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Direct Investment, Economic and Democratic Development

Jenny Rebecca Kehl, Ph.D., Assistant Professor, Rutgers University-Camden, jrkehl@camden.rutgers.edu

Abstract

Foreign direct investment is arguably one of the most important strategies used to promote economic development in poor countries. Developing countries have the opportunity to increase their integration into global financial flows, expand employment, receive transferred technology, and establish investment arrangements that increase their potential for economic growth. This cross-national study asks: What accounts for the wide variation in the success and failure of developing countries to use foreign investment to promote economic growth? The central argument posits that the interaction of international investments with democratic institutions accounts for the variation in the capacity to parlay investment into growth. The interaction of foreign investment with democratic institutions and government effectiveness, measured as the ability to formulate and implement policy, have a positive effect on the capacity of governments to negotiate benefits from foreign investment. The study develops an interactive model, which outperforms the models of Political Institutions and Political Economy alone. Cross-Sectional Times Series analysis is used to test the model for 141 countries from 1971-2007. The results indicate that the ability to use foreign investment to promote economic growth is contingent on the interaction of international investments with domestic democratic development.

Introduction

Foreign direct investment can serve as an engine for growth and development by increasing integration into the world economy, employment, technology transfer, skills training, infrastructure development, and revenue from taxation, among other forms of capital. In the world's poorest countries, these assets are in dire straights, without sufficient domestic resources or capacity to reverse chronic underdevelopment. Although it is not a panacea, international investment may provide the capital and technology necessary to spark domestic economic growth and development.

At the turn of the century, the world's 50 largest foreign investors in the developing world held over \$2 trillion in foreign assets and over \$2 trillion in sales (World Investment Report 2002), and the size of the global economy is expected to quadruple in the next 50 years to a worldwide gross domestic product of \$140 trillion (World Bank 2002). The substantial expansion of the global economy offers developing countries the opportunity to increase their level of integration into global financial flows, and to develop investment arrangements that maximize their potential for economic growth.

The purpose of this research is to analyze the wide variation in the capacity to utilize foreign investment successfully to foster domestic growth and development. By hosting an increasing amount of foreign investment, twenty-four developing countries over the past three decades have increased their integration into the world economy, achieved higher growth incomes, and increased the average growth rate to five percent, compared to an average growth rate of two percent in wealthy industrialized countries (World Bank 2001). However, not all developing countries have been able to benefit from the promise and prosperity of foreign investment. Most underdeveloped countries lack the government capacity to negotiate mutually beneficial investment arrangements.

The driving questions behind this research ask: What accounts for the wide variation in the success or failure of developing countries to utilize foreign investment to promote domestic economic growth? Are there discernable differences in the political institutions and economic factors that generate distinct patterns in the relationship between foreign investment and domestic growth? To address these questions, this study develops an interactive model of international investment and domestic development that outperforms the less explanatory models of Political Institutions and Political Economy alone. The theory posits that democratic accountability and transparency in conjunction with government effectiveness, measured as the capacity to form and implement policy, have a direct positive effect a country's ability to utilize foreign investment to promote domestic economic growth, measured as an increase in GDP per capita. The study also addresses the problem of unequal benefits: foreign investors making comparatively high levels of profits and domestic governments extracting relatively little profit from hosting international investment.

There is a clear divergence of interests between foreign investors and domestic governments. The primary interest of international investors is to maximize profits. The motivating interest of domestic governments is to increase economic growth and wealth by hosting foreign investment, ostensibly to increase the overall level of economic development of poor countries. Political institutions and economic policies can serve as corrective mechanisms by mediating and moderating the divergence of interests between international investors and domestic governments. The interactive model is designed to test the theory that institutional arrangements can correct for the divergence of interests and increase the domestic benefits of foreign investment, specifically government revenue and employment, as well as the overall economic growth of host countries. The model proposes that the *interaction effects* of democratic institutions and government capacity with foreign investment have more explanatory value than the *independent effects* of the variables. Cross-Sectional Time Series (CSTS) is used to analyze the interactive model for statistical significance and explanatory value.

The study consists of three major sections. It begins by reviewing the competing explanations of Political Institutions and Political Economy, and synthesizes their contributions to understanding the relationship between international investment and domestic economic growth. Second, it provides an empirical synopsis of the global and regional trends in foreign investment. Third, the final section provides a complete CSTS analysis of competing explanations, with interpretation of the statistical results and discussion of the substantive conclusions. This section highlights the contributions of the interactive model, which offers a substantial increase in explanatory value over the other two models. The study concludes with a summary of the policy implications and empirical findings, which support the theory that domestic growth from foreign investment is contingent on specific institutional arrangements.

International Investment and Economic Development

After a brief neglect, the issues of international investment and domestic development have experienced a dramatic resurgence in interest and scholarship. The research venues have been expanded to include international financial institutions such as the World Bank and research institutes such as the National Bureau of Economic Research, in addition to the usual suspects; political scientists, economists, business scholars, and development studies scholars. The new elements of the debate are discussed in more detail in the Political Institutions and Political Economy sections of this manuscript, which highlight the causal variables and mechanisms through which modern foreign investment affects domestic development.

There is a substantial amount of empirical support for the claim that foreign investment has a positive correlation with domestic economic growth (Li and Liu 2005; Blomstrom, Lipsey, and Zejan 1996; Borensztein, Lee, and De Gregorio 1995; Rothgeb 1984; Jackman 1982; Bornscheir 1981; Dolan and Tomlin 1980). Most scholars have focused on the importance of investment inflows in promoting growth through technology transfer and employment. The technology transfer from foreign investment to domestic sectors contributes more to growth than domestic investment, and the effect is augmented by a large stock of human capital for labor (Bengao and Sanchez-Robles 2003, Borensztein, Lee, De Gregorio 1995). Investment inflows are also the focus of research in an effort to establish whether inflows have a short-term positive effect (Rothgeb 1984, Jackman 1982, Bornscheir 1981, Dolan and Tomlin 1980), while investment stock has a long-term negative effect (Rothgeb 1984, Bornscheir 1981, Dolan and Tomlin 1980, Bornscheir, Chase-Dunn, and Rubinson 1978), or if stocks have a positive effect under unique conditions and in specific economic sectors (Mahler 1980).

In contrast, there is a comparable amount of research that demonstrates a negative correlation between international investment and domestic development, on numerous fronts. International investment negotiations often favor the more powerful, wealthier foreign firms than the fragile and poor host governments, which do not have the "absorptive capacity" to parlay foreign investment into economic growth (Durham 2004). The dynamics of foreign investment that negatively affect domestic development include a decrease in government autonomy to make decisions in its best interests as opposed to the interests of the investors (Bodenheimer 1971, Cardoso and Faletto 1979), foreign investment "crowds out" domestic business and investment (Bodenheimer 1971), new technology decreases labor intensive employment and domestic jobs are lost (Barnet and Muller 1974), most of the profits get repatriated, not reinvested into domestic development, and the long-term cost of environmental damage is constantly being re-evaluated. The recurring theme is the competing, and often contradictory, interests of foreign investors and domestic host countries.

The central problem is that foreign investors and domestic host governments have divergent interests: foreign investors are interested in maximizing profits, governments of host countries are, presumably, interested in promoting domestic growth. The dilemma is best articulated by the World Bank in the World Investment Report,

"Governments need to counter two sets of market failures. The first arises from information or coordination failures in the investment process, which can lead a country to attract insufficient FDI. The second arises when private interests of investors diverge from the economic interests of host countries.

This can lead FDI to have a negative effect on development, or... benefits that are not sustainable over time" (World Bank 2000).

The divergence of the private interests of foreign investors from the domestic economic interests of host governments can be moderated or mediated to establish mutually beneficial investment arrangements. Developing countries, however, exhibit wide variation in the capacity to do so. The variation can be explained, in part, by differences in political institutions and political economy. Political institutions impose structure on negotiations and investment arrangements, and provide incentives and constraints to cooperate or defect. Democratic accountability, for example, serves as a mechanism through which constituents require governments to procure benefits from hosting foreign investment, minimize corruption, and promote domestic economic growth. Political economy addresses the distribution of power and wealth, and also provides incentives and constraints. Political officials make deliberate decisions about economic policies such as taxation, trade, government intervention, access to markets, and economic liberalization, that directly affect foreign investment and how it succeeds, or fails, to expedite domestic economic growth.

Theoretical Explanations and Causal Mechanisms

Political Institutions

The Political Institutions explanation suggests that institutions impose structure and facilitate implementation of economic policies and growth strategies. Governments have, throughout history, responded to political and economic interests by establishing institutional arrangements for raising revenue and stimulating economic growth (Levi 1997; Levi 1988; Greif, Milgrom, Weingast 1994). Accordingly, institutions have become "larger, considerably more complex and resourceful, and *prima facie* more important" (March and Olson 1984). This increase in the complexity of institutions is paralleled by an increase in the confusion in defining institutions. Within the discipline, definitions of institutions vary widely and include, for example, regimes, systems, agencies, political parties, groups, rules, incentives and constraints, and formal structures articulated in constitutions. This research uses the definition of *higher-level* structures, directly observable structures such as regimes and parties, established by David Easton in *The Analysis of Political Structure* (1990) to delineate the size and scope of institutions included in this analysis. Easton defines political institutions as complex systems within which political structures are "identifiable phenomena and therefore measurable" (1990: 30). One of his predominant examples of a *higher-level* political structure, government, is the focus of this study.

This research ascribes to the "New Institutional Economics" developed by Ronald Coase and Douglass North, for which they won the Nobel Prize in Economic Science. Their central argument is summarized most concisely as, "the success or failure of any effort to achieve long-lasting transitions to democratic market-oriented systems depends on the design and functioning of the underlying institutional framework" (Coase and North; Sullivan, John, Executive Director of the Center for International Private Enterprise, 2002). This strong statement is supported by the state-centered approach of Nordlinger who disaggregates the state into its subsequent parts, such as government institutions, and argues that distinct institutional arrangements result in different outcomes for development (Nordlinger 1987). The discipline has framed the general question as: What types of institutions are successful at promoting development, and why? The search for an answer has focused on the comparison of democratic and non-democratic regimes. However, the various answers are more contradictory than coherent.

The seminal debate regarding the effectiveness of political institutions involves a discussion of regime type with a focus on democracy. Democratization scholars argue that democratic institutional development is essential because it increases accountability, responsiveness, and adaptability to political and economic fluxuation than non-democratic regimes. The relevant question for this research is: Does this give democracies an advantage in responding to economic changes, thus facilitating economic growth? Many scholars have studied the relationship between democratic institutions and economic development, particularly in the tide of the "third wave" of democratization (Huntington 1991). Seymour Lipset initiated the discussion by arguing that wealth is a prerequisite to democracy (1959, 1960). Subsequent studies demonstrate a direct positive correlation between economic development and democracy (Burkhart and Lewis-Beck 1994; Lipset, Seong, Torres 1993; Hadenius 1992). Although this is a valuable contribution to the literature in general, this research project is specifically interested in the inverse relationship: the effect of regime type and institutional arrangements on economic growth.

Two divergent theoretical perspectives have been forwarded regarding the effects of regime type on economic development. First, regime type does not directly affect economic performance (Knack and Keefer 1997; Gasiorowski 1997; Przeworski 1993; Przeworski and Limongi 1993). This perspective argues that the study of variations in regime types does not capture the economic intricacies of strategy, market function, and economic performance. The second theoretical perspective argues that regime type does affect economic performance (Burkhart 1997; Remmer 1996; Lindenberg and Devarajan 1993). Specifically, democratic political systems have a positive effect on economic performance, and, they demonstrate higher levels of economic growth than their

authoritarian counterparts (Helliwell 1994; Lindenberg and Devarajan 1993). For example, democracies grow more rapidly, restructure their exports more substantially, and improve their external balances more effectively (Lindenberg and Devarajan 1993). In contrast to the wide endorsement of democratic institutions, some argue that democracies hinder economic growth because they are influenced by interests groups and pressure for consumption. Authoritarian regimes operate autonomously from particular interest group pressures, which allows the state to implement deliberate and strong economic policies to promote economic growth (Chan and Clark 1992). Although the literature in this area of scholarship does not present a resolution to the debate, both perspectives capture the importance of institutional learning and adaptation.

The newest version of the debate regarding the effects of political institutions on economic development is exemplified by the study of what governments have learned about intervention in the economy. The institutional debate now centers around Liberal versus "Organized Market Economies" (Peter Hall 1997, adapted from "Coordinated Market Economies" Soskice 1997). Liberal market economies deal with economic problems through competitive market mechanisms and short term contractual agreements that coordinate market activity. Organized market economies rely on institutions other than market mechanisms to resolve economic problems and to coordinate economic activities (Hall 1997). Institutions provide more reliability, less volatility, and more deliberation than market mechanisms.

A substantial critique of the political institutions approach is the lack of clarity and lack of empirical support for theoretical claims. There is insufficient empirical evidence and comparative analysis of the specific institutional arrangements that allow underdeveloped countries to succeed in using foreign investment for domestic development. Case study analysis does exist in this area, but cross-national analysis has been limited by the lack of information about the institutional characteristics of countries and their change over time. As contributors to the new Database on Political Institutions explain, "comparative political economy, therefore, has been restricted to small-sample case studies, important in their own right, but imposing unavoidable limits on researchers seeking to generalize their results beyond the case study sample" (Beck and Katz 1995). This research project addresses the gap in contemporary research by providing a well specified model of the relationship between political institutions and political economy in the context of development, to offer aggregate, empirical, and cross-national evidence for significant factors and interactions.

Political Economy

The distribution of power affects which interests get represented in political and economic policy. Political Economy suggests that political decisions are often made for economic reasons (Arrow 1951; Downs 1957b; Riker 1982; Olson 1996; North 1981, 1990; Levi 1988). The initiation of Political Economy as an explanation in Political Science is attributed to Adam Smith's timeless questions; How do nations prosper and what policies ensure their wealth? (Smith 1893; Lichbach and Zuckerman 1997). The purpose of this research is to address Smith's questions in the contemporary context of a global economy. The Political Economy explanation posits that governments make deliberate decisions to promote specific economic strategies in the interest increasing economic growth. Government make decision regarding fiscal policy, commerce, and taxation that result in a variety of incentives and constraints, which affect bargaining power in negotiations with foreign investors. Six indicators of Political Economy are tested for their explanatory value: liberalness of domestic trade, access to international markets, level of economic development, level of economic dependence, taxation policy for foreign investment, and the *value added* of specific economic sectors.

First, the liberalness of the domestic economy affects the relationship between foreign investment and development by determining the level of regulation on domestic trade. Laissez-faire economic theory posits that the greater the liberty of the economy the greater the efficiency, productivity, and profitability of economic transactions. The freedom to buy and sell, to exchange, to pursue employment, and form capitalist markets is crucial for economic growth and development (Sen 1999). Second, the freedom to access international markets and engage in international trade are important elements of economic development. Neo-classical economics, a reiteration of laissez-faire economic theory, recommends expanding international economic transactions to maximize sources of growth, and limiting government intervention to minimize market distortion. Liberalness of the domestic and international economy will be added to the analysis and tested for explanatory value.

Second, the level of economic development affects the degree of acceptance of foreign investment as a development strategy. The least developed countries have the most urgent need to alleviate poverty as well as the fewest domestic resources to do so. Thus they are more amenable to accepting foreign investment (Chan 1995). The level of development correlates with information access, economic stability, economic diversity, and technical capacity that can alter a developing country's threshold of tolerance for accepting "political externalities" such as multinational corporations (Leonard 1980). In contrast to the positive effect on acceptance of foreign investment, the level of development may have an adverse effect on the decision to invest. The least developed countries have the lowest level of infrastructure, skilled labor, and feeder industry to support the successful operation of foreign investment. It is plausible that a low level of development may

encourage poor countries to accept foreign investment and simultaneously discourage foreigners from investing. The level of development will be tested to determine if it has an overall positive or negative effect on foreign investment.

Third, the political economy of taxation policy presents a paradox. Taxation decreases revenue for foreign investment and thus discourages investment. However, taxation generates direct revenue for the government of the developing country. Most developing countries attract foreign investment by offering tax abatement; low or no taxation of profits, capital, sales, resource use or waste disposal; and low wages for labor. Herein lies the paradox: high taxation discourages foreign investment, low taxation decreases domestic revenue. The paradox poses a trade-off: decrease taxation in order to maximize the total level of investment but minimize the direct benefit of hosting that investment, or increase taxation causing a decrease in investment but an increase in benefits from that investment. Most scholars warn against taxes on corporate income in the competition for foreign investment (Gordon 1995). Others argue that the degree of access to markets, resources, and freedom from government intervention are more influential in the decision to invest than the amount of tax benefits, or subsidies, poor countries are able to offer foreign investors (Reich 1989). The level of taxation, such as tax rate and tax breaks, is a political decision made for economic reasons. It is included as a political economy variable in the analysis in order to clarify how the level of taxation affects foreign investment and the benefits gained from that investment.

The final political economy analysis examines the variation between distinct economic sectors in attracting foreign investment and generating domestic benefits from foreign investment. The interests of investors vary across economic sectors. As Jeffrey Leonard articulates, there has been "an increased presence of manufacturing and service corporations. Politically, this trend is likely to be extremely important. The interests of manufacturing companies are considerably different from those of the oil and mining companies" (1980). The four largest and most influential economic sectors in developing countries include manufacturing, agriculture, extractive and service. Foreign investment in these sectors is tested for its explanatory value in the promotion of domestic development.

Interactive Model

The interactive model designed for this research suggests that a government's ability to use international investment to promote domestic economic growth is contingent on the interaction effects of democratic institutions with foreign investors. The model posits that it is the interaction effects of specific variables, not solely the independent variables, which explain variation in the dependent variable. The existence of foreign investment alone is not a significant indicator of domestic growth. It requires the presence of specific institutional arrangements. In the basic model represented by the equation $Y = b_1 + b_2X + b_3Z + b_4XZ + b_0$, Y is affected by X, Z, and by the interaction between X and Z (XZ). The XZ interaction term tests for a different relationship between Y and X at each different value of Z (Aiken and West 1996). The relationship between the dependent variable and one of the independent variables is contingent upon that independent variable interacting with another independent variable. In sum, the capacity to use foreign investment for domestic growth is contingent upon the interaction of foreign investment with specific institutional arrangements. If foreign investment interacts with democratic and coherent institutions, it will strengthen its relationship to domestic growth.

Research Design

Pooled Cross-Sectional Time Series regression with panel-corrected standard errors is used as a systematic test of competing explanations. This serves as the most appropriate method to test the proposed relationships for two reasons. First, a large empirical model can more fully specify correlations between the relevant variables, statistically significant positive or negative effects, temporal and spatial variations, and the interaction effects between the variables. Second, correlation can be determined if the changes in the independent variables precede changes of the dependent variable. The Cross-National Time-Series regression tests data for 33 years, 1971-2003, for 141 developing countries. The data are compiled from the databases of Polity IV; World Bank: World Development Indicators and Governance Matters III; and United Nations Conference on Trade and Development: World Investment Report. The statistical analysis tests the explanatory value of three theoretical frameworks: Political Institutions, Political Economy, and the interactive model. The interaction effects are tested in conjunction with the independent effects of political institutions and political economy variables in order to calculate their statistical significance and explanatory value (Adjusted R-Squared).

Dependent Variables

The primary dependent variable is domestic economic growth. Economic development is a process. For the purpose of this research, economic development is operationalized as the level of *economic growth (growGDP)* measured by the annual change in Gross Domestic Product (GDP), per capita. The data for the dependent

variables are compiled from the World Bank database of World Development Indicators, cross-referenced with the UNCTAD World Investment Report.

Independent Variables

The central hypothesis of this research posits that foreign investment has a positive effect on economic growth in poor countries, under the conditions of democratic and effective government. The primary independent variable, foreign investment, is divided into two categories: 1) *foreign direct investment (fdi)*, capital gains such as factories and infrastructure, and 2) *portfolio investment (portfolio)*, such as money markets and fluid investments; the emphasis of the study, however, is on foreign direct investment.

Foreign direct investment, the focus of this research, is further specified as *net inflows (fdiinflow)* and *stock (fdistock)* to capture the dynamics of John Rothgeb and Volker Borschier findings that investment inflows have a positive short-term effect while investment stocks have a negative long-term effect on overall growth in poor countries (Rothgeb 1984, Borschier 1981). All foreign investment data used in this research are compiled from the World Bank databases of World Development Indicators and the UNCTAD World Investment Report.

Regime type (democ) is indicated by the level of democracy or authoritarianism as determined by the net democracy score in the Polity IV data set.

Government effectiveness (goveffect) is a measure developed and refined for the World Bank by Daniel Kaufman, Aart Kraay, and Massimo Mastruzzi. Government effectiveness is operationalized as the capacity to formulate and implement policy. The variable is further specified as an index of variables that represent the “inputs” required for governments to produce and implement good policies and deliver public goods (Kaufman, Kraay, and Mastruzzi 2004). A full explanation of the generation of the *government effectiveness* variable can be found in the World Bank publication “Governance Matters III.” available online at www.worldbank.org/wbi/governance/govdata2002/.

Political stability (stability) is measured as the duration of the regime in number of years, regardless of regime type. The data are compiled from the World Bank database of World Development Indicators and the UNCTAD World Investment Report.

Level of economic dependence (debt) is measured as the level of dependence on external funds, the sum of debt and foreign grants. The data are compiled from the World Bank databases of World Development Indicators and the UNCTAD World Investment Report.

Level of government intervention in the economy refers to trade “openness,” access to markets, level of regulation and restrictions on foreign investments. It is divided into two categories: 1) *domestic economic freedom (ecfree)*, which measures regulations on domestic production, consumption, and access to internal markets for foreign investors, and 2) *international economic freedom (open)*, which measures regulation of international trade. Data for this variable are found in the Index of Economic Freedom compiled by the Heritage Foundation.

Taxation policy (intnltax) is operationalized as permissive versus restrictive. Permissive indicates low levels of taxation on foreign investments, and restrictive indicates high levels of taxation. The data are recorded as dichotomous in the U.S. Department of Commerce, *Country Commercial Guides* written analysis of taxation policy: policies are reported to be “permissive” or “restrictive” in the descriptive reports. The data are compiled from the U.S. Department of Commerce, *Country Commercial Guides*.

Economic Sectors will include the “value added” of the manufacturing, service, extractive/natural resource, and agricultural sectors. Data for the “value added” of each sector are found in the World Bank databases of World Development Indicators and the UNCTAD World Investment Report.

Population (popmil) is included in the analysis as a control variable. It is measured as the population, in millions, according to the World Bank databases of World Development Indicators and cross-referenced with the UNCTAD World Investment Report.

Regression Equations

The following system of regression equations summarizes the empirical models and observable hypotheses to be tested:

$$(I) \text{ GrowGDP} = b_1 + b_2(\text{democ}) + b_3(\text{goveffect}) + b_4(\text{stability}) + b_5(\text{debt}) + b_6(\text{ecfree}) + b_7(\text{open}) + b_8(\text{intnltax}) + b_9(\text{fdiinflow}) + b_{10}(\text{fdistock}) + b_{11}(\text{portfolio}) + b_{12}(\text{manmil}) + b_{13}(\text{servmil}) + b_{14}(\text{agmil}) + b_{15}(\text{extract}) +$$

$$b_{16}(\text{popmil}) + e$$

$$\text{(II) GrowGDP} = b_1 + b_2(\text{democ}) + b_3(\text{goveffect}) + b_4(\text{stability}) + b_5(\text{debt}) + b_6(\text{ecfree}) + b_7(\text{open}) + b_8(\text{intlntax}) + b_9(\text{fdiinflow}) + b_{10}(\text{fdistock}) + b_{11}(\text{portfolio}) + b_{12}(\text{manmil}) + b_{13}(\text{servmil}) + b_{14}(\text{agmil}) + b_{15}(\text{extract}) + b_{16}(\text{popmil}) + b_{19}(\text{dxi}) + b_{20}(\text{cxi}) + e$$

Model Validity

Potential statistical problems and specific regression intricacies need to be anticipated, tested, and corrected. The major statistical considerations for this study include heteroskedasticity and autocorrelation. Regarding the first, heteroskedasticity, this study employs the Cook-Weisberg test with fitted values (which generates replacements for missing values) and the Breusch-Pagan test to identify heteroskedasticity. Both tests indicate significant and potentially problematic heteroskedasticity. The problem is corrected by incorporating Prais-Winsten regression analysis with panel corrected standard errors (PCSE). The PCSE correct groupwise heteroskedasticity in the error term, provide better coefficient estimates, and make the results of the analysis more robust.

Autocorrelation is another statistical consideration. Regressions are run for the suspect variables to determine their level of correlation to each other, independent of the full set of variables. The residuals show no clear visual evidence of autocorrelation, however, the more sophisticated Durbin-Watson statistic is large, which indicates the presence of autocorrelation. The Cochran-Orchutt procedure is used to identify the systematic elements of the errors and to revise the coefficient estimates until there is little evidence of systematic error. The remaining error is attributable to random variation and is considered white noise, with the exception of the variables corruption and political stability. Corruption and stability are too highly correlated for the errors to be corrected completely and, thus, one of the collinear variables must be eliminated from the regression equation. Corruption is eliminated from the analysis because it demonstrates less variation than political stability in the developing world.

Empirical Analysis of Foreign Investment

The data provide evidence that the total amount of foreign direct investment and portfolio investment is increasing worldwide, with five indicative trends. The most explicit trend is the dramatic increase of foreign direct investment over the past thirty years. Another notable trend is the relatively consistent growth pattern of foreign direct investment in contrast to the volatile pattern of portfolio investment. A third important trend is the substantial increase of foreign investment in Asia during the 1980s and 1990s, with a sharp decrease corresponding to the East Asian Economic Crisis in 1997 and a gradual increase indicating the current economic recovery. The fourth trend is the rise of international investment in Central Europe and Russia in the early 1990s after the fall of the former Soviet Union. The final distinctive trend is the comparative lack of foreign investment in Sub-Saharan Africa. The overall level of international investment in Sub-Saharan Africa is low and stagnate relative to other developing regions.

Variation in the amount of foreign investment can be explained, in part, by analyzing political and economic incentives or disincentives to invest. The key factors that affect the ability to attract foreign investment have been well researched. The most determinant factors include regime type, stability, regulations and restrictions, taxation, and purchasing power parity. Figure One (column one) summarizes the regression results of a combination of political and economic factors on the ability to attract foreign investment.

Democracy and political stability have positive, statistically significant effects on attracting foreign investment. The regime type variable *democracy* illustrates two important results: 1) democracy is desirable to investors, possibly attributable to political and economic trade alliances between democratic states, and 2) an increase in the democracy score (measuring level of consolidation) correlates with an increase in the level of investment, indicating that investors prefer to negotiate transactions and make investments in countries with higher levels of democracy.

Additional variables that have a positive effect on attracting investment include government effectiveness, international trade openness, the manufacturing and extractive sectors. This study adds to previous work regarding the attraction of foreign investment by including and testing the impact of political institutional characteristics and government effectiveness, which have positive statistically significant effects. This indicates that a high level of government capacity and political organization with coherent goals and strategies, decreases risk factors and projects a positive image to potential international investors. International trade openness also increases transparency, thus decreasing risk factors for investors, reduces barriers to investment, and is, logically, highly significant in attracting foreign investment. Specific economic sectors are also influential in attracting foreign investment. Most foreign investment is currently made in the manufacturing

and extractive sectors. A strong manufacturing sector or the availability of natural resources such as valuable minerals or fuel sources increases foreign investment.

The two variables in this study that have a negative effect on attracting foreign investment are domestic economic regulation and taxation. The presence of domestic restrictions or regulations on production and consumption discourages foreign investment. Restrictions on the use of fossil fuels and natural resources, the regulation of waste disposal, worker compensation, working conditions, and the level of taxation, all increase expenses for foreign investors and discourage the initial investment. However, making concessions in these areas increases the costs that governments absorb in order to attract foreign investment.

Foreign investment is the central focus of this research because it offers a source of revenue for developing countries. Thus, an increase in foreign investment provides the potential for host countries to increase their level of economic development. However, the data indicate that there is wide variation in the amount of economic development generated by hosting foreign investment. Government revenue serves as a representative and indicative example. Government revenue from foreign investment varies from less than one million dollars to \$826 million, with a mean of \$545 million. This wide variation in the revenue gained from foreign investment is not attributable solely to the variation in the amount of foreign investment. The variation in revenue from investment is disproportionate to and wider than the variation in the total amount of investment. Government revenue from foreign investment has a standard deviation of \$457 million. In comparison, the total amount of foreign investment has a standard deviation of \$105 million. The synopsis of these statistics is that the amount of government revenue gained from foreign investment varies much more widely than the total amount of foreign investment. To explain the discrepancy, this research has employed a more sophisticated Cross-Sectional Time Series (CSTS) analysis to test for interaction effects between variables.

Results and Interpretation

The results of the CSTS regression analysis provide evidence of positive, statistically significant interaction effects between the level of democracy and government effectiveness with foreign investment. The inclusion of these interaction effects substantially increases the explanatory value of the model. The results support the central argument that foreign direct investment interacts with regime type and institutions to promote, or to fail to promote, domestic growth. The CSTS regression model summarizes the effects of political institutions, political economy, and foreign investment on the level of domestic economic growth. The results indicate that specific independent variables from all three explanations have statistical support. However, the greatest increase in explanatory value is gained by including the interaction effects of democracy and government effectiveness with foreign investment. The regression results are summarized in *Table 1* and discussed in detail below.

Table 1: Regression of Institutions and Political Economy on Foreign Investment and the Interaction Effects on Economic Growth

Regressor	Coefficients		
	Independent Effects of Institutions & IPE on Foreign Investment	Interaction Effects of Institutions & IPE on GrowGDP	Institutions & IPE on Grow GDP
Regime Type: Democracy	54.26**	6.10*	9.40**
Government Effectiveness	10.14*	4.21**	2.82**
Political Stability	20.99*	6.48	11.15**
External Debt	-.026**	-.010	-.001
Domestic Economic Freedom	21.96*	8.72*	13.80**
International Econ Freedom	24.49**	6.23**	1.23**
Taxation of Foreign Investment	-31.73**	2.20*	2.20*
FDI Net Inflows	.002*	1.20**	
FDI Stock	.001	.090*	
Portfolio Investment	.001	.031*	
Interaction: Democracy x FDI	2.61*		
Interaction: Coherence x FDI	2.32**		
Economic Sector:			
Manufacturing	.004*	.001*	.001*
Extraction	12.44*	2.16*	3.81
Agriculture	.134*	.048	.005
Service	.035*	.007*	.001*
GDP Growth	.251*		
Control: Population	8.408**	.366	-.166
Constant	267.5*	160*	284*
Adjusted R-square	.598	.441	.647
Number of Cases	865	901	901

** Indicates statistically significance at the .01 level, two-tailed test.

* Indicates statistically significant at the .05 level, two-tailed test.

Results for the Political Institutions Explanation

The Political Institutions explanation suggests that specific variations in institutional development, such as democratic consolidation and government effectiveness in policy formation and implementation, affect the level of domestic economic growth. The regression results support several aspects of the political institution explanation. First, regime type is statistically significant at the .05 level with a *beta* of 6.10. The coefficient is positive, which indicates that a democratic regime type has a positive effect on using foreign investment to promote domestic economic development. This is attributable to democratic accountability and representation of a plurality of interests, as proposed in the theory section of this manuscript. Second, government effectiveness, measured as the capacity to formulate and implement policy, has a positive, statistically significant effect: *beta* 4.2, significant at the .01 level. This serves as evidence that deliberate government policy facilitates a substantial increase in the level of domestic growth. Consequently, developing countries need to focus on institutional consolidation, policy formulation and implementation in order to effectively utilize foreign investment as a strategy for generating domestic growth. Third, political stability also affects the capacity of governments to utilize foreign investment for domestic development. Political stability has a comparatively large *beta* of 6.48, significant at the .05 level. This indicates that for every year added to the stability and duration of the regime, the model predicts a US\$6.48 million increase in GDP growth in developing countries. With the interaction effects, in other words, a single unit of change in political stability is correlated with a six unit change in the capacity of governments to transform foreign investment into domestic growth.

Results for the Political Economy Explanation

The political economy explanation argues that economic factors determine the capacity of government to utilize foreign investment for domestic development. The empirical tests provide statistical support for the effects of most political economy variables. First, domestic government "management" of the economy has a statistically significant, positive effect on the overall level of growth. In the least developed countries, "management" of the economy is as basic as maintaining a functional market system: banking, financing, production and consumption. It does not indicate a centrally planned system of supply and demand, although it does indicate that some aspects of domestic production and allocation may be determined by political directive rather than private enterprise. Domestic economic freedom has a *beta* of 8.72 significant at the .05 level. This indicates that as the domestic economic freedom increases, the overall level of domestic economic growth increases. Second, international economic freedom, measured by the amount of barriers to international trade, has a strong positive effect with a *beta* of 6.23, significant at the .01 level. The absence of political restrictions on international trade also affects the initial attraction of foreign investment, as noted in the previous discussion of foreign investment, thus emphasizing the wide impact of the freedom to trade internationally.

The third political economy variable consists of domestic taxation of foreign investment assets and profits. The level of taxation has a positive effect on government revenue, which can promote GDP growth, but the effect is not statistically significant in the absence of effective government, reflecting the lack of capacity of poor governments to collect taxes from multinational firms. However, taxation has a statistically significant negative impact on the initial attraction of foreign investment (review Table 1). The economic trade-off is evident. The decision, however, is a political one: decrease taxation to attract an overall increase in foreign investment, but benefit less from that investment; or increase taxation, attract less overall foreign investment, but benefit more from that investment.

Fourth, another political economy variable that is not statistically significant is the level of dependence on external loans. This suggests that the level of debt to external financiers or large creditors does not determine the relationship between foreign investment and domestic growth. Debt has been shown in other studies to have a negative impact on growth, but not through the mechanisms that deter foreign direct investment.

Finally, the development or improvement of specific economic sectors, measured as *value added*, does provide an incentive for foreign investment and increases the level of overall economic development. For example, the existence of valuable minerals or sources of fuel leads to an increase in the potential profitability of the extractive sector, which provides an incentive to invest (review Table 1). The *value added* of specific economic sectors is a statistically significant determinant of domestic economic growth. Most developing countries demonstrate the existence of the four main economic sectors: manufacturing, extraction, agriculture, and service sectors. Variation between the sectors is found in the *value added* by year. The manufacturing, extractive, and service sectors are statistically significant at the .05 level. This demonstrates that an increase in the value added of one of these sectors affects the overall level of domestic economic development. The agricultural sector does not prove to be statistically significant, which suggests that an increase in foreign investment in the agricultural sector does not have a strong effect on the overall level of domestic economic growth.

Results for the Interactive Synthesis Explanation

The results of the empirical analysis provide evidence that the interactive effects are statistically significant and increase the explanatory value of the model. The interactions of democratic institutions and government effectiveness with foreign investment have a strong positive effect on the level of domestic economic growth.

The CSTS results summarized in *Table 1* illustrate the effects of political institutions, economic environment, and foreign investment on domestic growth. The results indicate that several of the variables increase in statistical significance with the addition of the interaction effects to the empirical model. First, the results suggest that regime type, stability, international economic freedom, and government effectiveness are statistically significant, in the absence of interaction effects. Without the interaction effects, statistical significance is weaker or not evident for the independent effects of political stability, external debt, and foreign investment. With the inclusion of interaction effects, foreign direct and portfolio investment and stability are statistically significant in explaining the changes in the level of growth. The results suggest that the overall level of foreign investment is not significant in level of domestic growth unless the foreign investment interacts with democratic institutions and coherent economic policy arrangements.

Second, the regression results suggest that the addition of interaction effects increases the explanatory value of the model from an Adjusted R-square of .441 to a more compelling Adjusted R-square of .647. This basically means that adding the interaction effects provides the model with evidence to explain 20 percent more of the actual relationship than the model without the interaction effects. Accordingly, excluding the interaction effects of regime type and government effectiveness with foreign investment is a theoretical mistake and an empirical misspecification of the model. This strongly supports the central argument that the benefits of hosting foreign

investment are contingent on democratic institutions.

The regression results also demonstrate that democracy has an independent, direct positive effect on growth, with a *beta* of 6.1 and statistically significant at the .05 level. However, the interaction effect of democracy with foreign investment is stronger than the independent effect. The interaction effect of democracy and foreign investment (*beta* 9.4) is statistically significant at the .01 level, which indicates that the empirical model is more accurately specified with the inclusion of the interaction effects.

A similar result is found for government effectiveness: the interaction effect of the variables is as important as the independent effects. The analysis shows that capacity to formulate and implement policy has a direct positive effect on growth, with a *beta* of 4.2 and statistically significant at the .01 level. Government effectiveness is also tested for an interaction effect, based on the theoretical proposition that policy design and foreign investment interact to affect development. The empirical analysis shows a strong positive interaction effect, with a *beta* of 4.8 and significance at the .01 level. The inclusion of the interaction effects in the empirical analysis is required for a properly specified model and considerable explanatory value. One of the most informative results is that the independent effect of the level of foreign investment, independent of the interactive effects of democratic development and government effectiveness, is not statistically significant. This indicates that the independent effects of foreign investment on development are not as consequential as the interactive effects. Basically, this means that the quantity of foreign investment is less important than the quality of the investment environment for domestic development. The quality of the investment environment is determined, in large part, by the institutions designed to effectively manage the use of foreign investment. The interaction coefficients for democracy and government effectiveness with foreign investment are, respectively, *beta* 2.61 and 2.32, statistically significant at the .01 level.

The final two variables, political stability and domestic autonomy, also increase in significance with the addition of the interaction effects. With the interaction, political stability has a *beta* of 11.15, quite substantial, and is significant at the .01 level. Without the interaction, political stability is not as significant in the utilization of foreign investment for development. However, political stability is consequential in the ability of developing countries to attract the initial investment. In previous research with this database, political stability has been shown to have a statistically significant effect on the overall level of foreign investment, which indirectly affects this model. In contrast, the level of autonomy has a direct positive effect. Autonomy from external forces increases government capacity to utilize foreign investment for domestic economic development. The significance of the relationship increases with the inclusion of the interaction effects.

Conclusion and Implications

In conclusion, the benefits of foreign investment for domestic development are not intrinsic, governments must work deliberately to establish beneficial investment arrangements. The gains are contingent on the interaction effects of foreign investment with democratic institutions and government effectiveness. Foreign investment in countries without democratic accountability or effective policy-making institutions, is premature. Most underdeveloped countries do not have the government capacity to negotiate mutually beneficial international investments. Thus, underdeveloped countries must first focus on institutional development in order to build the capacity to establish beneficial foreign investment arrangements to promote domestic growth. The results of this study contribute the following information to the larger debate regarding foreign investment and domestic economic development: The interaction effects of democratic institutions and government effectiveness with foreign investment are statistically significant, and inclusion of the interaction effects increases the explanatory value of the empirical model. Exclusion of the interaction effects commits the error of model misspecification and, thus, future models of international investment and domestic development need to incorporate the interaction effects.

Previous work has focused too heavily on how to attract foreign investment, and not on how to utilize it. The fallacy is that an increase in foreign investment translates directly into an increase in the level of domestic economic growth. The reality, however, is that developing countries exhibit wide variation in the capacity to gain benefits from hosting foreign investment. The results of this study provide evidence that the variation is not solely a function of the total amount of foreign investment. This research demonstrates the significance of deliberate institutional development, such as democratic accountability and policy implementation, to minimize the discrepancies between the amount of foreign investment and the amount of domestic growth gained from that investment.

The divergent interests of foreign investors and domestic governments has created an asymmetrical balance of benefits from foreign investment. The benefits can be brought closer to an equilibrium through interactions between international investments and domestic institutions, by way of mechanisms such as accountability, transparency, incentives and constraints, efficiency and policy effectiveness. This research concludes that in order to use foreign investment more effectively, developing countries must first focus on political institutional

design. Democratic development and effective policy-making institutions can increase the capacity of governments to utilize foreign investment to promote domestic economic growth.

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