Can Foreign Stock Investors Influence Policymaking?

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Abstract
Foreign portfolio stock investors (FPSIs) often attach political criteria to their investment choices, sometimes in the hope of pressuring policymakers in boycotted markets to adjust their policies. This article asks when the decision to not invest in foreign stock markets for political reasons catalyzes policy change in those countries. Unlike investors in government bonds that target state interests directly, FPSIs directly target the interests of the shareholders and managers of publicly listed firms. I argue that FPSI’s policymaking influence is limited by their ability to damage shareholders’ and managers’ interests and by those shareholders’ and managers’ ability to affect policy change. I test my theory with a quantitative analysis of a uniquely well-suited data set of policy reactions to CalPERS’ Permissible Equity Markets Policy. The results largely conform to my theoretical expectations.

Keywords
race to the bottom, convergence, capital mobility, CalPERS, regression discontinuity

Foreign investors can choose which firms or markets to invest in and often prefer to invest where policies are “better.” Governments often rely on foreign capital to finance public sector deficits and private sector development,

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incentivizing them to amend their policies to better suit foreign investors’ preferences. The resulting policy convergence is commonly referred to as the “race to the bottom.” Policy convergence as a means to attract mobile capital is a substantively important outcome of financial globalization, and the term “race to the bottom” reflects its normatively contentious implications. Establishing the extent to which the race to the bottom exists is central to the comparative and international political economy literatures (e.g., Bassinger & Hallerberg, 2004; Drezner, 2001; Garrett, 1998, 2001; Hays, 2003; Wibbels, 2006; Wibbels & Arce, 2003) and a fixation of popular writing on globalization (Friedman, 2000).

The race to the bottom narrative is often used to describe the power of “foreign capital,” or more specifically, the power of foreign direct investors or investors in government bonds. Foreign portfolio stock investors (henceforth, FPSIs) are not typically analyzed as a quantity of interest in itself. However, the possibility that FPSIs can influence policymaking has been at the heart of divestment campaigns by universities, pension funds, and other large investors in international stocks. Many of the world’s largest shareholders including CalPERS and the Norwegian Government Pension Fund-Global have or have had investment policies that are explicitly political. This article asks, “Can FPSIs influence policies?”

I argue that FPSIs influence policymaking through distinctive means, that these distinctions manifest themselves in patterns of policy convergence, and that theories developed to describe the policy impacts of government bond investors and foreign direct investors might not accurately characterize the nature of FPSIs’ influence. A comparison with government bond investors illustrates FPSI’s distinctiveness. Government bond investors can influence policy because when foreign buyers of government bonds avoid a market they increase the cost of public borrowing. This threatens the interests of the state directly, and the pain spreads broadly to firms and individuals because public borrowing rates typically act as a benchmark for the private sector. James Carville famously illustrated bond investors’ power when, frustrated that rising interest rates were scuttling the Clinton administration’s policy initiatives, quipped that he would like to be reincarnated as the bond market so that he could “intimidate everybody.”

Like government bond investors, FPSIs’ power comes from their ability to hurt the markets they avoid by lowering the value of existing securities and increasing issuers’ cost of raising new capital in the future. The key difference is that when FPSIs avoid a market they dampen share prices, which primarily threatens the interests of shareholders and managers of publicly listed firms. There are plausible indirect costs to society as a whole—lower stock prices increase the equity costs of capital and reduce investment by
publicly listed firms (Henry, 2000)—but the direct costs of FPSIs’ market avoidance are not borne by policymakers, privately held firms, or individual citizens, especially in contexts in which relatively few citizens own shares.

FPSIs’ primary means of policy influence comes by threatening the interests of publicly listed firms and thereby “recruiting” their shareholders and managers to act as the FPSI’s political agent. This creates an important intermediate layer between the FPSI and the policymaker. The policy impact of FPSIs’ market avoidance should depend on (a) FPSIs’ capacity to hurt, and thus recruit, the managers and shareholders of publicly traded firms and (b) the ease with which those managers and shareholders, once recruited, can affect policymaking. FPSIs should therefore be more able to influence policymaking in countries where firms rely heavily on foreign capital, and in policy areas where either the shareholders or managers of publicly traded firms or both are themselves the most important barriers to reform. Conversely, firms that are less reliant on foreign capital should be less easily recruited, and, when they are, should make less successful agents of policy change in issue areas where there commonly exist actors that are invested in the policy status quo and unaffected (or less affected) by the capital boycott. We should therefore expect to observe systematic variation not only in which countries race to the bottom as a result of FPSIs but also in which policy areas they do so. This variation delimits the conditions under which FPSI can effectively catalyze a race to the bottom and, in doing so, emphasizes that in many situations, FPSIs might be an ineffective catalyst for a policy change.

I evaluate the empirical plausibility of this theory by analyzing the effects of CalPERS’ (The California Public Employee Retirement System) Permissible Equities Markets Policy (henceforth, PEMP). From 2002 to 2007, CalPERS commissioned an outside firm (Wilshire Associates) to rate the policy and economic environment in 27 emerging markets included on major emerging markets indices.\(^1\) The resulting rating (The “Wilshire score”) combined information on a variety of policy-related elements including corporate governance rules, labor practices, trade policy, judicial independence, banking regulation, and others. Countries such as South Korea, Chile, and Poland typically ranked near the top of the list, while countries such as Egypt, Pakistan, and Venezuela typically ranked at the bottom. Wilshire scores ranged from 1 to 3 and PEMP mandated that CalPERS boycott countries with Wilshire scores below 2.\(^2\) Wilshire recomputed the scores annually, and with every annual report, a new group of countries moved from uninvestable to investable and vice versa. Countries that were close to but below the threshold could cross it by converging any of the rated polices toward CalPERS’ preferences.
The negative financial implications of remaining uninvestable were considered significant at the time, partly because CalPERS is very large—US$257.4 billion in assets under management as of March 2013—and partly because CalPERS’ visibility and influence allowed it to provide a “seal of good housekeeping” that brands a country as a “viable investment location” or not (Alberto del Rosario, quoted in Mukherjee, 2004).

While the basic premise behind PEMP—withstanding investment from countries with “bad” policies, investing in countries with “good” policies—is generic, the manner in which PEMP was conducted provides data that are uniquely well suited to identify which countries and which policies are most influenced by FPSIs’ investment decisions. PEMP’s methodological advantages are threefold. First, PEMP is a rare, if not unique, example of a foreign investor demanding that governments change their policies but leaving it to the governments to pick which policies to change. This allows exploration of whether FPSIs’ demands are able to influence some policies more than others while holding constant the identity and intensity of the demanding investor. Second, accommodation of CalPERS’ policy demands made through PEMP is empirically distinguishable from accommodation of other actors’ policy preferences. Foreign portfolio and direct investors’ policy preferences are typically unstated and commonly held, making it difficult to distinguish the preferences of one type of foreign investor from the preferences of other types of foreign investors, domestic investors, or other actors, and highly likely that the political-economic conditions that empower one empower all. PEMP made CalPERS’ demands public and explicit and, while many actors may have shared CalPERS’ preferences, only CalPERS drew a sharp distinction between countries with Wilshire scores above and below 2. Distinct patterns of policymaking on either side of this threshold reliably indicate CalPERS’ influence. Third, policymakers in the affected markets could not perfectly control which side of that threshold they were on, which allows exposure to CalPERS’ demands for policy change to be considered exogenous for observations clustered around the investability threshold.

I analyze PEMP’s effects on policymaking using a research design modeled on regression discontinuity (RD) designs. The results suggest that PEMP provoked policy convergence only in relatively poor countries and primarily in policy areas—shareholders rights and, to a lesser extent, stock exchange listing requirements—in which the shareholders and management of publicly traded firms are the primary affected party and where management is typically the primary obstacle to policy reform. There is no evidence that PEMP affected policymaking in relatively rich countries and the evidence of policy convergence in policy areas outside of corporate governance is relatively weak. These findings fit my theoretical model quite well.
These findings have two implications. The first is that FPSI’s capacity to instigate a race to bottom appears quite limited, particularly when one considers CalPERS’ extraordinary size and influence relative to other FPSIs. The second is that under the conditions where CalPERS had a discernable effect on policymaking, it is substantively large: Being in the uninvestable group is associated with a roughly 1 SD increase in convergence on shareholders’ rights and stock exchange listing requirements for countries with GDPs per capita on par with Egypt in 2003 (US$1,500 in constant 2005 dollars).

This article makes several contributions to the literature on globalization and foreign investor influence. First, the idea that the type of investor shapes the way the race to the bottom manifests itself is important in a literature that often treats “foreign capital” or “foreign investors” as a homogeneous group with similar interests and means of bringing their financial weight to bear on those interests. Second, the CalPERS apparent ability to influence corporate governance policies (at least in relatively poor countries) is an important finding to the corporate governance literature and especially to debates over the stability of corporate governance policies. Many argue that the need to attract capital from FPSIs leads countries to adopt outside shareholder-friendly corporate governance rules (e.g., Gourevitch & Shinn, 2005; Hansmann & Kraakman, 2001; Rajan & Zingales, 2003). Others argue that persistence should be the norm in corporate governance because reform often requires politically influential actors to make unwanted concessions, and because it can upset established institutional complementarities (Bebchuk & Neeman, 2010; Bebchuk & Roe, 1999; Culpepper, 2007; Hall & Soskice, 2001). The argument and findings in this article lean toward the convergence camp, though the lack of evidence that CalPERS affected policymaking in richer countries and weaker evidence of an effect on other policy areas suggests that such convergence pressures are limited to a relatively narrow—if nonetheless substantively important—set of conditions.

Finally, the empirical analysis in this article is an important adjunct to the broader empirical literature on the relationship between foreign capital and domestic policymaking. In particular, PEMP allows for a more reliably exogenous indicator of exposure to foreign investors’ demands than is typical. Exposure to pressures from foreign investors is often proxied with observed measures of financial integration such as foreign capital inflows (e.g., Wibbels & Arce, 2003; Rudra & Haggard, 2005) or capital account openness (e.g., Swank & Steinmo, 2002; Wibbels, 2006). While these variables are surely linked to exposure to foreign capitals’ demands, they are very much a function of past policy decisions and, in the case of capital inflows, foreign investors’ past behavior. The coincidence of financial integration and investor-friendly policies could be due to reverse causality or hard to measure...
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and frequently omitted variables such as ideology. A drawback to this analysis relative to the broader literature is that it necessarily focuses on internal over external validity. What was true about CalPERS and PEMP may not be true for other FPSIs and other politically informed investment strategies. However, the conclusions drawn here—foreign investors have a real, but limited influence on domestic policymaking—are broadly consistent with findings elsewhere in the literature, which suggests reasons to be more confident in both.

The remainder of this article is organized as follows. The following section reviews the literature and describes the theory being tested. Subsequent sections describe PEMP and the data used to test my hypotheses, the research design, and the results. The final section concludes.

Conditional Convergence, FPSIs, and Corporate Governance

The notion that policymaking in a capitalist system is intrinsically subservient to capital goes back at least as far as Marx and is echoed in work by Lindblom (1977), as well as the “race to the bottom”-related works cited in the introduction. The implied erosion of democratic policymaking has been at the center of important normative debates around the nature of sovereignty and democracy in a world with globalized capital markets (e.g., Cerny, 2003; Strange, 1999).

Despite the logic of the race to the bottom, it remains the case that the policies that investors are often thought to care about continue to vary across countries. A natural question to ask, then, is not if countries shape policies to attract mobile capital but when. One common argument is that domestic capital endowments matter. The more reliant a country is on foreign investment, the more they need to maintain their international reputation as an attractive place to invest (Haggard & Maxfield, 1996; Rodrik, 1989; Wibbels & Arce, 2003). We should therefore expect to see more profound convergence pressures in poorer, relatively more capital-starved countries. The empirical literature bears this out: National variety in capital taxation and social welfare spending seems to have survived to a greater degree in the Organisation for Economic Co-operation and Development (OECD; for example, Garrett, 1998) than in developing countries (e.g., Wibbels & Arce, 2003). Others have looked to recipient-country politics and political institutions to explain the diversity of race to the bottom outcomes. Rudra and Haggard (2005) argue that democracies are more insulated than autocracies from race to the bottom pressures. Within the set of democracies, research has examined how variation in electoral rules (e.g., Hays, 2003; Kerner & Kucik, 2010) veto players...
(e.g., Bassinger & Hallerberg, 2004) and partisanship (e.g., Garrett, 1998; Garrett & Mitchell, 2001) influence the extent of capital-seeking policy convergence.

My argument stays within this broad theme of real but limited policy convergence but differs in where I locate the race to the bottom’s limitations. I argue that the type of the investor matters because different kinds of investors threaten recipient-country interests in different ways. The government bond investor—the “bond vigilante”4—strikes to the heart of the state’s interests. Governments, particularly in developing countries, typically rely on foreigners to finance a significant portion of their debt. A declining appetite for this debt makes borrowing more expensive and undermines governments’ ability to make capital investments and provide public services. Because government borrowing costs are typically a benchmark for the private sector, the pain inflicted by bond investors is shared in short order by firms and individual borrowers. Keeping bond investors happy is therefore often a top priority. Foreign direct investments also speak directly to policymakers’ interests as they can provide jobs, capital, and industrial know-how that are often critical to development goals. They typically invest in projects with long time horizons, and the capital they provide is considered stable.

FPSIs are different. They do not finance the public sector. They do not take controlling interests in companies and therefore do not provide the expertise and technological spillovers that direct investors often do. Their capital is highly mobile and can be moved out quickly and counter-cyclically. When, as is often the case, foreigners’ stock purchases occur on foreign markets through depositary receipts, the capital never enters the recipient country at all. What FPSIs can do is influence stock prices just as any domestic buyer would but perhaps more so because their internationally diversified portfolios allow them to demand a lower risk premium in any particular country (Bekaert & Harvey, 1998). High stock prices make domestic investors wealthier, reduce public firms’ cost of capital, and can enable stock financed mergers and acquisitions. But high stock prices do not speak as directly to the state’s interests as low borrowing rates do, especially when, as in most non-OECD countries, public participation in the stock market is limited, IPOs rare, and relationship-based capital provision the norm.

High stock prices are of primary importance to the managers and shareholders of publicly traded firms, however. As long as they are sufficiently reliant on foreign capital to maintain those high stock prices, the managers and shareholders of publicly traded firms should be motivated to seek policy changes that promote or restore access to it. Whether or not a government
conforms its policies to match FPSI’s preferences depends critically on whether these specific interest groups are able to affect policymaking.

When are the managers and shareholders of publicly traded firms more able to affect policymaking? We can think about a dichotomy between policies in which the managers and/or shareholders of publicly traded firms are the primary actors with an interest in the policy status quo and policies for which multiple actors are similarly invested. Convergence in contested policy areas require the managers and shareholders of publicly traded firms to affect reforms over the likely objections of other parties that are not directly affected by the reduction in share prices. For example, privately held firms have an interest in regulatory standards, labor rights, tax policies, or accounting policies and are likely to resist FPSI-catalyzed changes to the status quo because they do not directly benefit from (and may even be hurt by) the upside of more capital being provided more cheaply to publicly held firms. Labor and environmental groups are likely to contest the weakening of labor and environmental regulations but see little in the upside of higher share prices. Other actors have interests in preserving the status quo in press freedoms, fiscal or monetary practices, democratic accountability, and so on.

If, on the other hand, the managers and/or shareholders of publicly traded firms are the primary or only interested party to a policy, convergence should be relatively easy as long as the need to attract more foreign capital is sufficiently strong to sway their preferences. Once their preferences are successfully recruited, there is no obvious stumbling block to policy reform.

Corporate governance rules are prime examples—perhaps the prime examples—of such a policy area. Corporate governance rules shape the legal relationship (and distribution of corporate rents) between shareholders, management, and other stakeholders in the firm. Specific corporate governance policies include the rules governing corporate board structure, the requirements for listing on the stock exchange, shareholder voting procedures, and the legal standing for shareholders to challenge directors in court (see La Porta, Lopez-de-Silanes, & Vishny, 2000).

FPSIs such as CalPERS typically prefer corporate governance rules that empower outside shareholders. Doing so tends to increase share prices (Gompers, Ishii, & Metrick, 2003) and facilitates the development of arm’s length capital markets (La Porta, Lopez-de-Silanes, & Vishny, 2000; Rajan & Zingales, 2003). Shareholder gains often come at the expense of managers and directors, whose rent-seeking opportunities are curtailed (Bertrand & Mullainathan, 2003; Dyck & Zingales, 2004) and/or whose preferences over corporate strategy differ from portfolio shareholders due to longer time horizons and a limited capacity to diversify their income across multiple firms (Perotti & von Thadden, 2006).
Political economy models of corporate governance policymaking typically depict a competition between affected interest groups (Bebchuk & Neeman, 2010; Cioffi & Hopner, 2006; Gourevitch & Shinn, 2005; Pagano & Volpin, 2005; Perotti & Volpin, 2007; Perotti & von Thadden, 2006; Roe, 2003). These theories are diverse, but two common reference points are that (a) managers tend to oppose shareholder primacy and (b) managers’ views’ are particularly influential, if not dictatorial, due to their ability to organize, their privileged position in politics through their “prerogative of investment and allocation” (Bernhagen & Bräuninger, 2005, p. 44; Culpepper, 2007, 2010), their concentrated interest in corporate governance policy, and their ability to use other people’s (shareholders’) money for their lobbying efforts (Bebchuk & Neeman, 2010).

While corporate governance reform should in principle be relatively easy if managers can be induced by the promise of cheaper access to foreign capital to prefer shareholder-friendly policies, there is a considerable debate over whether or not this is likely to happen. Some see foreign investors as important catalysts for a policy change (Hansmann & Kraakman, 2001; Rajan & Zingales, 2003), while others suggest a high degree of path dependence, even in the face of financial pressures for convergence (Bebchuk & Roe, 1999).

The foregoing suggests two hypotheses. The first speaks to when the managers of publicly traded firms’ policy preferences are likely to be swayed by FPSIs and the second speaks to when they are likely to be successful agents of policy change.

**Hypothesis 1:** Capital boycotts by FPSIs are more able to affect policy convergence in relatively capital-poor countries.

**Hypothesis 2:** Capital boycotts by FPSIs are more able to affect policy convergence in corporate governance policies than in other policy domains.

**CalPERS and the Permissible Equities Market Policy**

CalPERS is the defined benefit pension system covering most public employees in the state of California. CalPERS is notable for its size and its activism, most famously its annual “focus list” of underperforming American firms and the associated “CalPERS effect” as those firms amend their polices to avoid CalPERS’ designation as company with governance problems (e.g., English, Smythe, & McNeil, 2004; Guercio & Hawkins, 1999). PEMP was CalPERS’ most notable systematic attempt to bring its activism to bear on its international holdings.
PEMP’s backbone was a set of ratings issued by Wilshire Associates that scored countries on a variety of financial and political dimensions. Wilshire’s ratings incorporated information on three “Country Factors”—Political Stability, Transparency, and Labor Practices — and five “Market Factors”—Market Liquidity and Volatility, Market Regulation/Legal System/Investor Protection, Capital Market Openness, Settlement Proficiency, and Transaction Costs. Each of these “Factors” was itself an index of conceptually related policy ratings. Political Stability included measures of civil liberties, judicial independence and legal protection, and political risk; Transparency measured freedom of the press, monetary and fiscal transparency, stock exchange listing requirements, and accounting standards compliance with Generally accepted accounting principles (GAAP) or International accounting standards (IAS); Labor Practices coded the degree of compliance with the International Labor Organization (ILO) treaty; Market Regulation/Legal System/Investor Protection measured shareholders’ rights, creditors’ rights and the effectiveness of financial regulation; Capital Market Openness included trade openness, openness to foreign investment, and openness of the banking system; Settlement Proficiency and Transaction Costs rated the efficiency and cost of trading securities in the domestic market. Each country was given a 1 to 3 rating on each policy area, with higher ratings signifying more investable markets. These scores aggregated in a 1 to 3 factor score, which were then weighted and aggregated into a final “Wilshire score”, which also ranged from 1 to 3.

CalPERS initially used Wilshire scores as unenforced guidelines for its investment managers but in 2002 made a Wilshire score above 2 a binding requirement for CalPERS’ investment and instructed its investment managers to unwind their positions in disqualified countries. Argentina, Brazil, Chile, Czech Republic, Hungary, Israel, Mexico, Peru, Poland, South Africa, South Korea, Taiwan, and Turkey were deemed investable; China, Colombia, Egypt, India, Indonesia, Jordan, Malaysia, Morocco, Pakistan, Russia, Sri Lanka, Thailand, and the Philippines were not. Wilshire scores were recomputed annually so that countries could be reinstated as an investable market if their scores rose above the threshold and disqualified if their scores fell below it. Improving a Wilshire score meant either improving financial market performance (never an easy thing to do) or policy convergence toward CalPERS’ preferences.

The amount of money directly at stake through PEMP was sometimes large, but the primary danger of being declared uninvestable was that the reputational damage could reverberate throughout the market. Herd behavior among pension funds is well documented (e.g., Nofsinger & Sias, 2002), and pension fund managers tend to mimic CalPERS’ in particular (Mohan & Ting, 2012). Major investment websites at the time published...
articles advising readers on ways to mimic CalPERS’ investment strategies by reducing their exposure to disqualified markets (“Mimicking Calpers’ Emerging Markets Strategy With CEFs, ETFs,” 2006). Journalists attributed large shifts in the value of the Filipino stock market to CalPERS’ decision to disallow investment there (Lifsher, 2004; Mukherjee, 2004).23

Commentary from relevant actors suggests PEMP’s ability to influence the market was taken seriously. The director of the Malaysian Industrial Development Authority commented that being declared investable in 2004 is “. . . an indication that investors have confidence in Malaysia and, of course, it affects the markets” (Lifsher, 2004). After the Philippines was reinstated as investable, its consul general in San Francisco declared “. . . a huge victory for us, because CalPERS is the bellwether for other investors . . . Other investors will stay in the Philippines, other investors will come” (Estrella, 2004). The president of the Philippine Stock Exchange echoed this sentiment following an investable rating 2 years later:

I expect other investors to take their cue from CalPERS, because its decisions influence the global direction of managed funds. So, now is the time to invest in the Philippines, while we are just about to stage a bull run. (dela Peña, 2006)

Stock market personnel and finance ministry officials continuously updated Wilshire Associates’ offices with news of technical and regulatory improvements. India, Jordan, Sri Lanka, Colombia, Venezuela, Morocco, Indonesia, Pakistan, and the Philippines contacted CalPERS for advice on how to improve their scores (Entine, 2003). Brazilian officials, alarmed at being rated as a 2 in 2003, requested that then CalPERS chairman Sean Harrigan visit Brazil to help them improve their ratings (Hebb & Wójcik, 2005). The Philippines put together a multi-agency task force charged with altering policies to meet CalPERS’ threshold (Office of the President of the Philippines, 2005).

PEMP was not a financial success. CalPERS’ emerging market portfolio underperformed traditional emerging market indexes, in large part because PEMP required CalPERS to miss a boom in Chinese and Russian equities (Wilshire Associates, 2007). CalPERS replaced PEMP in 2007 with the Emerging Equity Markets Principles approach that calls for firm-level screening and subsequent corporate engagement, allowing CalPERS to invest in and engage with firms such as Sinopec and Gazprom, among other formally prohibited companies (Hubbe & Hebb, 2011). It is less clear whether PEMP influenced policymaking. Hebb and Wójcik (2005) analyze PEMP data from 2002 to 2003 and find that the lowest rated countries in 2002 showed the greatest improvement in the subsequent year. However, these improvements could be an artifact of unrelated trends in regulatory quality
and macroeconomic health and the fact that lower scoring countries have greater room for improvement. The following sections of this article describe the results of an alternative research design to explore PEMP’s effect on policymaking using the full run of PEMP data in a way that allows for clearer identification of CalPERS’ influence.

**Research Design**

I analyze PEMP’s effect on policymaking using a research design that draws on the logic of RD (see Imbens & Lemieux, 2008; Lee & Lemieux, 2010, for a more formal explication of RD than is provided here). RD is a quasi-experimental approach for using observational data to estimate causal effects. RD applies to data generating processes in which a treatment is given to units on the basis of whether their scores on an “assignment variable” are above or below a predetermined threshold. RD looks for a treatment effect by comparing the behavior of units just above and just below the threshold, leveraging the intuition that units with similar assignment variable scores are meaningfully similar to each other except that units with assignment variables scores on one side of a predetermined threshold receive the treatment and units on the other side do not.

RD requires that (a) the units under study cannot perfectly control their assignment variable scores and, thus, whether they receive the treatment, and (b) the relationship between outcomes and assignment variable scores is otherwise continuous. If these conditions are met, the treatment can be considered exogenously assigned to units near the treatment threshold, and discontinuities in the relationship between the assignment variable and the outcome variable at the treatment threshold can be considered evidence of a treatment effect. Behavior at the threshold is obtained by estimating separate regressions on data above and below the treatment threshold and comparing the predicted values of the outcome variable at the treatment threshold from the two regressions.

This application identifies PEMP’s effect on policymaking by comparing estimates of policy convergence at PEMP’s investability threshold separately for country-year units clustered above and below it. If PEMP influenced policymaking, we should observe more policy convergence at the threshold among country-years situated below it. If my hypotheses are correct, this effect should be most apparent in poor countries and in corporate governance policy. Formally, I estimate Equation 1 on either side of the investability threshold.

\[
\Delta \text{policy}_{it} = \alpha + \beta (f(\text{Wilshirescore}_{it-1} - 2)) + \gamma (\text{GDP per capita}_{it-2}) + \psi (f(\text{Wilshirescore}_{it-1} - 2) \times (\text{GDP per capita}_{it-2})) + \epsilon_{it},
\]  

(1)
where $\Delta \text{policy}_{it}$ is the annual change in policy for country $i$ in year $t$, $f(\text{Wilshire score}_{it-1} - 2)$ is a function of the Wilshire score, re-centered so that it equals 0 at the threshold, and GDP per capita$_{it-2}$ is the twice-lagged value of GDP per capita.\(^{24}\) PEMP’s effect at the treatment threshold is the linear combination of the constant, $\alpha$, and $\gamma$(GDP per capita$_{it-2}$). This research design differs from the traditional RD design by including the $\gamma$(GDP per capita$_{it-2}$) term, which allows me to test whether the treatment effect varies according to the levels of GDP per capita. Including the interaction between $f(\text{Wilshire score}_{it-1} - 2)$ and GDP per capita$_{it-2}$ allows the continuous, underlying relationship between policy outcomes and Wilshire scores to vary according to GDP per capita, rather than stipulating that GDP per capita’s effect is limited to behavior at the threshold. The average treatment effect (ATE) comes by evaluating Equation 2 at a range of values for GDP per capita.

$$\text{ATE} = \text{EQU}\{\alpha + \gamma(\text{GDP per capita}_{it-2})\} - \text{EQI}\{\alpha + \gamma(\text{GDP per capita}_{it-2})\},$$

Equation 2

where EQU{…} indicates that the elements inside the bracket are estimated on data from the uninvestable group and EQI{…} indicates that the elements inside the bracket are estimated on data from the investable group. The treatment effect recovered from Equation 2 is akin to the difference between two sets of conditional coefficients. I follow Lee and Lemieux’s (2010) procedure for estimating an RD with panel data, which calls for pooled regression using standard errors clustered by country and a lagged dependent variable.\(^{25}\)

**Local Exogenous Assignment in the PEMP Data**

The exogenous assignment of the treatment assumes that policymakers could not perfectly control their Wilshire scores and that CalPERS did not “manage” the treatment assignment in a way that plausibly relates to subsequent policy reform. If either of these happened, the units above the treatment threshold are unlikely to be otherwise similar to units below the treatment threshold, which would limit the value in comparing the two.

Countries’ inability to perfectly manage their Wilshire scores stems from two sources. First, the Market Liquidity and Volatility component of the Wilshire score measures aspects of financial market performance that governments cannot perfectly control. Slight variation on this dimension occasionally meant the difference between being investable or not. For example, Sri Lanka was considered investable in 2006 but would have been uninvestable that year had the 5-year change in Sri Lankan market capitalization been 57.3% and not 59% in 2005. This variation is, if not random, certainly exogenous to subsequent policymaking. The majority of cases in the truncated
sample that I use to estimate my models are close enough to the threshold that a single point change in the Market Liquidity and Volatility component would alter their treatment status.

A second source of imperfect control comes from periodic changes to the way factor scores were aggregated into Wilshire scores. Restructurings occurred in 2003, 2005, and 2006. India (2003), The Philippines (2005), Malaysia (2006), and Indonesia (2006) all had their investability statuses directly altered by weighting changes. We can also think about the effects of plausible counterfactuals. Thailand, India, and Turkey (2005) as well as Russia, Morocco, and Sri Lanka (2006) would all have had their status altered had those changes been instituted a year earlier than they were. Several annual reports issued by Wilshire analyzed the sensitivity of their ratings to alternative weighting schemes. Of the five scenarios Wilshire reported in 2003, India was permissible in two and impermissible in three; in 2004, Peru was impermissible in three but permissible in two. Similar sensitivity to plausible counterfactual changes is apparent for some countries in every Wilshire report.

While these changes preclude perfect control by policymakers, they suggest CalPERS’ ability to manage which countries were investable. While these changes were almost certainly non-random, the key point for exogeneity is that they do not reflect country-specific preferences that plausibly correlate with subsequent policy reforms. One candidate for such a preference is CalPERS’ perception of a market’s profitability. The fact that PEMP was abandoned because it precluded investments in profitable markets suggests prima facie evidence that any profit-oriented manipulation of the Wilshire scores was, at a minimum, not rampant. If manipulation is to be found, however, it should be in the four cases (India in 2003, the Philippines in 2005, Indonesia and Malaysia in 2006) that had their treatment status altered. I discuss these cases in turn.

The 2003 re-weightings relegated India to the uninvestable group. This case is unlikely to indicate profit-minded manipulation because CalPERS could have simply avoided investing in countries where investment was technically permissible. The remaining three cases (all upgrades) expanded CalPERS’ investment opportunities and merit further consideration. The 2006 re-weighting that moved Indonesia and Malaysia into the investable category is also unlikely to be problematic. CalPERS investment committee approved the 2006 changes in the spring of 2005, before some of the data used in the ratings were available. Wilshire’s analysis at the time of adoption reported that, based the previous year’s data, the changes would have made Russia and Morocco investable and Sri Lanka uninvestable but indicated no
effect on either Indonesia or Malaysia (Wilshire Associates, 2006). Thus, even if the 2006 re-weighting is assumed to be an attempt to pick and choose investable countries, it is possible that this manipulation altered the wrong countries’ treatment status. The Philippines’ upgrade in 2005 is potentially more problematic. The re-weighting moved the Philippines from what would have been a 1.99 to a 2, making the market barely eligible for CalPERS’ investment. It is certainly possible that the impact on the Philippines’ rating was an unanticipated consequence of an otherwise motivated simplification, but I drop the Philippines from my analysis in light of the possibility that CalPERS’ intentionally favored it.

Sample

My sample consists of annual observations of 26 of the 27 emerging markets rated by CalPERS (the excluded country is the Philippines). The sample extends from 2003 (the first year for which we can observe PEMP’s effect on the outcome variables) through the end of the policy’s implementation in 2007. I report the results of models using data from country-year observations with lagged Wilshire scores between 1.5 and 2.5, which pools together the 44 country-year observations that are closest to the threshold from below and the 55 country-year observations that are closest to the threshold from above, including at least one observation from every country rated by CalPERS. This is a relatively large bandwidth, but necessarily so given the small sample size. Including \( f(Wilshire \text{ Score}_i, t - 2) \) as a regressor in my estimation helps account for this (Heckman & Robb, 1985; Pettersson-Lidbom, 2008). Appendix A notes the country-years that are included in the treatment and control groups.

Variables

My dependent variables measure annual changes in policy components of the Wilshire score. I restrict the set of analyzed components to those that refer to specific policy areas (which excludes, for example, “political risk”) and are coded consistently over time. I group the qualifying variables into two categories. The first category consists of corporate governance policies for which the managers of publicly listed companies are likely to be the primary obstacles to policy convergence: Shareholder Rights and Stock Market Listing Requirements. The second group consists of policies for which other actors in society are likely to object to changes from the policy status quo: Creditor Rights and the Openness of the Banking Sector (both of which concern banks
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and other lenders), Freedom of the Press, Monetary and Fiscal Transparency, and Judicial Independence and Legal Protection, Labor Practices, Trade Openness, and Limits to Foreign Investment (all of which are important to the state, privately held firms and/or other interest groups).

My main models use as dependent variables annual changes in additive indexes of the above-mentioned policies. One index is the sum of policy ratings in shareholders’ rights and stock market listing requirements, and the other index is the sum of all other policy ratings. My hypotheses predict PEMP induced policy convergence in the first index, especially in relatively poor countries. I also show the results of models estimated on annual changes in the individual policies.

To demonstrate robustness, I report models using three different operationalizations of \( \sum (\text{Wilshire Score}_{it} - 1 - 2) \): linearly, as first- and second-order polynomials, and as first-, second-, and third-order polynomials. The latter two operationalizations allow for non-linear and non-monotonic relationships between the previous year’s Wilshire score and \( \Delta \text{policy}_{it} \).

Controls

While my research design aims to establish the exogenous assignment of the treatment, the conditional aspects of my tests are as subject to the same omitted variable bias as any regression model, suggesting the need for additional controls. I include a dummy variable coded 1 if a country is in East Asia and 0 otherwise. East Asian countries in this sample are substantially richer than the mean and spurious results might otherwise obtain if the aftermath of the Asian financial crisis drove reactions to PEMP that differ from the rest of the sample. I also include twice-lagged controls for levels of democracy and market capitalization/GDP because richer countries tend to be more democratic and have more developed stock markets and either of these factors might independently affect the way that countries responded to PEMP. I also include year-fixed effects.

Non-Parametric Plots

Figure 1 shows the relationship between policy change, being declared uninvestable by CalPERS, GDP per capita, and issue area through a series of scatterplots. The x-axis measures Wilshire Score_{it} - 1 - 2, and the y-axis measures the residuals from a prior regression of each dependent variable index on the independent variables used in the parametric tests other than GDP per capita. The top and bottom plots show the data associated with changes in the
corporate governance index and the index of other policy variables, respectively. The left- and right-side plots use country-year observations with twice-lagged values of GDP per capita above and below the sample median, respectively. The regression lines are non-parametric regressions of the residuals on Wilshire Score_{it-1} - 2, estimated separately on either side of the treatment threshold. The regression lines were estimated using a rectangular kernel with a bandwidth of .2 and degree 0.

If being declared uninvestable spurred convergence to CalPERS’ preferences, there should be a discontinuity in the local regression lines at the treatment threshold (Wilshire Score_{it-1} - 2 = 0), with the line just to the left of the threshold higher than the line to right of it. If there is no effect, the regression lines should pass through the threshold without any observable discontinuity. The discontinuity should be larger in the right-hand-side panels if the effect is larger in poor countries and larger in the upper plots if the effect on convergence is larger for corporate governance policies than other policies. As can be seen, the effect is largest in the upper right-hand graph, which plots changes in corporate governance policies in relatively poor country-years. There is slightly smaller discontinuity in the bottom right-hand graph, which plots non-corporate governance policy reactions in relatively poor countries.

**Figure 1.** Non-parametric plots.
There is no evidence of a discontinuity at the treatment threshold for any policies in relatively rich countries. These patterns are generally consistent with my hypotheses, though more so with the idea that poorer countries should be more likely to converge their policies towards CalPERS preferences (H1) than that convergence being particularly pronounced in corporate governance policy (H2). These figures have their limitations, however. Dichotomizing the data at the median of GDP per capita throws out useful information, and parametric estimates can more properly accommodate the panel structure of the data.

**Parametric Tests**

Figure 2 shows graphically the results of my parametric tests. Each plot shows the estimated ATE evaluated at values of twice-lagged GDP per capita ranging from the 10th to the 90th percentile of within sample data, along with the upper and lower bounds of a 95% confidence interval. All control variables are held at their sample mean, and the year fixed effects are weighted equally. The histograms show the distribution of data within the sample. A
positive and statistically significant ATE indicates that there was more convergence in country-years clustered below the treatment threshold than in country-years clustered above it. The plots in the left and right columns in Figure 2 show the results of regressions using the index of corporate governance policies and the index of other policies, respectively. The top row shows the results of models in which \( f(\text{Wilshire Score}_{it-1} - 2) \) is operationalized linearly, the middle row shows the results of models in which \( f(\text{Wilshire Score}_{it-1} - 2) \) is operationalized as its linear form and its square, and the bottom row shows the results of models in which \( f(\text{Wilshire Score}_{it-1} - 2) \) is operationalized as its linear form, its square and its cube.

The results for these models are similar across all three operationalizations of \( f(\text{Wilshire Score}_{it-1} - 2) \). All three models of corporate governance policy reform show a statistically significant and positive ATE at low levels of GDP per capita, indicating that poorer countries converged their corporate governance-related policies toward CalPERS’ preferences when doing so would help them gain/regain CalPERS’ investment. All three models show that this effect gets smaller as GDPS per capita get larger, and the effect eventually becomes statistically insignificant when logged GDP per capita rises above a threshold between 7 and 7.6, depending on the model. This roughly corresponds to the 25th percentile (7) and the 40th percentile (7.6) of the data in the sample. The midpoint of 7.3 translates to a GDP per capita (in constant 2005 dollars) of around US$1,480, or about that of Morocco or Egypt in 2003. The substantive effect can be quite large. An ATE of .7, which is a typical estimate for countries with GDPS per capita around US$1,500 translates to slightly more than a 1 SD increase in corporate governance policy change.

Models using the index of other policies also show some indications that PEMP catalyzed policy convergence at low levels of GDP per capita, though these estimates suggest an effect that is smaller and less consistently statistically significant. Estimates operationalizing \( f(\text{Wilshire Score}_{it-1} - 2) \) as first- and third-order polynomial strings show a pattern that is similar to what was found when analyzing corporate governance policies—poorer countries converge toward CalPERS’ preferences more than rich countries—but the effect loses statistical significance when \( f(\text{Wilshire Score}_{it-1} - 2) \) is operationalized as a third order polynomial. Statistical insufficiency aside, the implied substantive effect is roughly half as large as in the corporate governance estimates (recall that this index has a much larger range and larger standard deviation).

Overall, these results suggest that CalPERS was only able to influence policymaking in relatively poor countries and that the effect is substantially larger in corporate governance policy. These results are consistent with FPSIs being able to catalyze convergence when publicly listed firms rely on foreign
capital and, even then, when actors within those firms are the primary obstacles to policy reform.33

**Individual Policies**

Figures 3 and 4 show the results of the same regressions describe in figure 2 but using the individual policies rather than the indexes as dependent variables. Figure 3 shows the results using the component parts of the corporate governance index—Stock Market Listing Requirements and Shareholder Rights. The results are generally consistent across different operationalizations of \( \text{Wilshire Score}_i - 1 - 2 \); for concision, I report the results using the first-order polynomial operationalization. In both cases the conditional coefficients suggest that PEMP had a positive effect on policy convergence in shareholder’s rights and stock market listing requirements at low levels of GDP per capita, though this effect is only statistically significant with respect to convergence in shareholder’s rights. To the extent that the relative weakness of the result concerning stock market list requirements should be interpreted, there is a plausible explanation: Compliance with stringent listing requirements can deter new listings or trigger delistings (especially among small
Figure 4. Average PEMP treatment effects across other policies.
firms), and governments and the financial service industry often have an interest in maximizing the number of listed firms. An interest in stock market listing requirements may therefore be not quite as exclusively the domain of the publicly listed firms themselves as is shareholder rights.

Figure 4 shows the same regressions for the policy components of the Other Policies index—Creditor’s Rights, Openness of the Banking Sector, Freedom of the Press, Monetary and Fiscal Transparency, Judicial Independence and Legal Protection, Labor Practices, Trade Openness, and Openness to Foreign Investment. There is evidence that, in addition to addressing shareholder’s rights, poorer countries reacted to PEMP by opening themselves to foreign investment. The vast majority of policy areas show no evidence of a response to PEMP at any level of GDP per capita.

**Conclusion**

Understanding if and when a “race to the bottom” exists is important for positivist and normative understandings of sovereignty in a globalized economy. This article has argued that the type of foreign investor whose capital governments are competing for affects the race to the bottom. Unlike investors in government bonds, for example, FPSI’s investment decisions are primarily of interest to the managers and shareholders of publicly listed firms. Their policy influence is accordingly delimited by the conditions under which those managers and shareholders are sufficiently affected by those decisions to prefer foreign capital-mollifying policy changes to the status quo, and the conditions under which those managers and shareholders have the capacity to catalyze policy change.

My empirical tests suggest that CalPERS’ PEMP was able to influence policies, but only in relatively poor countries and that the effect appears strongest in corporate governance related policy areas. Both aspects of these findings are consistent with theoretical expectations and both are notable. That CalPERS was able to influence corporate governance policymaking runs counter to a conventional wisdom that corporate governance rules are too path dependent for such a convergence to occur. At the same time, that CalPERS, one of the largest and most influential foreign stock investors in the world, was unable to trigger policy convergence in the vast majority of country-issue pairings suggests some fairly severe limitations on FPSIs’ influence on the international political economy under most circumstances.

This article suggests future research into the political behaviors and implications of the large institutional investors that have such a large presence on global stock markets. Two questions are particularly noteworthy: First, why do some funds but not others “ politicize” themselves and their
investment decisions, and second, what are the effects? This article has taken one step toward answering the latter question, though more research in this vein seems warranted, not least of which because this analysis has focused on the outcomes of a single episode. It is entirely possible that other activist funds, operating through other mechanisms or with other goals, may find different results. This article has not addressed the former question, however. While the cause of CalPERS’ politicization has been well documented (for example, Putnam 2005), to the author’s knowledge, no generalizable theory of investor politicization has been put forward. Norway’s Government Pension Fund—Global, the Swedish AP funds and other large investors routinely blacklist individual firms for political reasons and/or engage in other forms of corporate governance activism. These are politically consequential actions, regardless of whether and when they are reflected in the policymaking of potential recipient countries. The largest (and, often, most political) of these investors are public institutions, and their use of fund resources toward these activities requires time, money, and, often, foregone earnings from investments not taken in blacklisted but profitable firms.

Appendix A

Country-Years Included in Sample

<table>
<thead>
<tr>
<th>Treatment group</th>
<th>Country</th>
<th>Year</th>
<th>Control group</th>
<th>Country</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkey</td>
<td>2005</td>
<td></td>
<td>Czech Republic</td>
<td>2003-2004</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>2005-2006</td>
<td></td>
<td>Indonesia</td>
<td>2007</td>
<td></td>
</tr>
<tr>
<td>Egypt</td>
<td>2003-2006</td>
<td></td>
<td>Taiwan</td>
<td>2004, 2007</td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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</table>
## Appendix B

### Variable Source and Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Δ corporate governance index</td>
<td>95</td>
<td>0.241</td>
<td>0.720</td>
<td>−1.6</td>
<td>3</td>
<td>Wilshire Associates various editions</td>
</tr>
<tr>
<td>Δ other policies index</td>
<td>95</td>
<td>0.365</td>
<td>1.264</td>
<td>−3</td>
<td>4.1</td>
<td>Wilshire Associates various editions</td>
</tr>
<tr>
<td>Δ shareholders rights</td>
<td>95</td>
<td>0.112</td>
<td>0.485</td>
<td>−1.3</td>
<td>2</td>
<td>Wilshire Associates various editions</td>
</tr>
<tr>
<td>Δ stock market listing requirements</td>
<td>95</td>
<td>0.129</td>
<td>0.554</td>
<td>−1</td>
<td>2</td>
<td>Wilshire Associates various editions</td>
</tr>
<tr>
<td>Δ labor policy</td>
<td>95</td>
<td>0.120</td>
<td>0.415</td>
<td>−1</td>
<td>1.7</td>
<td>Wilshire Associates various editions</td>
</tr>
<tr>
<td>Δ monetary and fiscal transparency</td>
<td>95</td>
<td>0.120</td>
<td>0.371</td>
<td>−1</td>
<td>1.3</td>
<td>Wilshire Associates various editions</td>
</tr>
<tr>
<td>Δ trade openness</td>
<td>95</td>
<td>0.132</td>
<td>0.561</td>
<td>−2</td>
<td>1</td>
<td>Wilshire Associates various editions</td>
</tr>
<tr>
<td>Δ foreign investment openness</td>
<td>95</td>
<td>−0.068</td>
<td>0.369</td>
<td>−1</td>
<td>1</td>
<td>Wilshire Associates various editions</td>
</tr>
<tr>
<td>Δ banking openness</td>
<td>95</td>
<td>0.000</td>
<td>0.450</td>
<td>−2</td>
<td>1</td>
<td>Wilshire Associates various editions</td>
</tr>
<tr>
<td>Δ judicial and legal independence</td>
<td>95</td>
<td>0.036</td>
<td>0.497</td>
<td>−2</td>
<td>2</td>
<td>Wilshire Associates various editions</td>
</tr>
<tr>
<td>Δ press freedom</td>
<td>95</td>
<td>0.011</td>
<td>0.273</td>
<td>−1</td>
<td>1</td>
<td>Wilshire Associates various editions</td>
</tr>
<tr>
<td>Δ creditor rights</td>
<td>95</td>
<td>0.016</td>
<td>0.257</td>
<td>−1</td>
<td>1</td>
<td>Wilshire Associates various editions</td>
</tr>
<tr>
<td>Log GDP PC_{it−2}</td>
<td>95</td>
<td>7.810</td>
<td>0.865</td>
<td>6.151</td>
<td>9.896</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>Log Market Cap/GDP_{it−2}</td>
<td>95</td>
<td>3.619</td>
<td>0.847</td>
<td>1.238</td>
<td>5.697</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>Polity_{it−2}</td>
<td>95</td>
<td>4.432</td>
<td>5.849</td>
<td>−7</td>
<td>10</td>
<td>Polity IV</td>
</tr>
<tr>
<td>Wilshire score_{it−1}</td>
<td>95</td>
<td>−0.029</td>
<td>0.297</td>
<td>−0.5</td>
<td>0.5</td>
<td>Wilshire Associates various editions</td>
</tr>
<tr>
<td>Wilshire score^2_{it−1}</td>
<td>95</td>
<td>0.088</td>
<td>0.085</td>
<td>0</td>
<td>0.25</td>
<td>Wilshire Associates various editions</td>
</tr>
<tr>
<td>Wilshire score^3_{it−1}</td>
<td>95</td>
<td>−0.007</td>
<td>0.055</td>
<td>−0.125</td>
<td>0.125</td>
<td>Wilshire Associates various editions</td>
</tr>
<tr>
<td>Asia</td>
<td>95</td>
<td>0.158</td>
<td>0.367</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

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Notes
1. The indices were Morgan Stanley Capital International, Standard & Poor’s, and The Financial Times.
2. The prohibition extended to cross-listed stocks trading on foreign markets.
3. To be sure, many analysts have addressed issues of reverse causality via lagged variables and other techniques, and the role of ideology through measures of the partisan orientation of government (e.g., Bernhagen, 2012). However, the appropriate lag structure is often uncertain, and convincing proxies for ideology are often unavailable for non-OECD countries.
4. Bond vigilante” is a shorthand for bond investors whose power over interest rates keeps politicians accountable to their preferences. The first occurrence of the term that the author is aware of is Sease and Mitchell (1992).
5. Shareholders are an interested party but typically share FPSI’s interests and are not therefore an obstacle to policy reform.
6. Managers’ ability to preserve “insider” rule is largely a function of corporate governance policy. Labor has a putative interest in resisting shareholder primacy for its effect on labor rents and employment stability (Hall & Soskice, 2001; Pagano & Volpin, 2005) but can typically address these interests more directly in other policy areas (Culpepper, 2010; Hansmann & Kraakman, 2001).
15. Following coding rules established in La Porta, Lopez-de-Silanes, and Vishny (2000).
16. Following coding rules established in La Porta et al. (2000).
18. All capital market openness variables come from the Heritage Foundation.
19. Source: individual stock exchanges and various other sources.
20. Some markets did not previously host CalPERS’ investment so the direct threat to these countries was to not entertain any new investments (Crist, 2003).
21. Countries whose scores fell below 2 could, at CalPERS’ discretion, be given a 1-year “cure period” to improve their scores without having investment pulled out in the interim. Countries could only stay in the cure period for 1 year and were faced with investment removal if ratings did not improve.

22. Hebb and Wójcik (2005) suggest that countries scoring below 2 suffered a “domino effect” of copycat behavior by other foreign investors and front-selling in anticipation of such behavior (p. 1996).

23. Chan-Lau (2005) finds evidence of abnormal negative returns surrounding the announcement of CalPERS’ withdrawals in Indonesia, Malaysia, Thailand, and the Philippines, and a persistent one in the Philippines. Chan Lau did not find negative abnormal returns in countries that fell into cure periods, though the financial implications of that are not obvious.

24. I use the twice-lagged value because the dependent variable already incorporates information from the previous year. The lag structure is inconsequential to the results.

25. Estimation is carried out in STATA using the suest command to combine equations. The associated data and .do files are posted on the author’s website.

26. The 2003 changes down-weighted the Market Regulation/Legal System/Investor Protection component from 18.75% of the Wilshire score to 12.5%, merged Settlement Proficiency and Transaction Costs into a single category and reduced their combined weight from 18.75% to 12.5%, and increased the weights given to Political Stability, Transparency, and Productive Labor Practices from 12.5% to 17%, 16%, and 17%, respectively.

27. The 2005 change re-weighted Political Stability, Transparency, and Productive Labor Practices from 17%, 16%, and 17%, respectively, to equal weighting at 16.7%.

28. In 2006, Wilshire changed the way it used decimal places in the ratings. The Wilshire score and the component measures were now rounded to a single decimal place, whereas previously, the component scores were quoted in whole numbers, and the Wilshire score was computed to two decimal places.

29. Kolmogorov–Smirnov tests suggest that the sample is balanced with respect to GDP, the number of listed firms, GDP growth, British colonial heritage, and veto players. These tests are included in the associated .do files.

30. Wilshire Scores were in various years reported in increments of .1 and .01. I round the more fine-grained measures to .1 for consistency.

31. Sources and descriptive statistics for all variables are included in Appendix B.

32. Full regression results are available from the author and in the associated .do file.

33. Unreported tests for discontinuities at placebo thresholds fail to find any, which bolsters the reliability of these estimates (Imbens & Lemieux, 2008).

References


**Author Biography**

Andrew Kerner is an assistant professor of political science at University of Michigan. His research interests cover a variety of finance-related topics including foreign direct investment, corporate governance policymaking, and the political implications of pension reform.