# MACROECONOMIC DEEDS, NOT REFORM WORDS

## The Determinants of Foreign Direct Investment in Latin America*

*Alfred P. Montero*
*Carleton College*

*Abstract: Numerous studies on the determinants of foreign direct investment flows in Latin America underscore the importance of risk- and cost-mitigating institutions that support good governance, political and economic freedom, and demonstrate a credible commitment to economic reform by regional governments. This study tests these variables against market size, macroeconomic policy, and factor controls to assess which combinations of variables explain the distribution of foreign inflows. Using a time-series cross-sectional data set of fifteen Latin American economies from 1985 to 2003, the study concludes that past performance on the current account provides sufficient commitment by regional governments and that regime, good governance, and reform variables are, by comparison, inconsistent predictors of foreign direct investment.*

Foreign direct investment (FDI) has played a critical role in the modernization of Latin American economies, yet the factors explaining why global firms enter the region remain the subject of debate.[1] There is little doubt that during the most recent period of economic reform, which has been dominated by market-oriented policies, FDI has gained a preeminent role as a provider of foreign capital, technology, and employment (Cuadros, Orts, and Alguacil 2004). There is not a single Latin American country, including Cuba, that is not actively wooing foreign firms to open new subsidiaries or to expand existing operations in their economies. Scholars, however, differ on the determinants of FDI inflows. Some credit the renewed emphasis on deregulation and liberalization of markets. Others claim that cost-sensitive firms shift their operations to expand their margins in highly competitive global markets and that Latin America has relatively low factor costs. The promise of exploiting lucrative opportunities leads firms to invest in the region, which business analysts have regarded

* I thank the three anonymous reviewers for their comments on a previous version of this article. Special thanks to Sam Whittemore for his valuable research assistance. All errors that remain are the author's responsibility.

1. FDI is defined as private capital flows in the form of multinational firms purchasing or opening of new subsidiaries outside the home economy. The commonly accepted threshold for FDI is if the parent firm gains 10 percent or more of a controlling interest in a going concern in a host economy. By its very nature, FDI is nonspeculative and long term.

*Latin American Research Review,* Vol. 43, No. 1. 

for the past decade as an emerging area, second only to East Asia and India. Analysts of government bureaucracies and political institutions claim that foreign firms are well aware of the different levels of good governance across the region and favor those states that have a proven track record of protecting property rights. In short, FDI responds to different dimensions of cost, risk, and opportunity. But what combination of factors best explains FDI flows to Latin America in the past two decades?

The three analytical dimensions of cost, risk, and opportunity converge on the particular qualities of states and markets that shape the expectations of foreign firms. Markets that are unstable and impose excessive start-up costs or that fail to provide adequate factors of production at a competitive price are less likely to attract FDI in a globalized "flat world" where profit margins are squeezed if firms are not swift and states are not shrewd (Strange 1992; Friedman 1999, 2005). Missed opportunities impose another layer of cost. In the rapidly changing world of global competition, not investing at the right time can prove as costly over the long term as moving into a market with initially uncompetitive conditions (Schoenberger 1994). Of course, risk is the other side of opportunity. Firms that invest without guarantees against future expropriation and that face host governments that are highly corrupt and lack transparency may lose their competitive position even if market conditions are propitious (Globerman and Shapiro 2002). States that embrace market-oriented reforms make the most credible commitments to foreign investors that they will be welcomed for the long haul (Gastanaga, Nugent, and Pashamova 1998). Macroeconomic reform and deregulation will reduce risks as well as costs, whereas reforms that create new market opportunities, such as privatization, may enable FDI where it was previously limited or forbidden.

Since the 1980s, Latin America has been one of the more challenging markets for managers of multinational corporations (MNCs) as they calculate costs, risks, and opportunities. To a great extent, the view of the region from abroad has been colored by Latin America's periods of intense macroeconomic crisis. Even in economies such as Mexico, Brazil, and Argentina, where fundamentals such as the size of the domestic market, labor costs, and a commitment to structural adjustment reform have been more or less consistent throughout the 1990s, periodic financial meltdowns and contagion from the crises of other regions such as Southeast Asia and Russia, have reversed some of the gains made from reform or undermined the comparative advantages of countries in the region. Assessment of the particular determinants of costs, risks, and opportunities for investment is costly, and often MNCs have relied on sustained good macroeconomic performance to gauge the overall readiness of Latin American countries for FDI.

This study tests various propositions that flow from the myriad logics of costs, risks, and opportunities, comparing the explanatory power of these hypotheses to a baseline expectation that good macroeconomic performance predicts FDI inflows. The analysis finds that macroeconomic stability is a key condition of increased FDI, but specifically it is the consistent performance of the current account that matters most. That is, the reduction of trade imbalances in particular and the attendant need to finance them sends the strongest signal to foreign investors of a more generalized commitment by Latin American governments to sound and sustainable macroeconomic policies.

Two mutually reinforcing logics exist to support this conclusion. First, foreign investors understand that the Latin American region in particular has a history of financing current account deficits in an unsustainable manner. Investors in the region have memories of the yawning current account deficits of the late import-substitution industrialization (ISI) period that deepened balance of payments crises and led to the explosion of external debt and the collapse of the largest economies in the region during the debt crisis of the 1980s. During the 1990s, current account deficits led to the dependence on short-term, foreign currency-denominated, and indexed debt that played a key role in major financial collapses such as Mexico's Tequila Effect crisis in 1994–1995.[2] The erosion of current account balances in states with high foreign and private debt commitments creates high ratios of debt to annual exports, a key indicator of an impending financial crisis. For example, the Brazilian currency crisis of January 1999 was preceded by months of growing public debt and eroding current accounts. As the debt-to-export ratio grew, capital flight by investors put pressure on the central bank's managed floating exchange-rate system, eventually causing its collapse. To be sure, investors' anxieties had many causes, not least among them increasingly shaky exchange-rate regimes and overvalued currencies, as well as losses in other regions where emerging markets had their own meltdowns; however, the ever-worsening core indicator of how the macroeconomy was affecting the economic fundamentals of Latin American markets was the performance of the current account.

Second, current account performance is an indicator of a Latin American country's orientation to global trade. During the 1990s, FDI increasingly returned to the region. Much of this new investment involved the placement of manufacturing facilities designed to globally source transnational production (Green 1998; Tuman and Morris 1998). Latin American countries that made a commitment to open markets, particularly by

2. On the role of the current account as a cause of the Mexican peso crisis, see Edwards (1997) and Teichman (2001, 148).

signing regional trade agreements (RTAs), and to facilitating export performance would become the chief beneficiaries of the global distribution of production. However, RTA cooperation has tended to break down in Latin America when macroeconomic performance weakens (Eichengreen 2004). For example, periodic current account deficits have caused Brazil and Argentina to reverse their commitments to Mercosur a number of times since 1995 (Carranza 2003). In this sense, the current account is not just an indicator of a commitment to market-oriented reform but also a guarantor of a sustainable orientation to the new international division of labor.

The size and level of development of the country, the degree to which the host economy is globalized in terms of trade, and the degree of its overall growth are weaker predictors of FDI flows than is the record of the country's trade balance over time. Although some scholars favor cost-sensitive and risk-averse behavior as key explanatory variables, this study finds that good governance and regulatory and fiscal costs are relatively inconsequential. The FDI flows tend toward the politically less transparent (perhaps less democratic) countries in the region, but when progress on economic reform is considered, regime effects are unimportant. Moreover, reform by itself or in concert with good macroeconomic performance does not stand out as a sufficient determinant of FDI flows.

The study uses panel data for fifteen Latin American countries from 1985 to 2003. This period encompasses the region's initial recovery from the debt crisis of the early 1980s, the subsequent return of foreign investors to the region, the recovery from the recession of the early 1990s, and the multiple financial crises that pervaded the developing world and Latin America in particular from 1995 through 2002. The period under study also captures the initiation and consolidation of market-oriented reforms throughout the region. The cross-sectional range of the data set includes the largest economies that engaged in the ISI development model that dominated the industrial histories of Brazil, Mexico, Argentina, Uruguay, and Chile; the extractive-industrial economies of Peru, Ecuador, and Bolivia; oil economies such as Venezuela; and the largely export-oriented economies of Colombia, the Dominican Republic, and Central America.[3]

Much of the existing scholarship on the causes of FDI flows in Latin America has framed the main arguments with some mixture of the logics of costs, risks, and opportunities. The subsequent section uses this rubric to organize a review of the state of the art. I outline several hypotheses emanating from the cost-, risk-, and opportunity-oriented factors that are tested in the multivariate statistical analysis that follows against the baseline expectation that macroeconomic performance is the chief determi-

3. The other countries in the study not specifically named here are Paraguay, Costa Rica, El Salvador, and Honduras.

nant. The final sections discuss the results of the quantitative tests and render some conclusions.

## THE DETERMINANTS OF FDI IN LATIN AMERICA

Multinational corporations do not make investment decisions autonomously, nor are their investments wholly dependent on the planning and skills of corporate managers. Foreign subsidiaries are embedded in the economic, institutional, and cultural contexts of host economies, and the evolution of their investments is intimately linked to these factors (Doremus, Keller, Pauly, and Reich 1998). The expectations of foreign investors will center on their assessments of cost, risk, and opportunity, which are shaped by firm knowledge of the host economy, reputation, and estimations of future performance. Of course, this study recognizes that factors endogenous to the firm, such as corporate strategies for the estimated advantages of owning subsidiaries, locating them in certain host economies, and the relative costs of alternatives to foreign ownership such as licensing and exporting, shape the decision making of MNCs (Dunning 1981; Markusen and Maskus 1999). However, my concern here is with understanding the interactions between firm goals and the context of local economies that determine where firms will locate once they have decided to go abroad. I argue that the most relevant factors are exogenous to the particularities of what MNCs produce.[4]

### *Risk-based Factors*

Multinational investors are most risk-sensitive before they commit their resources, because they know that they bear appreciable costs if they wish to invoke the exit option later. As Raymond Vernon (1971) argued famously in his classic study of FDI, MNCs are liquid *ex ante* but illiquid *ex post*. This makes MNCs reluctant to invest without guarantees that host governments will act responsibly and protect their property. The absence of guarantees feeds a credibility gap in relationships between the host country and MNCs. The communication of a commitment to reform with an institutional change that signals the seriousness of host-country intentions is thus a sine qua non of overcoming the credibility gap (Rodrik 1989; Tures 2003). This is especially true for countries with a track record of macroeconomic instability. Investors are concerned that without a commitment to structural adjustment and macroeconomic reform, future rates of return will fall in the face of policy backsliding and customer uncertainty.

4. The logic for separating the *ex ante* internal firm decisions to locate abroad and the *ex post* decision on where to locate is explained in Tuman and Emmert (2004, 12).

Risk-based factors affect costs through a logic of hidden information. As in the classic principal-agent dilemma, firms (the principals) rely on governments (the agents) to protect their property and to secure stable market conditions. Yet only governments know what they will do under certain conditions. Governments that entertain radical and arbitrary shifts in economic policy that may be popular but are not sustained by market forces erode investor confidence. Polities rife with corruption impose costs of hidden information as well, because investors cannot know *ex ante* what their true costs will be. In addition, MNCs value predictability of the future and consistency with the past, so it follows that arbitrary rule is second best. Of course, that makes the role of regime type more difficult to assess because democracies institutionalize uncertainty of political outcomes, whereas authoritarian regimes are capable of arbitrary shifts in policy without the institutional checks that make change more difficult in more transparent polities.

Scholars have historically been divided on the question of whether democracies or authoritarian regimes are better at attracting FDI.[5] Regrettably, neither the historical record nor the weight of scholarship has resolved the matter. Latin America's military dictatorships of the 1960s and 1970s were regarded as the stewards of stable investment climates because of their ability to repress labor and guarantee government stability. The acute failures of radical neoliberal projects in Argentina and Chile (post-1983) and the crisis of ISI and debt in Brazil and Mexico during the 1980s raised questions about the alleged superior ability of authoritarians to manage the economy (Hartlyn and Morley 1986; Frieden 1991). Transitions to democracy in all the Latin American countries after 1985 made the regime-type variable less available for testing. Yet scholars asked to what extent the consolidation of democracy affected FDI inflows. For example, Jensen (2003) argued that polities with more transparent rules enhance predictability and reduce political risk. One mechanism is the number of institutional veto players in more democratic systems. As the number of veto players increases, arbitrary shifts in economic policy become less likely (Henisz 2000). Yet democracy also dissuades investors seeking oligopolistic opportunities and provides avenues for domestic firms to pressure politicians to increase protectionist regulations (Li and Renick 2003, 177).

The present study does not seek to resolve the debate over the specific factors that might link regime type with FDI inflows. As noted subse-

5. For evidence supporting the benefits of authoritarianism for investment returns and climate, see Oneal (1994) and Tuman and Emmert (2004). On the trouble democracies have in providing favorable investment climates, see Li and Resnick (2003). For arguments on behalf of democracy, see Jensen (2003), Tures (2003), and Rodrik (2000). For a country-by-country analysis in Latin America that illustrates how mixed the evidence is for the regime variable, see Heo and DeRouen (2002).

quently, the models will include distinct indicators of democratization to test the extent to which they affect aggregate inflows. Moreover, several of the characteristics attributed to democracy, such as transparency and relatively low levels of corruption, may be obtained in undemocratic cases. Whenever possible, then, regime factors and other risk-mitigating variables should be tested as separate variables. This is especially important when testing for institutions that protect property rights as opposed to civil and political rights and institutions that make corruption costs low but do not necessarily enhance political representation.

Political risks can come in many forms. Often the most credible commitment that states can make to investors is to secure property rights. Investor confidence is likely to be greater in economies where regimes seldom challenge property rights. Because expropriation has been a historical tendency in Latin America and continues in some countries (e.g., Evo Morales's Bolivia), the securing of property rights for foreign investors remains a key explanatory variable in the region (Biglaiser and DeRouen 2006; Tuman and Emmert 1999, 2004; Globerman and Shapiro 2002; Tures 2003; Li and Resnick 2003).

Corruption is another source of political risk that can generate unforeseen costs. In their study, Gastanaga, Nugent, and Pashamova (1998) found that countries with a reputation for corruption dissuade FDI inflows. Wei (2000) quantifies these costs by comparing the effects of corruption on FDI to hikes in marginal corporate tax rates. He finds that an increase of one unit on an index of corruption is equivalent to the effects of a 6 percent increase in tax rates on FDI inflows.

Assessment of risk depends upon expectations of how institutions in the host economy will protect private assets. Consequently, foreign investors are likely to hedge their bets by choosing to invest in countries that provide access to redress if the MNC is wronged. The availability of a "governance infrastructure" of legal procedures and professional judicial and law enforcement institutions provides one source of adjudicatory action (Globerman and Shapiro 2002, 1901–1902). Of course, this may be of little value if the concern is expropriation, which is most often done through legal and legislative channels. Yet an official commitment to law and order is important to prevent unproductive costs such as bribes and kickbacks. Such costs can be appreciable in Latin America, a region whose countries Transparency International rates high on its corruption index.

*Cost-sensitive Factors*

Foreign investors value the ability to make decisions concerning the allocation of their resources free of undue legal and fiscal constraints. Some scholars of FDI inflows in Latin America have argued for the causal importance of economic freedom as a major inducement of MNCs

(Bengoa and Sanchez-Robles 2003). The focus of such works is on liberalization and deregulation, which reduce the costs of investment in the short and long terms. Financial and trade liberalization, reductions in marginal corporate taxes, and labor market reforms are the three areas most often mentioned in the relevant literature as cost-mitigating factors that flow from higher levels of economic freedom.

Although the freedom to move capital presents a greater incentive to portfolio investors, MNCs are also sensitive to restrictions on capital flows. Subsidiaries wish to be able to repatriate profits, an erstwhile criticism of FDI that remains relevant. Firms also value the ability to buy and move assets within equity markets or in private contracts and sales without the undue interference of government. Liberalization reforms that lower reserve requirements, eliminate controls on interest rates, and ease mandatory lending practices allow foreign firms and investors to move capital more freely. Studies of FDI in Latin America demonstrate that these reforms are predictors of FDI inflows (Trevino et al. 2002; Cuadros, Orts, and Alguacil 2004; Asiedu and Lien 2004).

The role of commercial liberalization as a determinant of FDI in Latin America has evolved over time. Trade liberalization might have been a disincentive to FDI during Latin America's ISI period, when MNCs invested in Brazil, Mexico, and other large economies to avoid high tariff barriers and to gain access to domestic markets. Lower tariffs would have undercut the competitive position of these subsidiaries by exposing them to imports. However, in post-ISI Latin America, MNCs are as inclined to export from the region using the advantages provided by lower factor costs as to exploit the domestic market. Lower tariff barriers also reduce input costs for component parts and capital goods that can be made more cheaply elsewhere. Trade liberalization thereby promotes global sourcing and the use of Latin American countries as export platforms for consumer durables such as automobiles and consumer nondurables such as footwear and textiles (Tuman and Emmert 2004, 20).[6] Liberalization in Latin America should then increase capital flows, FDI included (Cuadros, Orts, and Alguacil 2004).

Fiscal incentives involving relatively low marginal corporate tax rates and even direct subsidies provided by government policy can also play a role in providing incentives to foreign investors. Although they posit a nonlinear relation between tax rates and FDI inflows, Gastanaga, Nugent, and Pashamova (1998) found that at marginal rates, greater than 25–35 percent, multinational investment falls strongly. That bodes well for Latin America, because taxes on corporate profits fell from 1985 to 1999 throughout the region, except in Chile, Uruguay, and Paraguay. Rates increased

6. The ease of global sourcing is a key premise of buyer-driven and producer-driven "global commodity chains" in Latin America and elsewhere. See Gereffi (2001).

in the first case and remained stable in the latter two (Lora 2001, 13). This has happened as all states in the region have enacted tax abatements and other fiscal incentives to spur investment in strategic sectors such as mining, tourism, and petroleum refining.

The role of labor market reforms in enticing FDI is less certain than the other areas of reform. In part, this is because Latin America has made little headway in easing the costs of hiring and firing (Lora 2001, 17–18). High nonsalary costs have produced numerous inefficiencies in formal market employment. These are difficult to measure and compare across countries, yet aggregate measures of the extent to which labor market regulations have been eased are available as a proxy for reducing labor costs.

*Opportunities*

Consistent with the signaling logic followed by Rodrik (1989) and others, proponents of economic reform hold that host economies can enhance the credibility of their commitments to maintain a favorable investment climate by "tying their hands" with institutional changes. Legal and legislative commitments to liberalize markets, deregulate banking and financial transactions, privatize public firms, reduce marginal corporate taxes, and reform labor markets to ease restrictions on hiring and firing enhance MNCs' confidence that market conditions will remain propitious for long-term investment. The effects of financial deregulation, lower taxes and fiscal incentives, and labor-market reform were discussed in a previous section as the central cost-mitigating factors to be tested. Here, the focus is on privatization, which is an area of economic reform that not only reduces costs and mitigates risks but also creates new opportunities for profit.

Privatization not only signals foreign firms that the erstwhile role of the state in the economy will weaken but also provides opportunities for foreign firms to invest in new markets, and perhaps under conditions that immediately enhance the market power of MNCs. This can be especially true in areas recently opened to foreign investment, such as petroleum refining and mining. Public-private concessions in infrastructure and telecommunications open the door to potentially massive investments. Moreover, the modalities of sale can encourage ever-larger commitments by foreigners through subsidized pricing. For example, the Brazilian steel firms were sold during the early to mid-1990s after the state spent hundreds of millions of dollars to reconvert these going concerns and then auctioned them off at subsidized prices to encourage both domestic and foreign firms to buy into the sector (Montero 1998). Whether through the opening of new areas or the provision of subsidies, privatization in Latin America is credited with providing 36 percent of the region's FDI from initial sales and more than that in complementary investments flowing from buyouts (Lora 2001, 16; Trevino, Daniel, and Arbeláez 2002).

Scholars, however, disagree about whether reforms such as privatization and liberalization matter or even whether they increase rather than reduce FDI inflows. Biglaiser and DeRouen (2006) found that none of the major areas of economic reform proved necessary for attracting FDI. Yet this outcome may depend on the particular opportunities created by reform and their timing. Tuman and Emmert (1999, 543) concluded that if reforms undermine the buying power of consumers, they will dissuade FDI oriented toward production for the domestic market. This often happens during adjustment periods, although postadjustment FDI often picks up. Therefore, the study of flows several years after reforms are enacted may show a positive relationship among liberalization, deregulation, and FDI.

This is an argument for using longer time frames in subsequent research. The role of privatization is especially sensitive to the time-frame factor. The Biglaiser and DeRouen (2006) study examined FDI flows through 1995, but this temporal range leaves out much of the privatization process in the region, especially in Brazil. If privatization produces new markets and so many of these reforms postdate the mid-1990s, a more updated study is necessary to ascertain how much these reforms have induced FDI flows across Latin America.

The possible range of opportunities created by host government policy is certainly broader than the market-creating effects produced by privatization. Numerous qualitative studies of industrial clusters, export processing zones, and targeted industrial policies in Latin America have shown that FDI flows can sometimes be affected by a host of government policies (Mortimore and Vergara 2004). Nevertheless, systematic data that covers the time period and the countries under study here are not available on the full array of relevant government policies. Given that the design and implementation of these policies is often a determinant of their effectiveness, it is not apparent how industrial policies meant for FDI promotion might be operationalized for the purposes of comparative testing. Because the richness of the qualitative studies cannot be replicated here, the models will not specify particularities of industrial policy.

### *Macroeconomic Stability and Factor Controls*

Differences in market size, level of development, and gross domestic product (GDP) growth provide fundamental incentives to foreign firms to locate their investments in particular countries. Large domestic markets such as Brazil, Argentina, and Mexico lure consumer goods MNCs interested in exploiting large economies of scale.[7] Relatively high tariffs in

7. Several studies of FDI in Latin America find that market size is important. See Trevino, Daniels, and Arbeláez (2002) and Trevino et al. (2002). For an empirical study that establishes the general finding for 135 countries, see Chakrabarti (2001).

the host economy make this move especially strategic. The greater is the level of development, the more diverse is the array of products that may be sold in domestic markets and the greater is the range of worker skill sets available to sustain multiple segments of production (Globerman and Shapiro 2002, 1905). Sustained growth provides the promise of expanding opportunities. Growth in terms of GDP per capita is an indicator of a maturing market that can support growing economies of scale for ever more sophisticated consumer products (Tuman and Emmert 2004). All three of these variables can be expected to have a positive effect on FDI inflows.

Exchange-rate regimes are another area of concern for foreign investors. As with tariff and tax rates, governments can change exchange rates with devaluations or appreciations that can affect the bottom line of MNCs. Appreciations will reduce import costs and thereby spur further investment, while devaluations can make exported products more competitive internationally (Görg and Wakelin 2001). During the initial stages of investment, devaluations can reduce start-up costs. Periodic (and predictable) adjustments are less problematic than high variability in exchange rates. The latter can be a symptom of eroding macroeconomic stability and a predecessor to financial crisis that can undermine the domestic customer base and affect import and export costs. Similarly, wholesale and consumer inflation can produce uncertainty, thereby signaling a lack of discipline in monetary policy. Numerous econometric studies of FDI flows have found that these sources of macroeconomic instability are crucial determinants of whether MNCs invest (Bengoa and Sanchez-Robles 2003; Trevino, Daniels, and Arbeláez 2002).

Much scholarship on government size and globalization argues that public expenditures can affect investment flows.[8] On the one hand, high levels of government consumption can dissuade foreign investment by "crowding out" local sources of capital and undermining financial reforms aimed at reducing the cost of domestic capital (Biglaiser and DeRouen 2006, 53). On the other hand, the provision of public goods such as education and infrastructure can scale up the productivity of economies, making them more attractive to high-end producers. Fully testing this variable would require disaggregating government expenditures by type, a task this study would prefer to leave to future research. Lacking the space to pursue this question in greater detail, we use the aggregate measure of government consumption and leave the results open to interpretation. Government consumption can also be evaluated in terms of fiscal deficits and debt service. Countries that are saddled with large

8. A related variable is government deficits, although empirical studies have shown that this control variable is less important than government consumption. See Jensen (2003, 599).

deficits and heavy ratios of debt to export earnings may be less attractive to MNCs than countries that have a more stable fiscal profile.

Another set of controls that one must consider for FDI is factor endowments. Economies that are highly urban and have a large manufacturing base will likely attract a greater array of firms and therefore a larger pool of investment over time. The presence of natural resources may draw in foreign investors independent of government policy or institutional attributes (Jensen 2003, 598). For example, firms from resource-poor countries such as Japan might be motivated to pursue investments in primary and extractive industries in Latin America (Tuman and Emmert 1999, 542). Labor costs might become a draw for FDI. Although convention holds that relative wage rates are a chief lure for foreign investors, studies demonstrate that this factor does not trump the others listed previously, and there is considerable evidence demonstrating that it is offset by political and institutional factors (Jensen 2003).[9] An alternative measure, the skills base of the population, could be a predictor of FDI. That is, MNCs are more likely to invest in countries with highly skilled workforces because these workers more easily increase productivity and thereby enhance the competitiveness of exports (Tuman and Emmert 2004, 20). Anticipating that the availability of skilled labor is greater in more urban and industrialized countries, I use these factor controls as proxies for average workforce skills.

Some scholars see export-oriented development in the region as commensurate with a larger strategy of reducing fears of expropriation and reinforcing investor trust in Latin America (Biglaiser and DeRouen 2006, 53). This follows the work of Chakrabarti (2001), who found that trade orientation was a key predictor in his study of 135 countries. Yet an export-led economy may not be as important as the consistent performance of the current account balance, which reflects a broader array of indicators of macroeconomic stability, commitments to liberalization, and market competitiveness. Trevino et al. (2002) found that larger current account deficits are associated with higher FDI inflows. Yet this depends on when trade deficits appear. If they exist and are notable before FDI inflows increase, then the relevant logic may be that governments encourage investment through a host of policies to attract the capital needed to finance the extant balance of payment imbalances (Trevino, Daniels, and Arbeláez 2002, 32). Alternatively, if current account performance is a hallmark of macroeconomic stability, then shrinking deficits or growing surpluses would signal MNCs that the economy in question is not likely to become a victim to a liquidity crisis in foreign reserves. An improved current account bal-

9. Chakrabarti's (2001) review of the economic literature found as many studies that regarded high relative labor costs as either a positive factor or insignificant as those that found evidence for the negative correlation of conventional wisdom.

ance indicates that governments have made an institutional commitment to liberalization and that domestic economies are in an increasingly more competitive position in global markets. That may all be true if the economy is simply export oriented, but the balance of payments must also be tested to get a broader sense of the fiscal and competitive implications of the current account. Both export orientation and favorable current account balances, small deficits, or growing surpluses should correlate positively with FDI inflows.

Exchange-rate regimes and the balance of trade have, especially since 1995 in Latin America, been linked to the advent of financial crises in the region. All these crises, from the Mexican Tequila Effect crisis to the crisis of the Brazilian real in 1999 to the financial meltdown in Argentina in 2001–2002, reduced the confidence of foreign investors, if only for a while. Assuming that MNCs are affected by the same herd mentality that afflicts portfolio investors, we might ask whether these crisis periods had sustained effects on larger patterns of FDI inflows.[10]

## VARIABLES AND DATA

Of the two major sources of data on FDI inflows in Latin America, the World Bank and the United Nations Conference on Trade and Development (UNCTAD), I follow the convention in much of the scholarship and use data on net annual FDI inflows taken from the World Bank's *World Development Indicators* (WDI).[11] Each value is standardized as a percentage of GDP.

### *Risk-mitigating Factors*

The scholarship on the role of risk-mitigating factors in FDI flows predicts that the existence of an institutional environment guaranteeing transparency, protection of property rights and a low incidence of expropriation, the availability of legal recourse, and a commitment to law and order enhance foreign investment. Institutional variables in large-*N* cross-sectional studies of FDI flows tend to use metaindices to measure governance. Indices of corruption are the best known. Following the work of Wei (2000), I employ one of the three major indices, the PRS Risk Group measure, but I also use two other indices provided by the PRS and one b y the Fraser Institute to flesh out other dimensions of good governance. The

10. Several recent studies that use data up to 1995 (e.g., Biglaiser and DeRouen 2006) do not test for the major financial crises that have afflicted the region.

11. The data set also includes inflow data as reported by UNCTAD, but running that variable as the dependent variable did not produce any differences in the statistical results. I chose the WDI data as this is the source used by most other empirical studies (e.g., Biglaiser and DeRouen 2006; Jensen 2003).

International Country Risk Guide (ICRG) of the PRS Risk Group measures several governance indicators by assigning risk ratings over time. The ICRG metrics for corruption and a country's commitment to law and order work on a 0–6 scale, with the higher numbers indicating lower corruption (e.g., low incidence of bribery) and a strong dedication to impartial legal processes. The indicator for risk in the investment climate is based on the potential for expropriation, the relative ease with which profits may be repatriated, and average delays in payments. I use the aggregate indicator based on a 0–12 scale as a proxy for expropriation risk, which increases as values approximate zero. I also employ the Fraser Institute's index of judicial development to gauge the extent to which transparency-enhancing institutions are sufficiently available in each country-year.[12]

Following the practice of scholars who have focused on the effects of democratization on capital flows (e.g., Jensen 2003), I use Polity IV measures as a metric of democratic deepening. Polity IV codes democracy on a range from –10 (autocracy) to 10 (democracy). I rescaled this variable on a 0–20 scale to facilitate interpretation. Tuman (2006) notes that Polity IV measures restraints on executives and not abuses of civil and political rights that sensitivity analyses have shown have a statistically significant effect on inflows of U.S. FDI. As per Tuman's recommendation, I test the degree to which political and civil rights are abused by integrating Freedom House (FH) and Political Terror Scale data.[13]

*Cost-mitigating Factors*

The most prominent indicators of economic freedom are usually tied to the costs of moving capital and hiring and firing as well as to marginal corporate tax rates. In their study, Bengoa and Sanchez-Robles (2003) used the aggregate Fraser Institute index for economic freedom, but they did not employ the more specific subindices. These provide a more precise set of indicators of cost and risk factors. Fraser includes two indices that gauge the level of regulation of capital flows and the weight of corporate

12. Because the Fraser Institute reports most of its data in five-year increments before 2000, I used a linear interpolation equation to calculate the missing values between 1985 and 1999. Due to collinearity with the PRC's legal index, I ran these in two separate models.

13. I employ three variables: (1) the FH political rights score that ranges from 1 to 7 and (2) the FH civil rights score with the same range. For both scales, a rating of 1 indicates the highest degree of freedom and 7 the least amount of freedom. The third variable is the Political Terror scale, which is taken from the average of the Amnesty International and State Department scores reported by Mark Gibney. The scale ranges from 1 to 5, with higher numbers indicating a greater incidence of political imprisonment, torture, and other official violence. See http://www.unca.edu/politicalscience/images/Colloquium/faculty-staff/gibney. html. All three indices were rescaled to use zero as their base. Preliminary tests of multicollinearity determined that the Polity IV variable and the FH political rights score were strongly related. Subsequent tests ran these variables in separate models.

taxes.[14] Because the data prior to 2000 is reported in five-year intervals, linear interpolation was used to fill in missing values.

*Reform*

Economic reform affects both cost-mitigating factors and opportunities. Therefore, indices of progress on reform in different areas should reflect changes in relative costs for investment and, especially in the area of privatization, relative opportunities. This study employs reform indices produced by Lora (2001). The chief alternative indices created by Morley, Machado, and Pettinato (1999) cover seventeen countries from 1970 to 1995. Lora (2001), however, offers as many or more countries for each reform index and the data extend to 1999 in most cases. Indices are available for trade liberalization, tax reform, financial liberalization, privatization, and labor market reform. Each index is standardized on a scale ranging from zero to one, with higher values indicating greater progress toward reform.

*Macroeconomic Factors*

Market size ($GDP_{log}$) and level of development (GDP per $capita_{log}$) are measured following the convention in the literature (Jensen 2003, 598; Globerman and Shapiro 2002). Chakrabarti (2001, 98) argues that both GDP and per capita GDP are measures of two key dimensions of market size—population and income, respectively—so they should be tested as separate variables. This study will do so with logged values for each. Other controls in the study include growth in GDP, price stability (inflation rates), exchange-rate variability, and growth in government expenditures as a percentage of GDP. I employ foreign exchange cross-rates as a measure of appreciation of the national currency against the dollar. Because extreme values can distort the data, I use the natural log of the exchange rate. Exchange-rate variability is the standard deviation of the logged average annual cross-rate and its two previous annual values. Higher dispersion values indicate greater variability. Finally, I include fiscal deficits as a percentage of GDP as a fiscal control.[15]

Regarding factor costs, the list of controls includes the percentage of the population that is urban, value added by manufacturing as a percentage of GDP, and two controls for oil and ore exports as percentages of merchandise exports. Given that oil industries tend to be nationally owned,

14. These are based on a 0–10 scale, with higher numbers indicating greater economic freedom. I omitted the scores for labor market regulations because the data were not complete enough across countries.

15. All economic data come from the World Bank's *World Development Indicators* except the deficit data, which come from the International Monetary Fund's *International Financial Statistics*.

FDI in natural resources has concentrated in mining in Latin America. To be sure, there are notable exceptions such as Chilean nitrates and copper, which are nationally owned. Yet ore and metals exports as a percentage of all merchandise exports are a reasonable proxy for the role that natural resources might play in luring FDI.[16] Following the work of Jensen (2003), I add fuel exports as a percentage of all merchandise exports to test for the effect that oil receipts might have in weakening demand for foreign capital or for the role that FDI in oil refining, natural gas, and services might have in pulling in new investment.

Trade orientation is another area to consider for controls. Specifications using exports and imports as separate variables invite multicollinearity, so I use total trade as a percentage of GDP as a proxy for integration into global markets (Trevino, Daniels, and Arbeláez 2002, 36). To assess the role of the balance of trade, I include current account deficits as a percentage of GDP. More than a control, I posit that this factor is an explanatory variable.

Country- and period-specific factors may condition FDI inflows. First, the study considers the role of time periods by including dummies for three phases: (1) 1985–1990 (a period of recession in Latin America), (2) 1991–1994 (a period of economic recovery), and (3) 1995–2003 (a period of financial uncertainty). The third period is specified further with dummies for years in which particular financial crises affected the region: Brazil (1988), Mexico (1994–1995), Asia (1997–1998), Russia (1998), Brazil (1999), and Argentina (2001–2002). Second, the study includes a dummy for each country.

Assuming that countries that MNCs favored in the past will be so favored over time, I expect that the lag of FDI inflows will be significant and positive. The data set does not differentiate by origin of FDI flows; that is, the effects of "home" country characteristics. The dependent variable is pooled FDI flows from different countries. Tuman (2006, 185) argues that such pooling omits important factors such as political structures, differences in corporate governance, and public (consumer) pressure in the home economy. Given the complexity of the models tested here, I leave the task of respecifying the dependent variable by flows from certain home economies to future research. Nevertheless, Tuman's admonition is a valuable one that should inform replication of the models tested here.

## METHOD

Most large-*N* studies of FDI inflows embrace panel studies as superior to cross-sectional analysis (e.g., Gastanaga, Nugent, and Pashamova 1998,

16. The alternative measure found in the literature is all primary exports, which seems too broad because it includes agriculture.

1300). Scholars of FDI and those concerned with the effects of market-oriented reforms on growth typically justify this practice by pointing out that outcomes are often period and/or country dependent (Cuadros, Orts, and Alguacil 2004, 168). This underscores the importance of using time-series cross-sectional (TSCS) techniques. Ordinary least squares (OLS) with the panel-corrected standard error (PCSE) procedure can correct for overly optimistic error estimates found in the sole use of conventional OLS techniques (Beck and Katz 1995). Following other studies of FDI in Latin America (e.g., Biglaiser and DeRouen 2006), I include the lag of the dependent variable to correct for AR(1) serial autocorrelation. Furthermore, the independent variables are lagged to limit possible endogeneity. I specify models that include mixtures of the relevant independent variables and controls so as to minimize multicollinearity. Preliminary tests showed that the primary areas of collinearity are between market size and factor controls (e.g., GDP size and percentage of the population that is urban), the Polity IV and FH political rights scale (although not the FH civil rights scale or terror scale), and governance and reform variables that are run in separate models (for the correlation matrix, see Appendix table 2).[17] Some of the costs and reform variables (e.g., financial reform and financial regulations) were collinear so they were not run in the same specifications. Time period and country dummies are omitted from the presentation of results to simplify the table.

## RESULTS

Table 1 presents the test results of five models. The first governance model includes the risk-mitigating factors plus the market size and macroeconomic policy controls. The second governance model adds two cost factors (tax burden and financial regulation), and the third governance model tests the same independent variables but with the factor cost controls and without the market size variables known to produce collinearity problems. The final two models test the reform variables. The first specification includes three governance controls (Polity IV, civil liberties, and terror scale) and the market size and macroeconomic policy controls.[18] The second omits the market size variables and includes the factor cost controls.

The three governance models produce little evidence that the major risk-mitigating institutions in Latin America affect FDI flows. Although

17. Following the work of Chakrabarti (2001), I run GDP and GDP per capita as separate variables in the same models despite their collinearity. I did test the two governance and the first reform models by running only one or the other of these variables. The results did not change. When I dropped the period and country dummies, only privatization was significant and then only at the .1 level.

18. The FH civil liberties scale is omitted from the table to facilitate the presentation. This variable was insignificant in all model specifications.

*Table 1 Results of Model Tests*

| | Governance$_1$ | Governance + Cost$_1$ | Governance + Cost$_2$ | Reform$_1$ | Reform$_2$ |
|---|---|---|---|---|---|
| FDI$_{lagged}$ | **0.372**** | **0.358**** | **0.300**** | 0.132 | 0.170 |
| | (0.147) | (0.152) | (0.151) | (0.322) | (0.257) |
| Corruption | 0.449 | 0.405 | 0.344 | | |
| | (0.275) | (0.273) | (0.408) | | |
| Legal System | 0.129 | 0.091 | 0.235 | | |
| | (0.237) | (0.246) | (0.256) | | |
| Investment Climate | 0.040 | 0.024 | 0.076 | | |
| | (0.108) | (0.107) | (0.109) | | |
| Polity IV | **−0.152*** | **−0.14*** | **−0.155*** | −0.066 | −0.130 |
| | (0.086) | (0.083) | (0.079) | (0.114) | (0.140) |
| Terror Scale | **0.239*** | **0.209*** | 0.156 | 0.382 | 0.067 |
| | (0.124) | (0.123) | (0.124) | (0.271) | (0.143) |
| Tax Burden | | −0.166 | −0.036 | | |
| | | (0.156) | (0.208) | | |
| Financial Regulation | | 0.156 | 0.177 | | |
| | | (0.116) | (0.175) | | |
| Tax Reform | | | | −0.838 | −0.546 |
| | | | | (4.092) | (5.434) |
| Trade Liberalization | | | | 0.085 | 0.356 |
| | | | | (2.778) | (2.731) |
| Financial Reform | | | | 0.585 | 0.678 |
| | | | | (1.867) | (2.109) |
| Privatization | | | | 4.927 | 3.159 |
| | | | | (3.121) | (2.327) |
| Labor Reform | | | | −0.257 | 0.024 |
| | | | | (4.826) | (4.484) |
| GDP$_{log}$ | −0.071 | 0.005 | | 0.867 | |
| | (2.175) | (2.137) | | (4.100) | |
| GDP per Capita$_{log}$ | 1.060 | 1.016 | | 4.213 | |
| | (1.627) | (1.695) | | (3.303) | |
| Inflation | 0.000 | 0.000 | 0.001 | 0.001 | 0.001 |
| | (0.001) | (0.001) | (0.000) | (0.001) | (0.001) |
| Exchange-Rate Variance | −0.305 | −0.295 | −0.262 | −0.184 | −0.252 |
| | (0.381) | (0.384) | (0.313) | (0.596) | (0.468) |
| Fiscal Deficits | 0.027 | 0.022 | −0.006 | −0.013 | −0.042 |
| | (0.055) | (0.055) | (0.080) | (0.101) | (0.131) |

*(continued)*

https://doi.org/10.1353/lar.2008.0008 Published online by Cambridge University Press

*Table 1 (Continued)*

| | Governance$_1$ | Governance + Cost$_1$ | Governance + Cost$_2$ | Reform$_1$ | Reform$_2$ |
|---|---|---|---|---|---|
| Current Account | **0.059**** | **0.067**** | **0.066**** | **0.092**** | **0.078*** |
| | (0.026) | (0.027) | (0.033) | (0.032) | (0.041) |
| Trade/GDP Ratio | 0.011 | 0.003 | 0.011 | −0.015 | 0.014 |
| | (0.015) | (0.015) | (0.020) | (0.031) | (0.039) |
| Urban Density | | | −0.076 | | −0.026 |
| | | | (0.128) | | (0.261) |
| Manufacturing Base | | | **−0.100*** | | −0.091 |
| | | | (0.057) | | (0.124) |
| Ore Exports | | | −0.033 | | −0.147 |
| | | | (0.050) | | (0.097) |
| Fuel Exports | | | **−0.050**** | | −0.023 |
| | | | (0.022) | | (0.025) |
| Constant | −3.988 | −4.306 | 6.466 | −42.183 | 16.212 |
| | (56.343) | (55.608) | (6.207) | (84.426) | (17.190) |
| $N$ | 219 | 219 | 199 | 176 | 159 |
| $R^2$ | 0.68 | 0.68 | 0.70 | 0.72 | 0.72 |
| Wald $\chi^2$ | 21941.9 | 6400.17 | 8.27E+06 | 100624.46 | 83.42 |
| Prob $> \chi^2$ | .000 | .000 | .000 | .000 | .000 |

*Note:* Primary numbers are regression coefficients with unbalanced data, and numbers in parentheses are panel-corrected standard errors.

All tests are two-tailed: *significant at .10; **significant at .05.

all have the expected sign, all but the regime variables were statistically insignificant.[19] The performance of the Polity IV and terror scale variables confirms Tuman and Emmert's (2004) conclusions that more autocratic polities attract greater FDI. Yet the FH variables do not bear out Tuman's (2006) expectations that it is limits on civil and political rights that are primarily responsible. Human rights violations may be important, but the impact of state-directed terror is inconsistent, as the third model demonstrates.[20] The cost-mitigating factors were insignificant. Among the

19. I omitted the Fraser Institute index for law and order from the presentation. It performed similarly to the PRC's legal system variable in all specifications.

20. I ran the FH variables in lieu of the Polity IV variable, and the political rights scale performed similarly to Polity scores.

https://doi.org/10.1353/lar.2008.0008 Published online by Cambridge University Press

macroeconomic variables, only the performance of the current account remains a robust predictor of FDI flows in the region. Market size and most of the macroeconomic performance controls do not register as important. On the basis of the third model, one might also claim that the less industrialized countries depend more on FDI, an unsurprising finding once the market size controls are omitted. It is also not surprising that countries with less dependence on oil exports give FDI more weight in their economies.

The two reform models underscore that the institutional elements of domestic economies seem to carry little explanatory power when macroeconomic variables and factor controls are included. None of the reform variables are significant. Privatization came the closest to achieving statistical significance ($p = .114$) in the first model, but its role became indeterminate in subsequent tests. It is notable that only the performance of the current account consistently explains FDI flows. When market size, macroeconomic policy, and factor controls are included, this variable stands out as the most robust predictor, as well as in models with an improved goodness of fit ($R^2 = .72$) over the governance specifications.[21] The regime variables fail to achieve statistical significance in the reform models.

## CONCLUSIONS

Even when the degree of an economy's integration into global markets, the level of development, and relative economic freedom are accounted for, it is the consistent performance on the current account that matters most to foreign investors. This finding is not altogether surprising, given that trade balances are one of the most apparent indicators of the performance of developing countries' economies. Current account data is readily available to foreign investors, and such data can be used to track the market growth potential of a country over a relatively long period of time. Historically, in Latin America imbalances in the current account predict more fundamental problems in an economy. It is notable that current account imbalances preceded all the major financial crises of the Latin American economies during the ISI period and during the more recent neoliberal reform period. Consequently, foreign investors may view low current account deficits or even surpluses as credible signs of a sustained commit-

21. I retested all the models by dropping the current account variable to determine whether the other macroeconomic indicators became significant. The lagged annual inflation variable did, once, in the Governance + $Costs_2$ model, and then only at the .1 level and the sign ran in the wrong direction. None of the other independent variables proved consistently significant in the retests.

https://doi.org/10.1353/lar.2008.0008 Published online by Cambridge University Press

ment to good macroeconomic management. These conditions also signal MNCs interested in investing in growing intraregional trade and global sourcing chains of a given market's competitiveness. None of this discounts the logic of the risk- and cost-mitigating arguments for explaining MNC behavior. Foreign investors wish to hedge their bets in Latin America, but they regard more highly deeds in the economic sphere over deeds in the legislative and regulatory arenas and certainly over the words of host economy governments that they will engineer good governance and sustained reform with legislative changes.

How do the findings of this study improve upon similarly comprehensive analyses of the empirical data that have been published recently? Three studies appear most relevant as candidates for comparison: those of (1) Trevino, Daniels, and Arbeláez (2002), (2) Tuman and Emmert (2004), and (3) Biglaiser and DeRouen (2006). Trevino, Daniels, and Arbeláez (2002) find that the current account balance is insignificant, while privatization reforms, market size, and percentage change in consumer prices are predictors of FDI inflows. However, the authors choose not to lag their independent variables, a position inconsistent with the recommendations of Tuman and Emmert (2004, 16–15) among other studies. I replicated Trevino, Daniels, and Arbeláez's study using similar measures for their variables and found that the current account balance had no effect in the unlagged test but was significant at the .05 level when the variables were lagged. Trevino, Daniels, and Arbeláez (2002, 32) challenge the role of the current account further by suggesting that it is deficits that encourage FDI, because imbalances create an incentive for governments to lure foreign capital. So does FDI improve the current account? I tested this proposition and found that FDI flows could not predict current account performance.[22] Finally, this study controls for each country as Trevino, Daniels, and Arbeláez do, although it tests fifteen countries to their study's seven, thereby picking up the experience of some of the smaller countries in the region included in the other two studies of comparison.

Tuman and Emmert (2004) do not test the performance of the current account per se, but they do include a trade openness variable in their lagged model. Their rationale only accepts part of the logic linking FDI to trade, namely the search for competitive markets. Liberalization, however, is not a guarantor of sustainable integration into international markets. Some econometric evidence confirms that extensive liberalization of the economy can even undermine current account balances by causing im-

22. I ran models that regressed the current account on lagged FDI and models that included macroeconomic controls, such as annual inflation, exchange-rate variance, and fiscal deficits, and time period and country dummies. The instability of the exchange rate affected the current account, as expected, but not FDI, inflation, or deficits.

ports to rise more quickly than exports (Santos-Paulino 2004). This suggests a trade-off at some point between liberalizing reforms and macroeconomic stability, which would explain the performance of the reform variables in comparison to the role of the current account, as well as the failure of trade orientation (trade/GDP) to achieve statistical significance when the current account is included or excluded. The amount of variance explained in the dependent variable is another weak point in Tuman and Emmert's study (an adjusted $R^2$ of .34), whereas this study and the other two mentioned above explain more than 60 percent of the variance of FDI flows in the region.

The more controversial finding underscored by Tuman and Emmert and unsupported by the current study is their conclusion that countries with poor human rights records tend to collect more FDI inflows. The current study finds that infringements of political and civil rights and the relative level of political terror are not consistent predictors. Some of the results suggest that when factor costs are included, FDI flows figure more prominently in the less industrialized countries. These are also the Latin American states that tend to have the most problematic experiences with consolidating democracy. Certainly this is the case in the Andes and the Central American countries. Yet one might also ask if FDI tends to concentrate in those countries that are struggling democracies or whether those countries with more favorable current account performances are struggling democracies.[23] Although I could not find consistent evidence to support the claim, either by use of Polity IV or FH data, the question deserves more thorough empirical research than is possible here.

The weakness of the governance and reform variables in the statistical analysis is less mysterious because more studies have shown that these are inconsistent predictors. Although the present study confirms the findings of Biglaiser and DeRouen (2006) that most economic reforms are not determinants of FDI inflows, it raises doubts about the role of expropriation risk, a factor these authors found significant. Using the same data source to measure the variable, but extending the time period and adding other controls, this study could not confirm the importance of this independent variable. One reason for the different results is that my study employs country dummies, whereas Biglaiser and DeRouen eschew such controls. When my models drop the country dummies, investment climate and some of the reform variables, notably privatization, become statistically significant. This suggests that the country dummies account for important differences among the cases.

23. Neither the macroeconomic variables nor FDI lagged could predict changes in Polity IV scores over time. In one test, good performance on the current account was inversely associated with the FH political rights scale.

To be sure, there are substantive reasons why risk-mitigating factors such as investment climate may not perform consistently. Trevino, Daniels, and Arbeláez (2002, 42) argue that political risk may not be as important a factor if MNCs do not see much difference among the performance of the Latin American countries on this indicator. Moreover, as the present study suggests, consistent macroeconomic performance, especially on the current account, may serve as sufficient commitment by Latin American states to liberal market policies and globalization to allay the apprehensions of foreign investors. One erstwhile principle the nonfinding on reform underscores is that no commitment to liberalization is credible without a demonstrated obligation to macroeconomic policy discipline (Loser and Williams 1997, 268). Once again, this highlights the importance of consistent positive performance on the current account. Foreign investors appear less impressed with what Latin American governments say and more persuaded by what they have done and how that has already paid off.

The "deeds, not words" injunction has fundamental implications for policy and reform in Latin America. The conditions of competitiveness in the current global system have placed a premium on MNCs choosing their investment locations wisely and with an eye to an international strategy. Latin American governments seeking to lure this investment will never have access to the same information MNC managers do, so not even their best promotional strategies will affect FDI flows. These governments would be better advised to generate stable macroeconomic results. To be sure, good governance and economic reforms are a means to this end, so one ought not conclude that governments can get to deeds without haggling over the terms of reform. Policies that attract FDI must come in packages. Yet MNCs are not likely to act in the face of a rapidly changing global marketplace without some sense that Latin American governments are closer to the deeds end of the policy spectrum than they are to the words end.

*Appendix Table 1 Descriptive Statistics*

| Variable | *N* | Mean | S.D. | min | max |
|---|---|---|---|---|---|
| FDI Inflows (WDI) | 285 | 2.287052 | 2.156103 | −0.5173905 | 12.19665 |
| Investment Climate | 300 | 6.573333 | 2.057415 | 1.166667 | 11.5 |
| Corruption | 300 | 2.869722 | 0.9090823 | 0 | 5 |
| Legal System | 285 | 4.599965 | 1.291117 | 0.04 | 6.9 |
| Financial Regulation | 285 | 5.049123 | 2.843562 | 0 | 10 |
| Trade/GDP | 285 | 40.90126 | 17.64171 | 10.67521 | 85.46229 |
| Trade Liberalization | 211 | 0.7698507 | 0.1875088 | 0.0771881 | 0.9616293 |
| Tax Reform | 225 | 0.4332018 | 0.1066216 | 0.1745237 | 0.6805511 |
| Financial Reform | 225 | 0.4739201 | 0.2235875 | 0 | 0.9863383 |
| Privatization | 225 | 0.0873302 | 0.1708445 | 0 | 1 |
| Labor Market Reform | 225 | 0.5313199 | 0.1697445 | 0.211301 | 0.8006417 |
| Tax Burden | 285 | 6.885965 | 1.441385 | 1.5 | 9.4 |
| Polity IV (Rescaled) | 284 | 16.89437 | 3.338834 | 2 | 20 |
| $GDP_{log}$ | 300 | 24.24335 | 1.529811 | 22.03075 | 27.2107 |
| GDP per $Capita_{log}$ | 300 | 7.833004 | 0.6490686 | 6.72264 | 9.01614 |
| Inflation | 300 | 123.2025 | 852.8315 | −1.166896 | 11749.64 |
| Exchange-Rate Variance | 283 | 0.2971219 | 0.5606213 | 0 | 3.658981 |
| Urban Density | 300 | 67.27963 | 15.61552 | 37.74 | 92.75 |
| Manufacturing Base | 297 | 19.36663 | 4.30518 | 9.968138 | 36.23031 |
| Ore Exports | 281 | 10.98519 | 16.6392 | 0.0009872 | 59.20829 |
| Fuel Exports | 284 | 15.84905 | 22.95853 | 0.0001897 | 87.13515 |
| Current Account | 300 | −2.376645 | 4.135985 | −14.69608 | 17.60478 |
| Fiscal Deficit | 247 | −2.731896 | 5.397753 | −49.9544 | 5.433146 |
| FH Civil Rights | 315 | 1.907937 | .9346994 | 0 | 5 |
| FH Political Rights | 315 | 1.438095 | 1.11667 | 0 | 5 |
| Terror Scale | 299 | 2.070234 | 1.054751 | 0 | 4.5 |

https://doi.org/10.1353/lar.2008.0008 Published online by Cambridge University Press

*Appendix Table 2 The Correlation Matrix*

| | FDI Flows | FDI $Flows_{lag}$ | Corrup-tion | Legal System | Invest. Climate | Polity IV | Terror Scale | Tax Burden | Finan. Reg. | Tax Reform | Trade Lib. | Finan. Reform | Priv. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FDI Flows | 1 | | | | | | | | | | | | |
| FDI $Flows_{lagged}$ | 0.7306 | 1 | | | | | | | | | | | |
| Corruption | 0.1145 | 0.1205 | 1 | | | | | | | | | | |
| Legal System | 0.142 | 0.115 | 0.519 | 1 | | | | | | | | | |
| Investment Climate | 0.4109 | 0.4609 | 0.149 | 0.3766 | 1 | | | | | | | | |
| Polity IV | 0.09 | 0.1096 | 0.3453 | −0.0702 | 0.1135 | 1 | | | | | | | |
| Terror Scale | 0.1937 | −0.2091 | −0.0061 | −0.3506 | −0.3269 | −0.1104 | 1 | | | | | | |
| Tax Burden | 0.363 | 0.3625 | −0.1763 | −0.0188 | 0.4335 | −0.0722 | −0.0422 | 1 | | | | | |
| Financial Regulation | 0.3108 | 0.3035 | 0.001 | 0.1333 | 0.5301 | 0.1584 | −0.3354 | 0.5038 | 1 | | | | |
| Tax Reform | 0.326 | 0.2793 | −0.0074 | −0.062 | 0.3447 | 0.2136 | −0.1879 | 0.3522 | 0.2448 | 1 | | | |
| Trade Liberalization | 0.414 | 0.3997 | −0.0933 | −0.0018 | 0.3925 | −0.0661 | −0.1555 | 0.6512 | 0.553 | 0.4419 | 1 | | |
| Financial Reform | 0.4338 | 0.4268 | −0.1356 | 0.207 | 0.5062 | 0.045 | −0.37 | 0.5593 | 0.6076 | 0.1121 | 0.5566 | 1 | |
| Privatization | 0.5791 | 0.638 | −0.0911 | −0.0133 | 0.2877 | 0.0047 | −0.1336 | 0.3721 | 0.2892 | 0.0437 | 0.2952 | 0.486 | 1 |
| Labor Reform | 0.0446 | −0.025 | 0.2732 | 0.0448 | −0.0833 | 0.0841 | 0.2846 | −0.1558 | −0.3191 | 0.0507 | −0.1617 | −0.2005 | −0.4014 |
| $GDP_{log}$ | 0.1712 | −0.1646 | 0.341 | 0.3235 | −0.0589 | −0.1051 | 0.2083 | −0.0558 | −0.0409 | −0.5141 | −0.2239 | 0.0132 | 0.1356 |
| GDP per $Capita_{log}$ | 0.0501 | −0.0318 | 0.3943 | 0.5659 | 0.1687 | −0.0534 | −0.1015 | −0.0535 | 0.2453 | −0.4951 | −0.0012 | 0.2992 | 0.0257 |
| Inflation | 0.0802 | −0.0757 | 0.1139 | 0.0782 | −0.1527 | −0.0095 | −0.0649 | −0.3231 | −0.2272 | −0.1826 | −0.1548 | −0.0073 | −0.0629 |
| Exchange-Rate Var. | 0.2589 | −0.2616 | 0.2197 | 0.1696 | −0.2609 | 0.0372 | 0.1128 | −0.2384 | −0.4527 | −0.3169 | −0.4567 | −0.2321 | −0.1764 |
| Fiscal Deficits | 0.161 | 0.1907 | −0.0721 | 0.0706 | 0.1206 | 0.0473 | −0.0959 | −0.2087 | 0.1129 | 0.148 | 0.1386 | 0.0933 | −0.0078 |
| Current Account | 0.0806 | −0.1217 | 0.1125 | −0.0391 | −0.0386 | 0.0703 | 0.1837 | −0.0013 | −0.0511 | −0.1361 | −0.0049 | 0.0283 | −0.1158 |
| Trade/GDP Ratio | 0.2104 | 0.2003 | 0.1489 | 0.0435 | 0.2061 | 0.0561 | −0.1025 | 0.0581 | 0.235 | 0.4284 | 0.2283 | −0.1173 | −0.095 |
| Urban Density | 0.0981 | 0.1087 | 0.0654 | 0.4127 | 0.1492 | −0.0442 | −0.1122 | −0.0026 | 0.0529 | −0.3103 | 0.0009 | 0.3924 | 0.1678 |
| Manufacturing Base | 0.3442 | −0.3098 | 0.4324 | 0.2045 | −0.2426 | 0.0961 | 0.0414 | −0.2972 | −0.5024 | −0.4314 | −0.5129 | −0.3194 | −0.1955 |
| Ore Exports | 0.3956 | 0.3808 | −0.0358 | 0.2617 | 0.148 | −0.1183 | −0.1482 | 0.2409 | −0.169 | 0.223 | 0.2614 | 0.2196 | 0.1361 |
| Fuel Exports | −0.091 | −0.0973 | −0.1514 | −0.2105 | −0.2795 | 0.0855 | 0.1594 | −0.2633 | −0.0115 | −0.1573 | −0.2825 | −0.2053 | 0.0396 |

https://doi.org/10.1353/lar.2008.0008 Published online by Cambridge University Press

*Appendix Table 2 (Continued)*

| | Labor Reform | $GDP_{log}$ | GDP per $Capita_{log}$ | Inflation | Exchange-Rate Var. | Fiscal Deficits | Current Account | Trade/ GDP Ratio | Urban Density | Mfg. Base | Ore Exports | Fuel Exports |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FDI Flows | | | | | | | | | | | | |
| $FDI\ Flows_{lagged}$ | | | | | | | | | | | | |
| Corruption | | | | | | | | | | | | |
| Legal System | | | | | | | | | | | | |
| Investment Climate | | | | | | | | | | | | |
| Polity IV | | | | | | | | | | | | |
| Terror Scale | | | | | | | | | | | | |
| Tax Burden | | | | | | | | | | | | |
| Financial Regulation | | | | | | | | | | | | |
| Tax Reform | | | | | | | | | | | | |
| Trade Liberalization | | | | | | | | | | | | |
| Financial Reform | | | | | | | | | | | | |
| Privatization | | | | | | | | | | | | |
| Labor Reform | 1 | | | | | | | | | | | |
| $GDP_{log}$ | 0.0498 | 1 | | | | | | | | | | |
| GDP per $Capita_{log}$ | 0.1382 | 0.7127 | 1 | | | | | | | | | |
| Inflation | 0.0155 | 0.1301 | 0.144 | 1 | | | | | | | | |
| Exchange-Rate Var. | 0.1359 | 0.3989 | 0.1464 | 0.4649 | 1 | | | | | | | |
| Fiscal Deficits | 0.0579 | −0.1717 | 0.0219 | 0.0499 | −0.2299 | 1 | | | | | | |
| Current Account | 0.0333 | 0.2137 | 0.2515 | 0.101 | 0.1919 | −0.08 | 1 | | | | | |
| Trade/GDP Ratio | 0.0041 | −0.4164 | −0.2589 | −0.1859 | −0.4258 | 0.1531 | −0.0996 | 1 | | | | |
| Urban Density | 0.1376 | 0.4828 | 0.7295 | 0.1523 | 0.204 | 0.1734 | 0.2509 | −0.4846 | 1 | | | |
| Manufacturing Base | 0.1308 | 0.4374 | 0.225 | 0.3232 | 0.6004 | −0.4068 | 0.1762 | −0.2753 | 0.0812 | 1 | | |
| Ore Exports | 0.0277 | −0.3333 | −0.0569 | −0.0544 | −0.0436 | 0.1496 | −0.1247 | 0.0356 | 0.2639 | −0.1324 | 1 | |
| Fuel Exports | 0.3071 | 0.2047 | 0.0889 | −0.019 | −0.0071 | 0.0839 | 0.204 | −0.1187 | 0.2718 | −0.0436 | −0.1236 | 1 |

https://doi.org/10.1353/lar.2008.0008 Published online by Cambridge University Press

REFERENCES

Asiedu, Elizabeth, and Donald Lien
2004 "Capital Controls and Foreign Direct Investment." *World Development* 32 (3): 479–490.
Bengoa, Marta, and Blanca Sanchez-Robles
2003 "Foreign Direct Investment, Economic Freedom, and Growth: New Evidence from Latin America." *European Journal of Political Economy* 19 (3): 529–545.
Biglaiser, Glen, and Karl DeRouen
2006 "Economic Reforms and Inflows of Foreign Direct Investment in Latin America." *Latin American Research Review* 41 (1): 51–75.
Carranza, Mario E.
2003 "Can Mercosur Survive? Domestic and International Constraints on Mercosur." *Latin American Politics and Society* 45 (2): 67–103.
Chakrabarti, Avik
2001 "The Determinants of Foreign Direct Investment: Sensitivity Analyses of Cross-Country Regressions." *Kyklos* 54: 89–113.
Cuadros, Ana, Vicente Orts, and Maite Alguacil
2004 "Openness and Growth: Re-examining Foreign Direct Investment, Trade and Output Linkages in Latin America." *Journal of Development Studies* 40 (4): 167–192.
Doremus, Paul N., William W. Keller, Louis W. Pauly, and Simon Reich
1998 *The Myth of the Global Corporation.* Princeton, NJ: Princeton University Press.
Dunning, John H.
1981 *International Production and the Multinational Enterprise.* Boston: Allen & Unwin.
Edwards, Sebastian
1997 "Bad Luck or Bad Policies? An Economic Analysis of the Crisis." In *Mexico 1994: Anatomy of an Emerging-Market Crash,* edited by Sebastian Edwards and Moisés Naím, 95–124. Washington, D.C.: Carnegie Endowment for Peace.
Eichengreen, Barry
2004 "What Macroeconomic Measures Are Needed for Free Trade to Flourish in the Western Hemisphere?" *Latin American Politics and Society* 46 (2): 1–27.
Frieden, Jeffry A.
1991 *Debt, Development, and Democracy: Modern Political Economy and Latin America, 1965–1985.* Princeton, NJ: Princeton University Press.
Friedman, Thomas
1999 *Lexus and the Olive Tree.* New York: Farrar, Straus and Giroux.
2005 *The World Is Flat: A Brief History of the Twenty-first Century.* New York: Farrar, Straus and Giroux.
Gastanaga, Victor M., Jeffrey B. Nugent, and Bistra Pashamova
1998 "Host Country Reforms and FDI Inflows: How Much Difference Do They Make?" *World Development* 26: 1299–1314.
Gereffi, Gary
2001 "Shifting Governance Structures in Global Commodity Chains, With Special Reference to the Internet." *American Behavioral Scientist* 44 (10): 1616–1638.
Globerman, Steven, and Daniel Shapiro
2002 "Global Foreign Direct Investment Flows: The Role of Governance Infrastructure." *World Development* 30: 1899–1919.
Görg, Holger, and Katharine Wakelin
2004 "The Impact of Exchange Rate Variability on U.S. Direct Investment." Paper prepared for the GEP conference on FDI and Economic Integration, University of Nottingham, June 29–30.
Green, Cecilia
1998 "The Asian Connection: The U.S.-Caribbean Apparel Circuit and a New Model of Industrial Relations." *Latin American Research Review* 33 (3): 7–47.
Hartlyn, Jonathan, and Samuel A. Morley
1986 "Political Regimes and Economic Performance in Latin America." In *Latin American Political Economy: Financial Crisis and Political Change,* edited by Jonathan Hartlyn and Samuel A. Morley, 15–37. Boulder, CO: Westview Press.

Henisz, Witold J.
2000 "The Institutional Environment for Multinational Investment." *Journal of Law, Economics and Organization* 16 (2): 334–364.
Heo, Uk, and Karl DeRouen
2002 "Modernization and Dependency Revisited: U.S. Direct Investment, Development, and Polity in Latin America, 1950–1998." *Global Economic Review* 31 (3): 67–93.
Jensen, Nathan M.
2003 "Democratic Governance and Multinational Corporations: Political Regimes and Inflows of Foreign Direct Investment." *International Organization* 57 (Summer): 587–616.
Li, Quan, and Adam Resnick
2003 "Reversal of Fortunes: Democratic Institutions and Foreign Direct Investment Inflows to Developing Countries." *International Organization* 57 (Winter): 175–211.
Lora, Eduardo
2001 "Structural Reforms in Latin America: What Has Been Reformed and How to Measure It." Working Paper No. 466, Inter-American Development Bank (December).
Loser, Claudio M., and Ewart S. Williams
1997 "The Mexican Crisis and Its Aftermath: An IMF Perspective." In *Mexico 1994: Anatomy of an Emerging-Market Crash*, edited by Sebastian Edwards and Moisés Naím, 259–273. Washington, D.C.: Carnegie Endowment for Peace.
Markusen, James R., and Keith E. Maskus
1999 "Multinational Firms: Reconciling Theory and Evidence." Working Paper No. 7163, National Bureau of Economic Research, Cambridge, MA.
Montero, Alfred P.
1998 "State Interests and the New Industrial Policy in Brazil: The Case of the Privatization of Steel, 1990–1994." *Journal of Interamerican Studies and World Affairs* 40 (3): 27–62.
Morley, Samuel A., Roberto Machado, and Stefano Pettinato
1999 "Indexes of Structural Reform in Latin America." *Reformas Económicas* 12: 1–34.
Mortimore, Michael, and Sebastian Vergara
2004 "Targeting Winners: Can Foreign Direct Investment Policy Help Developing Countries Industrialise." *The European Journal of Development Research* 16 (3): 499–530.
Oneal, John R.
1994 "The Affinity of Foreign Investors for Authoritarian Regimes." *Political Research Quarterly* 47 (3): 565–588.
Rodrik, Dani
1989 "Promises, Promises: Credible Policy Reform via Signaling." *The Economic Journal* 99: 756–772.
2000 "Institutions for High-Quality Growth: What They Are and How to Acquire Them." *Studies in Comparative International Development* 35 (3): 3–31.
Santos-Paulino, Amelia U.
2004 "Trade Liberalization and the Balance of Payments in Selected Developing Countries." *The Manchester School* 72 (1): 100–118.
Schoenberger, Erica
1994 "Competition, Time, and Space in Industrial Change." In *Commodity Chains and Global Capitalism*, edited by Gary Gereffi and Miguel Korzeniewicz, 51–66. Westport, CT: Praeger.
Strange, Susan
1992 "States, Firms, and Diplomacy." *International Affairs* 68 (1): 1–15.
Teichman, Judith A.
2001 *The Politics of Freeing Markets in Latin America: Chile, Argentina, and Mexico.* Chapel Hill: University of North Carolina Press.
Trevino, Len J., John D. Daniels, and Harvey Arbeláez
2002 "Market Reform and FDI in Latin America: An Empirical Investigation." *Transnational Corporations* 11 (1): 29–48.

Trevino, Len J., John D. Daniels, Harvey Arbeláez, and Kamal P. Upadhyaya
2002 "Market Reform and Foreign Direct Investment in Latin America: Evidence from an Error Correction Model." *The International Trade Journal* 16 (4): 367–392.
Tuman, John P.
2006 "Commentary: Regime Type, Rights, and Foreign Direct Investment in Latin America." *Latin American Research Review* 41 (2): 183–185.
Tuman, John P. and Craig F. Emmert
1999 "Explaining Japanese Foreign Direct Investment in Latin America, 1979–1992." *Social Science Quarterly* 80 (3): 539–555.
2004 "The Political Economy of U.S. Foreign Direct Investment in Latin America: A Reappraisal." *Latin American Research Review* 39 (3): 9–28.
Tuman, John P., and John T. Morris
1998 "The Transformation of the Latin American Automobile Industry." In *Transforming the Latin American Automobile Industry: Unions, Workers, and the Politics of Restructuring,* edited by John P. Tuman and John T. Morris, 3–25. New York: ME Sharpe.
Tures, John A.
2003 "The Impact of Instability and Institutions on U.S. Foreign Direct Investment in Developing Areas." *Conflict, Security and Development* 3 (2): 163–183.
Vernon, Raymond
1971 *Sovereignty at Bay: The Multinational Spread of U.S. Enterprises.* New York: Basic Books.
Wei, Shang-Jin
2000 "How Taxing Is Corruption on International Investors?" *The Review of Economics and Statistics* 82 (1): 1–11.