Democratic Governance and Multinational Corporations: Political Regimes and Inflows of Foreign Direct Investment

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Foreign direct investment (FDI) is a key element of the global economy. FDI is an engine of employment, technological progress, productivity improvements, and ultimately economic growth. FDI provides both physical capital and employment possibilities that may not be available in the host market. More importantly, FDI is a mechanism of technology transfer between countries, particularly to the less-developed nations. Because of these significant benefits, attracting FDI has become one of the integral parts of economic development strategies in many countries.

Although few scholars dispute the aggregate economic benefits of FDI, critics argue that the benefits of multinational production come with substantial costs for governments and their citizens. The need to attract FDI pressures governments to provide a climate more hospitable to foreign corporations—potentially altering patterns of domestic economic policy, and possibly even challenging the de facto sovereignty of the nation-state and the capacity for democratic governance.[1] Democracy is often seen as an inefficient institutional structure in the global economy.

This article empirically assesses these predictions about the political preconditions for attracting FDI using both cross-sectional and panel regression analysis for 114 countries. The cross-sectional regressions estimate the effects of economic conditions, policy decisions, and democratic political institutions in the 1980s on the level of FDI inflows in the 1990s. In the panel regressions, I explore how

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1. Jessup 1999 argues that authoritarian regimes in developing countries attract more international investment. Oneal 1994 finds that authoritarian regimes provide investors with higher returns in developing countries, although overall investment flows are not related to regime type.

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changes in economic policies and political institutions affect changes in FDI inflows in the period from 1970–97. I then use a Heckman selection model to explore the robustness of the relationship between democratic governance and FDI. Lastly, I explore the causal link between democracy and FDI by empirically assessing the effects of democratic governance on country credibility. In this section I test the effects of democratic institutions on country sovereign debt ratings for seventy-nine countries from 1980 to 1998.

My results are inconsistent with the dire predictions regarding the effects of the competition for FDI on domestic politics. Democratic political institutions are associated with higher levels of FDI inflows. Democratic governments, even when controlling for other political and economic factors, attract as much as 70 percent more FDI as a percentage of GDP than their authoritarian counterparts. This result is robust under different model specifications and types of empirical tests.

The remainder of this article is organized as follows. The first section presents some descriptive statistics on FDI flows. The second section examines the existing work on the determinants of FDI flows and provides the theoretical links between economic policy, political institutions, and FDI inflows. The third section discusses the causal links between democracy and higher levels of FDI inflows. The fourth section provides a brief overview of the empirical tests used in this analysis. The following two sections construct empirical tests of the determinants of FDI flows, examining the levels of FDI using cross-sectional data (fifth section), and changes using panel data, including a Heckman selection model (sixth section). The seventh section examines the link between democracy and credibility by empirically examining the effects of democratic institutions on country sovereign debt ratings. The final section concludes.

Multinational Corporations and Domestic Economies

The focus of this work is on one of the most stable and economically important international capital flows—FDI.[2] FDIs are defined as private capital flows from a parent firm to a location outside of the parent firm's home nation. These investments consist of equity capital, intercompany debt, and reinvested earnings. An investment is considered FDI, as opposed to portfolio investment, if it is large enough to give the parent firm some amount of control over the management of the enterprise—usually more than 10 percent of the firm.[3] FDI, unlike portfolio investments, has long time horizons and is generally not done for speculative purposes, but rather to serve domestic markets, exploit natural resources, or provide platforms to serve world markets through exports.

2. See Lipsey 1999 for a discussion of the stability of FDI flows relative to other investment flows.
3. These are the statistical rules used by the International Monetary Fund (IMF). See IFC 1997, 9.

The importance of FDI to capital accumulation is large and growing. International capital flows have increasingly become dominated by flows of private capital. In 1990, 44 percent of all international capital flows were private. This rose to 85 percent in 1996, with FDI being the largest single type of capital flow.[4] FDI has outpaced international trade, growing at an average rate of 13 percent per year from 1980–97, as compared to an annual 7 percent growth rate for exports.[5] In 1998 alone, FDI flows increased 25 percent. A simple snapshot of FDI as a percentage of gross domestic investment, averaged for the 1980s, is presented in Table 1.[6] In the vast majority of countries, FDI accounts for a substantial amount of domestic investment.

These figures obscure an even more important element of FDI flows—the role of multinational production in transferring technology. The potential for technological transfer is obvious if one examines the characteristics of most multinational firms. "Multinationals tend to be important in industries and firms with four characteristics: high levels of research and development (R&D) relative to sales; a large share of professional and technical workers in their workforce; products that are new or technically complex; and high levels of product differentiation and advertising. These characteristics appear in many studies, and I have never seen any of them contradicted in any study."[7] Investments by these technologically advanced firms translate directly into growth-promoting technical advances for the host nation.[8]

Although the direct effects of FDI on capital accumulation and technological transfer are economically the most important, other economic and political effects of FDI should not be overlooked. FDI is often concentrated in export sectors, generating foreign exchange for the host nation. FDI is also a means of generating employment—both directly, through the foreign firm, and through the indirect effects on the economy, such as domestic industries emerging to compliment the new foreign firms.[9]

These material benefits of FDI force governments into a competition for scarce international capital. In this article I focus specifically on the relationship between democratic governance and FDI inflows. Drawing on the vast literature on the effects of democracy in interstate relations and democratic theory, I identify a num-

4. IFC 1997, 14.

5. Mallampally and Sauvant 1999.

6. Data are unweighted averages from the World Development Indicators 2000. Negative values represent disinvestment by multinationals.

7. Markusen 1995, 172.

8. Wang 1990; and Grossman and Helpman 1991 provide the theoretical foundation for this. Empirically, Luiz R. de Mello Jr. 1999 uses panel data for fifteen Organization for Economic Cooperation and Development (OECD) countries and seventeen non-OECD countries from the period 1970–90 and finds that FDI does increase growth, but the growth-enhancing effects are dependent on the level of technological backwardness. For the backward countries, FDI is more productive than domestic investment. A study by Barrel and Pain 1999 finds that for four industrialized European countries, a one-percentage increase in FDI increased technological progress by 0.18 percent.

9. See OECD 1995; and Markusen and Venables 1999.

TABLE 1. *FDI as a percentage of gross domestic investment*

St. Kitts and Nevis	55.56	Honduras	5.92	Turkey	2.09
Singapore	41.50	Senegal	5.79	Central African Rep.	2.05
Sierra Leone	37.87	Malawi	5.75	Mozambique	2.02
Trinidad and Tobago	28.11	Greece	5.33	Chad	1.97
Fiji	25.64	Paraguay	5.33	Iceland	1.95
Jamaica	23.40	Nicaragua	5.25	Lesotho	1.93
Seychelles	22.08	France	4.91	Syria	1.87
New Zealand	21.26	Colombia	4.82	Israel	1.76
Vanuatu	19.51	Argentina	4.72	Philippines	1.60
Ecuador	17.90	Thailand	4.65	Cameroon	1.46
Dominican Republic	16.32	Bolivia	4.43	Chile	1.44
Grenada	15.43	Namibia	4.34	Gambia	1.39
Belize	14.85	Venezuela	4.28	El Salvador	1.38
Panama	14.76	Indonesia	4.26	Guinea Bissau	1.37
Portugal	13.20	Denmark	4.18	Algeria	1.32
Malaysia	13.12	Tunisia	3.77	Sri Lanka	1.17
Netherlands	13.09	Mexico	3.75	Togo	0.92
Nigeria	12.52	Norway	3.74	South Korea	0.84
Costa Rica	11.73	Guinea	3.65	Poland	0.59
United Kingdom	11.72	Kenya	3.14	Burkina Faso	0.43
Ghana	11.70	Jordan	2.97	Rwanda	0.41
Spain	11.20	Egypt	2.95	India	0.34
Australia	10.17	Brazil	2.95	Burundi	0.30
Papua New Guinea	9.84	United States	2.90	Japan	0.19
Benin	8.89	China	2.83	Bulgaria	0.08
Cyprus	8.37	Pakistan	2.69	Bangladesh	0.05
Guatemala	8.33	Sweden	2.66	Zimbabwe	−0.39
Canada	8.11	Morocco	2.64	Mali	−0.63
Côte d'Ivoire	8.03	Mauritania	2.59	Congo	−0.71
Switzerland	7.69	Gabon	2.53	Iran	−1.05
Guyana	7.38	Italy	2.45	Comoros	−2.03
Madagascar	6.64	Finland	2.19	Peru	−2.85
Ireland	6.49	Austria	2.13	Zambia	−11.54
Mauritius	6.16				

Source: World Development Indicators 1998.

ber of causal mechanisms by which democracy has a positive effect on FDI inflows. Before examining the role of democracy on FDI inflows, I describe the economics of FDI.

Determinants of FDI

John Dunning's ownership, location, and internalization (OLI) framework is generally considered the paradigmatic theory of the multinational firm's investment decisions, where multinational enterprises (MNEs) invest internationally for rea-

sons of ownership, location, and internalization.[10] Firms have *ownership advantages* when they have access to some asset or process that provides some advantage over existing firms in the foreign market. These can be physical, for example patented products or production processes, or more intangible, such as global brand name recognition. Multinational firms invest abroad to exploit these firm-specific advantages in foreign markets and secure higher returns.

Firms may also be motivated to invest abroad because of *locational advantages*. Firms often invest in production facilities in foreign markets because transportation costs are too high to serve these markets through exports. This could either be directly related to the physical nature of the good, as with a high bulk item or a service that needs to be provided on site, or because of policy factors such as tariff rates, import restrictions, or issues of market access that make physical investment advantageous over serving the market through exports. The locational advantage could also be related to the actual endowments of the host location—either the richness of its natural resources or the high quality and low cost of its labor force.

The third and most complex factor is that of *internalization advantages*. Although the other two OLI factors highlight reasons why firms would move production to a foreign location, they do not give any reason as to why a firm would simply not license a foreign producer to make the item for the parent firm. A multinational could simply provide the technology needed for the production process and the blueprints for the product to a local firm. This concept of internalization advantages captures the firm-specific motivations for a firm choosing to produce the product within the organization itself in a foreign location.

Closely related to Dunning's work, other scholars have developed a number of theoretical models to explain firms' decisions to invest abroad. These models can be roughly classified as theories based on "vertical" firms, "horizontal" firms, and the "knowledge-capital model" of multinational firms.[11] Vertical firms separate production activities by the level of capital intensity, producing different goods and services at different physical locations.[12] Although these theories are important contributions to the understanding of multinationals' investment decisions, theories based on vertical multinationals have failed to account for the existence of firms replicating the production of the same goods and services in different physical locations.

Markusen explained this pattern of replicating production by creating a model of "horizontal" firms with firm-level economies of scale that integrate horizontally across national borders.[13] These horizontal models have been integrated,

10. Dunning 1981. For an interesting discussion on the OLI framework and recent work done in relation to it, see Markusen 1995.

11. See Markusen and Maskus 1999a and 1999b.

12. Helpman 1984.

13. Markusen 1984. For a review of recent contributions to this literature, see Markusen and Maskus 1999a.

along with the existing vertical models of multinational firms, into Markusen's "knowledge-capital model."[14] In this model, multinational firms can produce the same product or service in multiple locations (horizontal) or can geographically separate the firm's headquarters from the production location (vertical).

Although the OLI framework and the horizontal/vertical/knowledge-capital models of multinationals all remain strong tools for understanding the motivations for MNEs' investment decisions, they still do not go far enough in answering one of the more important questions of international development: Which countries attract FDI? FDI remains a firm-level decision, but countries have differed in their abilities to attract it. The question remains, what are these country-specific factors that affect FDI inflows?

In this article I argue that once a multinational has invested in a foreign market, disinvestment of physical assets is costly. Multinationals face tremendous political risks. Governments may change policy after the multinational has invested, adversely affecting the profitability of the investment. These political risks can be a major factor in a multinational's decision to invest in a foreign market.

Political regimes that lower political risks will attract multinationals by decreasing the costs of internalizing production. In systems with lower levels of political risk, multinationals will invest via FDI. In systems with higher levels of political risk, multinationals will be wary of entering a foreign market, and either avoid the market or establish a contractual relationship with a domestic firm. Thus political regimes that have effects on political risk will affect the entry of multinational corporations into these systems. The following section discusses how democratic political institutions can lower these political risks, leading democratic political systems to attract higher levels of FDI.

Democracy and FDI

The debate on the relationship between political institutions and economic performance has generally been framed in terms of democracy and economic growth. Scholars such as North, and North and Weingast have stressed that ensuring property rights is a central element of economic development.[15] For Olson, this leads to democracies growing at faster rates than authoritarian regimes.[16] Olson argues that autocrats, being predatory, cannot credibly commit to ensuring property rights protection.

Although many of the classic works in political science have argued that democracy has a positive impact on economic growth, a number of dissenting contributions are notable. Huntington's famous work stresses that democracy leads to

14. Markusen 1997.
15. See North 1990; and North and Weingast 1989.
16. Olson 1991.

higher demands for current consumption.[17] More recently, work by Przeworski and Limongi has argued that this relationship is more complex than once thought.[18] In an impressive statistical analysis, Przeworski, Alvarez, Cheibub, and Limongi find that there is no difference between the growth rates of democratic and authoritarian regimes.[19]

These theories on the effects of democracy on macroeconomic performance are relatively divergent with the literature on multinational investors and political regimes. The conventional wisdom is that multinationals prefer to invest in authoritarian regimes. Authoritarian leaders can provide multinational firms with better entry deals, because of the lack of popular pressure from below, and the repression of labor unions to drive down wages. This relationship leads to higher levels of FDI inflows to authoritarian countries.

The second of these arguments, on the role of authoritarian regimes in providing a lower-cost workforce, does have some support in the literature.[20] The real question is, does this translate into higher levels of FDI inflows? Most scholars studying FDI argue that the impact of low wages has been overemphasized as a determinant of FDI, and that the wage rate is just one of many decision factors for multinational firms.[21] I will argue later that the impact of lower wages is offset by the positive impact of democratic institutions for multinationals.

The other argument, on the role of authoritarian regimes in bargaining with firms, has also been greatly exaggerated. Most scholars assume that the lack of constraints for authoritarian regimes leads to a more generous situation for multinationals. As Putnam argues, the logic of a two-level game provides both constraints and leverage to political leaders.[22] Although the democratic constraints imposed on leaders may limit the amount of discretion in offering deals to multinationals, this lack of discretion can also provide benefits to multinational firms.

More specifically, most scholars fail to consider the possibility that the constraints imposed on political leaders within democratic systems could translate into a beneficial situation for MNEs. I argue that these constraints lead to higher levels of policy stability and more favorable policies toward multinationals.

The extensive and growing literature on the democratic peace in international relations argues that political regimes influence relationships between nation-states. This literature is helpful in understanding the potential benefits of democratic governance structures for foreign investors. Beyond the obvious benefits of democratic states avoiding conflict with other democracies and winning the conflicts in which they engage authoritarian states, multinationals may have other rea-

17. Huntington 1968.
18. Przeworski and Limongi 1993. See also Barro 1996.
19. For a review of the literature, see Przeworski and Limongi 1997; and Przeworski et al. 2000.
20. Rodrik 1999.
21. Markusen 1995.
22. Putnam 1988.

sons to prefer investing in democracies.[23] If democratic political institutions allow higher levels of cooperation between states, they may also allow for higher levels of cooperation between states and multinational corporations. In this article I highlight two mechanisms through which democratic institutions could attract higher levels of FDI inflows.

The main advantage of democratic institutions to multinational investors is credibility. FDI, while mobile *ex ante*, is relatively illiquid *ex post*.[24] Once foreign capital is invested in a country, the firm is subject to policy change or reversal by the central government. Once multinational investments have been made, there are considerable political risks in the investment.

These political risks come in a number of forms. The most obvious political risks, nationalization and expropriation, involve the loss of ownership by multinationals of their investments—but are now relatively uncommon. Even with the decreasing incidences of nationalization, multinationals still face considerable political risks in terms of the expropriation of revenue streams.[25] Governments can renegotiate tax rates, depreciations schedules, tariff rates, and a host of other policies that directly affect multinational operations. Other indirect factors, such as the imposing of capital controls, devaluations, or other macroeconomic decisions not targeted specifically at multinational firms, but affecting the profitability of the investment, are also important. Multinational corporations are attracted to governments that can help minimize these political risks.

Democratic institutions can be a mechanism by which to decrease these political risks. Democratic governments have been found to be more credible in making agreements in the international arena.[26] Explanations for this range from the institutional checks and balances within democratic systems to the "audience costs" generated by elected leaders. Logically following from this large literature, democratic governments may also be more credible in their direct dealings with multinationals.

One specific mechanism that leads democratic governments to higher levels of credibility is based on the number of veto players in a democratic political system. George Tsebelis argues that the existence of these veto players can increase policy stability. These veto players can include chambers of the legislature, a supreme court, separation of the executive and legislative branches of government, or federal actors.[27] Henisz argues that foreign firms change their entrance strategies into domestic markets conditional on the number of veto players.[28] Democratic governments have these institutional constraints in place, which may help

23. Bruce Russett pioneered a large part of the literature on the democratic peace. See Russett and Oneal 2001 for a review of the literature and a number of relevant empirical tests. Perhaps most relevant for this study, Russett and Oneal 2001, chap. 6 find that democracies are more likely to trade with other democracies.

24. Vernon 1971.

25. This is often referred to as "creeping expropriation."

26. See Cowhey 1993; Fearon 1994; Gaubatz 1996; McGillivray and Smith 1998; and Leeds 1999.

27. Tsebelis 1995.

28. Henisz 2000.

ensure their credibility by making the possibility of policy reversal more difficult. Multinationals that enter foreign markets can be reasonably confident that the government policies in place when the firm entered the country will continue over time.

A second potential reason for the credibility of democratic systems, more strongly supported than the veto player argument, can be found in the audience cost literature. While the veto players in a political system generate higher levels of policy stability, an even more important component of credibility is a government's commitment to market friendly policies in the future. International relations theories find that democratic leaders are held accountable for their actions, including reneging on a promise or threat. These audience costs can also be important for multinational investors. If governments make agreements with multinational firms and renege on the contracts after the investment has been made, democratic leaders may suffer electoral costs. The potential for these electoral backlashes may constrain democratic leaders.

In a recent article, McGillivray and Smith argue that political leaders play an "Agent Specific Grimm Trigger Strategy," in which political leaders in one country refuse to cooperate with other political leaders that have "defected" in the past.[29] Multinationals can also play this strategy with governments that institute legislation or reverse policy in ways that negatively affect multinational corporations. Essentially, firms can hold individual leaders politically accountable for policy, and refuse to cooperate (invest) in the future. In democracies, citizens have the incentive and the opportunity to replace leaders with tarnished reputations through electoral mechanisms. Thus the leadership turnover in democratic systems (or the potential for leadership turnover) can be associated with more market-friendly policies for multinationals.

This argument on the role of leadership turnover in ensuring more market-friendly policies obviously ignores the potential political benefits of expropriation for leaders. In both democratic and authoritarian countries, there may be some immediate benefits to "expropriation."[30] Political leaders may use the assets or income streams from policy changes to essentially "buy off" key support groups. My argument is that this holds for both authoritarian and democratic systems. In both types of regime, political leaders have a key support group, the "selectorate," that must be appeased for political survival.[31] There is little reason to believe that democratic regimes are more likely to expropriate than authoritarian regimes.

This complex interplay between individual political leaders and international capital markets permeates domestic politics in many countries. The relationship

29. McGillivray and Smith 2000.

30. For an interesting discussion of expropriation, see Thomas and Worrall 1994.

31. See Bueno de Mesquita et al. 1999. The most logical extension of their theory would be that expropriation would be more likely in systems with smaller selectorates (authoritarian regimes). In systems with large selectorates (democracies) political leaders would have to spread the benefits of expropriation over a larger percentage of the citizenry, a making expropriation a less viable option.

between Brazilian presidential candidate Luiz Inácio da Silva and the Brazilian stock and bond markets is just one of many illustrative examples. After the announcement that da Silva and his left-wing Workers' Party had overtaken President Cardoso for the lead in the 2002 presidential elections, stock and bond markets tumbled. Cardoso stressed that voting da Silva into power would ruin Brazil's image in the eyes of the international financial community. To calm international markets, da Silva made pledges to the international community on his future policies, making assurances that his policies would be market-friendly. This is just one of many examples of the effects of international capital markets both on domestic politics and on individual politicians' electoral fortunes. The big question is if elections, or democratic institutions generally, constrain political leaders.

This complex relationship, given the potential costs and benefits of democratic institutions to multinationals, calls for a serious empirical study to discover the aggregate relationship between political regimes and domestic governments. Unfortunately, few empirical studies have examined the relationship between democratic political institutions and FDI flows. The empirical work that directly explores this issue, while thin, finds either that FDI flows are not responsive to political regimes or that democratic political institutions are associated with lower levels of FDI inflows.[32] These studies suffer from serious empirical flaws that I examine more closely in the empirical section of this article.

The next section of this article first examines if there is a general positive relationship between democratic governments and higher levels of FDI inflows. The seventh section comes back to the issue of credibility and examines the effects of democratic institutions on country sovereign debt ratings. My empirical results show that democratic systems are associated with higher country credit ratings.

Empirical Tests—Overview

In this article I explore the relationship between FDI and democracy in four sets of empirical tests. The first set of tests estimates the effects of democratic institutions on FDI inflows in a cross-section of countries in the 1990s. These tests examine the general relationship and the robustness of the findings on the effects of democracy on FDI inflows. The second set tests the relationship by using a time-series cross-sectional analysis of more than 100 countries for almost thirty years.[33] The third set of empirical tests employs a Heckman selection model to further examine the robustness of the relationship. The final set examines the causal mechanism linking democracy and FDI by examining the effects of democratic institu-

32. See Oneal 1994; Alesina and Dollar 1998; and Jessup 1999.

33. For presentational reasons I only include the fixed-effects results. All results are the same in both the random and fixed-effects regressions unless noted.

tions on sovereign debt ratings. The first three tests confirm the hypothesis that democratic institutions are associated with higher levels of FDI inflows, and the final test highlights the link between democracy and credibility.

Empirical Analysis—Cross-Sectional Results

The first set of tests is a cross-sectional ordinary least squares (OLS) regression for 79 countries using White's correction for heteroscedasticity on the determinants of FDI.[34] To mitigate problems of reverse causality, all independent variables are lagged, either using averages for the 1980s for most of the economic variables, or a 1990 measure for most of the political variables.

The cross-sectional regression equation is:

$$\text{NET FDI INFLOWS}_{1990-97} = \alpha + \beta_i(\text{INDEPENDENT VARIABLES}_{1980-89}) + \varepsilon_i$$

The dependent variable, the average net FDI inflows as a percentage of GDP from 1990–97, is taken from the World Bank's World Development Indicators 1999. Net FDI inflows should not be confused with overall net FDI flows. Net FDI flows are total FDI inflows of foreign capital minus total FDI outflows of domestic capital. The theoretical work cited in this article only makes reference to a country's ability to attract foreign capital, not to the policies or institutions that influence domestic investors to move capital abroad. The dependent variable, net FDI inflows, is a measure of the change in the position of foreign investors in a country. A country with a positive FDI inflow position is attracting new FDI investment, while a country with a negative position is experiencing an outflow of foreign capital. This net inflows measure of FDI is the best measure to examine a country's ability to attract FDI.

The econometric work on FDI inflows in the economics literature provides a baseline model with which to begin exploration of the political determinants of FDI flows. These studies find that market size, investment and trade costs, and the relative skilled labor abundance of the parent country are all important factors.[35]

Unfortunately, data limitations for a number of developing countries constrain the possible empirical tests. Dyadic FDI figures—information on the country source and country destination of FDI—are generally not available for most developing countries. Given this limitation, I include economic control variables that are grounded in existing economic and business school theories, including: DEVELOP-

34. Transition economies are not included in this sample.
35. See Markusen 1998a and 1998b; and Markusen and Maskus 1999a and 1999b.

MENT LEVEL, TRADE, and MARKET SIZE.[36] Trade is measured as exports plus imports divided by GDP. Level of development is measured as the log of GDP per capita, and market size is the log of GDP. Both of these variables, and trade as a percentage of GDP, are expected to have a positive effect on FDI inflows.

To test and examine the effects of political regime type on FDI inflows, I use a standard measure of democracy. The variable used in these regressions, DEMOCRACY, is a measure of political regime averages for 1990 from the Polity III data set by Jaggers and Gurr.[37] This variable provides an ordinal ranking of political regimes on a scale of 10 to −10 (democracy to authoritarian regimes), which I have rescaled to a 0–20 scale for easier interpretation. A 20 constitutes the highest democracy score.[38]

I have also included control variables for the level of NATURAL RESOURCE DEPENDENCE and the rate of ECONOMIC GROWTH. Natural resources are exogenous economic factors that may help a country attract higher levels of FDI that are independent of political institutions and government policies.[39] Economic growth rates have an effect on the domestic market, such that countries with expanding domestic markets should attract higher levels of FDI.

The failure to control for natural resources in previous studies could account for the perceived negative relationship between democracy and FDI inflows. A number of scholars have highlighted the positive correlation between natural resource-dependent economies and authoritarian regimes.[40] If natural resources are correlated with authoritarian regimes, and natural resources are likewise correlated with higher FDI, any empirical study may find a spurious causation between authoritarian regimes and higher FDI inflows. Only by properly controlling for the level of natural resources can one examine the true effects of democracy on FDI.[41]

Another important control variable is the level of GOVERNMENT CONSUMPTION, because the level of government consumption is possibly correlated with the type of political regime. This variable is of interest beyond the status of control variable. While economists have found negative effects of government intervention

36. All control variables are from the World Bank's World Development Indicators 1999 unless otherwise noted.

37. Jaggers and Gurr 1998. Given the democratizations in the 1990s, the 1990 measure of democracy is a more representative measure of political institutions during the period of FDI investment (the 1990s). As an alternative specification, I also tested all models with the average level of democracy in the 1980s. These results were slightly weaker.

38. The correlation between the Polity III democracy measure and the Alvarez et al. 1996 democracy score is 0.92.

39. Natural resources are operationalized as primary exports as a percentage of gross domestic product (GDP) from Sachs and Warner 1995.

40. For some examples of the effects of natural resources on political institutions, see Wantchekon 2000; and Ross 2000. For an application to Africa, see Wantchekon and Jensen 2000.

41. The panel analysis in the next section will more directly test the effects of democracy on individual countries by utilizing fixed-effects regressions.

on economic growth rates,[42] little work has been done on the size of government and FDI. Proponents of the 'race to the bottom' thesis argue that governments in a world of capital mobility are forced to roll back the state and limit intervention into the economy to a minimum.[43] More recent scholarship on new growth theory has stressed the potential positive role of governments in providing public goods that are undersupplied by the market, which will have positive effects on macroeconomic performance.[44] To test this, I employ the variable GOVERNMENT CONSUMPTION from the World Bank's World Development Indicators 1999, which is the average general government consumption as a percentage of GDP for 1980–90. The prediction that stems from both the theoretical work of neoclassical economics and the empirical work on economic growth suggests that government consumption should have a negative effect on FDI inflows.[45]

Most literature on international financial transactions highlights the negative effects of government deficits on macroeconomic performance. High deficits have been linked to poorer long-run economic performance, and also have immediate negative effects on interest rates and exchange rates. In international capital markets, budget deficits can be financed by inflows of foreign capital. FDI flows may be attracted to countries with high budget deficits. I control for this by using BUDGET DEFICIT, overall general government deficit as a percentage of GDP averaged for the period 1980–90.[46]

The role of human capital in macroeconomic performance has recently gained tremendous attention from economists and political scientists. The concept of human capital has become a buzzword in the economics literature, linking higher levels of human capital to higher growth rates and directly to higher levels of FDI.[47] I have employed the Barro and Lee measure for HUMAN CAPITAL, which is defined as the average number of years of school of the workforce for the 1980s.[48] The clear prediction is that higher levels of human capital should have a positive effect on a nation's ability to attract FDI.

Controls on inflows and outflows of foreign capital can have dramatic effects on FDI inflows. Countries with controls on inflows may seriously limit the aggregate amount of FDI inflows. Countries with controls on outflows of retained earnings of foreign firms could potentially increase FDI inflows through these added retained earnings, and potentially decrease the attractiveness of investments in the country. The measure of controls on FDI inflows, FDI INFLOWS CONTROLS, is taken

42. Barro 1996.
43. See Garrett 1998 for a review of the literature.
44. See Lucas 1988; Romer 1990; and Barro 1990.
45. Jensen 2002 argues that there are important theoretical reasons why the levels of government consumption (and taxation) would not be directly related to FDI inflows.
46. All empirical results on democracy are generally unchanged when this variable is dropped.
47. Mankiw, Romer, and Weil 1992.
48. Barro and Lee 1993.

TABLE 2. *The economic and political determinants of FDI (cross-section)*

Variables	*Model 1*	*Model 2*	*Model 3*	*Model 4*
MARKET SIZE	0.200	0.183	0.268*	0.259
	(1.463)	(1.198)	(1.705)	(1.629)
DEVELOPMENT LEVEL	0.088	−0.124	−0.358	−0.336
	(0.351)	(−0.340)	(−0.945)	(−0.874)
GROWTH	−0.2857***	−0.266**	−0.321***	−0.317***
	(−2.857)	(−2.465)	(−3.243)	(−3.176)
TRADE	0.030***	0.031***	0.034***	0.034***
	(7.151)	(6.673)	(10.048)	(8.883)
NATURAL RESOURCES	6.623***	6.365***	5.217***	5.234***
	(3.114)	(2.792)	(2.701)	(2.731)
GOVERNMENT CONSUMPTION	−0.076**	−0.091***	−0.044	−0.043
	(−2.441)	(−2.797)	(−1.189)	(−1.145)
BUDGET DEFICIT	−0.116**	−0.125**	−0.117**	−0.118**
	(−2.111)	(−2.267)	(−2.428)	(−2.399)
DEMOCRACY	0.057**	0.053*	0.060**	0.100
	(2.208)	(1.902)	(2.156)	(0.804)
HUMAN CAPITAL		0.149	0.203*	0.205*
		(1.289)	(1.893)	(1.880)
DEMOCRACY SQUARED				−0.002
				(−0.339)
FDI INFLOWS CONTROLS			−1.839***	−1.798***
			(−3.597)	(−3.357)
Constant	−6.857**	−5.305	−6.316**	−6.374***
	(−2.500)	(−1.511)	(−2.014)	(−2.014)
N	78	71	68	68
R^2	0.68	0.70	0.75	0.75

Note: All regressions are ordinary least squares (OLS) cross-sectional regressions using net FDI inflows as a percentage of GDP averaged from 1990–98 as the dependent variable.
***$p < .01$, **$p < .05$, *$p < .10$.

from Brune, Garrett, and Guisinger.[49] This variable is a dichotomous measure of controls on FDI inflows that codes countries with no controls as 1 and countries with controls as 0.

The OLS empirical results are presented in Table 2, where the first number refers to the coefficient and the second to the T-statistic. The core econometric model from column 1 supports much of the theoretical work done on FDI and on economic growth more generally. Trade is a complement to FDI, such that countries tending to be more open to trade attract higher levels of FDI. This could be a direct causation, or there is a possibility that other latent factors that increase a country's ability to export products overseas and its ability to attract FDI are present, such as a country's policy toward trade and FDI, could be linked. Not surpris-

49. Brune, Garrett, and Guisinger 2001.

ingly, countries with higher levels of natural resources also attract higher levels of FDI flows.

In this analysis, government consumption has a large negative effect on a country's ability to attract FDI, consistent with other works that find it to have a negative effect on economic growth.[50] This result is only statistically significant in the first two models. The empirical result on the effects of budget deficits on FDI performance confirms the previous hypothesis. Countries with higher budget deficits (large negative numbers in the data) attract higher levels of FDI.

Surprisingly, DEVELOPMENT LEVEL seems to have no consistent statistically significant effect, which can be interpreted as finding that international capital, even when other domestic factors are controlled for, does not flow from the rich countries to the poorer countries of the world. Much of the work on economic growth done by Robert Barro argues for 'conditional convergence'—that when domestic factors are controlled for, the less-developed countries grow at faster rates than more-developed countries.[51] This empirical finding highlights one microfoundational flaw in this argument, where growth-promoting FDI flows are not attracted at any higher rate to the developing countries than the developed countries.

This result for economic growth is the opposite of what most of the economic literature would expect. Countries with higher levels of economic growth generally attract lower levels of FDI. A number of potential theories could explain this result, but the most obvious would be the 'scaling effect' mentioned earlier, where countries that have growth rates exceeding the growth in FDI have a decrease in FDI as a percentage of GDP. Another alternative explanation would attribute this result to business cycles, specifically in that during the 1980s (the period of the independent variables), a number of the industrialized countries were in recession. I find evidence for this business cycle explanation in the fourth section using panel analysis.

Models (3) and (4) include the measure of capital controls on FDI inflows. Countries are coded as a 1 if there are no controls on FDI inflows, and a 0 if there are controls. Although the addition of this variable as a control has no significant effect on the other variables, the result is interesting in itself. Countries with restrictions on FDI inflows actually attract higher levels of FDI inflows than countries with no FDI restrictions. This is not to say that capital controls have the opposite effect to which they are intended, but rather that there are a number of serious selection issues. Simply put, countries that will not attract FDI flows will not employ capital controls, while countries that attract high levels of FDI may find a political or economic need to control these inflows.

The empirical results in Table 2 provide solid evidence of the positive effect of democracy on FDI inflows. There is an obvious linear positive relationship be-

50. Barro 1990.

51. The basis of the concept of convergence comes from Solow 1956. See Barro 1996 for a discussion of conditional convergence and empirical results.

tween democracy and a country's ability to attract FDI. This result is robust both under different model specifications and even a different measure of democracy.[52]

The substantive effects of different levels of democracy on FDI inflows are large. Countries that move from one standard deviation below the mean to the mean level of democracy—a change in democracy score from 3.03 to 10.9—increase FDI inflows an added 0.47 percent of GDP. A move to full democracy level mean would increase FDI as a percentage of GDP by 1.2 percent. The magnitude of these swings is quite remarkable, where the average level of FDI for the sample is 1.96 percent of GDP. A move from an authoritarian regime to a democratic regime increases FDI inflows by 60 percent.

These positive results on the effects of democracy on FDI inflows remain extremely robust under multiple specifications. To test the robustness of the democracy result, I have included a number of variables from the William Easterly Data set, including GOVERNMENT REPUTATION, EXPROPRIATION, CORRUPTION, RULE OF LAW, and BUREAUCRATIC QUALITY.[53] The empirical results are reported in Table 3. None of these variables had any significant effect on the democracy variable's standard error or coefficient.

Time-Series Cross-Sectional Results

Cross-sectional empirical analysis is often criticized for its static nature. To explore how domestic variables affect FDI inflows over time, I have constructed a time-series cross-sectional data set for 114 countries from 1970 to 1997. The methodology employed is an OLS regression with panel-corrected standard errors as recommended by Beck and Katz.[54] All regressions were run with both random and fixed effects and with decade dummies. For presentational and theoretical reasons, I include only the fixed-effects regressions in the final tables. All estimates are consistent between the random and fixed-effects regressions unless noted. The unit of observation for the dependent variable is annual FDI inflows as a percentage of GDP, as defined earlier. The independent variables GROWTH, DEVELOPMENT LEVEL, MARKET SIZE, TRADE, GOVERNMENT CONSUMPTION, BUDGET DEFICITS, and DEMOCRACY are the same as used in earlier regressions. I have also included two measures of capital controls from Brune, Garrett, and Guisinger.[55] Overall capital controls is a 9-point measure of the controls on inflows and outflows of capital, where a country is coded as a 9 if there are no controls on any capital flows. FDI INFLOWS is the same variable used in the earlier regressions. All

52. The empirical results are essentially unchanged under different measures of democracy. See Table 6.
53. Easterly 1999.
54. Beck and Katz 1995.
55. Brune, Garrett, and Guisinger 2001.

TABLE 3. *Robustness of democracy and FDI (cross-section)*

Variables	*Model 5*	*Model 6*	*Model 7*	*Model 8*	*Model 9*
MARKET SIZE	0.243	0.246	0.185	0.260	0.219
	(1.445)	(1.521)	(1.162)	(1.514)	(1.344)
DEVELOPMENT LEVEL	−0.271	−0.173	0.160	−0.135	0.033
	(−0.764)	(−0.493)	(0.517)	(−0.389)	(0.117)
GROWTH	−0.361***	−0.338***	−0.277***	−0.307***	−0.293***
	(−3.561)	(−3.329)	(−3.205)	(−3.296)	(−3.149)
TRADE	0.033***	0.034***	0.033***	0.034***	0.033***
	(11.363)	(11.389)	(10.886)	(11.053)	(11.139)
NATURAL RESOURCES	5.861***	6.130***	6.025***	6.255***	6.137***
	(3.352)	(3.382)	(3.171)	(3.208)	(3.100)
GOVERNMENT CONSUMPTION	−0.040**	−0.042	−0.257	−0.038	−0.036
	(−1.134)	(−1.167)	(−0.734)	(−1.043)	(−0.916)
BUDGET DEFICIT	−0.114**	−0.111**	−0.112**	−0.120**	−0.115**
	(−2.523)	(−2.413)	(−2.430)	(−2.493)	(−2.329)
DEMOCRACY	0.076***	0.068***	0.084***	0.080***	0.080***
	(3.536)	(2.922)	(3.669)	(3.488)	(3.454)
GOVERNMENT REPUTATION	0.198				
	(1.552)				
EXPROPRIATION		0.165			
		(1.210)			
CORRUPTION			−0.159		
			(−1.288)		
RULE OF LAW				0.106	
				(0.836)	
BUREAUCRATIC QUALITY					−0.017
					(−0.128)
FDI INFLOWS CONTROLS	−1.816***	−1.918***	−1.840***	−1.813***	−1.841***
	(−3.943)	(−3.643)	(−3.504)	(−3.583)	(−3.579)
N	69	69	69	69	69
R^2	0.76	0.76	0.76	0.75	0.75

Note: All regressions are ordinary least squares (OLS) cross-sectional regressions using net FDI inflows as a percentage of GDP averaged from 1990–98 as the dependent variable.
***$p < .01$, **$p < .05$, *$p < .10$.

independent variables are lagged one year, and I have included a lagged dependent variable.[56] The time-series cross-sectional econometric equation is:

$$\text{NET FDI INFLOWS}_t = \text{FDI}_{t-1} + \beta_i(\text{INDEPENDENT VARIABLES}_{t-1}) + \varepsilon_i$$

The empirical results presented in Table 4 support many of the findings from the cross-section regressions earlier. Not surprisingly, in these fixed-effects mod-

56. I have also tested this result without a lagged dependent variable, but with AR1 correlations. The results are essentially unchanged.

TABLE 4. *Panel analysis*

Variables	*Model 10*	*Model 11*	*Model 12*
LAGGED FDI	0.364***	0.358***	0.361***
	(5.059)	(4.952)	(5.006)
MARKET SIZE	−0.554	−0.206	−0.516
	(−1.236)	(−0.438)	(−1.121)
DEVELOPMENT LEVEL	0.834*	0.419	0.803*
	(1.868)	(0.886)	(1.762)
GROWTH	0.024***	0.024***	0.024***
	(2.961)	(2.897)	(2.867)
TRADE	0.006	0.006	0.006
	(1.249)	(1.402)	(1.330)
BUDGET DEFICIT	−0.023**	−0.024**	−0.024**
	(−2.187)	(−2.272)	(−2.261)
GOVERNMENT CONSUMPTION	−0.039**	−0.041**	−0.042**
	(−2.357)	(−2.444)	(−2.508)
CAPITAL CONTROLS		0.054**	
		(2.441)	
FDI INFLOWS CONTROLS			0.002
			(0.014)
DEMOCRACY	0.021***	0.021***	0.019**
	(2.606)	(2.358)	(2.224)
Time dummies	Yes	Yes	Yes
Country dummies	Yes	Yes	Yes
Observations	1630	1609	1609
Countries	114	113	113
R^2	0.72	0.72	0.72

Note: All regressions are ordinary least squares (OLS) regressions using annual net FDI inflows as a percentage of GDP as the dependent variable.
***$p < .01$, **$p < .05$, *$p < .10$.

els, trade is no longer statistically significant.[57] The level of development, when other factors are controlled for, has no statistically significant effects in most models.

The picture of economic growth has also changed dramatically from the cross-sectional regressions. Growth is highly significant and positively associated with higher levels of FDI as a percentage of GDP. The difference between this result and the cross-sectional results earlier is most likely attributable to business cycles. When a longer time period is included, it becomes obvious that countries with higher growth rates attract higher levels of FDI.

Interestingly, government consumption is highly statistically significant in the fixed-effects models, but only slightly significant in random-effects models. In other words, increases in government consumption have a negative effect on FDI inflows

57. Given the stability of international trade as a percentage of GDP over time, this result is not surprising. Trade is a positive and highly statistically significant determinant of FDI inflows in the random-effects models.

within a country, but the effect of levels of government consumption is not nearly as strong across countries. The interpretation of this result is that while governments are constrained in their spending, there are other unmeasured compensating factors that allow some countries to have higher levels of government consumption than others.[58] Any further analysis of this result is beyond the scope of this article.

DEMOCRACY remains positive and statistically significant in all models. This result is especially interesting given that these are fixed-effects regressions, where even when one holds all country attributes fixed, countries that increase their level of democracy will also increase their level of FDI inflows. These results are very similar to the cross-sectional results. Fully democratic governments (scores of 20) attract an added 0.4 percent more FDI flows as a percentage of GDP than fully autocratic countries (scores of 0). Considering that countries over this time period have an average level of FDI flows of 1.3 percent of GDP, democratic political regimes have an enormous effect on FDI inflows.

This effect is even larger when one examines the cumulative effects of democratic institutions on FDI. The empirical tests I construct in this article analyze the effects of democratic political institutions on FDI flows. These flows contribute to the stock of foreign capital in the country, where democratic political systems would accumulate a larger capital stock over time than their authoritarian counterparts. The most conservative long-run estimate of the effect of democracy on FDI inflows (the lowest coefficient on democracy from the first random-effects model) predicts that a democratic country will attract an added 0.61 percent as a percentage of GDP, which amounts to an increase of over 45 percent of FDI inflows. Using the first fixed-effects model, this estimate jumps to an added 0.98 percent of GDP, or an increase of over 73 percent.[59] After ten years of democracy, these states will have an added stock of FDI that amounts to 18 percent of GDP, and 22 percent of GDP, respectively. Using any of these estimates, democratic political institutions have an enormous positive impact on FDI inflows.

These empirical results are robust under a number of different model specifications.[60] One potential criticism of these empirical results is that the positive link between democracy and FDI may be driven by the advanced democratic countries in the Organization for Economic Cooperation and Development (OECD). In model (13) I show that these empirical relationships between democracy and FDI are still significant when the OECD countries are dropped from the sample. A second potential objection is that the independent variables MARKET SIZE and DEVELOPMENT LEVEL may be highly correlated and may be biasing the empirical results.[61]

58. For a more detailed analysis on the links between government spending and FDI inflows in the OECD, see Jensen 2002.

59. This estimate converges to 0.6 after 7 years of democratic governance. Long-run estimates are generated by the formula for calculating the present value of perpetuity: (democracy coefficient $*$ democracy score)/(1 $-$ coefficient on the lagged FDI).

60. I thank an anonymous reviewer for a number of suggestions on potential robustness tests.

61. I have also checked the robustness of the empirical results by individually dropping each independent variable. The results on democracy are unchanged.

TABLE 5. *Robustness tests*

Variables	*Model 13*	*Model 14*	*Model 15*
LAGGED FDI	0.354***	0.367***	0.369***
	(4.738)	(5.119)	(5.166)
MARKET SIZE	−0.382		0.119
	(−0.630)	Dropped	(0.574)
DEVELOPMENT LEVEL	0.509	0.219	
	(0.810)	(0.981)	Dropped
GROWTH	0.024***	0.025***	0.026***
	(2.819)	(3.048)	(3.147)
TRADE	0.006	0.005	0.005
	(1.166)	(1.235)	(1.228)
BUDGET DEFICIT	−0.024**	−0.023**	−0.023**
	(−2.009)	(−2.196)	(−2.142)
GOVERNMENT CONSUMPTION	−0.039**	−0.037**	−0.037**
	(−2.243)	(−2.288)	(−2.263)
DEMOCRACY	0.020**	0.019**	0.019**
	(2.307)	(2.503)	(2.447)
Time dummies	Yes	Yes	Yes
Country dummies	Yes	Yes	Yes
OECD included	No	Yes	Yes
Observations	1223	1630	1630
Countries	93	114	114
R^2	0.71	0.72	0.72

Note: All regressions are ordinary least squares (OLS) regressions using annual net FDI inflows as a percentage of GDP as the dependent variable.
***$p < .01$, **$p < .05$, *$p < .10$.

In models (14) and (15) in Table 5, I examine the robustness of the democracy relationship by dropping one of the two variables. Again, the empirical results on democracy remain unchanged.

Another potential criticism is that these results may be driven by a particular measure of democracy. Although the Polity measure of political regimes remains the standard measure of democracy employed in most empirical studies, it is essentially a subjective measure. Unfortunately, all measures of democracy have some degree of subjectivity.

Theoretically, the strongest measure of political regimes comes from Alvarez, Cheibub, Limongi, and Przeworski (ACLP).[62] This variable codes democracies as a 0 and authoritarian regimes as a 1. This measure is in many ways a less subjective measure than the Polity III variable since it uses a stricter, more minimalist definition of democracy, and is based solely on observables.[63] Although this measures is highly correlated with the Polity variable in my sample (−0.87), it is at a minimum an important robustness test of the link between democracy and FDI.

62. Alvarez et al. 1996.
63. See Ibid.; and Przeworski et al. 2000 for a more detailed discussion of the variable.

TABLE 6. *Alternative democracy measure*

Variables	*Model 16*	*Model 17*	*Model 18*	*Model 19*
LAGGED FDI	0.379***	0.309***	0.305***	0.308***
	(4.633)	(3.977)	(3.922)	(3.962)
MARKET SIZE	−0.689	−0.614	−0.234	−0.608
	(−1.505)	(−1.330)	(−0.493)	(−1.278)
DEVELOPMENT LEVEL	1.151**	0.947**	0.472	0.939**
	(2.543)	(2.138)	(1.022)	(2.055)
GROWTH	0.021***	0.023***	0.023***	0.023***
	(2.685)	(2.710)	(2.778)	(2.688)
TRADE	0.002	0.007	0.008*	0.007
	(0.317)	(1.550)	(1.662)	(1.550)
BUDGET DEFICIT	−0.033***	−0.024**	−0.024**	−0.024**
	(−3.017)	(2.160)	(−2.128)	(−2.170)
GOVERNMENT CONSUMPTION	−0.061***	−0.045**	−0.043**	−0.045**
	(−3.012)	(−2.446)	(−2.340)	(−2.440)
CAPITAL CONTROLS			0.061***	
			(2.755)	
FDI INFLOWS CONTROLS				−0.037
				(−0.267)
DICTATORSHIP		−0.380***	−0.379***	−0.369***
		(−3.988)	(−3.945)	(−3.800)
Time dummies	Yes	Yes	Yes	Yes
Country dummies	Yes	Yes	Yes	*Yes*
Observations	1823	1584	1568	1568
Countries	128	104	104	104
R^2	0.72	0.71	0.71	0.71

Note: All regressions are ordinary least squares (OLS) regressions using annual net FDI inflows as a percentage of GDP as the dependent variable.
***$p < .01$, **$p < .05$, *$p < .10$.

Table 6 presents the empirical results by replacing the Polity III measure of democracy with the ACLP measure of political regimes in the most conservative regressions—a lagged dependent variable with OLS panel-corrected standard errors with fixed effects. The empirical results are unaffected by this change in measures of democracy. Democracies attract higher levels of FDI.

The final set of empirical tests on the determinants of FDI examines the potential selection effects of democracy on FDI inflows. Przeworski and colleagues find that very few poor democracies survive adverse economic conditions, leading to fewer observations of democratic governments in poor countries.[64] Empirical tests that do not account for this dynamic may suffer from a potential selection bias, in our case biasing the results on the effects of democratic governance on FDI inflows.

To control for these selection effects, I use a Heckman selection model. To estimate the selection-corrected effects of democracy, in Table 7 I use the level of

64. Przeworski et al. 2000.

TABLE 7. *Selection models of democracy and FDI*

Variables	*Standard OLS*	*Selection OLS*
LAGGED FDI	0.308***	0.310***
	(3.962)	(14.533)
MARKET SIZE	−0.608	−0.626
	(−1.278)	(−1.387)
DEVELOPMENT LEVEL	0.023***	0.023***
	(2.688)	(3.101)
GROWTH	0.939**	0.796
	(2.055)	(1.485)
TRADE	0.007	0.007**
	(1.550)	(2.350)
BUDGET DEFICIT	−0.025**	−0.024***
	(−2.171)	(−2.954)
GOVERNMENT CONSUMPTION	−0.045**	−0.046***
	(−2.440)	(−3.298)
FDI INFLOWS CONTROLS	−0.037	−0.025
	(−0.267)	(−0.129)
DICTATORSHIP	−0.369***	−0.964***
	(−3.800)	(−2.891)
Time dummies	Yes	Yes
Country dummies	Yes	Yes
Observations	1568	1568
Countries	104	104
Rho		0.531***
		(7.923)
Sigma		1.479***
		(37.253)
Lambda		0.786***
		(6.787)
LR test, Chi-sq (probability)		11.28***
		(0.0008)

Note: All regressions are ordinary least squares (OLS) regressions using annual net FDI inflows as a percentage of GDP as the dependent variable. LR test = likelihood ratio test.
***$p < .01$, **$p < .05$, *$p < .10$.

GDP per capita and the number of past democratic breakdowns to generate probit estimates of the existence of democratic regimes, and then use this predicted result in a standard OLS regression with country and time dummies.[65]

For this regression, all variables are the same as employed earlier, except that I have substituted the Polity III measure of democracy with a dichotomous measure of dictatorship from Alvarez et al. because of the need for a dichotomous measure

65. This is a similar empirical technique to that employed by Przeworski et al. 2000. They find that the level of economic development and the number of transitions from authoritarian rule correctly predict 77.7 percent of the political regimes from 1950–90.

of democracy to employ this empirical technique.[66] The standard OLS estimates are presented in column 1 and the selection-corrected estimates are presented in column 2. The standard OLS regression yields very similar results as in Table 6: democratic regimes attract roughly 0.37 percent more FDI as a percentage of GDP (DICTATORSHIP) than their authoritarian counterparts. With the Heckman selection model, one finds that a significant selection bias exists in the OLS results.[67] In this case, one has vastly underestimated the effects of democratic governance on FDI inflows. When these selection effects are taken into account, democratic governments attract almost a full 1 percent more FDI as a percentage of GDP per year!

These selection effects are explained by the size of FDI inflows to developing countries. Although the majority of raw FDI is between developed countries, when measured as a percentage of GDP, developing countries attract the highest amount of FDI in the sample. These developing countries also tend to be authoritarian, or at least more authoritarian than the developed countries in this sample. This can lead to a spurious correlation between authoritarian regimes and high levels of FDI inflows, when in actuality it is lower levels of economic development that explain the high levels of FDI as a percentage of GDP.

Essentially, the standard OLS regressions have understated the effects of democracy on FDI. The OLS regressions ignore the fact that poor countries attract higher levels of FDI as a percentage of GDP, and that poor countries also tend to be authoritarian. When these selection effects are controlled for using a standard Heckman selection model, one finds that the unbiased positive effects of democratic institutions on FDI inflows are even more massive than reported in the OLS estimates.

Democracy and Sovereign Debt Risk

Although this article argues that the informational and representational characteristics of democratic systems have positive effects on FDI inflows, the greatest benefit is how democratic systems increase the credibility of political leaders in the eyes of international financial markets. In the previous sections I examined the effects of democratic institutions on levels of FDI inflows. According to my theory, democratic institutions should decrease the potential risks of government leaders choosing policies that negatively affect multinational operations, leading to higher levels of FDI.

To empirically examine the causal mechanism leading democratic institutions to higher levels of government credibility, I examined how democratic institutions affect the sovereign debt ratings of governments. Granted, this is not a direct test

66. Alvarez et al. 1996.

67. Both Lambda and the likelihood ratio test confirm the significance of the selection model. See Table 7.

TABLE 8. *Democracy and sovereign debt ratings*

Variable	*II*	*II*	*EM*	*EM*
DEVELOPMENT LEVEL	0.809***	0.149*	0.874***	0.250*
	(29.317)	(1.898)	(16.296)	(1.821)
DEMOCRACY	0.031***	0.011***	0.027***	−0.000
	(9.173)	(3.772)	(6.974)	(−0.006)
CURRENT ACCOUNT	0.014***	−0.003	0.008	0.005
	(−8.014)	(−1.074)	(1.215)	(1.040)
DEBT	−0.004***	−0.003***	−0.002***	−0.004***
	(−8.014)	(−7.467)	(−3.732)	(−5.821)
GDP GROWTH	0.024***	0.009***	0.026***	0.020***
	(3.304)	(2.735)	(3.071)	(4.187)
Time dummies	Yes	Yes	Yes	Yes
Country dummies	No	Yes	No	Yes
Countries	73	73	79	79
Observations	695	695	705	705
R^2	0.70	0.96	0.63	0.90

Note: All regressions are ordinary least squares (OLS) regressions using annual sovereign debt ratings as the dependent variable. II = Institutional Investor credit ratings; EM = Euromoney credit rating score.
***$p < .01$, **$p < .05$, *$p < .10$.

of the credibility-improving character of democratic institutions for multinational investors, but is does help one to more clearly examine the causal mechanism. The *ex-post/ex-ante* bargaining nature of FDI is similar to the dilemma faced by political leaders attempting to obtain loans from foreign lenders. Governments make promises on the repayment of a loan, but once the loan is disbursed, these conditions may not be met. There are reputational costs for default, but often the short-run political and economic incentives outweigh these reputation costs.[68] Creditors must attempt to predict the potential of default by examining the country's economic conditions and political institutions along with future world macroeconomic conditions.

Are democratic governments less likely to renege on foreign debtors? More specifically, are democratic governments less risky debtors in terms of sovereign debt risk? To answer this question, I have constructed a number of empirical tests of the effects of democratic institutions on country risk ratings.[69]

In Table 8, I present a series of OLS regressions with panel-corrected standard errors that examine the determinants of sovereign debt ratings. For these regressions, I use both the Institutional Investor credit ratings and Euromoney as the dependent variables. The Euromoney credit rating scores are constructed by a panel

68. See Rosenthal 1991; and Bulow and Rogoff 1989.
69. For an interesting analysis of the effects of political factors on sovereign debt ratings, see Sobel 1999.

of experts, who assign countries values in a number of economic and political categories and generate an aggregate measure of country risk using weighted averages. The Institutional Investor credit risk ratings come from a survey of roughly 100 international banks on the probability of default. Sticking to convention, I use the standard logarithmic transformation of both ratings.[70]

A small number of empirical studies have examined the economic determinants of country risk ratings.[71] These studies have found that the level of economic development, the government's current account balance, and the level of country debt all are significant determinants of country risk. The baseline model in column 1 reconstructs the economic determinants of country risk using data on the level of development (GDP per capita), debt (central government debt/GDP), and current account balance (current account/GDP), all taken from the World Bank's World Development Indicators.

In Table 8, I present a simple OLS panel regression for seventy-nine countries from 1980–98 using the Institutional Investor and Euromoney risk ratings as the dependent variables. As expected, in all models the level of economic development has a positive and statistically significant effect on country risk ratings, while the level of country debt has a negative effect. The current account deficit does not have a statistically significant effect on country risk, while GDP growth has a positive, although not statistically significant, effect. All models were also tested using controls for levels of inflation or exchange-rate variations.[72]

In both of the random-effects models, democratic institutions are associated with higher country sovereign debt ratings. In the first fixed-effects model—the model using the Institutional Investor scores as the dependent variable—democracy is positive and highly statistically significant. In the final model—the fixed effect Euromoney regression—I find no relationship between Euromoney ratings and political regimes. This last finding is not surprising, given the stability of Euromoney ratings over time. Essentially, the fixed-effects, country dummies do most of the work in this regression. Other important controls that do not vary much over time, such as the level of economic development, are also only weakly statistically significant.

In summary, democratic institutions, when all other economic factors are controlled for, are generally associated with lower levels of political risk in terms of sovereign default risk. This result sheds some light on the earlier finding that democratic governments attract higher levels of FDI. As stated earlier, the political risks involved with multinationals' investment decisions are similar to those faced by multinational corporations investing in foreign markets. Although this is not a

70. This is the standard transformation used by Feder and Uy 1985, followed by Cosset and Roy 1990 and Lee 1993. The formula for the transformation is Dependent variable = ln[R/(1-R)], where R represents the Institutional Investor or Euromoney Rating divided by 100.

71. See Feder and Uy 1985; Cosset and Roy 1990; and Lee 1993.

72. I tested all models with controls for the average annual consumer price inflation and the real effect exchange rate using the World Bank's World Development Indicators 1999 data.

direct test of the causal mechanism, it does provide a foundation for the credibility-enhancing nature of democratic institutions.

Conclusion

The empirical analysis in this article develops a number of models of FDI inflows, checking the robustness of the link between democratic governance and FDI by changing the model specifications and empirical tests. The evidence on political regimes is relatively conclusive; democratic governments attract higher levels of FDI. These results are robust across empirical tests and model specifications. Democratic institutions have a large positive effect on FDI inflows. These results become even stronger when one controls for the selection effects of the lack of observations of democracies in developing countries. In sum, all of these empirical tests find that democracies attract higher levels of FDI.

The results on sovereign debt risk point to one possible link between democracy and higher levels of FDI. Democratic governments, when all other economic conditions are accounted for, are associated with lower country risk. Lower country risks, which are associated with debt risk are similar to the risks faced by multinationals investing in foreign locations. One logical conjecture stemming from this result is that democracy lowers country risk, for both lenders and multinational investors.

Taken as a whole, these empirical results cast serious doubt on the doomsday prediction regarding the link between democratic political institutions and FDI. Democratic institutions are not inefficient institutions in terms of attracting multinational corporations. There is simply no empirical evidence that multinationals prefer to invest in dictatorships over democratic regimes. On the contrary, the empirical evidence in this article suggests that democratic regimes attract as much as 70 percent more FDI as a percentage of GDP than do authoritarian regimes.

Appendix: Descriptive Statistics

Descriptive statistics: Cross-section variables

Variables	*Observations*	*Mean*	*Standard dev.*	*Minimum*	*Maximum*
FDI INFLOWS	165	1.96	2.68	−11.03	13.59
WEALTH	111	7.95	1.07	5.99	9.8
EXPORTS	156	33.72	24.48	3.38	189.07
TAXES ON TRADE	130	21.05	17.29	0	68.29
NATURAL RESOURCES	120	0.24	0.4	0	3.74
GROWTH	105	0.201	2.33	−6.35	6.6
GOVERNMENT CONSUMPTION	163	16.9	7.71	2.36	58.31
BUDGET DEFICIT	126	−4.4	6.1	−39.61	24.51

HUMAN CAPITAL	102	4.86	2.88	0.54	12.039
INCOME INEQUALITY	102	39.2	9.99	21.19	60.95
FDI LAWS	93	2.6	0.87	1	5
DEMOCRACY	130	10.9	7.87	0	20
EFFECTIVE PARTY CONTROL	118	1.49	0.97	0	4.885
REPUTATION	123	5.81	2.34	1	10
EXPROPRIATION	123	6.55	2.22	1	10
CORRUPTION	123	3.3	1.48	0	6
RULE OF LAW	123	2.98	1.63	0	6
BUREAUCRATIC QUALITY	123	3.19	1.55	1	6

Descriptive statistics: Panel variables

Variables	*Observations*	*Mean*	*Standard dev.*	*Minimum*	*Maximum*
FDI INFLOWS	3519	1.34	2.93	−30.33	39.21
WEALTH	3141	7.99	1.08	5.44	10.32
EXPORTS	3808	34.21	24.65	0.89	215.38
TAXES ON TRADE	2639	18.9	17	0	76.51
GROWTH	3833	3.37	7.46	−52.3	181.15
GOVERNMENT CONSUMPTION	3772	16.02	7.22	0.9	76.22
BUDGET DEFICIT	2521	−3.64	5.96	−61.14	58.71
DEMOCRACY	3727	9.69	7.78	0	20
CAPITAL CONTROLS	4247	0.19	0.39	0	1
EXCHANGE RATES	1420	116.58	66	37.1	921.42

References

Alesina, Alberto, and David Dollar. 1998. Who Gives Foreign Aid to Whom and Why? NBER Working Paper 6612. Cambridge, Mass.: National Bureau of Economic Research.

Alvarez, R. Michael, José Antonio Cheibub, Fernando Limongi, and Adam Przeworski. 1996. Classifying Political Regimes. *Studies in Comparative International Development* 31 (2):3–36.

Barrell, Ray, and Nigel Pain. 1999. Domestic Institutions, Agglomerations and Foreign Direct Investments in Europe. *European Economic Review* 43 (4–6):925–34.

Barro, Robert J. 1990. Government Spending in a Simple Model of Endogenous Growth. *Journal of Political Economy* 98 (5):S103–26.

———. 1996. Democracy and Growth. *Journal of Economic Growth* 1 (1):1–27.

Barro, Robert J., and J. W. Lee. 1993. International Measures of Schooling Years and Schooling Quality. *American Economic Review*. 86 (2):218–23.

Beck, Nathaniel, and Jonathan Katz. 1995. What to Do (and Not to Do) with Time-Series Cross-Sectional Data in Comparative Politics. *American Political Science Review* 89 (3):634–47.

Brune, Nancy, Geoffrey Garrett, and Alexandra Guisinger. 2001. The Political Economy of Capital Account Liberalization. Paper presented at the 97th Annual Meeting of the American Political Science Association, August–September, San Francisco, Calif.

Bueno de Mesquita, Bruce, James D. Morrow, Randolph M. Siverson, and Alastair Smith. 1999. An Institutional Explanation of the Democratic Peace. *American Political Science Review* 93 (4):791–808.

Bulow, Jeremy, and Kenneth Rogoff. 1989. Sovereign Debt: Is to Forgive to Forget? *American Economic Review* 79 (1):43–50.

Cosset, Jean-Claude, and Jean Roy. 1990. The Determinants of Country Risk Ratings. *Journal of International Business Studies* 21 (1):135–42.

Cowhey, Peter F. 1993. Domestic Institutions and the Credibility of International Commitments: Japan and the United States. *International Organization* 47 (2):299–326.

De Mello, Luiz R., Jr. 1999. Foreign Direct Investment-Led Growth: Evidence from Time-Series and Panel Data. *Oxford Economic Papers* 51 (1):133–51.

Dunning, John H. 1981. *International Production and the Multinational Enterprise*. Boston: Allen and Unwin.

Easterly, William J. 1999. Life During Growth. *Journal of Economic Growth* 4 (3):239–76.

Fearon, James D. 1994. Domestic Political Audiences and the Escalation of International Disputes. *American Political Science Review* 88 (3):577–92.

Feder, Gershon, and Lily Uy. 1985. The Determinants of International Creditworthiness and Their Policy Implications. *Journal of Policy Modeling* 7 (1):133–56.

Garrett, Geoffrey. 1998. Partisan Politics in the Global Economy. New York: Cambridge University Press.

Garrett, Geoffrey, and Debra Mitchell. 2001. Globalization, Government Spending and Taxation in OECD Countries. *European Journal of Political Research* 39 (2):145–77.

Gaubatz, Kurt Taylor. 1996. Democratic States and Commitment in International Relations. *International Organization* 50 (1):109–39.

Grossman, Gene M., and Elhanan Helpman. 1991. *Innovation and Growth in the Global Economy*. Cambridge, Mass.: MIT Press.

Helpman, Elhanan. 1984. A Simple Theory of Trade with Multinational Corporations. *Journal of Political Economy* 92 (3):451–71.

Henisz, Witold J. 2000. The Institutional Environment for Multinational Investment. *Journal of Law, Economics and Organization* 16 (2):334–64.

Huntington, Samuel P. 1968. *Political Order in Changing Societies*. New Haven, Conn.: Yale University Press.

International Finance Corporation. 1997. Foreign Direct Investment. IFC Lessons from Experience Series No. 5. Washington, D.C.: World Bank.

Jaggers, Keith, and Ted Robert Gurr. 1996. Polity III: Regime Change and Political Authority, 1800–1994. [computer file] (study no. 6695). 2nd ICPSR ed. Ann Arbor, Mich.: Inter-University Consortium for Political and Social Research. ⟨www.icpsr.umich.edu⟩.

Jensen, Nathan M. 2002. The Political Economy of Foreign Direct Investment. Ph.D. diss, Yale University, New Haven, Conn.

Jessup, David 1999. Dollars and Democracy. Available from ⟨http://www.newecon.org⟩. Accessed 10 November 1999.

Lee, Sunk Hun. 1993. Relative Importance of Political Instability and Economic Variables on Perceived Country Creditworthiness. *Journal of International Business Studies*. 24 (4):801–12.

Leeds, Brett Ashley. 1999. Domestic Political Institutions, Credible Commitments, and International Cooperation. *American Journal of Political Science* 43 (4):979–1002.

Lipsey, Robert E. 1999. The Role of Foreign Direct Investment in International Capital Flows. NBER Working Paper 7094. Cambridge, Mass.: National Bureau of Economic Research.

Lucas, Robert E. 1988. On the Mechanics of Economic Development. *Journal of Monetary Economics* 22 (1):3–42.

Mallampally, Padma, and Karl P. Sauvant. 1999. Foreign Direct Investment in Developing Countries. *Finance and Development* 36 (1):34–37.

Mankiw, N. Gregory, David Romer, and David N. Weil. 1992. A Contribution to the Empirics of Economic Growth. *Quarterly Journal of Economics* 107 (2):407–37.

Markusen, James R. 1994. Multinationals, Multi-Plant Economies, and the Gains from Trade. *Journal of International Economics* 16 (3–4):205–26.

———. 1995. The Boundaries of Multinational Enterprises and the Theory of International Trade. *Journal of Economic Perspectives* 9 (2):169–89.

———. 1997. Trade Versus Investment Liberalization. NBER Working Paper 6231. Cambridge, Mass.: National Bureau of Economic Research.

———. 1998a. Contracts, Intellectual Property Rights and Multinational Investment in Developing Countries. NBER Working Paper 6448. Cambridge, Mass.: National Bureau of Economic Research.

———. 1998b. Multinational Firms, Location and Trade. *World Economy* 21 (6):733–56.
Markusen, James R., and Keith E. Maskus. 1999a. Multinational Firms: Reconciling Theory and Evidence. NBER Working Paper 7163. Cambridge, Mass.: National Bureau of Economic Research.
———. 1999b. Discriminating Among Alternative Theories of the Multinational Enterprise. NBER Working Paper 7164. Cambridge, Mass.: National Bureau of Economic Research.
Markusen, James R., and Anthony J. Venables. 1999. Foreign Direct Investment as a Catalyst for Industrial Development. *European Economic Review* 43 (2):335–56.
McGillivray, Fiona, and Alastair Smith. 1998. Cooperating Democrats, Defecting Autocrats. Unpublished manuscript, Yale University, New Haven, Conn.
———. 2000. Trust and Cooperation Through Agent-Specific Punishments. *International Organization* 54 (4):809–24.
North, Douglass C. 1990. *Institutions, Institutional Change, and Economic Performance*. Cambridge: Cambridge University Press.
North, Douglass C., and Barry Weingast. 1989. Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England. *Journal of Economic History* 49 (4):803–32.
Olson, Mancur. 1991. Autocracy, Democracy, and Prosperity. In *Strategy and Choice*, edited by Richard J. Zeckhauser, 131–57. Cambridge, Mass.: MIT Press.
Oneal, John R. 1994. The Affinity of Foreign Investors for Authoritarian Regimes. *Political Research Quarterly* 47 (3):565–88.
Organization for Economic Cooperation and Development (OECD). 1995. *Foreign Direct Investment, Trade and Employment*. Paris: OECD.
———. 1998. Survey of OECD Work on International Investment. OECD Working Paper on International Investment 1998/1. Paris: OECD.
Przeworski, Adam, and Fernando Limongi. 1993. Political Regimes and Economic Growth. *The Journal of Economic Perspectives* 3(3):51–69.
———. 1997. Modernization: Theories and Facts. *World Politics* 49 (2):155–83.
Przeworski, Adam, Michael E. Alvarez, José Antonio Cheibub, and Fernando Limongi. 2000. *Democracy and Development: Political Institutions and Material Well-Being in the World, 1950–1990*. Cambridge: Cambridge University Press.
Putnam, Robert D. 1988. Diplomacy and Domestic Politics: The Logic of Two-Level Games. *International Organization*. 42(3):51–69.
Rodrik, Dani. 1999. Democracies Pay Higher Wages. *Quarterly Journal of Economics* 14(3):707–38.
Romer, Paul M. 1990. Endogenous Technical Change. *Journal of Political Economy* 98 (S):79–102.
Rosenthal, R.W. 1991. On the Incentives Associated with Sovereign Debt. *Journal of International Economics* 30 (1–2):167–76.
Ross, Michael. 2000. Does Resource Wealth Cause Authoritarian Rule? Working Paper. Washington, D.C.: World Bank.
Russett, Bruce, and John R. Oneal. 2001. *Triangulating Peace: Democracy, Interdependence, and International Organizations*. New York: Norton.
Sachs, Jeffrey, and Andrew Warner. 1995. Natural Resource Abundance and Economic Growth. NBER Working Paper 5398. Cambridge, Mass.: National Bureau of Economic Research.
Sobel, Andrew C. 1999. *State Institutions, Private Incentives, Global Capital*. Ann Arbor: University of Michigan Press.
Solow, Robert. 1956. A Contribution to the Theory of Economic Growth. *Quarterly Journal of Economics* 70 (1):65–94.
Thomas, Jonathan, and Tim Worrall. 1994. Foreign Direct Investment and the Risk of Expropriation. *Review of Economic Studies* 61 (1):81–108.
Tsebelis, George. 1995. Decision Making in Political Systems: Veto Players in Presidentialism, Parliamentarism, Multicameralism, and Mulitpartyism. *British Journal of Political Science* 25 (3):289–325.
Vernon, Raymond. 1971. *Sovereignty at Bay: The Multinational Spread of U.S. Enterprises*. New York: Basic Books.

Wang, Jian-Ye. 1990. Growth, Technology Transfer, and the Long-Run Theory of International Capital Movements. *Journal of International Economics* 29 (2):255–71.

Wantchekon, Leonard. 2000. Why Do Resource-Dependent Countries Have Authoritarian Governments? Working Paper. Yale University, New Haven, Conn.

Wantchekon, Leonard, and Nathan Jensen. 2000. Resource Wealth and Political Regimes in Africa. African Studies Research Working Paper. Yale University, New Haven, Conn.

World Bank. 1999. *World Development Indicators*. CD-Rom. Washington, D.C.: World Bank.