Taking Stock Seriously:
Equity Market Performance, Government Policy, and Financial Globalization

Layna Mosley
Associate Professor
Department of Political Science
University of North Carolina, Chapel Hill
361 Hamilton Hall, CB 3265
Chapel Hill, NC 27599-3265
mosley@unc.edu

David Andrew Singer
Assistant Professor
Department of Political Science
Massachusetts Institute of Technology
E53-489
77 Massachusetts Avenue
Cambridge, MA 02139
dasinger@mit.edu

August 2007

Forthcoming in *International Studies Quarterly*

Abstract

Are equity markets just another facet of global finance, or are they unique in their responses to – and influences on – government policies and institutions? Recent work has explored the impact of political factors on bond market behavior and foreign direct investment, but little attention has been paid to stock markets. On the basis of the particular concerns of equity investors, we hypothesize a positive association between stock market valuations and levels of democracy, shareholder rights, legal traditions, and capital account liberalization, a negative association with real interest rates, and no association with fiscal deficits or surpluses. We assess our expectations by analyzing the political and institutional determinants of aggregate price-to-earnings ratios for a sample of up to 37 countries from 1985 to 2004, using both cross-sectional and time-series cross-sectional analyses. We find strong support for most, but not all, of our hypotheses. Our findings suggest that we must disaggregate the effects of different asset markets to understand the impact of economic globalization on government policies.

How do government policies and institutions affect equity market performance across countries? As stock markets grow broader and deeper in both the developed and developing worlds, this question becomes more critical. In 2004, global stock market capitalization stood at $37.2 trillion, compared to global GDP of $41.3 trillion. While this figure was slightly less than global commercial bank assets ($57.3 trillion), it markedly exceeds the total size of outstanding public debt securities, which were $23.1 trillion.[1] The bulk of global stock market capitalization represents developed-country equity markets, but less developed country (LDC) markets—which accounted for 14 percent of total capitalization in 2004—are quickly gaining ground. Some emerging market countries, such as Malaysia, Singapore, and South Africa, have total stock market capitalizations that exceed their respective GDPs.

Equity markets enhance corporate efficiency, spur innovation, and provide a valuable source of capital for long-term economic development (Sobel 1994; Lavelle 2004). They also provide a useful mechanism for governments to raise capital through the sale of state-owned enterprises. Moreover, equity market investments constitute an important element of individuals' assets, particularly as governments shift their pension systems toward the private sector. In short, it is clear that equities constitute an increasingly important capital market in the world economy. However, we currently know very little about how government policy choices and political institutions influence equity investors' decisions. In this article, we address this gap by exploring the political and economic correlates of equity market valuations.

The overall growth of global financial markets has attracted attention from both scholars and pundits. A large literature in political science, public policy, and economics considers the ways in

---

[1] Information in this paragraph is taken from the International Monetary Fund, *Global Financial Stability Report: Market Developments and Issues* (April 2006), Statistical Appendix, Table 3 (p. 19). See http://www.imf.org/external/pubs/ft/GFSR/2006/01/index.htm.

which the increased openness of trade and financial markets might affect national economic outcomes and government policymaking. While some scholars take a restrained view, others argue that financial globalization generates a "golden straightjacket" for governments. At the extreme, global markets become masters of governments, eviscerating the authority of national states (e.g., Strange 1996, Helleiner 1994, Cerny 1999). Investors' capacity for exit, and the political voice it confers, is central to these accounts. While capital market openness provides governments with greater access to capital, it also subjects them to external market discipline (Armijo 1999; Obstfeld and Taylor 2004). Governments must sell their policies not only to voters, but also to (often foreign) investors. Because investors can respond swiftly and severely to actual or expected policy outcomes, governments must consider financial market participants' preferences when selecting policies. This logic suggests that financial openness should diminish the capacity of governments to spend and tax, or more generally to pursue divergent policies.

While many scholars have provided empirical evidence of the linkages between global economic forces and political events and institutions, a great majority of this work ignores the fact that nations are integrated differently into the global economy (see Burgoon 2001). Some countries have high levels of trade openness, but lower levels of capital market liberalization (Garrett 2000). High trade openness may present governments with one set of pressures, while high capital market openness may expose them to a different – and perhaps contradictory – set of demands (see Rodrik 1997). Likewise, nations participate in the global financial system in varying ways. The importance of particular types of capital flows and classes of assets -- such as equities, bonds, bank loans, and foreign direct investment -- differs dramatically across countries. For example, in 2004, the ratio of

sovereign bond investment to equity investment was 0.19 for South Africa, 0.34 for the United States, and 1.93 for Hungary.[2]

We posit that different types of investors will have different preferences and concerns regarding asset allocation and public policies. Investors in equities may react negatively to certain policy outcomes, while investors in sovereign bonds may perceive these outcomes positively. Alternatively, political institutions such as democracy and policy stability may affect some types of assets significantly, but have little impact on others. Analyses of the impact of financial openness on government policies must acknowledge this variety among global capitalists. Along these lines, Maxfield (1997) provides one of the few explicit treatments of the diversity of investors' preferences. In her study of central bank independence in the developing world, she considers how investors in different types of assets (FDI, equity, bank loans, and sovereign bonds) would respond to changes in monetary institutions, given the liquidity of their assets and the ways in which government policies affect their returns. For instance, bondholders may dislike expansionary fiscal policies, while direct investors and equity market participants will appreciate the effects of such policies on aggregate demand and on human capital formation (Santiso 2003; also see Armijo 1999).

While some recent work in comparative and international political economy explores the linkages between policies and institutions, on the one hand, and financial markets, on the other, this work largely overlooks equity market investors. Scholars have investigated the political correlates of interest rate premiums in government bond markets (Mosley 2003; Saiegh 2005; Sobel 1999; Wibbels 2006); the impact of political events and institutions on foreign exchange markets (Bernhard and Leblang 2002; Freeman *et al* 2000; Moore and Mukherjee 2006) and on currency

---

[2] Data from World Bank, *World Development Indicators*.

crises (Leblang 2002; Leblang and Bernhard 2000; Leblang and Satyanath 2006); and the political correlates of FDI flows (e.g., Jensen 2003, 2006; Li 2006; Li and Resnick 2003).

The few extant analyses of stock markets and politics tend to focus on one or two developed countries, or on sectoral variation within a particular market, rather than on the determinants of national-level market outcomes in a broader cross-country context. For instance, Leblang and Mukherjee (2005) consider the impact of government partisanship and elections on stock market outcomes in the United States and Great Britain (also see Herron 2000; Roberts 1990). In a wider study, McGillivray (2003) considers the impact of partisan changes and electoral institutions on stock market outcomes in fourteen advanced democracies. Her analyses, however, focus largely on industry-level variation, arguing that shifts in political constellations change investors' expectations regarding which sectors will benefit from public policies. Indeed, McGillivray is interested less in equity market outcomes *per se* than in using such outcomes (especially stock price dispersion) as a proxy measure of the expectations of economic actors regarding political decisions (see also Jensen and Schmith 2005). Similarly, Bernhard and Leblang (2006) consider the impact of politics and political uncertainty on daily market behavior in several advanced democracies. Unlike most analyses, theirs considers outcomes in multiple asset markets, including currencies, equities, and government bonds. Bernhard and Leblang's aim, however, is to explore the consequences of discrete political events—such as elections and cabinet formations—on capital markets, rather than to assess the broader impact of public policy and institutions on capital market outcomes.

This article seeks to round out the literature on financial globalization by exploring the linkages between equity market outcomes and national government policies and institutions. Its contribution is both theoretical and empirical. Theoretically, we elaborate on the politics of equity market performance, focusing in particular on the effects of government policies and institutions on stock market valuations. We rely on the relatively developed literature on foreign direct investment

and sovereign bond markets to underscore the distinctiveness (and sometimes the similarities) of equity market reactions to government policies. Empirically, we conduct a novel evaluation of the correlates of total-market price-to-earnings ratios for a sample of up to 37 developed and emerging-market countries during the 1985-2004 period. Cross-sectional and time-series cross-sectional (TSCS) analyses reveal that levels of democracy, market liquidity, shareholder rights, and capital account liberalization are positively associated with equity market valuations, while real interest rates are negatively associated. We also find that investors are positively disposed toward equity markets in emerging-market countries, and negatively disposed toward markets with high dividend payout ratios. Interestingly, many of the political and economic factors—including inflation, partisanship, and fiscal policy— deemed highly salient to investors in other financial markets are not statistically associated with stock market valuations. These results are robust to the inclusion of a number of control variables, including capital-asset pricing model (CAPM) factors and alternative pricing model considerations.

Note that the responses of investors to policies and institutions also have implications for future government policy choices. For instance, if a nation's economy relies more heavily on foreign direct investment (FDI) than on sovereign lending or bank financing, its government may face few pressures to reduce public spending (see Jensen 2006). On the other hand, if a government relies heavily on the bond market to finance its expenditures, but has a relatively low level of stock market capitalization, it may face greater pressures for fiscal and monetary tightening (Mosley 2003). And if a country relies on a varied menu of financial inflows, as most do, asset holders will express diverse preferences over public policy.[3] Untangling the various financial-market influences on government policymaking is clearly a long-term research project. This article, which focuses on the political

---

[3] On varying investor preferences over exchange rate regimes in developing nations, see Shambaugh (2004).

determinants of equity investors' behavior, complements similar analyses of sovereign bond markets and foreign direct investment. Once we understand how investors in each market react to government policies and institutions, we can then advance to a broader analysis of the impact of financial markets—along with domestic institutions, interest groups, and other factors—on government policymaking and institutional design.

POLITICS AND EQUITY MARKET PERFORMANCE

Stock market performance is increasingly a target of analysis by political scientists, because equity investors may be highly sensitive to the effects of certain government policies and institutions on their investments (e.g., McGillivray 2003; Bernhard and Leblang 2006). Equity investments are generally very liquid (subject, of course, to national regulations and transaction costs), and the time horizons of equity investors are often relatively short. As a result, changes in government policies can trigger a swift response by investors. Government policies that enhance investor confidence— either directly, by providing shareholder protections and ease of exit, or indirectly, by expanding the economy and improving corporate earnings—will be rewarded by higher stock prices and market valuations. On the other hand, investors can quickly withdraw their funds if governments choose market-unfriendly policies, thereby generating downward pressure on stock prices and valuations. Stock markets, in short, are a valuable indicator of financial actors' preferences over government institutions and policy outcomes.

Changes in the price of a company's stock often reflect changes in expectations of future earnings. Price changes, however, are not the only performance metric for stock markets; indeed, they may be misleading or uninformative when compared across countries. International systemic influences, such as natural disasters, terrorist incidents, or economic downturns in the U.S. and other major financial centers, can cause stock prices to move synchronously across countries. A prime

example is the stock market crash of 1987, which began in New York but quickly cascaded to London, Tokyo, Hong Kong, and a number of other stock markets (Sobel 1994). An exclusive focus on stock prices overlooks the variation—or absence of variation—in the underlying valuation of the national market relative to expected earnings. Moreover, changes in stock prices are a poor gauge of the influence of sluggish variables or largely static institutions, such as levels of democracy or legal protections.

A fitting alternative measure of performance is the ratio of the stock price to company earnings—or, in other words, the price that equity investors are willing to pay for an expected stream of profits. This valuation ratio varies significantly across countries. The United States, for example, has an average price-to-earnings ratio of 19 for listed shares (as of 2005), meaning that investors are willing to pay a price equivalent to corporate earnings per share multiplied by 19. In contrast, the comparable figure for Germany is approximately 12; for the Czech Republic, the ratio is 15.[4] As with stock prices, these ratios reflect investors' expectations about future earnings, but they also signal investors' preferences over time-varying government policy *and* largely invariant political institutions. Because of the latter, cross-national variation in price-to-earnings ratios persists even when national stock markets are hit simultaneously by global price shocks.

Asset Pricing Models

To explore cross-national and intertemporal variation in stock market valuations, a financial analyst would most likely begin with the capital asset pricing model (CAPM). The CAPM relates the expected price of an asset to its riskiness (i.e., its "beta"), measured by the variance of the asset's

---

[4] Data from Thomson Datastream. Average price-to-earnings ratios are value-weighted according to market capitalization.

historical rate of return relative to its asset class (Sharpe 1964; Lintner 1965). The CAPM takes the following linear form:

$$R_t = \alpha + \beta X_t + \varepsilon_t \qquad (1.1)$$

where R_t represents the return to an asset, X_t represents the return of an underlying portfolio of assets (often measured as a domestic market index), and ε_t represents the asset-specific return, all at time t (see Bernhard and Leblang 2006). The key term in the model is β, which indicates the statistical relationship between the asset's return and the return on the total portfolio of assets. A stock with a beta greater than one is therefore more volatile than the underlying portfolio, while a beta less than one indicates lower volatility than that of the underlying portfolio. Beta can also be viewed as the marginal contribution of an asset to the risk of the total market portfolio. According to the model, the risk premium of the asset varies in direct proportion to beta. Indeed, beta is the *only* reason that expected returns should differ (Brealey and Myers 2003).

An alternative valuation approach is known as the arbitrage pricing model (APM), in which the return on an asset is a function of a number of risk factors common to that asset class. The model assumes that investors take advantage of arbitrage opportunities in the broader market; thus, an asset's rate of return is a function of the return on alternative investments and other risk factors. A standard arbitrage model takes the following form:

$$R_t = \alpha + \beta_1 X_{1t} + \beta_2 X_{2t} + \ldots + \beta_k X_{kt} + \varepsilon_t \qquad (1.2)$$

The model is similar in form to equation 1.1, except that the X's represent a set of risk factors common to a class of assets, and the betas represent the sensitivity of the asset's return to each

factor. Bernhard and Leblang (2006), for example, incorporate returns on gold and oil in their analysis of equity and bond performance in 15 parliamentary democracies.

From a theoretical standpoint, the CAPM and APM have advantages and disadvantages as models of asset returns (see Ferson and Harvey 1998). The CAPM is parsimonious and commonly employed by equity analysts, but it requires a precise identification of the portfolio (captured by the term X in 1.1) against which the asset is compared. In the U.S., analysts frequently measure a stock's beta in relation to the Dow Jones Industrial Average or the S&P 500 index, but in theory the market portfolio should include all possible investable assets (Roll 1977). The APM, in contrast, is well positioned to accommodate multiple sources of risk and alternative investments, yet it suffers from a similar challenge of identification: there are many possible factors—international and domestic— that could conceivably influence an asset's return, and it is difficult to identify the appropriate universe of relevant variables (Bernhard and Leblang 2006).

The existing empirical literature on cross-national stock market valuations, while scarce, tends to reflect a combination of the CAPM and APM. Erb, Harvey, and Viskanta (1996), for example, construct a measure of market risk based on scores from Institutional Investor and the International Country Risk Guide. A more recent study by Lee and Ng (2006) analyzes the influence of corruption on P/E ratios; it includes a variety of national-level control variables— including inflation, GDP per capita, the dividend payout ratio, and research and development spending—to account for cross-national differences in growth, risk, and profitability. They also include a measure of country-level systemic risk—which they label beta—calculated as the variance in the national stock market index relative to the world market index.

Our empirical analysis resembles Lee and Ng (2006) in that it reflects a multifaceted approach to country risk and investor confidence. A single measure (such as the CAPM's beta) is unlikely to explain variation in national equity market valuations. Because our goal is to explain the

influence of government policies and institutions on overall stock market valuations—rather than on the P/E ratios of particular firms or sectors within a country—we focus on a variety of country-level attributes and macroeconomic conditions. We also include political institutions and economic policy outcomes as sources of risk. Moreover, as we discuss later in the article, we incorporate an overall measure of equity market volatility in line with the CAPM, as well as the returns on alternative investments—captured by domestic real interest rates—as drivers of stock market valuations.

Policies, Institutions, and Equity Market Valuations

Which government policies and institutions are relevant for equity investors? To answer this question, it is helpful to analyze the characteristics of equity investment compared to other forms of capital, such as foreign direct investment and sovereign lending, which have a more developed empirical literature in political science. As mentioned above, equity investment is generally liquid and short-term, especially compared to the often immobile nature of FDI. Foreign direct investors fear the direct expropriation of their capital or the creeping expropriation of their revenue streams, and therefore may refrain from investing in countries with insecure property rights or undemocratic political systems (Jensen 2003). They also are vulnerable to government policy changes of all sorts, since the *ex-post* illiquidity of their investments often precludes the option of exiting the market (Jensen 2003; Li and Resnick 2003; Vernon 1971). Equity investors, in contrast, are not especially vulnerable to expropriation, rendering them less risk-averse *prior* to investing. Equity investors are more able to exercise their exit option *ex post* if the government makes an unwanted shift in policy. Their ease of exit, however, is a function of capital market regulations and market liquidity, which vary considerably across countries. Capital controls can severely limit the ability of international investors to withdraw their funds, and they also may restrict the investment choices available to

domestic investors. Additionally, a stock exchange that is large relative to the size of the national economy offers greater liquidity, thereby increasing the ease of exit. Thus, the liquidity of national equity investments, while generally greater than that of FDI, varies as a function of government policy and market characteristics.

The relative ease of exit for equity investments does not imply that political institutions, especially regime type, are irrelevant for equity investors. Investors' decisions regarding whether and when to exit depend on the information they receive regarding government policies, economic conditions, and firm performance. Professional investors with assets in multiple countries require a wide array of information when allocating their assets. Given the short-term nature of their time horizons and the cost of information-gathering, we expect them to privilege national stock markets for which information is more reliable and more readily available (Calvo and Mendoza 2000; Mosley 2003). Investors rely on information from government filings, a free press, companies' marketing materials, and business leaders themselves; in short, they depend on an open political environment to make informed decisions (see Sobel 1999). For this reason, equity investors should privilege markets in democratic countries and respond positively to democratization in their home countries. In this particular sense, equity investors are similar to FDI investors, who value the ability of democracies to make credible commitments to the terms of contracts (Jensen 2003). Democracies tend to be more transparent than their authoritarian counterparts. They disseminate more—and higher quality—information to international financial institutions such as the IMF and World Bank, and they are more likely to provide accurate information to stock analysts, investment banks, and other financial intermediaries (Rosendorff and Vreeland 2006).

Within the category of short-term capital, there are few similarities between the concerns of sovereign bond and equity investors, despite the fact that the same professional investors often are active in both markets. A sovereign bond is a financial instrument issued by a government that pays

the bearer a fixed amount at a specified date. The temporal dimension of bonds—also known as "fixed income" securities—makes them vulnerable to the eroding effects of inflation, since the real value of the payoff at maturity depends on the prevailing price level. In contrast, equities have no maturity dates or other specific temporal dimension; indeed an equity security could remain valid indefinitely as an ownership interest in a corporation. As a result, equity investors have little concern over default or repayment, and their concerns about economic or sectoral conditions are not tied to a particular future date (Maxfield 1997).[5] Additionally, equities provide variable returns that adjust for changes in the price level. Equity investors should therefore be far less sensitive to inflation and to other economic policies that may generate inflation, including fiscal deficits, than bond investors. The contrast in the two markets can be seen almost daily in the pages of the financial press. Attempts by a country's central bank to rein in inflation are rewarded in the bond market by higher bond prices (lower yields), since a decrease in inflation increases the real returns for bond holders. In the equity market, however, even a hint by the central bank of a hawkish position toward inflation results in a prompt decline in stock prices upon fears of a short-term economic contraction and higher corporate borrowing costs.

Hypotheses

The comparisons between equity investment and other forms of investment suggest several hypotheses regarding the effects of government policies and institutions on national stock market performance. First, we expect investors to impose higher equity valuations in countries with more democratic political institutions, and this relationship should hold both across countries and within countries over time. As mentioned earlier, democracies are generally more transparent—in terms of

---

[5] Equity investors are of course concerned about corporate bankruptcy or insolvency, given that the value of their shares depends on the company's continued existence.

accountability and availability of investment information—than authoritarian regimes (Broz 2002; Rosendorff and Vreeland 2006).

Second, we expect investors to respond favorably to countries with strong shareholder protections. The contractual relationship inherent in all equity investments implies a principal-agent relationship, in which the principal (the investor) delegates the responsibility for managing the company to the firm's management (the agent) (Jensen and Meckling 1976). Such relationships are plagued with monitoring problems: they render investors vulnerable to financial losses due to management malfeasance, especially in cases in which the managers' incentives conflict with the preferences of investors to maximize share price (La Porta *et al* 1998). The risks of agency slack are lower when monitoring costs are lower (as in democratic countries), and also when shareholders are granted protections and voting rights as part of a country's corporate governance regime. We should therefore observe higher valuations in countries that provide greater legal rights and privileges to shareholders.

Third, investors will privilege markets in which barriers to entry and exit are low. While equity investment is generally more liquid than FDI, the liquidity of equity markets varies tremendously over time and across countries, in concert with government policies. Government controls on capital inflows and outflows can hamper the ability of foreign investors to enter and exit the market and limit the options of domestic capital holders.[6] As capital mobility declines, investors grow more cautious—and indeed their investments begin to look like more like FDI than "footloose" portfolio investments. We therefore expect investors to prefer the relative liquidity afforded by equity markets that are free of capital account restrictions.

---

[6] Equity investors are often successful in circumventing capital controls, but such controls nevertheless increase transaction costs and thereby decrease liquidity.

Finally, in terms of more time-varying government policies, we expect no statistical relationship between fiscal policy outcomes and stock market valuations. Fiscal policy outcomes may affect equity investors' perceptions in multiple ways, with effects running in opposite directions. On the one hand, government spending, without corresponding taxation, provides a short-term stimulus for domestically based firms by boosting aggregate demand for goods and services. Fiscal deficits also signal the government's willingness to use countercyclical policy in response to economic downturns, thereby leading to increased investor confidence in the stability—throughout the economic cycle—of corporate earnings. Furthermore, fiscal deficits often lead to expectations of future inflation, which may trigger a domestic flight of capital away from bonds (whose real value is eroded by inflation) and into equities. For these reasons, and in contrast to bond investors, stock market participants may react positively to fiscal expansion (Santiso 2003).

On the other hand, fiscal deficits could prove inimical to stock market valuations in the medium and long term. Deficits require an increase in the supply of government bonds, which lead to higher interest rates and the potential crowding-out of corporate borrowing. Moreover, the Mundell-Fleming model demonstrates that in countries with floating exchange rates, the increase in aggregate demand caused by a fiscal expansion may be offset by an appreciation of the exchange rate. Domestic firms with significant exports would suffer, while firms that rely on imported inputs would benefit (Frieden 1991). Due to the competing effects of fiscal expansions, we have no theoretical reason to expect a "golden straitjacket" (i.e., negative) association between fiscal balance and stock market valuations. Rather, we expect that these offsetting pressures will generate no significant overall linkage between fiscal outcomes and equity market performance.

There are many additional theoretical arguments that scholars have posed regarding financial market performance, and these suggest additional controls for our analyses. We address many of

these factors – including government partisanship, corruption, and regulatory quality -- in the empirical discussion below.

CORRELATES OF PRICE-EARNINGS RATIOS

In this section, we explore the impact of a number of political, institutional, and macroeconomic variables on market valuations, using a combination of cross-sectional and time-series cross-sectional analyses. The limited availability of price-to-earnings data, particularly in time series for developing countries, restricts our sample to 37 developed and developing countries (Table 1). The cross-sectional analysis employs ten-year averages of the variables from 1995-2004, whereas the TSCS analysis uses annual observations for the 1985-2004 period. To conserve space, we include all of the variables in a single discussion; however, note that the static institutional variables appear only in the cross-sectional analyses. Sources for the data for both analyses are found in the appendix.

Table 1 about here

Dependent Variable

The dependent variable is the annual average price-to-earnings ratio (hereafter P/E ratio) for listed stocks in a national stock market. A typical P/E ratio is calculated by dividing a stock's current trading price by its earnings-per-share (EPS). The national aggregate P/E ratio used in our empirical analysis is value-weighted based on market capitalization; thus the P/E ratio of a stock whose market capitalization constitutes two percent of the total market will be weighted accordingly in the national average. The P/E ratio is prominent in the lexicon of stock investors, as it constitutes a straightforward valuation measure of a stock, sector, or entire market. A high P/E ratio indicates that investors believe a firm has strong growth opportunities, a favorable regulatory environment, stable earnings, and a low risk of collapse or operational malfeasance. Similarly, a high national

aggregate P/E ratio connotes an overall favorable growth environment for publicly traded companies.

As a measure of the importance of government policies to investors, the P/E ratio provides three main advantages over alternative measures of stock market performance. First, the P/E ratio is a measure of market *valuation*, not of market *returns*. Our empirical goal is to determine the ongoing influence of government policies and institutions on investors' purchasing decisions, rather than to gauge the stock market's rise or fall during a given time period. Valuations, in short, are not duration-specific. Thus, we can compare P/E ratios across countries at a particular point in time, and within countries over time. Second, the P/E ratio measures investors' valuation of the stock market *relative* to market earnings, and therefore isolates the cross-national and over-time variation in investor confidence that might otherwise be lost in a measure of market returns. Consider the aggregate P/E ratios of two countries, one with a high P/E ratio, and one with a low P/E ratio. In a given year, it is possible for the two countries to experience the same overall market returns—say, ten percent—yet it would be a mistake to believe that investors have equal degrees of confidence in both markets. Finally, investors themselves use the language of valuation, rather than the language of price changes, when discussing their portfolio allocation decisions. Markets are said to be "overvalued" or "undervalued" based on the ratio of prices to earnings.

Explanatory Variables

Our explanatory variables can be divided into four categories: political institutions, fiscal policy, stock market characteristics, and economic and financial controls. We also discuss other possible control variables, such as partisan orientation and various governance indicators, which are not included in the reported models, but which are used to assess the robustness of our findings.

Political institutions. There are many aspects of the political environment that could conceivably influence the valuation of publicly traded companies. First, our theoretical discussion

suggests that democracy, as a means to transparency, is positively associated with stock market valuations. We use the Polity IV measure of regime characteristics, which ranges from -10 (the most autocratic) to 10 (the most democratic). Given that information costs are an important consideration for investors' portfolio allocation decisions, we expect greater transparency to correlate with higher stock valuations.

Equity investors also may value the stability of government policy. Frequent policy changes could undermine the value of investors' contracts, especially if such changes influence firms' expected profits. Such changes are more difficult when governments are constrained by shared political authority or government fragmentation. To capture these effects, we use Henisz's (2002) political constraints measure. The construction of this variable begins by identifying the number of effective branches of government—including the executive, the legislative body or bodies, the judiciary, and any other sub-national units—with veto power over policy change. This initial measure is modified to reflect whether these veto points are controlled by different political parties, and the degree of preference heterogeneity within each branch. As Sobel (1999, 41) notes, government institutions "signal investors about the safety of their investments from political manipulation." We therefore expect government institutions that constrain policymakers to be associated with higher stock market valuations. In our sample, the Polity and political constraints measures are highly correlated (0.70), because democratic regimes are more likely to have dispersed decision-making authority than autocratic regimes. Given this collinearity, only one of these two political institutions variables appears in any single regression model.

Two additional variables are included in our set of political institutions. As discussed earlier, we expect to find higher valuations in countries that provide greater legal rights and privileges to shareholders. We measure shareholder rights in two ways. First, we include a dichotomous variable

indicating whether listed companies in a country are subject to one-share, one-vote rules.[7] La Porta *et al* (1998) note that investors have greater protection under such rules: insiders cannot wield substantial control over a company's profits without a corresponding ownership position. Managers are therefore less likely to divert cash flows toward self-enrichment rather than dividends and investment. Second, we follow the work of La Porta *et al* (1998) and others who argue that legal traditions—arising from colonial relationships and other historical ties—have an enduring impact on the making of policy. The English common law system, based on precedents from judicial decisions, arguably provides the greatest protections to shareholders and creditors (La Porta *et al* 1998; Johnson *et al.* 2000). In particular, Johnson *et al* (2000) argue that "tunneling"—the opportunistic siphoning of profits away from productive endeavors to enrich a few controlling shareholders—is less likely to withstand legal scrutiny in common law countries. We therefore include a dummy variable that takes the value of 1 if the country can be classified as a common law country and 0 otherwise.[8]

Fiscal policy. Expansionary fiscal policy increases aggregate demand and stabilizes (or enhances) corporate earnings. It also may lead to a substantial shift in portfolio allocations away from bonds and into equities. In the medium and long term, however, deficits can cause inflation, macroeconomic instability, and higher borrowing costs. We include a measure of the government's fiscal balance as a percentage of GDP, with negative numbers indicating a government deficit. A negative coefficient for this variable would therefore indicate a positive relationship between fiscal deficits and market valuations. Our expectation is that this variable is not significantly associated with market valuation.

---

[7] Countries in the sample subject to the one-share, one-vote rule include Chile, Greece, Japan, Korea, Malaysia, and Singapore.
[8] Common law countries in the sample include Australia, Canada, India, Ireland, Malaysia, New Zealand, Singapore, South Africa, United Kingdom, and United States.

Market characteristics. National stock markets vary in a number of dimensions, many of which are difficult to quantify across a large sample of countries. However, two characteristics—the overall size of the market relative to its own economy, and the dividend yield—should have a clear association with investor behavior; these variables also have the benefit of being straightforward to measure. The first variable is the ratio of the total national market capitalization to gross domestic product (GDP). Larger markets offer greater degrees of liquidity and investment choice, and possibly lower transaction costs for trading and settlement. In addition, this variable captures the attractiveness of countries such as Singapore and Malaysia that have small stock markets relative to the world market capitalization, but extremely large markets relative to their own economies. The second variable is the dividend yield— that is, the dividend paid to the shareholder as a percentage of the stock's price. This variable is an important component in the theoretical literature on the determinants of stock market valuations (Lee and Ng 2006). The conventional wisdom in the finance literature is that stock markets with higher dividend yields should have correspondingly higher P/E ratios. However, we note here that high dividends may also be associated with low-growth stocks and stocks in mature equity markets. We include a control variable of the market's total dividend as a percentage of total market capitalization.

We also include the Chinn-Ito index of capital account openness in which higher values indicate greater degrees of openness (Chinn and Ito 2006). This variable measures the extent of legal restrictions on cross-border financial transactions. It is based on the binary coding of restrictions in the IMF's *Annual Report on Exchange Arrangements and Exchange Restrictions*, and focuses on four dimensions of restrictions: the existence of multiple exchange rates, restrictions on the current and capital accounts (where the latter are measured as the proportion of the last five years

without controls), and requirements to surrender export proceeds.[9] The index has a mean of zero and ranges from -2.66 (full capital controls) to 2.66 (complete liberalization). It is reasonable to expect that capital account openness will be positively associated with market valuations, as investors will benefit from the liquidity and lower transaction costs of an open market.

Macroeconomic and financial controls. Finally, we account for the general state of the macroeconomy by including annual inflation and (logged) GDP per capita. As discussed earlier, we expect no statistical relationship between inflation and market valuations in our sample. The influence of GDP per capita could run in both directions. On the one hand, the advanced industrialized countries are more likely to have stronger prudential regulations and better infrastructure than developing countries; on the other hand, equity investors are clearly attracted to "emerging market" countries (with lower per capita GDP) due to their potential for strong growth among listed companies. Given that we account for legal protections and levels of democracy in our models, the emerging-market bias (i.e., higher valuations in countries with lower GDP per capita) is likely to appear in our analyses.

We employ two variables in consideration of the arbitrage pricing model and CAPM, respectively. First, we include the domestic real interest rate, which captures the alternative return on capital available in the financial sector. As demonstrated on a daily basis in equity markets around the globe, interest rate increases are anathema to equity investors, who fear that higher borrowing costs will dampen corporate profits. Moreover, high interest rates lure investors away from equity markets and into bank and money-market accounts. We expect an inverse relationship between the real interest rate and stock market valuations. In addition, given the underlying premise

---

[9] For a detailed description of this measure, see Chinn and Ito 2006.

of the CAPM—namely, that riskier assets require a higher risk premium—we also include a measure

of the market's beta in relation to the world market. The variable, *beta*, is constructed as follows:

$$\text{Beta} = \text{cov }(m,w)/\text{var}(w) \tag{1.3}$$

where cov (m,w) is the covariance of the weekly national stock market index and the world market

index, and var(w) is the variance of the world market index, all based on the prior 48 weeks. Note

that this equation reflects the calculation of beta as identified in (1.1). Summary data for all variables

are included in Table 2.

Table 2 About Here

Results

We begin by estimating a TSCS model that includes the fiscal balance, market characteristics,

and economic controls. The TSCS sample includes 37 developed and developing countries and

spans the period from 1985 to 2004. We employ OLS estimation with panel corrected standard

errors, developed by Beck and Katz (1995, 2004) and widely used for cross sectional time series data,

particularly when the number of countries (N) exceeds the number of time periods (T). We assume

first-order autocorrelation within panels (an AR1 process).[10] We also use country fixed effects to

account for unobserved heterogeneity across countries and to mitigate the problem of omitted

variable bias. This is a critical modeling strategy, given the myriad unobserved factors that

contribute to equity market valuations. For example, certain national markets might be weighted

heavily toward high-tech companies with greater long-term earnings potential, while other markets

might consist of only a small handful of large-capitalization equities. Country fixed effects allow

each country to have its own intercept, thereby addressing the difficulty associated with accounting

---

[10] Additionally, while some (e.g., Beck & Katz 2004) recommend the inclusion of a lagged dependent variable (LDV) in cross-sectional time series models, others (e.g., Achen 2000) warn against doing so. Their cautions are based on the fact that LDVs tend to dominate the regression equation, generating downwardly biased coefficient estimates on the explanatory variables, as well as on the atheoretical nature of the LDV. We therefore opt to use an AR(1) process, but no LDV.

for all possible cross-national differences in equity markets. Since country fixed effects are highly

collinear with time-invariant or sluggish regressors, we do not include our measures of political

institutions (such as polity and political constraints) in the TSCS models. We address the effects of

these variables in a separate cross-sectional analysis, discussed below. Furthermore, the inclusion of

beta truncates the sample by a substantial 46 observations due to limited data availability; we

therefore report two columns of results, with the first column omitting beta.[11] Note that the

omission of beta does not alter the signs or statistical significances of the other independent

variables.

Table 3 reports the results for the TSCS models. These results offer strong support for our

hypotheses regarding capital controls and market liquidity. The coefficient for capital account

openness is positive and statistically significant; a one-standard-deviation (1.43) increase in capital

account openness is associated with an approximate two point increase in the P/E ratio. As

expected, investors appear to reward stock markets with higher valuations when governments

liberalize the capital account. In addition, the coefficient for stock market capitalization is positive

and statistically significant, indicating a positive association between valuations and market size

relative to the host country's economy.

Table 3 About Here

As expected by the arbitrage pricing model, the real interest rate is statistically significant and

negatively signed. When the real interest rate increases, market valuations tend to fall. The

substantive effect of this variable is relatively modest: a one standard-deviation increase (4.03) in the

---

[11] Data on weekly national equity market returns, used to calculate beta, were not available for five
countries in our sample.

real interest rate is associated with an approximate half-point decline in the P/E ratio. An additional market characteristic, the dividend yield, is statistically significant but negatively signed. This result runs counter to standard valuation models (see Lee and Ng 2006). It is quite possible, however, that market dividends capture additional market characteristics that investors find unfavorable. For example, corporations may increase dividend payouts in order to prop up their share prices, implying that large dividends reflect poor growth prospects or increased risk. Moreover, countries such as Japan and the Philippines have traditionally had very high P/E ratios—frequently in excess of 20 for the Philippines and in excess of 50 for Japan—coupled with very low dividends.

The analysis indicates that fiscal balance is not a statistically significant correlate of P/E ratios. This result is consistent with our expectations, but it contradicts the conventional wisdom about financial markets as a broadly constraining force on government fiscal policy. Of the remaining variables, only the log of GDP per capita is statistically significant. Its negative coefficient most likely represents differences in expected returns (as well as perceived risk) between emerging and developed stock markets. The relative frequency of economic recessions in countries such as Argentina, Brazil, and the Philippines does not appear to deter equity investors, who crave the potential for greater asset appreciation in emerging market countries.

While the TSCS analysis confirms some of our expectations, it has two primary shortcomings: it does not explain cross-national variation, and it cannot tease out the effects of static or sluggish variables on market valuations. To address these shortcomings, we introduce a cross-sectional model with variables calculated as country averages from 1995-2004; the results are robust to using 1990-1999 as the sample period. We use average government debt as a percentage of GDP, representing the accumulation of fiscal deficits or surpluses over the period; however, the results are robust to using average deficits. The model also includes average growth volatility as well as the static institutional variables. The sample includes 34 developed and developing countries.

The cross-sectional analysis bolsters the claims from the TSCS analysis, plus provides evidence of the impact of political institutions on market valuations. The results are presented in Table 4. To increase confidence in our findings, we report robust standard errors. Some caution is necessary in interpreting these results, because the limited availability of data restricts our sample size and prevents a complete analysis of all relevant sources of cross-national variation. We believe these results are suggestive, but of course more empirical research is necessary to confirm whether our findings are applicable to a broader sample of (developing) countries, where equity markets often are newer and less liquid.

Table 4 About Here

As expected, *polity* is statistically significantly and positively signed, indicating that market valuations are higher in more democratic countries. A one standard-deviation (2.77) increase in polity (reflecting a greater degree of democracy) is associated with an approximate 4 point increase in the average P/E ratio. This is a significant finding given that the mean P/E ratio for our sample is 18. The potential for substantial investment returns in undemocratic financial *entrêpots* such as Singapore and Malaysia could conceivably overshadow investors' concerns about the relative opacity and weaker legal systems of authoritarian regimes. However, even after controlling for shareholder voting rights (provided by both aforementioned countries), levels of democracy are still strongly associated with market valuations.

Given that levels of democracy and political constraints are highly correlated, we include a second model that omits the polity score in favor of Henisz's measure of political constraints. The coefficient is positively signed, but the variable does not reach conventional levels of statistical significance. On the other hand, we find strong statistical support for the influence of voting rights

on market valuations. The coefficient for voting rights is positive and significant: countries that provide one-share, one-vote protections have substantially higher market valuations (more than 11 points in the baseline model) than countries without such rules. The dummy variable for British common law countries, included in the third model in Table 4, was not statistically significant.

We find additional support for the influence of capital controls on market valuations. The coefficient on capital account openness is positive and significant. Moreover, the coefficient for GDP per capita is negative and significant, indicating an investor bias in favor of emerging-market countries. We also find that fiscal policy, as captured by average debt as a share of GDP, is not statistically associated with market valuations, thereby bolstering the results from the TSCS analysis. The remaining variables showed mixed results. The measure of the relative size of the equity market is positive and statistically significant in two of the reported models, as is inflation.[12] The remaining variables are not statistically significant.

Robustness Checks and Caveats

There are a number of additional indicators whose inclusion in our models could be theoretically justified. Unfortunately, more fine-grained measures of fiscal policy, including the distribution of spending on subsidies, pensions, and human capital, are available for only a subset of the countries in our sample, and often for a very restricted time frame. Measures of private or public research and development (R&D) spending suffer from the same limitations.[13] To assess robustness, however, we re-estimated the cross-sectional model with additional independent variables, taken from the World Bank's Aggregate Governance Indicators dataset (World Bank

---

[12] A measure of average real interest rates was not statistically significant and is not included in the reported models.
[13] We included a measure of government R&D spending from UNESCO, but it was not statistically significant.

2006). These variables include measures of political stability, government effectiveness, corruption, regulatory quality, and rule of law. [14] None was statistically significant, and the inclusion of each variable did not substantively alter the models' main results.

Furthermore, it often is argued that partisanship influences economic policymaking and investor confidence (Garrett 1998; Kurzer 1993). In particular, right-leaning governments are considered more supportive of business than left-leaning governments. On this basis, we might expect an association between right parties and higher stock market valuations. Partisanship, however, may not have such straightforward effects: right-leaning governments may be more inclined to subordinate domestic concerns to international economic imperatives, such as free trade and exchange rate stability (Simmons 1994). Such a bias could be harmful to domestic businesses, and could result in downward pressure on P/E ratios. Alternatively, left-leaning governments—which are often assumed to be anathema to financial market participants—might feel compelled to counteract the global market's putative expectations of their policy agendas by enacting market-friendly policies. Along these lines, recent literature in international political economy is largely ambiguous about the relationship between partisanship and the global economy (e.g., Broz and Frieden 2001, Simmons 1994). In the end, the relationship between partisanship and the global economy is an empirical question. We added several measures of partisanship to our TSCS models, including the partisan orientations of the legislature and of the executive; we also added a variable for the presence or absence of divided government. None was statistically significant.

Finally, a note of caution is in order. The samples used in the previous analyses are relatively small. Many developing nations do not have stock markets large enough to generate reliable total market P/E ratios, especially over several years; moreover, cross-nationally comparable data on fiscal policy and interest rates (provided by institutions such as the World Bank and the IMF) are of

---

[14] To avoid collinearity problems, variables were added individually to the cross-sectional model.

limited availability. However, we do carefully control for levels of income in our models, and thus our reported results are not driven by a crude distinction between emerging market and developed economies. We also include both TSCS and cross-sectional models in order to provide an honest account of the factors that drive both intertemporal and cross-national variation in market valuations.

CONCLUSION

The extant literature on the linkages between globalization and domestic politics has paid scant attention to the diverse ways in which countries are integrated into the world economy. By assuming that financial markets impose a unified influence on government policies, prior studies have overlooked the stark variation in the preferences of investors across different types of financial assets. In this paper, we argue that equity investors are becoming an increasingly influential force in the global economy, and that their preferences diverge from those of other financial actors in important ways. To illustrate this divergence, we present empirical analyses of the political and institutional determinants of equity market performance across a sample of developed and developing countries. Among the most interesting findings are that market valuations are significantly associated with capital account openness, shareholder protections, levels of development, and alternative domestic investments. In addition, equity investors appear indifferent toward government fiscal balances and the partisan orientations of government leaders.

Given that countries are integrated into the global financial system in different ways, these findings lead to the question of how government policymakers might reconcile the competing interests of different types of financial investors. If equity markets are indifferent to fiscal imbalances, but bond markets react against them, how does a government that is attentive to market pressures behave? While this question is beyond the scope of this paper, we offer a few tentative

hypotheses for future research. First, the relative economic importance (as a percentage of the overall economy, or as a proportion of capital inflows) of different types of assets—from bonds and equities to bank loans and direct investment—will certainly condition the character and extent of financial market influence on government policy. Equity markets are still relatively underdeveloped in many LDCs, and bank loans remain the financing method of choice for corporations in many advanced industrialized countries. Thus, banks and other financial investors are likely to overshadow equity investors in terms of influence on government policymaking. However, the process of disintermediation—in which corporations bypass banks and other intermediaries in favor of securities markets—is accelerating throughout the global economy, and for some countries, equity markets already constitute the dominant market for capital. The pendulum of policy influence may swing toward equity investors as disintermediation continues unabated.

Second, we might ask about the *political* status of various types of asset holders within a country. While accounts of financial globalization treat investors as an external influence, some key asset holders are based domestically and can exert influence through "voice" as well as "exit" (Hirschman 1970). Even when key investors are foreign-based, they may be able to lobby for certain policies through their connections with domestic economic actors. Moreover, when a higher proportion of a nation's citizens have assets in the national equity or bond market (for instance, in locations where a greater proportion of retirement savings is privately- rather than publicly-held and provided), the interests of domestic voters may align with those of foreign-based asset holders in the same market.

A more specific question pertains to the channels of influence for equity investors. How could an investor's threat of exit from the stock market cause a change in government policy? The causal mechanism is not as simple as it is in the sovereign bond market, in which the government suffers higher borrowing costs—and presumably constraints on its spending decisions—when bond

investors disapprove of government policy. Changes in the equity and bond markets, however, both can cause a wide-scale increase in the cost of capital for firms in the economy. Sovereign bond rates often serve as a benchmark for bank lending and corporate bond rates. In the stock market, lower valuations translate into a greater cost (and lower financial return) of equity issuance for private corporations, which in turn can prove detrimental to economic growth, employment, and innovation. Elected officials or authoritarian leaders might have incentives to ameliorate these conditions, particularly when equity issues constitute an important source of capital for publicly traded firms, and may therefore reexamine the policy choices to which equity investors responded negatively. Moreover, corporations are the source of campaign contributions and other forms of political support, and they themselves are likely to lobby for government policies that bolster the performance of their listed shares. It is no surprise that publicly traded companies are vocal in their support for lower taxes, loose monetary policy, and fiscal stabilizers for the national economy, as well as sector-specific policies from which their firms benefit.

Financial globalization, then, may have a variety of effects on national economies and on government policy-making. Our analyses suggest that these effects will vary both cross-nationally and over time, as a function of countries' involvement in different types of capital markets. The central research question about economic globalization is no longer "does globalization influence policy," but "how does globalization influence policy?" Considering the determinants of equity market valuations, and comparing those determinants with behaviors in other financial markets, constitute one step toward answering this question. To further address this issue, researchers should consider how still other types of financial instruments, such as bank loans and direct investment, might react to – and therefore influence – nations' institutional and policy choices.

Table 1: Countries in Sample

Argentina*	Japan
Australia	Korea
Austria	Malaysia
Belgium	Mexico
Canada	Netherlands
Chile	New Zealand
Colombia	Norway
Czech Republic*	Philippines
Denmark	Poland*
Finland	Portugal
France	Singapore
Germany	South Africa
Greece	Spain
Hungary*	Sweden
India	Switzerland
Indonesia	Thailand
Ireland	Turkey**
Israel	United Kingdom
Italy	United States

* Country in TSCS model only.

** Country in cross-sectional model only.

Table 2: Summary Data

Variable	Mean	Standard Deviation	Minimum	Maximum
P/E Ratio	17.92	9.18	3.60	72.10
Fiscal Balance	-2.02	4.64	-20.3	15.60
Fiscal Debt	61.15	30.26	13.61	127.19
Stock Market Capitalization (%GDP)	0.63	0.52	0.02	3.11
Capital account openness	1.42	1.43	-1.75	2.62
Dividend Yield	2.59	1.31	0	12.50
Income per capita (Log)	9.25	1.13	5.74	10.55
GDP Growth Volatility	2.23	1.63	0.60	6.08
Real Interest Rate	6.45	4.03	-24.60	29.12
Polity	8.43	3.29	-7.00	10.00
Political Constraints	0.45	0.11	0.04	0.71
Voting Rights	0.18	0.39	0	1
Common Law	0.29	0.46	0	1
Inflation	4.87	5.26	-1.39	58.39

Table 3: TSCS Correlates of Price-Earnings Ratios

Variable	Model 1	Model 2
Fiscal Balance	-0.10	-0.14
	(0.09)	(0.10)
Stock Market Capitalization	8.70***	8.73***
	(1.15)	(1.20)
Capital Account Openness	1.16***	1.39***
	(0.42)	(0.43)
Dividend Yield	-1.86***	-1.70***
	(0.26)	(0.29)
Income per capita (Log)	-9.48***	-8.75**
	(3.60)	(3.79)
Inflation	0.08	0.04
	(0.07)	(0.07)
Real Interest Rate	-0.12*	-.12*
	(0.07)	(0.07)
Beta		0.00
		(0.00)
N. of country-years	521	475
N. of countries	37	32
R^2	0.64	0.66

Prais-Winsten regression coefficients; panel-corrected standard errors are in parentheses. Both models include country fixed effects and assume first-order autocorrelation (ar1) within panels.
***$p > .01$; **$p > .05$, *$p > .1$

Table 4: Cross-Sectional Analysis of Price-to-Earnings Ratios

Variable	Model 1	Model 2	Model 3
Fiscal Debt	0.04 (0.04)	0.03 (0.04)	0.04 (0.04)
Stock Market Capitalization	3.11** (1.30)	1.37 (1.60)	2.50* (1.39)
Capital Account Openness	3.86*** (1.17)	3.49*** (1.06)	3.88*** (1.17)
Dividend Yield	-2.49 (1.70)	-2.35 (1.69)	-2.77 (1.72)
Income per capita (Log)	-2.68** (1.17)	-2.08** (0.88)	-2.58** (1.18)
Inflation	0.16* (0.08)	0.17 (0.11)	0.16* (0.08)
Polity	1.39** (0.60)		1.50** (0.65)
Political Constraints		15.74 (12.06)	
Growth Volatility	0.47 (0.91)	-0.94 (0.97)	0.65 (1.00)
Voting Rights	11.23** (5.62)	9.93* (5.11)	11.31* (5.55)
British Common Law			1.92 (1.97)
Constant	22.51*** (7.11)	27.36*** (7.25)	20.50** (8.39)
N	34	34	34
R^2	0.61	0.56	0.63

OLS regression coefficients; robust standard errors are in parentheses.
***$p>.01$; **$p>.05$, *$p>.1$

Data Appendix

Beta: the relative riskiness of a national market compared to the world market, calculated annually as the covariance of the weekly national stock market index and the world market index divided by the variance of the world market index, all based on the prior 48 weeks. National and world market index data are from Thomson Datastream.

Capital Account Openness: Index of capital account openness complied from the IMF's Annual Reports on Capital Exchange Restrictions. Lower scores represent more severe restrictions on the payment and receipt of capital. The index is calculated such that the series mean is zero. Source: Chinn and Ito (2006).

Common Law: takes the value of 1 for countries with British common law traditions, and 0 otherwise. Source: La Porta *et al* (1998).

Dividend Yield: Dividend per share as a percentage of share price. Source: Thomson Datastream.

Fiscal Balance: Budget deficit or surplus as a percentage of GDP. Source: International Monetary Fund, *World Economic Outlook,* April 2006 (for 26 industrialized nations). Additional observations are calculated using *World Economic Outlook* data on GDP and International Monetary Fund data (International Financial Statistics database) on total budget deficit or surplus.

Fiscal Debt: Government fiscal debt as a percentage of GDP. Source: World Bank, *World Development Indicators.*

GDP Growth Volatility: standard deviation of the annual rate of change in gross domestic product per capita over the period 1995-2004. Source: Derived from World Bank, *World Development Indicators.*

Inflation: annual rate of change in consumer prices. Source: World Bank, *World Development Indicators.*

Left ideology: ideology of the executive branch. Original coding (EXECRLC) has three categories: left, right and center. Variable is recoded as a dichotomous indicator of left government (left=1, center or right=0). Similarly, left legislative coding is based on the LGOVRLC, which codes the partisan orientation of the largest legislative party; again, this variable is recoded as a dichotomous indicator of left government (left=1, center or right=0). Source: the Database of Political Institutions (DPI 2004),
http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/0,,contentMD K:20649465~pagePK:64214825~piPK:64214943~theSitePK:469382,00.html, and based on Beck et al 2001.

Log GDP/capita: natural logarithm of gross domestic product per capita. Source: World Bank, *World Development Indicators.*

P/E Ratio: Aggregate price-to-earnings ratio for national equity market, weighted by market capitalization. Source: Thomson Datastream.

Polity: Twenty-one point scale of autocracy and democracy (ranges from -10 to 10). Source: Polity database, http://www.cidcm.umd.edu/inscr/polity/

Political Constraints: political constraints variable, "PolconIII," from Witold 2002. See http://www-management.wharton.upenn.edu/henisz/POLCON/CODEBOOK_2005.doc

Real Interest Rate: Nominal interest rate adjusted for inflation. Source: World Bank, *World Development Indicators.*

StockGDP: Stock market capitalization as a percentage of GDP. Source: World Bank Financial Structure Database.

US Ten Year Bond Rate: Benchmark Government Bond Rate for United States Treasury bonds. Source: Global Financial Data.

Vote: Measure of one-share, one-vote rules (1 if yes, 0 otherwise). Source: La Porta *et al.* (1998).

World Bank Governance Indicators: Includes measures of political stability, government effectiveness, rule of law, regulatory quality, and corruption, from World Bank (2006).

REFERENCES

Achen, Christopher H. 2000. "Why Lagged Dependent Variables Can Suppress the Explanatory Power of Other Independent Variables." Paper presented at the Annual Meeting of the Political Methodology Section of the American Political Science Association, July 20-22, UCLA.

Armijo Leslie Elliott, ed. 1999. *Financial Globalization and Democracy in Emerging Markets.* New York: Palgrave Macmillan.

Beck, Neal and Jonathan Katz. 1995. "What to do (and not to do) with time-series cross-section data." *American Political Science Review,* 89 (3):634-647.

_____. 2004. "Time Series Cross Section Issues: Dynamics, 2004." Working Paper, New York University and California Institute of Technology.

Beck, Thorsten, George Clarke, Alberto Groff, Philip Keefer, and Patrick Walsh, 2001. "New tools in comparative political economy: The Database of Political Institutions." *World Bank Economic Review* 15 (September):165-176.

Bernhard, William and David Leblang. 2002. "Democratic Processes and Political Risk: Evidence from Foreign Exchange Markets," *American Journal of Political Science* 46 (2):316-333.

_____. 2006. *Democratic Processes and Asset Markets.* New York: Cambridge University Press.

Brealey, Richard A., and Stewart C. Myers. 2003. *Principles of Corporate Finance.* New York: McGraw Hill. 7th edition.

Broz, J. Lawrence. 2002. "Political System Transparency and Monetary Commitment Regimes." International Organization 56 (4):861-887.

Broz, J. Lawrence and Jeffry Frieden. 2001. "The Political Economy of International Monetary Relations," *Annual Review of Political Science* 4:317-343.

Burgoon, Brian. 2001. "Globalization and Welfare Compensation: Disentangling the Ties that Bind," *International Organization* 55 (3): 509-551.

Calvo, Guillermo A. and Enrique G. Mendoza. 2000. "Rational Contagion and the Globalization of Securities Markets." *Journal of International Economics* 51 (1): 79-113.

Cerny, Philip G. 1999. "Globalization and the Erosion of Democracy." *European Journal of Political Research* 36 (1): 1-26.

Chinn, Menzie and Hiro Ito. 2006. "What Matters for Financial Development: Capital Controls, Institutions, and Interactions," *Journal of Development Economics* 81 (1):163-192.

Erb, Claude B., Campbell R. Harvey, and Tadas E. Viskanta. 1996. "Political Risk, Economic Risk, and Financial Risk." *Financial Analysts Journal* (November/December):29-46.

Ferson, Wayne E., and Campbell R. Harvey. 1998. "Fundamental Determinants of National Equity Market Returns: A Perspective on Conditional Asset Pricing." *Journal of Banking & Finance* 21 (11-12):1625-1665.

Freeman, John R., Jude C. Hays and Helmut Stix. 2000. "Democracy and Markets: The Case of Exchange Rates," *American Journal of Political Science* 44 (3):449-468.

Frieden, Jeffry A. 1991. "Invested Interests: The Politics of National Economic Policies in a World of Global Finance." *International Organization* 45 (4):425-451.

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

_____. 2000. "The Causes of Globalization." *Comparative Political Studies* 33 (6-7): 941-991.

Helleiner, Eric. 1994. "The World of Money: The Political Economy of International Capital Mobility." *Policy Sciences* 27 (4): 295-298.

Henisz, Witold. 2000. "The Institutional Environment for Economic Growth." *Economics and Politics* 12 (1):1-31.

Henisz, Witold. 2002. "The Institutional Environment for Infrastructure Investment." *Industrial and Corporate Change* 11(2):355-389.

Herron, Michael C. 2000. "Estimating the Economic Impact of Political Party Competition in the 1992 British Election," *American Journal of Political Science* 44 (2): 326-337.

Hirschman, Albert O. 1970. *Exit, Voice, and Loyalty.* Cambridge: Harvard University Press.

International Monetary Fund (IMF). 1998. *International Capital Markets: Developments, Prospects, and Key Policy Issues (September).* Washington: International Monetary Fund.

IMF. 2003. *Global Financial Stability Report.* Washington: International Monetary Fund.

Jensen, Michael C., and William H. Meckling. 1976. "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure." *Journal of Financial Economics* 3 (4):305-360.

Jensen, Nathan. 2003. "Democratic Governance and Multinational Corporations: Political Regimes and Inflows of Foreign Direct Investment." *International Organization* 57 (3):587-616.

_____. 2006. *Nation-States and the Multinational Corporation.* Princeton: Princeton University Press.

Jensen, Nathan and Scott Schmith. 2005. "Market Responses to Politics: The Rise of Lula and the Decline of the Brazilian Stock Market." *Comparative Political Studies* 38 (10): 1245-1270.

Johnson, Simon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Schleifer. 2000. "Tunnelling." Papers and Proceedings of the One Hundred Twelfth Annual Meeting of the American Economic Association, *American Economic Review* 90:22-27.

Kurzer, Paulette. 1993. *Business and Banking in Europe*. Ithaca: Cornell University Press.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Schleifer, and Robert Vishny. 1998. "Law and Finance." *Journal of Political Economy* 106 (6):1113-1155.

Lavelle, Kathryn C. 2004. *The Politics of Equity Finance in Emerging Markets*. New York: Oxford University Press.

Leblang, David. 2002. "The Political Economy of Speculative Attacks in the Developing World," *International Studies Quarterly* 46 (1):69-91.

Leblang, David and William Bernhard. 2000. "Speculative Attacks in Industrial Democracies: The Role of Politics," *International Organization* 54 (2): 291-324.

Leblang, David and Bumba Mukherjee. 2005. "Government Partisanship, Elections and the Stock Market: Examining American and British Stock Returns, 1930-2000." *American Journal of Political Science* 49 (4):781-803.

Leblang, David and Shanker Satyanath. 2006. "Institutions, Expectations and Currency Crises." *International Organization* 60 (4): 254-262.

Lee, Charles M. C., and David Ng. 2006. "Corruption and International Valuation: Does Virtue Pay?" Unpublished manuscript, Cornell University.

Li, Quan. 2006. "Democracy, Autocracy, and Tax Incentives to Foreign Direct Investors: A Cross-National Analysis," *Journal of Politics* 68 (1):62-74.

Li, Quan and Adam Resnick. 2003. "Reversal of Fortunes: Democracy, Property Rights and Foreign Direct Investment Inflows in Developing Countries," *International Organization* 57(1):1-37.

Lintner, John. 1965. "The Valuation of Risk Assets and the Selection of Risky Investments in Stock Portfolios and Capital Budgets," *Review of Economics and Statistics* 47 (1):13-37.

Maxfield, Sylvia. 1997. *Gatekeepers of Growth: The International Political Economy of Central Banking in Developing Countries*. Princeton: Princeton University Press.

McGillivray, Fiona. 2003. "Redistributive Politics and Stock Price Dispersion." *British Journal of Political Science* 33: 367-395.

Moore, Will H. and Bumba Mukherjee. 2006. "Coalition Government Formation and Foreign Exchange Markets: Theory and Evidence from Europe." *International Studies Quarterly* 50 (1):93-118.

Mosley, Layna. 2003. *Global Capital and National Governments*. Cambridge: Cambridge University Press.

Obstfeld, Maurice and Alan M. Taylor. 2004. *Global Capital Markets: Integration, Crisis, and Growth*. Cambridge: Cambridge University Press.

Roberts, Brian. 1990. "Political Institutions, Policy Expectations and the 1980 Election: A Financial Market Perspective," *American Journal of Political Science* 34 (2): 289-310.

Rodrik, Dani. 1997. *Has Globalization Gone Too Far?* Washington: Institute for International Economics.

Roll, Richard. 1977. "A Critique of the Asset Pricing Theory's Tests: Part I." *Journal of Financial Economics* 4 (2):129-176.

Rosendorff, B. Peter and James R. Vreeland. 2006. "Democracy and Data Dissemination: The Effect of Political Regime on Transparency." Paper presented at the 2006 Annual Meeting of the Midwest Political Science Association, Chicago, IL.

Saiegh, Sebastian. 2005. "Do Countries Have a 'Democratic Advantage?' Political Institutions, Multilateral Agencies, and Sovereign Borrowing." *Comparative Political Studies* 38(4): 366-387.

Santiso, Javier. 2003. *The Political Economy of Emerging Markets: Actors, Institutions and Financial Crises in Latin America.* New York: Palgrave Macmillan.

Shambaugh, George. 2004. "The Power of Money: Global Capital and Policy Choices in Developing Countries," *American Journal of Political Science* 48(2): 281-295.

Sharpe, William F. 1964. "Capital Asset Prices: A Theory of Market Equilibrium Under Conditions of Risk," *Journal of Finance* 19 (3):425-442.

Simmons, Beth A. 1994. *Who Adjusts? Domestic Sources of Foreign Economic Policy during the Interwar Years.* Princeton: Princeton University Press.

Sobel, Andrew C. 1994. *Domestic Choices, International Markets.* Ann Arbor: University of Michigan Press.

Sobel, Andrew C. 1999. *State Institutions, Private Incentives, Global Capital.* Ann Arbor: University of Michigan Press.

Strange, Susan. 1996. *The Retreat of the State: The Diffusion of Power in the World Economy.* New York: Cambridge University Press.

Vernon, Raymond. 1971. *Sovereignty at Bay: The Multinational Spread of U.S. Enterprises.* New York: Basic Books.

Wibbels, Eric. 2006. "Dependency Revisited: International Markets, Business Cycles, and Social Spending in the Developing World." *International Organization* 60 (2), pp. 433-468.

World Bank. 2006. Aggregate Governance Indicators Dataset. Available at http://info.worldbank.org/governance/kkz2005/tables.asp