all models.

	(0.969)	(0.977)
Log(financial development)(*t-1*)	2.721** (1.349)	4.495*** (1.625)
Inward FDI stock*financial development (*t-1*)	-0.328* (0.175)	-0.576*** (0.215)
Log(GDP per capita) (*t-1*)	0.015 (0.296)	0.151 (0.188)
GDP growth (*t-1*)	0.005 (0.021)	-0.002 (0.023)
Log(inflation) (*t-1*)	0.303*** (0.110)	0.160 (0.121)
Log(natural resource rents) (*t-1*)	-0.952*** (0.060)	-0.807*** (0.089)
British colonial heritage	0.141 (0.314)	0.137 (0.584)
French colonial heritage	-0.743*** (0.276)	-0.017 (0.332)
Spanish colonial heritage	1.192** (0.548)	1.253* (0.780)
Socialist legal origin	-0.600 (0.410)	-0.738 (0.629)
Ethnic fractionization	-0.640 (0.458)	-0.275 (0.650)
Latin America	-0.608 (0.492)	-0.479 (0.598)
MENA	-9.125*** (0.459)	-10.881*** (0.678)
SSA	-2.698*** (0.479)	-2.734*** (0.599)
Asia	-3.018*** (0.394)	-2.515*** (0.526)
Constant	-9.136 (6.199)	-15.364** (7.533)

Obs	1987	1542

Note: Models estimated using instrumental regression with 2sls.
Significant figures: *p < 10%, ** p < 5%, ***p < 1%

Below I consider the impacts of various measures of financial globalization on income inequality using the aggregated inequality database as the dependent variable. Table 4 summarizes the findings for the second stage[25] instrumental variable regression for the impact of inward foreign portfolio investment on income inequality for the total sample, non-OECD developing countries, as well as OECD members. In the second stage regression for Model 9 (all countries) FDI stock has a positive and significant impact on the inequality variable, indicating that inward FDI stock increases income inequality. I repeat this for Model 10, which substitutes the sample of all available countries with developing (non-OECD) countries only. Similarly, results are positive and highly significant. Repeating for a sample of OECD countries (not reported), the impact of FDI stock on inequality is still positive and significant, but the impact is dramatically smaller. Looking at the control variables, especially trade, which is another common measure of globalization, we see stark differences between developed and developing countries – whereas as trade flows increase income inequality in developing countries (as theorized in research focused on the impact of trade flows), trade decreases inequality in developed countries.

Table 3.4 Income Inequality (post-tax/transfer) and FDI stock (all countries and developing countries

	Model 7 2nd stage	Model 8 2nd stage non-OECD
Log(inward FDI stock) (*t-1*)	1.059*** (0.179)	1.003*** (0.271)
Log(GDP per capita) (*t-1*)	-3.472*** (0.257)	-1.826*** (0.369)
GDP growth (*t-1*)	0.077**	0.063*

[25] See Appendix Table 3 for 1st stage IV 2sls regression results.

	(0.033)	(0.037)
Log(inflation) (*t-1*)	0.942*** (0.123)	0.703*** (0.149)
Log(natural resource rents) (*t-1*)	-0.250*** (0.091)	0.151 (0.129)
Openness (*t-1*)	0.006 (0.005)	0.014** (0.006)
Log(population)(*t-1*)	-0.874*** (0.191)	-1.090*** (0.275)
Ethnic fractionization	6.637*** (0.595)	4.615*** (0.732)
British Colonial Heritage	1.799*** (0.397)	0.186 (0.592)
French Colonial Heritage	0.174 (0.399)	-0.691 (0.479)
Spanish Colonial Heritage	8.178*** (0.418)	6.320*** (0.633)
Socialist Legal Origin	-4.410*** (0.468)	-6.558*** (0.625)
Constant	68.252*** (4.158)	61.979*** (5.917)
Obs	2361	1675

Note: Models estimated using instrumental regression with 2sls.
Significant figures: ** p < 5%, ***p < 1%

Looking at the impact of foreign portfolio investment on income inequality, the results are not as well defined. Theoretically, foreign portfolio investment may not have any impact on the labor market or income inequality being that it is generally foreign capital channeled through corporate securities or debt for short-term investment. The aspects of FDI that make it a potential determinant in inequality is missing. However, this might not be the case in developing countries. First, foreign portfolio investment, by nature of being short-term, is volatile. This can have severe

implications for developing countries without the domestic economic institutions development in place to buffer the consequences of volatile capital flows. Secondly, debt and equity markets are not sufficiently developed in most developing countries, meaning that inward flows may only be targeting a limited number of firms that are sector specific. Thus the potential impact of FPI on inequality is ambiguous. The results in Table 5 bear this out. Model 9 (all countries in the sample) suggests that foreign portfolio investment has a positive and significant impact on income inequality. Model 10 shows that foreign portfolio investment into non-OECD countries is negative (inequality reducing), but not significant.

Table 3.5 Income inequality and foreign portfolio flows

	Model 9 2nd stage	Model 10 2nd stage
Log(inward portfolio flows) (*t-1*)	2.715** (1.148)	-17.303 (16.410)
Log(GDP per capita) (*t-1*)	-6.948*** (2.298)	36.104 (32.778)
GDP growth (*t-1*)	0.063 (0.077)	-0.140 (0.083)
Log(inflation) (*t-1*)	1.153*** (0.291)	-0.366 (0.364)
Log(natural resource rents) (*t-1*)	-0.364** (0.159)	-1.262*** (0.297)
Openness (*t-1*)	-0.059*** (0.017)	-0.222*** (0.055)
Log(population)(*t-1*)	-3.209** (1.495)	-16.070*** (4.213)
Ethnic fractionization	13.680*** (1.238)	-3.540 (2.156)
British Colonial Heritage	3.650*** (0.699)	15.339*** (2.896)
French Colonial Heritage	-0.865	11.007***

	(1.203)	(2.403)
Spanish Colonial Heritage	6.216*** (0.910)	20.080*** (1.784)
Socialist Legal Origin	0.134 (0.968)	4.952*** (1.553)
Constant	86.788*** (20.045)	14.942*** (4.759)
Obs	834	431

Note: Models estimated using instrumental regression with 2sls.
Significant figures: ** p < 5%, ***p < 1%

In Table 3.6 I consider the contingent effects of domestic financial development, as measured by the sum of credit to the private sector, outstanding debt securities, and market capitalization, on inward FDI stock and the impact of this interaction on income inequality.[26] As previously mentioned, domestic financial development may have an amplifying or minimizing effect on the impact of financial globalization on income inequality. On the one hand, financial development may increase capital access for a wide swath of the population, potentially reducing the negative impact of financial globalization on inequality. On the other, if financial development has only benefited the few, especially large firms, financial development may exacerbate or diminish any negative or positive effect, respectively, that financial globalization has on inequality. Only the results for the second stage instrumental regression are provided.[27] The result for the interaction of inward FDI stock and financial deepening on income inequality for all countries in the sample is positive and significant, implying that the impact of FDI on income inequality is

[26] Because of the reduction in sample size (financial development data is missing for number of developing countries), the results here cannot and should not be compared to the results in the previous section.
[27] Because the interaction variable is created using the endogenous explanatory variable, the interaction variable must be considered endogenous, thus a second instrumental variable is required. Here, I use latitude, which is a common instrument for both FDI and financial deepening. Alternate analyses use country size and budget deficits and yield similar results.

contingent on the level of domestic financial development. Specifically, the higher the level of financial development, the more FDI stock positively impacts (increases) inequality. This suggests that financial development, perhaps by benefiting the few, may exacerbate the impact of financial globalization on inequality. This exercise is repeated for a sample of developing countries. The result is the same but the coefficient is smaller and it is highly significant. This is not surprising given that the level of financial development, especially in terms of banking access and capital market maturity, may be more beneficial to a few already large firms. In OECD countries (results not reported) we find the opposite: the interaction variable is negative and highly significant, suggesting that the more developed financial markets and capital access are in these countries, the more foreign direct investment decreases inequality. Thus, financial development in advanced countries, where access to capital markets and banking is generally more evenly distributed across the populace, may mitigate any negative impact of FDI of inequality.

Table 3.6 Income Inequality and foreign flows with financial deepening interaction variable

	Model 11 2nd stage	Model 12 2nd stage
Log(inward FDI stock) (*t-1*)	-0.660** (0.273)	-1.950*** (0.346)
Log(inward portfolio flows) (*t-1*)		
Log(financial deepening) (*t-1*)	--0.0002*** (0.000)	-0.0003*** (0.000)
Inward FDI stock*Financial deepening (*t-1*)	0.292*** (0.038)	0.373*** (0.038)
Constant		
Obs		

Note: Models estimated using instrumental regression with 2sls.
Significant figures: ** p < 5%, ***p < 1%

To check the robustness of these results, I re-run the models with alternate econometric specifications. Specifically, I employ system Generalized Method of Moments, using robust corrected standard errors.[28] As mentioned previously, the system-GMM model combines a regression in first-differences and a regression in levels. For the regression in first-differences, the instruments employed are the lagged levels of the endogenous explanatory levels. For the regression in levels, the instruments employed are the lagged differences in endogenous explanatory variables. According to Blundell and Bond (1998), this procedure corrects for potential endogeneity as well as unobserved time-invariant country-specific fixed effects.

Table 3.7 presents the results for both FDI and foreign portfolio investment on democracy. The results are generally consistent with the previous models, except here the full sample is statistically significant, and still positive. The non-OECD sample for FDI stock, as well as the results for portfolio flows, are all consistent with earlier results. Table 3.8, assessing FDI stock and portfolio investment on income inequality, presents results that are consistent in terms of direction and significance as previous results.

Table 3.7 Democracy and financial globalization using system-GMM

	Model 13 Democracy	Model 14 Democracy non-oecd	Model 15 Democracy	Model 16 Democracy non-oecd
Log(inward FDI stock) (*t-1*)	0.541**	0.724***		
	(0.265)	(0.277)		
Log(foreign portfolio flows) (t-1)			0.013	0.510
			(0.019)	(0.341)
Constant	2.886	1.207	6.188***	7.271***
	(3.609)	(4.653)	(0.484)	(1.413)
Hansen statistic	1.000	1.000	1.000	1.000
Obs	3202	2474	1011	580

Note: Models estimated using system-GMM with robust corrected standard errors.
Significant figures: * p < 10%, ** p < 5%, ***p < 1%

[28] Only coefficients for the explanatory variables, constant, and Hansen statistic are reported here.

Table 3.8 Income inequality and financial globalization using system-GMM

	Model 17 Inequality	Model 18 Inequality non-oecd	Model 19 Inequality	Model 20 Inequality non-oecd
Log(inward FDI stock) (*t-1*)	1.035**	0.876*		
	(0.421)	(0.528)		
Log(foreign portfolio flows) (t-1)			0.884*	-0.018
			(0.495)	(0.742)
Constant	51.924***	50.646*	54.272	212.659
	(15.943)	(27.065)	(45.411)	(228.722)
Hansen statistic	1.000	1.000	1.000	1.000
Obs	2363	1676	848	438

Note: Models estimated using system-Generalized Method of Moments with robust corrected standard errors
Significant figures: * p < 10%, ** p < 5%, ***p < 1%

5. Conclusion

This paper utilizes both instrumental variable regression via two-stage least squares and system Generalized Methods of Moments to empirically examine the impact of financial globalization on levels of democracy and income inequality. From this analysis I am able to conclude three things: first, foreign direct investment has a positive and significant impact on both levels of democracy and income inequality, especially in developing countries. Second, foreign portfolio investment, contrary to previous research, only has a positive and significant impact on inequality. Third, the level of domestic financial development has an interactive effect on FDI stock, influencing its impact on both democracy and inequality.

As previously discussed, this is an empirical assessment of the distributional impact of financial globalization and development on democracy and income inequality. The hypothesized impacts were ambiguous given the many ways financial globalization can act on a host country. Thus, more in-depth research into the theory of this relationship is warranted in order to complement the

empirical approach here. Specifically, this subject would benefit from an in-depth theoretical investigation into the relationship and linkages between financial globalization, inequality, and democracy. Similarly, case studies could help illuminate the role domestic financial development plays in influencing domestic response to financial globalization.

Appendix

Appendix Table 1. Democracy and FDI stock – 1st stage IV 2sls regression

	Model 1 1st stage	Model 2 1st stage
Log(world FDI stock) (*t-1*)	-16.013*** (0.972)	-115.610*** (5.371)
Log(GDP per capita) (*t-1*)	1.129*** (0.033)	0.656*** (0.040)
GDP growth (*t-1*)	0.004 (0.006)	0.007 (0.006)
Log(inflation) (*t-1*)	0.225*** (0.028)	0.194*** (0.030)
Log(natural resource rents) (*t-1*)	0.040** (0.019)	0.029 (0.024)
British colonial heritage	0.342*** (0.079)	0.957*** (0.097)
French colonial heritage	0.228*** (0.085)	0.446*** (0.086)
Spanish colonial heritage	0.775*** (0.144)	1.061*** (0.160)
Socialist legal origin	0.050 (0.117)	0.881*** (0.134)
Ethnic fractionization	0.371** (0.138)	1.327*** (0.154)
Latin America	-0.309** (0.159)	0.514*** (0.173)
MENA	0.195* (0.114)	1.228*** (0.140)
SSA	-0.074 (0.125)	-0.005 (0.127)

Asia	0.784*** (0.110)	0.988*** (0.119)
Constant	270.019*** (16.500)	1956.332*** (90.923)
Obs	3202	2474

Note: Models estimated using instrumental regression with 2sls. Significant figures: * p < 10%, ** p < 5%, ***p < 1%

Appendix Table 2. Democracy and Foreign Portfolio Investment

	Model 3 1st stage	Model 4 1st stage
Log(world portfolio flows) (*t-1*)	5.707*** (0.866)	1.312 (8.939)
Log(GDP per capita) (*t-1*)	2.060*** (0.048)	2.096*** (0.078)
GDP growth (*t-1*)	-0.021* (0.012)	-0.024 (0.018)
Log(inflation) (*t-1*)	-0.041 (0.047)	-0.123 (0.056)
Log(natural resource rents) (*t-1*)	-0.014 (0.022)	-0.032 (0.052)
British colonial heritage	0.354*** (0.115)	0.178 (0.267)
French colonial heritage	0.706*** (0.187)	0.712** (0.299)
Spanish colonial heritage	0.685*** (0.182)	0.460 (0.401)
Socialist legal origin	-0.094 (0.153)	-0.337 (0.374)
Ethnic fractionization	0.822*** (0.215)	1.000*** 0.381)

Latin America	-0.623*** (0.238)	-0.500 (0.490)
MENA	-0.783*** (0.170)	-1.007** (0.399)
SSA	-0.867*** (0.189)	-0.876** 0.344)
Asia	0.150 (0.152)	0.251 (0.309)
Constant	-95.559*** (12.637)	-34.375 (127.160)
Obs	997	570

Note: Models estimated using instrumental regression with 2sls.
Significant figures: ** p < 5%, ***p < 1%

Appendix Table 3. Income Inequality and FDI Stock – 1st stage IV 2sls regression

	Model 1st stage	Model 1st stage
Log(world FDI stock) (*t-1*)	-2.195*** (0.630)	-17.932*** (3.564)
Log(GDP per capita) (*t-1*)	1.254*** (0.020)	1.151*** (0.027)
GDP growth (*t-1*)	0.009* (0.005)	0.012** (0.005)
Log(inflation) (*t-1*)	0.057*** (0.020)	0.037* (0.021)
Log(natural resource rents) (*t-1*)	0.147*** (0.014)	0.147*** (0.017)
Openness (*t-1*)	0.010*** (0.001)	0.011*** (0.001)
Log(population)(*t-1*)	0.893*** (0.017)	0.889*** (0.018)
Ethnic fractionization	0.120 (0.096)	0.479*** (0.101)

British Colonial Heritage	0.872*** (0.060)	1.045*** (0.073)
French Colonial Heritage	0.556*** (0.063)	0.689*** (0.062)
Spanish Colonial Heritage	0.770*** (0.064)	1.113*** (0.078)
Socialist Legal Origin	0.402*** (0.080)	0.659 (0.084)
Constant	20.148*** (10.803)	286.657*** (60.447)
Obs	2361	1675

Note: Models estimated using instrumental regression with 2sls.
Significant figures: ** p < 5%, ***p < 1%

Appendix Table 4. Income Inequality and Foreign Portfolio Flows – 1st stage IV 2sls regression

	Model 1st stage	Model 1st stage
Log(world portfolio flows) (*t-1*)	4.481*** (0.786)	-212..085*** (18.475)
Log(GDP per capita) (*t-1*)	2.107*** (0.045)	1.503*** (0.112)
GDP growth (*t-1*)	-0.014 (0.011)	-0.048* (0.025)
Log(inflation) (*t-1*)	-0.085** (0.043)	0.154 (0.110)
Log(natural resource rents) (*t-1*)	0.051** (0.022)	0.458*** (0.076)
Openness (*t-1*)	0.013*** (0.001)	
Log(population)(*t-1*)	1.372*** (0.032)	
Ethnic fractionization	0.495*** (0.185)	3.176*** (0.620)

British Colonial Heritage	0.131 (0.112)	-4.427*** (0.840)
French Colonial Heritage	0.205 (0.190)	0.152 (0.732)
Spanish Colonial Heritage	0.478*** (0.123)	-2.584*** (0.520)
Socialist Legal Origin	-0.194 (0.133)	0.362 (0.469)
Constant	-95.127*** (13.753)	-212.085*** (18.475)
Obs	834	431

Note: Models estimated using instrumental regression with 2sls.
Significant figures: ** p < 5%, ***p < 1%

Conclusion

In this dissertation, I have examined three issues in political economy that are linked by their focus on foreign investment, institutions, and developing countries. The first chapter investigates the domestic institutional determinants of foreign direct investment by examining the theoretical and empirical link between institutions, FDI, and financial development. By constructing a novel institutional quality index, comprised of three proxies of institutional quality that focus on the implicit and explicit costs of doing business, the quality of financial markets and regulations, and strength and efficiency of governance and policy enforcement, I built upon and expanded previous theoretical frameworks for determinants of foreign and domestic capital flows. From this assessment I was able to conclude two things: first, institutions matter for both FDI inflows and domestic financial development; second, the type of institutions that matter for both differ, since the varying proxies of institutional development operate according to different mechanisms, which should have differing effects on capital access. For foreign investment, the costs of doing business and market regulation are positively significant, while government policy and enforcement is not. For domestic financial development, government policy and enforcement and market regulations are positively significant, while the costs of doing business is not. More importantly, these results show that institutions may influence economic development through the channels of investment and financial development.

The second chapter examined the extent to which bilateral investment treaties promote foreign direct investment between developing (South-South) countries. Over the past three decades, foreign direct investment between developing countries have been rising alongside the

general trend of rising FDI from developed to developing countries. Bilateral investment treaties have been similarly increasing. These treaties can act as credible commitments, providing investors to third party dispute settlements, which ensure compliance to protections guaranteed by the BIT. Others argue that BITs are more political, acting as a signaling device to all investors that a host state is committed to liberal economic and political reforms. However, while there has been significant analysis on the impact of North-South BITs on investment into the host state, there has been a surprising lack of analysis on the impact of South-South BITs, particularly surprising given the dramatic increase in both South-South BITs and FDI flows. Drawing on intraregional investment data from the Middle East and North African (MENA) region, this chapter initiated the examination of South-South BITs, their impact on FDI, and the theoretical channels through which changes in FDI occur. The results of the dynamic panel regressions suggest that while BITs do increase south-south (in this case intra-regional) FDI, their substantive effects are smaller than other macroeconomic and institutional variables. While this finding shows that there is a payoff for BIT negotiations, the bigger payoffs come from reforms in regulatory quality and economic development. While BITs look promising, more needs be down to assess the effect BITs on FDI between developing countries as a whole.

The final substantive chapter moved beyond the determinants of inward FDI in developing countries to assess the domestic distributional consequences of both FDI and financial development. Previous literature on the impact of foreign investment on levels of democracy and income inequality has used ill-defined measures of financial globalization and/or did not account for the inherent endogeneity within the model. Further, and more importantly, no other research has assessed the contingent effects of domestic financial development on this relationship. I found that foreign direct investment has a positive impact on democracy, but only in a sample of

developing countries, and foreign portfolio investment shows no significant relationship with democracy. The interaction variable of financial development and FDI on democracy is negative and significant for all sample, implying that as domestic financial development increases, FDI has an increasingly negative impact on democracy. For income inequality, I found that both FDI and portfolio investment increase inequality. The interaction variable between financial development and FDI on income inequality is positive for all samples, suggesting that as domestic financial development increases, FDI stock has an increasingly positive impact on inequality.

Taken together, the findings of this dissertation present an interesting depiction of the effects of economic institutions on foreign direct investment, and in turn, the domestic consequences of this investment. Countries, seeking greater access to foreign capital and investment, are working to strengthen their institutions to increase their appeal to these investors. However, this investment comes at cost. While the evidence presented here suggests that FDI stock increases FDI, it also increases income inequality, a perhaps unintended consequence of global financial integration. Institutions matter for investment, but given the distributional effects of said investment, institutions will also matter domestically to mitigate potential negative impacts.

While the findings of this dissertation add to the growing literature linking institutions, financial globalization, democracy, and inequality, there are many paths for fruitful research that remain untouched. First, while BITs can perhaps mitigate less than stellar domestic institutions, they may have distributional consequences of their own. BITs by nature restrict the policy options available to host country governments. These restrictions can affect any number of domestic pressure groups given the potential policy or regulation being impeded. Therefore, case studies assessing the impact of BIT mechanisms on domestic policy choices, especially regarding labor and environmental regulations, could be particularly insightful. Second, more research needs to be

spent diving into the linkages between the impact of foreign investment on income inequality and democracy. While chapter three showed that foreign investment positively impacts FDI, it also showed that FDI increases income inequality. At what point does increasing inequality influence the level of democracy? These linkages may be difficult to tease out, but the attempts may yield important insights.

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