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Market reform and FDI in Latin America:
an empirical investigation



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Market reform and FDI in Latin America: an empirical investigation

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This article relates opportunity, risk and market reform factors to foreign direct investment (FDI) flows in the 1988-1999 timeframe for seven Latin American countries: Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela. By focusing on the extent of reform in the region, we extend macroeconomic studies of FDI. We develop hypotheses related to the three primary types of market reform (microeconomic, macroeconomic and institutional) and to traditional opportunity and risk factors. We test them via a pooled, time-series multivariate regression model. We also use a country dummy variable to determine, *ceteris paribus*, which countries were most successful at attracting FDI. Overall, the model explains almost three-quarters of the variance in FDI flows. The most significant factors explaining FDI flows were gross domestic product, privatization and changes in the consumer price index.

Introduction

This article examines the relationship of changes in FDI inflows as undertaken by transnational corporations (TNCs) to conditions in seven Latin American countries during the 1988-1999 period. It includes traditional indicators of opportunity and risk (Pindyck, 1993), as well as indicators of three components of market reform: microeconomic, macroeconomic and institutional (Kennedy and Sandler, 1997; Trevino, 1999). By including market reforms, this

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article extends various macroeconomic studies of FDI that related comparative FDI inflows to indicators of risk and opportunity (Aliber, 1970; Daniels and Quigley, 1980; Froot and Stein, 1991; Grosse and Trevino, 1996).

Because companies seldom have sufficient resources to exploit all international opportunities, their potential FDI outflows and countries' inflows are limited for any given period. Thus, countries compete to receive shares of the limited FDI flows (Yean, 1998). But, FDI flows vary among the countries we include in this study and over time. Why, then, does more FDI flow to some countries than to others? Both microeconomic and macroeconomic studies of FDI indicate that companies choose one country over another because of their perceptions of comparative opportunity and risk. Opportunity may be either to gain markets or to acquire resources; risk may be political, monetary or competitive. Because companies' motives, competencies, perceptions, and tolerances for risk may differ substantially, what may be a very attractive country for one company may be simultaneously unattractive for another. Yet, the sum of all companies' decisions determines how much FDI each country receives. Concomitantly, the portion of FDI each country receives varies over time, largely because managers perceive relative changes in countries' opportunities and risks.

Let us turn for a moment to the reasons for examining FDI inflows. Government officials in developing countries acknowledge that they need outside capital to achieve their growth objectives; increasingly, this outside capital must come from FDI. Between 1991 and 1998, the share of FDI in total capital flows to developing countries increased from 28 per cent to 56 per cent (UNCTAD, 1999a). This change occurred partly because industrial countries have generally stabilized foreign aid and loans for development. They have done so because major powers have been less interested in winning allies since the end of the cold war, because many industrial country constituents have become disillusioned about the positive effects of foreign aid on economic growth, and because some public opinion has grown to favour disaster aid over development aid. The change also occurred because of drops in bank lending, as lenders have perceived higher risks of loan and interest repayments.

At the same time, host governments have become more interested in receiving private outside capital in the form of FDI rather than in portfolio flows (loans and short-term investments). This is

because portfolio flows have a potential for higher volatility, such as the volatility that exacerbated recent financial crises in a number of developing countries, such as Mexico and Thailand. Additionally, host governments realize that private companies hold resources other than capital that can aid their development, such as technology, human resource training competencies and access to foreign markets. But companies are reluctant to transfer these resources to countries that limit their control of the facilities that will use them (Moran, 1998), thus governments now encourage FDI. Karl P. Sauvant of UNCTAD's Division on Investment, Technology and Enterprise Development expressed the current interest in FDI among developing countries by saying: "Twenty years or so ago, many governments saw TNCs as the development problem. Today, TNCs are seen as part of the solution" (UNCTAD, 1999b).

Latin America is a useful region for our study because Latin American and Caribbean countries receive a significant portion of the FDI inflows going to developing countries (UNCTAD, 1999a). As is true for the world as a whole, Latin American countries' attitudes towards FDI have become more positive since the 1980s (Grosse, 1999). Nevertheless, Latin American countries' liberalization policies, market reforms and inflows of FDI have varied with each other and over time. The seven countries we include in this study account for over 85 per cent of FDI within Latin America.

What do we mean by microeconomic, macroeconomic and institutional reforms? Microeconomic reforms decentralize economic decision-making by shifting it from the State to the private sector, so that market forces drive competition and thereby increase efficiency. To carry out these reforms, governments may lower trade barriers, reduce price controls and relax capital account restrictions on companies' market entry and exit. Macroeconomic reforms refer to governmental monetary and fiscal policies to reduce inflation and stabilize the exchange rate. Institutional reforms change the State's role from producer to facilitator, i.e. from government-owned to privately owned enterprises and from highly regulated to deregulated private enterprises, so that the private sector is encouraged and empowered to make investments and operating decisions.

Although countries aim to increase investment, their demographics, political attitudes and macroeconomic conditions influence the reforms they enact and the success of the reforms. We refer to these as location-specific determinants. These same location-

specific determinants also influence companies' perceptions of opportunity and risk; thus, they influence FDI movements (Pindyck, 1993). We do, of course, consider these in our model of FDI to Latin America in order to determine to what extent the reforms, rather than these location-specific factors, relate to Latin American FDI inflows. Specifically, we include host country economic size and political risk as opportunity and risk factors within our model. We include current account balance, capital account liberalization, inflation, exchange rate stability, and privatization as location-specific indicators in our model. Note that the distinction between reforms and location-specific factors is not clear-cut. For example, on the one hand, a government may privatize ownership in a company because it wants to make economic reforms. On the other hand, it may privatize to gain funds from sale of its companies in response to political pressures for an increase in short-term spending on social programmes.

In the remainder of this article, we explain our hypotheses and the variables and methodology we use to test them, offer statistical results and discuss the implications for countries trying to increase FDI inflows.

Hypotheses

Balance-of-payments deficits on current account occur because of excess demand for foreign goods and services. Some of this demand is for capital goods needed for the economic development process; therefore, governments often try to sustain the deficits rather than eliminating them through import restrictions or exchange rate manipulation. Governments may finance these deficits either by spending down their official reserves or by bringing in external capital. We have already discussed limitations on increasing official and portfolio capital inflows; thus, governments must turn increasingly to FDI if they are to sustain their current account deficits. As a result, managers in foreign companies may view host countries' deficits positively because such countries may offer them more favourable operating terms to attract capital inflows from TNCs. In fact, F. Schneider and B. S. Frey (1985), in a study of the economic and political determinants of FDI in developing countries before market reform, confirmed this relationship. Therefore, we expect that:

H1: The larger a host country's current account deficit, the greater the host country's inward FDI.

The next two hypotheses relate to macroeconomic stabilization, specifically reforms designed to reduce inflation and to stabilize the exchange rate. A high rate of inflation is a sign of internal economic instability and of a host government's inability to maintain expedient monetary policy. Where inflation rates are high, potential direct investors may perceive difficulty even in making short-term pricing decisions. Inflation also may inhibit export sales from the country, thus making resource-seeking FDI less attractive. For these reasons, companies may avoid making investment in countries with high inflation. In a study before Latin American countries made significant reforms, Schneider and Frey (1985) confirmed that companies invested less in developing countries with high inflation rates. Therefore, we expect that:

H2: The lower the percentage changes in consumer prices, the greater a host country's inward FDI.

Foreign investors may gain or lose from a depreciating exchange rate. In terms of gain, they may have more buying power in host countries. Thus, they can gain a larger foreign capacity for the same amount of home-country capital. Further, they can produce more cheaply when a real exchange rate depreciates; thus, they can export more easily and gain from resource-seeking FDI. However, foreign investors may lose because they must incur costs to prevent transaction and translation losses when currencies depreciate. If they believe that depreciation will continue after they enter a country, they may conclude the costs will be too high to justify their investments. In fact, findings by various researchers (Grosse and Trevino, 1996; Froot and Stein, 1991; Klein and Rosengren, 1994; Tuman and Emmert, 1999) are mixed in terms of investors' reactions to exchange rate depreciation. L. Leiderman and A. E. Thorne (1996) reported that FDI into Mexico changed very little after the Mexican currency crisis and devaluation of 1994. Further, in spite of the high value of the United States dollar during much of the 1980s, the United States was a net recipient of FDI. Despite the mixed evidence, we expect that:

H3: The greater the depreciation of a host country's currency in real terms, the greater the host country's inward FDI.

The market-size hypothesis suggests that investment will go primarily to markets large enough to support the scale economies needed for production. This reasoning helps to explain why most FDI goes to developed countries rather than to developing countries (Grosse and Trevino, 1996; Ajami and BarNiv, 1984). The reasoning has been pervasive, given that most investment historically has been market seeking, and much of the investment in developing countries has been in response to import substitution policies. However, evidence from studies comparing FDI flows to different emerging economies has been mixed. On the one hand, F. R. Root and A. A. Ahmed (1979) and J. P. Tuman and C. F. Emmert (1999) used gross domestic product (GDP) as a surrogate for market size and found it to be insignificant in explaining FDI among Latin American countries. On the other hand, J. D. Daniels and C. J. Quigley (1980) found that GDP not only was significant but also was the most important variable to explain FDI flows among Latin American countries. Further, UNCTAD (1994) concluded that market size was the main attractiveness for FDI. In spite of mixed prior research results, we expect that:

H4: The larger a host country's market size, as indicated by GDP, the greater the host country's inward FDI.

The next three hypotheses examine the relationship between institutional reform and inward FDI in the region. Governments in Latin America have had a pervasive influence on their societies. Historically, they owned major firms and had significant regulatory powers. In a very real sense, the line between business and government was unclear; this created uncertainty for foreign investors in Latin America. During recent market reforms, many traditional roles of government have been transformed. In the present article, we examine three measures of institutional reform: (1) to reduce political risk; (2) to allow market forces to determine capital movements and allocations; and (3) to privatize government-owned companies.

Political risk occurs through expropriation, insurrections and changes in rules (Daniels and Schweikart, 1999). All of these place

companies' FDI at risk or force investors to incur higher costs to reduce their risk. In either case, a country with high political risk is less appealing. However, previous studies (Gross and Trevino, 1996; Tallman, 1988; Kobrin, 1979) reached mixed conclusions about the effect of political risk on FDI. We use an index of composite political risk as an ex post facto proxy of institutional political reform. We expect that Latin American countries with lower political risk will receive more FDI, and we hypothesize that:

H5: The lower a host country's political risk, the greater the host country's inward FDI.

Capital markets are responsible for mobilizing and allocating capital and pricing and apportioning risk. Their task is to ensure that capital flows to its most optimal use and is allocated for economic, rather than for political reasons. We reason that, in order for developing countries to attract FDI, they must enforce a capital allocation system with strict and transparent rules and regulations. At the same time, they should not excessively control capital account transactions, such as via exchange-rate controls or restrictions of foreign ownership. In an effort to spur internal development, many Latin American countries have initiated capital market reform. Our proxy for capital market reform measures the degree of government control over capital account transactions. If governments maintain strict control over capital account transactions, such as via foreign exchange controls and restrictions on FDI, then TNCs may be reluctant to invest due to fears about restrictions on new capital formation, divestment and repatriation. Therefore, we expect that:

H6: The greater a host country's capital markets' liberalization, the greater the host country's inward FDI.

Latin American countries, like their counterparts in other regions of the world, have been privatizing government-owned companies. The primary reason why is that many of these companies operated inefficiently under government ownership. Through privatization, governments believe the companies will have to become more efficient to survive and that private owners will have better access to the capital, managerial and technical resources needed to help them become more efficient (International Finance Corporation, 1995). Further, governments believe they can reduce fiscal expenditures because they will no longer need to subsidize money-

losing operations. In fact, if the companies become profitable through private ownership, governments can receive tax revenue from them.

Governments may privatize by giving ownership away, such as by allocating shares to their citizens, or by selling ownership; in fact, they have done both. When selling ownership, governments have found domestic and foreign buyers. Sales to the latter result in FDI. And such sales are frequent because foreign TNCs often are the only entities with the requisite capital to make the purchases and are the only organizations that can infuse the necessary resources to improve the operating efficiency sufficiently. R. Devlin and R. Cominetti (1994) and G. Hartenek (1995) have contended that Latin American privatization programmes have given foreign companies more opportunities to invest within host Latin American countries. In fact, a high portion of FDI in both Argentina and Brazil during the period covered in our study was in privatized operations (Chudnovsky and López, 2001a; Laplane, Sarti, Hiratuka and Sabbatini, 2001). Therefore, we expect a positive relationship between privatization and FDI. However, this reasoning seems somewhat tautological. Thus, we believe that privatization increases FDI inflows in another way. Privatization sends a message to potential foreign investors that economic conditions will improve and that the political risk to foreign investors will decrease. For these reasons, we base our hypothesis on the investment link to non-privatized operations and state it as:

H7: The greater the value of host country privatisations, the greater the value of host country inward FDI.

Model

To evaluate these hypotheses, we tested models with multivariate regression equations, specifically pooled time-series and cross-section observations of FDI in seven Latin American countries for the period 1988-1999. As we discovered some non-trivial multicollinearity among the variables (see the covariance matrix in the appendix), we used alternative model specifications to deal with this problem. For example, we first examined exports and imports as separate variables but found that their high correlation argued for using trade (imports and exports) as an independent variable. Eventually, we eliminated this variable entirely due to its high correlation with our market size variable, GDP. We also included year as a dummy variable for the time trend in order to determine

whether FDI increased over time and to control for any effects that time may have on FDI in Latin America. FDI did increase over time, but it was not significant in explaining flows. We have used ordinary least squares to estimate our regression model.

The basic model is:

$$\text{FDI in Latin America} = f(\overset{-}{\text{host country balance of trade}}; \overset{-}{\text{host country inflation}}; \overset{-}{\text{real exchange rate}}; \overset{+}{\text{host country market size}}; \overset{-}{\text{host country political risk}}; \overset{+}{\text{capital account liberalization}}; \overset{+}{\text{privatization}}; \text{and year})$$

where the expected signs of the coefficients are shown above the variables. We also used a country dummy variable to determine countries' abilities to attract investment based on other factors not captured by our statistical model.

We collected data on inward FDI (dependent variable) for each of the seven Latin American countries under study from the International Monetary Fund's *International Financial Statistics*. We measured the independent variables as follows:

- **Current account balance (CABAL):** international economic transactions by host country, annually, 1988-1999; source: UCLA (1998).
- **Capital account liberalization index (CALIBEX):** degree of government control over capital account transactions, annually, 1988-1999; source: ECLAC (1998).
- **Consumer price index (CPIPC):** percentage change in consumer prices in host country currency, annually, 1988-1999; source: *International Marketing Data and Statistics*.
- **Real exchange rate (RER):** real exchange rate of Latin American currency at year-end per United States dollar, annually, 1988-99; sources: IMF's *International Financial Statistics* and *Direction of Trade Statistics*. We estimated this through partner country trade weights, partner country nominal exchange rates, and partner country/home country price levels.

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- **Gross domestic product (GDP)**: host country GDP in United States dollars, annually, 1988-1999; source: World Bank (various issues).
 - **Privatization (PRIV)**: values of domestic privatizations less FDI in privatized sectors, annually 1988-1992; source: *International Marketing Data and Statistics*.
 - **Political risk (PRSK)**: host country political risk rating, annually; source: *Institutional Investor* (various issues). We used a higher number to indicate more political stability. Thus, although we expected a negative relationship between political risk and FDI, this would show up as a positive coefficient in the equation.

We measured all of the independent variables simultaneously with FDI because we expected the impacts of these factors (e.g. exchange rates, multilateral trade) to occur either simultaneously with inward FDI or with a short lag. Since our analysis is explanatory rather than predictive, we did not lag the independent variables in order to improve the model. Previous research has shown that lag periods between factors that should precede FDI are generally not more than one year; hence the methodology reflects independent variables that are concurrent.

Statistical results

Table 1 reports our estimation results for all of the independent variables we used in the statistical procedures. We have used ordinary least squares to estimate our regression model. Our results support the market size hypothesis (GDP), as this variable was signed correctly and was significant. This variable adds significantly to the model's ability to explain different levels of FDI in Latin America. The regression results provide support for the hypotheses regarding internal market reform. The capital account liberalization independent variable (CALIBEX) was signed as expected but was not significant. Privatization values, even by subtracting out FDI, were highly significant in explaining inward FDI in Latin America.

The current account balance (CABAL) and the real exchange rate (RER) hypotheses were neither signed correctly nor significant.¹

¹ Given that current account balance and political risk are highly correlated, separate regressions were run deleting each of these variables. In each case, the remaining variable was positive and significant, although the other results were generally maintained. These results are available from the authors upon request.

The percentage change in consumer prices (CPIPC) was signed correctly and was significant. The political risk variable was signed correctly but was not significant. Overall, the results explain almost three fourths (adjusted $R^2 = 0.73$) of the variation in FDI, and the significance levels for three variables are high, including two that deal with market reform — privatization and price stabilization.

In a large, cross-sectional analysis, lack of sample homogeneity may result in serious inconsistencies in the usual least squares covariance matrix estimator. We used H. White's (1980) estimator for the variance-covariance matrix that is present even with heteroskedasticity. We ran this test for the present sample, and we did not find any sign of heteroskedasticity. Thus, the equations do not appear to be misspecified. Since t-statistics computed from the heteroskedasticity-consistent covariance matrix report a level of significance similar to the original estimators, we report only the results of the ordinary least squares regression.

Table 1. Regression results on FDI in Latin America

Independent variable	OLS model
CONSTANT	-1698.77 (-2.055)**
CABAL	0.0887 (1.615)
CPIPC	-0.1988 (-1.746)*
RER	6.466 (1.086)
GDP	0.0519 (3.736)***
PRSK	-0.2318 (-1.316)
CALIBEX	0.1345 (0.447)
PRIV	0.4307 (2.222)**
YEAR	0.1972 (0.544)

Observations: 47

Adjusted $R^2 = 0.73$

* = significant at the 0.10 level; ** = significant at the 0.05 level;

*** = significant at the 0.01 level; t-statistics in parentheses.

We used a series of country dummy variables, with Chile as the omitted country in the series, to capture any institutional/country-level effects not captured in the original model. We find that, *ceteris paribus*, all of the Latin American countries have lower levels of FDI than would be expected by applying Chilean data to them. Except for Peru, all the differences are significant. We show these results ranked by country in table 2. Apparently, there are some variables that our model did not capture, which would explain different successes in attracting FDI. We can only speculate on what they may be. Perhaps Chile's greater success is due to its longer-term reputation as a free-market economy or to its reputation for having a lower level of corruption than the other Latin American countries we included in this study. Another possibility is that countries differ in the effectiveness of their investment promotion agencies, which L. Wells and A. Wint (2000) found important in attracting inflows of FDI.

Table 2. FDI ranking in Latin America^a

Ranking	Country	Parameter estimate	t-value
1	Chile
2	Peru	-283	-0.63
3	Colombia	-1 328	-2.97***
4	Venezuela	-2 192	-3.58***
5	Argentina	-6 292	-3.13***
6	Mexico	-10 584	-3.45***
7	Brazil	-20 735	-3.45***

^a Reported values are from the original regression, incorporating dummy variables for countries, using Chile as the omitted variable.

* = significant at the 0.10 level; ** = significant at the 0.05 level;

*** = significant at the 0.01 level; t-statistics in parentheses

Discussion

We have related inward FDI in seven Latin American countries in the post market-reform era to traditional determinants of FDI and indicators of internal reform. Overall, the estimation results provide strong support for some traditional determinants of FDI and for some of the newer measures we included. We shall now discuss each of the independent variables and the implications of our findings to countries' promotion of inward FDI.

We found a negative, but not significant, relationship between host countries' current account deficits and FDI inflows. We expected a positive relationship because emerging economies need to rely more on long-term capital for economic development and less on political aid and portfolio investments than in earlier years. Yet, we were not totally surprised by our findings. Although current account deficits may enable TNCs to bargain for better operating terms, TNCs may simultaneously view these deficits negatively because they may haringer a country's future monetary problems. Monetary problems may make companies' capital budgeting more problematic, long-term planning more uncertain, and capital commitment riskier. Nevertheless, FDI inflows to counter the current account deficit is still an alternative to using official reserves, portfolio movements, and government-to-government grants and loans for that purpose. Future research might examine the relationship between FDI and changes in these other categories of capital accounts.

We found the percentage changes in the consumer price index to be significant in explaining FDI flows. The most logical explanation seems to be that TNCs favour environments in which governments maintain expedient monetary policies. Further, with more open economies, a lower inflation rate gives a better indication that a country's output can compete in the future with international competition.

Although we found depreciation in host countries' real exchange rates to be inversely related to inward FDI, this relationship was not significant. This is not surprising because we explained that companies might gain or lose from depreciation. We speculate that TNCs, although preferring to make investment when their currency buys more in the host country, can neither predict when that will occur nor afford to wait for the most propitious time.

In spite of mixed results in earlier studies, we expected that the size of GDP would correlate with FDI inflows, which it did. The relation between GDP and FDI raises another question. Why would companies choose to produce in larger markets rather than exporting to them? The decrease of import restrictions within those markets would seem to enable companies to export more easily to those markets, thus taking advantage of economies of scale within their home countries or lower variable costs within some smaller markets.

A combination of factors may explain the importance of market size. First, saving in transportation costs is undoubtedly a factor for many products, thus TNCs make large investment within large markets to sell products with high transportation costs relative to production costs. Second, many services are impractical to export, thus TNCs must invest within the countries where they want to sell these services. As a consequence, they usually need to make larger investment for larger markets. Third, TNCs made more investment in larger markets during the era of import substitution policies. Given that expansion from retained earnings accounts for a significant part of FDI growth, it is understandable that such expansion will come largely in larger markets. Fourth, TNCs have made much of their FDI through acquisitions, and larger markets have had larger companies with strategic assets available to acquire (Chudnovsky and Lopez, 2001b). Further, by buying these larger local companies (in larger markets), TNCs can more easily gain the necessary scale to tap regional markets efficiently.

Our analysis did not support the political risk hypothesis. This was not surprising inasmuch as prior studies reached mixed conclusions. Perhaps TNCs see political risk as important, but see too little difference among the countries in our study to have much impact on their choice of FDI location. Or, perhaps the fact that most FDI in Latin America is still being made to serve local markets (ECLAC, 2000), a political problem in one will have few global implications. However, if companies move more towards global resource-seeking strategies with production integrated among Latin American countries, work stoppages in one location — due to, for example, local insurrections, rule changes, or corruption — can have global implications. Further, as economies become even more open, companies will have more discretion as to where they produce to serve given markets. In this scenario, companies may understandably put greater emphasis on locating where they perceive political risk to be low.

We found a positive, but not significant, relationship between the degree of host country capital account liberalization and inward FDI. We expected a positive relationship because TNCs would logically prefer certainty, especially in their ability to move funds to meet shareholders' expectations. Capital account restrictions create high uncertainty that may exacerbate the higher risk that TNCs face simply as a result of operating in an unfamiliar setting. However,

given that we did not find this relationship to be significant, we are hesitant to suggest that, by allowing capital account transactions to flow into and out of their countries freely, governments may increase the likelihood of inward FDI.

We found a positive and significant relationship between privatization value and FDI. Inasmuch as we deducted the value of FDI in privatized companies when calculating our independent variable, we believe that this finding is very important. Heretofore, most researchers have questioned if privatization can sustain a continuous inflow of FDI because of the limits on the number of government-owned companies (Salorio and Brewer, 1998). However, our findings suggest that potential investors see privatization as an indication of a country's positive attitude towards private enterprise and a country's likely economic improvement. Thus, a country may continue to attract substantial FDI even after there is little left to privatize because TNCs view the country's lack of a large government sector positively.

There is no doubt that TNCs' influence is widening in developing countries, as evidenced by the increase in inward FDI there. This exploratory article attempts to expand on our understanding of the determinants of cross-border investment at the country level. We examined the question of whether the traditional opportunity and risk factors remain as important in attracting FDI, or whether countries' reform initiatives help to explain their degree of attractiveness. Our model suggests that both factors are important. With the fall of the iron curtain and the expanding nature of globalization, TNCs' investment opportunities have expanded dramatically in recent years. Therefore, it is increasingly important for governments to consider the nature of competition among countries when attempting to attract inward FDI. Obviously, they begin with an established set of resources and capabilities, such as population, disposable income and a skilled workforce. From this position, our study suggests that countries may increase their chances of receiving FDI as they initiate meaningful market reform. ■

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Appendix. Correlation matrix

	FDI	CPIPC	CABAL	CALI	RER	GDP	PRISK	PRIV	YEAR
FDI	1.00								
CPIPC	-0.08	1.00							
CABAL	-0.05	-0.02	1.00						
CALI	-0.18	-0.07	-0.01	1.00					
RER	0.21	-0.22	-0.46	-0.02	1.00				
GDP	0.58	0.15	-0.15	-0.18	-0.00	1.00			
PRISK	0.23	-0.03	0.99	-0.02	-0.13	-0.09	1.00		
PRIV	0.53	-0.08	-0.18	0.28	0.05	0.37	-0.12	1.00	
YEAR	0.31	0.14	-0.22	-0.39	0.15	0.44	-0.19	-0.11	1.00