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THE POLITICS OF CAPITAL FLIGHT IN THE GLOBAL ECONOMIC CRISIS

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This paper studies the effects of economic governance and political institutions on portfolio investment during the Global Economic Crisis of 2008–2009. Leveraging a unique cross-national dataset on portfolio flows immediately following the collapse of Lehman Brothers in September 2008, it shows that countries with "better institutions" – those with more (or less) democratic, more (or less) constrained or more accountable political systems – were no less vulnerable to portfolio outflows than countries with "worse institutions." However, countries with better governance prior to the crisis – those with better regulatory apparatuses, rule of law, property rights, and those considered less politically risky – experienced lower net portfolio capital outflows after Lehman. Governance is in fact the strongest predictor of portfolio capital flows during the global flight to liquidity, while political institutions perform poorly. The findings shed light onto the political factors that mediated how the collapse of Lehman affected national financial markets the world over, and have implications for literatures on the political economy of foreign investment, as well as for broader topics of institutions, governance, and economic performance.

1. INTRODUCTION

A central finding in international and comparative political economy is that countries with clear property rights regimes, competent regulators, and stable and representative political institutions attract more foreign investment than their counterparts without them (Busse and Hefeker, 2007; Henisz, 2000; Jensen, 2003; Li and Resnick, 2003; Wright, 2008). Yet despite the growing importance of short term portfolio capital flows for understanding the global investment environment, most research has focused on the political determinants of foreign *direct* investment. The inattention to the politics of portfolio investment is problematic. Because equity and bond market investors are acutely sensitive to short-term economic fluctuations, they may have little regard to the political or institutional context in which their investment takes place over the relatively short time horizons relevant to them. Moreover, measuring portfolio investment at the country-year level – as is customary in studies of FDI – makes it impossible the short-term fluctuations in flows of "hot money" that are characteristic of portfolio investment.

This paper exploits on the global flight to liquidity that followed the collapse of Lehman Brothers in September 2008 to investigate the causal effects of economic governance and political institutions on portfolio investment flows during times of economic crisis. The Lehman collapse resulted in a global repatriation of portfolio capital out of foreign markets and into the home countries in which funds were domiciled (Milesi-Ferretti and Tille, 2010). Because the impetus for this flight to liquidity was an acute financial shock in the United States, political institutions and governance

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in other countries are exogenous to investors' short-term responses, providing a unique window into the effects of institutions, and governance on portfolio flows. I introduce detailed data on the short-term (i.e., monthly) flows of portfolio capital in and out of a global sample of equity and bond markets to compare the behavior of portfolio investors across countries with different kinds of political institutions in the immediate aftermath of Lehman's collapse.

These findings are revealing. There is no evidence that countries with better *institutions* – those with more (or less) democratic, more (or less) constrained or more accountable political systems – experienced lower net capital flight after Lehman. However, countries with better *governance* prior to the crisis – those considered to have better regulatory apparatuses, rule of law, and to be less politically risky – consistently experienced lower net capital outflows during this period when portfolio investors the world over sought liquidity. In fact, while my research design relies on the sudden shock of the Lehman collapse to allay concerns about the endogenous relationship between institutions and capital flows, I also find using Bayesian model averaging techniques that indicators of governance quality are among the strongest predictors of post-Lehman capital flight. My analysis thus combines the benefits of the Lehman event as an exogenous common shock that identifies the causal effects of institutions and governance on portfolio capital flows, with a flexible Bayesian framework design to mitigate concerns about functional form assumptions in the multivariate analysis.

The closest related paper to this one is Fratzscher (2012), who uses similar data to explore "push" and "pull" factors explaining investment behavior during the Global Economic Crisis. One central result in that article is that "institutions" explain capital flight after the Lehman event. In contrast to Fratzscher's broader analysis of capital flows, the close and careful distinction between institutions and governance is foundational in my analysis. In Oliver Williamson's classic formulation, institutions denote the "rules of the game" and governance describes the "play of the game" (Williamson, 1998). Institutions capture the formal political rules that structure market relations: are political executives chosen through competitive popular elections? How many institutional veto players can obstruct economic policy-making? Governance captures the processes and outcomes of the interaction between politics and markets in practice: are bureaucracies efficient and effective? Are property rights regimes clear, and do politicians respect them? Consistent with recent literature, in this paper the term "institutions" refers to *formal political institutions* rather than some abstract conception of institutions.[1] Likewise, governance refers narrowly to *economic governance* rather than a broader conception of governance.[2] Institutions and governance are obviously related – certain political institutions may cause good governance (see e.g. Adserà et al., 2003) – but they are nevertheless conceptually distinct. As I review below, various studies of foreign investment distinguish between governance and institutions, but due to the aggregated nature of the data and indeterminate research designs it is difficult to adjudicate the effects of either on portfolio flows. My results show that governance, rather than institutions, affects portfolio investors' behavior during the

[1]The broadest definition of institutions is "the humanly devised constraints that structure political, economic and social interaction;" see North (1991, p. 97). This is much broader than the concept of "political institutions" in institutional approaches to foreign investment.

[2]The working definition of economic governance is "the norms of limited government that protect private property from predation by the state;" see Kaufmann et al. (2007, p. 555).

Global Economic Crisis. The findings, therefore, qualify those of Fratzscher with respect to political institutions as the drivers of capital flight, while confirming the importance of politics as a central push factor during the Global Economic Crisis. In distinguishing between institutions and governance, these results also parallel Glaeser et al. (2004) who – while not using the word "governance" – find no clear link between formal political or legal institutions and broad measures of economic development.

In analyzing capital flight during the months immediately after the collapse of Lehman, a period of almost unheralded global financial instability, this paper contributes to a large literature on the political determinants of multinational investment. Because existing theory research holds that politics affects investor behavior because investors care about the stability and profitability of their investments when economic conditions are uncertain, the responses of portfolio investors to political institutions and economic governance during the Global Economic Crisis have important implications for the institutional and political drivers of investment behavior. My approach, therefore, joins an established tradition in contemporary political economy of using economic crises as a window into the politics of investor behavior and economic management (see e.g. Gourevitch, 1986; MacIntyre, 2001; Pepinsky, 2009). My findings caution that institutional structures of receiving countries are less important for portfolio investors than the way that these economies are governed during times of financial upheaval. Another related paper is Eichengreen and Gupta (2014), which studies how expectations of the Federal Reserve's "taper" beginning in May 2013 affected exchange rates, stock prices, and reserves in emerging market economies. They find that financial market size is an important determinant of these variables across these countries, and little evidence of an effect of governance, a finding that I discuss below.

The paper proceeds in four parts. The next section reviews existing work on political institutions and foreign investment, and relates theoretical debates about the primacy of institutions or governance in international investment to the global flight to liquidity after the collapse of Lehman. The following section describes my research design in more detail, and walks through several important assumptions that underlie my causal interpretation of the evidence. The subsequent section presents the empirical results, and I conclude with a discussion of their implications for scholars of portfolio investment, comparative political institutions, and economic governance in a global economy.

2. INSTITUTIONS, GOVERNANCE, AND INVESTMENT

Foreign investors are sensitive to political factors in recipient countries because they (like all investors) seek investments that are both secure and profitable. Politics affects both the security of ownership claims and the receiving economy's overall economic performance. The political drivers of foreign investment can be divided broadly into institutions (democracy, competitiveness, veto players, and related institutional variables) and governance (rule of law, property rights, regulatory effectiveness, and related governance variables).

As discussed above, the conceptual distinction between governance and institutions is straightforward. Political institutions capture the formal rules that structure political competition. Governance is a more contested concept, but for scholars of multinational investment, *economic* governance is "the norms of limited government that protect private property from predation by the state" (Kaufmann et al., 2007, p. 555). This definition of economic governance makes it clear why foreign investors should care

about it: investors who do not believe that their ownership claims are secure will not invest. Investors will likewise not invest if they believe that state predation threatens the overall market performance, regardless of whether they are the direct victims of that predation. That said, just as there are many types of formal political institutions, there are many dimensions of economic governance, and recent critiques of governance as an explanation of long-run economic development (e.g. Kaufmann et al., 2007; Kurtz and Schrank, 2007) serve as an important reminder that governance is a contested concept that can be used unreflectively.[3] In what follows, my intention is not to settle these debates, but rather to illustrate that governance and institutions are distinct conceptual variables that are central to political approaches to multinational investment.

One acute challenge in studying the effects of economic governance follows directly from its status as a set of norms or practices rather than a set of observable institutions or rules. For advocates of governance as an analytical construct, governance is a fundamental cause of economic outcomes. But for critics, governance may be simply a consequence of political institutions. Alternatively, governance may be impossible to distinguish from the outcomes that it is meant to predict: it may be that countries are rated as having good economic governance precisely because they are delivering good economic performance. This debate mirrors broader debates in comparative political economy about the conceptual bases of quality of government as a set of institutions vs. a collection of practices (Rothstein, 2011) and the causal relationship between institutions and governance (Adserà et al., 2003; Ayyagari et al., 2008). Once again, my intention is not to settle these debates. However, I raise these concerns here because they will form two important challenges to the empirical analysis; specifically, the problem of posttreatment bias in distinguishing the effects of governance from the effects of institutions (if governance is itself a consequence of institutions), and the problem of measuring governance independently of the outcomes that it might affect.

2.1 Why Politics Affects Investment

Any number of political factors may shape the security of foreign ownership claims and the performance of foreign markets, which as argued above are central to understanding foreign investors' investment choices. In the case of FDI – in which the investor owns or controls assets in a receiving country – political volatility hinders economic growth and discourages long-term investment. Unaccountable executives may produce unpredictable economic policies, again suppressing FDI. Secure property rights indicate that foreigners need not fear the expropriation of their invested assets, which encourages FDI. Institutions, in turn, may determine property rights, meaning that countries with unaccountable executives may be unable to commit to respecting the ownership rights of foreign direct investors, and countries with highly fragmented political systems may be unable to adapt to changing economic circumstances to maintain the macroeconomic stability needed to encourage long term investment.

FDI differs from portfolio investment – investment in equity and bond markets – in important ways. FDI involves the purchase or control of majority stakes in a foreign enterprise, while portfolio investment does not; modern trading technology,

[3]Rothstein and Teorell, for example, propose a more encompassing conception of good governance as "impartiality in the exercise of public authority" (2008, p. 166).

moreover, makes portfolio investment faster, easier, and therefore (potentially) more volatile than FDI. As a consequence, under normal circumstances, portfolio investors have an easy and instantaneous response to policies or events that they find distasteful: they divest. Due to the short-term nature of their investments, they should be *relatively* more concerned with the profitability of their investments in the short term than with the long-term stability of their ownership rights. As a result, the direct effects of democracy, accountability or political stability on portfolio flows may be quite small over the time horizons relevant to most portfolio investors. This is true even if FDI *is* responsive to political institutions – democracy, constraints on executive authority, and other factors – due to the relatively long time horizons of direct investors.

Nevertheless, if poor economic governance impedes macroeconomic performance, then portfolio investors will either refuse to invest, or when they do, be more likely to divest in response to changing economic prospects. If portfolio investors believe that certain political institutions provide a better platform for economic adjustment in the short to medium term, then they should be less likely to withdraw funds from foreign markets that have those institutions during periods of heightened concern about global market performance. Examining the response of portfolio investors to institutions and governance in the context of a sharp increase in their demand for liquidity will reveal whether political institutions condition investors' responses in ways that are consistent with the literature's theoretical expectations.

As it stands, empirical results on the effects of politics on foreign investment are mixed. There is wide agreement that politics shapes FDI, but some have found that democratic accountability increases FDI (Jensen, 2003), while other research holds that this relationship is actually driven by property rights (Li and Resnick, 2003). Others argue that political constraints (Henisz, 2000; Wright, 2008) or government partisanship (Vaaler, 2008) rather than democracy itself are the key political factors that shape cross-national patterns of FDI, while still others focus on governance-based measures such as bureaucratic quality and law and order as the political drivers of FDI (Busse and Hefeker, 2007). Implicitly, these studies agree that the proximate factor to which FDI responds is some measure of how the economy is governed. But recalling the above discussion, one strand of literature maintains that particular institutions produce the type of economic governance that investors desire, while another attempts to separate governance itself from the institutions that may or may produce it.

Empirical results on portfolio investment are comparatively less well developed than those on FDI. This is partially as a consequence of the coarse nature of the cross-national data on portfolio capital flows and the shorter time horizons of portfolio investors. Studying the effects of political institutions on portfolio investment is difficult using the preferred empirical strategy in this literature (time-series cross-section regressions) because this employs data measured country-year level. Even so, existing studies have uncovered suggestive patterns that mirror the divide between governance and institutions in the FDI literature. Ahlquist (2006) finds that yearly portfolio flows change in response to changes in political risk and macroeconomic fundamentals rather than to changes in political institutions. Cao (2009), by contrast, argues that democracies attract more portfolio investment because they have better property rights than dictatorships. Biglaiser et al. (2008) find that new democracies attract more portfolio investment, especially among lesser developed countries. Kho et al. (2009)

link various governance indicators to higher levels of portfolio investment. As with the politics of FDI, there is disagreement about whether institutions or governance shapes portfolio investors' behavior.

These debates reflect the first critique of the explanatory potential of economic governance outlined above, in which governance is seen as simply a consequence of political institutions. For most theories of institutions, governance, and investment, there is an implicit causal ordering from institutions to governance to investment: most scholars believe if investment responds to institutions, it is because institutions affect investment through some aspect of governance. For example, investors may not particularly care about whether they invest in a democracy or a dictatorship, but – assuming that democracies tend to have better property rights protections, and that investors care about property rights (as argued by Li and Resnick, 2003) – investors are more likely to invest in democracies. In this recounting, the proximate causal factor to which investors respond is governance (here, property rights protections), but the deep causal factor is institutions (here, democracy).

It is, therefore, challenging to distinguish empirically between the effects of institutions and the effects of governance on investment outcomes. Linking institutions directly to investment assumes the intermediate causal link that institutions promote good economic governance. But directly measuring governance may mask the power of institutions to shape investment, generating a form of posttreatment bias, if it is true that certain political institutions promote good governance.

2.2 The Global Economic Crisis as a Window into the Politics of Capital Flight

In addition to being intrinsically interesting due to the near catastrophic consequences of Lehman's bankruptcy for global financial stability (Bartram and Bodnar, 2009; Mishkin, 2011; Swedberg, 2010), the Lehman event provides a unique opportunity to assess how political institutions and governance shape investor behavior. Specifically, the Lehman event generated an exogenous increase in the global demand for liquidity, which is independent of the global distribution of political institutions and quality of economic governance in September 2008. This is crucial for studies of the politics drivers of investment flows because a separate line of research argues that portfolio investment flows themselves affect both government policies (Maxfield, 1998) and political institutions (Li and Reuveny, 2003). The collapse of Lehman, however, generates a strong research design: as investors withdrew funds from foreign markets in the months after Lehman's collapse for reasons associated with their beliefs about their need for liquidity *at home*, this behavior cannot have affected the institutions or governance in those countries at that moment.

The specific impetus for the flight out of foreign portfolio investments after Lehman was "home bias:" despite the benefits of holding an internationally diversified investment portfolio, most portfolios are dominated by equities and bonds in the country in which a particular fund is domiciled (French and Poterba, 1991). The vast majority of large portfolio funds are domiciled in the United States, Europe, Japan, and some small offshore markets, which means that a flight to liquidity corresponded on average to net outflows of capital from nearly every country aside from the United States (Bartram and Bodnar, 2009; Fratzscher, 2011). As the world's main reserve currency, moreover, the United States was a prime destination for global investors seeking liquidity or safety (McCauley and McGuire, 2009). This means that portfolio capital

flowed overwhelmingly *into* the United States during its own financial crisis (see Figure 1).[4] The cross-national variation in portfolio outflows from receiving countries provides a unique opportunity to examine the political determinants of investment.

It is tempting to interpret the Lehman collapse as having generated a natural experiment. Yet this is not accurate: the global flight to liquidity following Lehman should be interpreted as a common shock, which by its very nature is not an experiment because all units receive the treatment. The utility of the common shock for identifying the causal effects of institutions and governance on portfolio flows lies in the assumption that outflows over a short post-Lehman window cannot have affected either governance or institutions, either directly or indirectly.[5]

3. DATA AND METHODS

Data on portfolio flows come from the market research firm EPFR, via Fratzscher (2011). These data aggregate net bond and equity flows as a percentage of assets under management for a sample of emerging and advanced economies for two periods: the 6 months following September 14, 2008 (the date of Lehman's collapse), and a

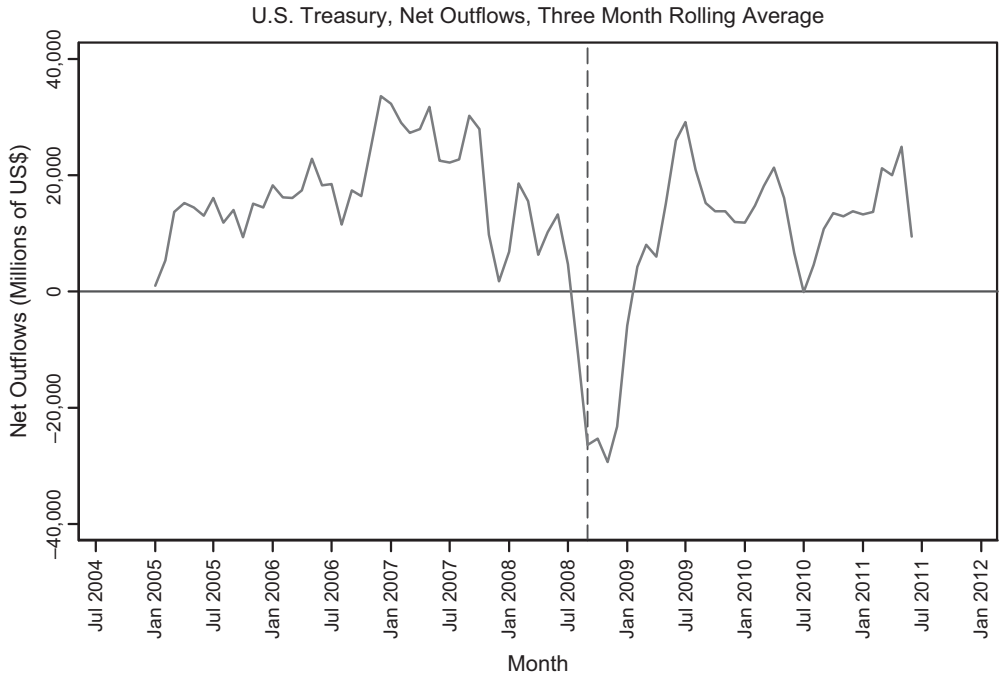

Figure 1. The global flight to liquidity, September 2008.

[4]This was the case despite worries about the long-term sustainability of the dollar as the world's reserve currency (Eichengreen, 2009; Helleiner and Kirshner, 2009).

[5]The lack of a proper quasi-experiment means that it could still be the case that institutions, governance, and short-term capital outflows are all jointly caused by another external variable. For example, a country's level of economic development may explain its political institutions, its economic governance, and foreign portfolio investors' treatment of their investment climate in the context of an acute liquidity shock. The multivariate models below guard against this and other possibilities.

"normal," or precrisis period between October 2005 and June 2007. The data are constructed from a large sample of individual fund managers, and have the benefit of including funds domiciled in both the United States and abroad and of measuring changes in allocations independently of exchange rate fluctuations and returns.[6] This means, for example, that the data on net portfolio flows to Turkey include the sale of Turkish equities by a fund domiciled in Britain. If a portion of that sale goes to buy French bonds, then this will appear in the French data, and the remainder will appear in the British data. The EPFR data, therefore, measure the changing global allocation of equity and bond flows when investors were most concerned with protecting liquidity.[7] Summary statistics, definitions, and sources for these and all variables in this paper can be found in the Supplemental Appendix.

All analyses are conducted on two samples, a "full" sample and an "emerging markets" sample (see Table 1). The former includes all countries for which data are available with the exception of the United States, for a total of 47 countries.[8] The latter omits any country with an IFS code higher than 200, yielding a sample size of

Table 1 Country Sample

Full sample only	Emerging economies sample
Australia	Argentina
Austria	Brazil
Belgium	Chile
Canada	China
Denmark	Colombia
Finland	Czech Republic
France	Egypt
Germany	Hungary
Greece	India
Ireland	Indonesia
Italy	Israel
Japan	Kazakhstan
Netherlands	Lithuania
New Zealand	Malaysia
Norway	Mexico
Portugal	Peru
South Africa	Philippines
Spain	Poland
Sweden	Romania
Switzerland	Russia
Turkey	Saudi Arabia
United Kingdom	Singapore
	South Korea
	Thailand
	Vietnam

[6]See Fratzscher (2011, pp. 5–6) for further information about the data.

[7]The EPFR microdata are propriety, but have proven an invaluable data source in the recent research on international financial flows (see e.g., Jinjarak et al., 2011; Jotikasthira et al., 2012; Levy Yeyati and Williams, 2012).

[8]The United States is excluded due to its disproportionate influence as a destination for capital flight during the crisis. Including the United States would artificially strengthen my findings on the effects of governance on capital flows.

25 countries. Despite its small size, the emerging markets sample has good representation from emerging Asia, Latin America, and the transition economies of Eastern Europe. It has poor coverage of sub-Saharan Africa and the Middle East, but this is consistent with the domination of global equity funds by Asian, Latin American, and emerging European equities.

3.1 Measuring Institutions and Governance

Political influences on net portfolio flows are measured using twelve indicators of institutions and governance. The six institutional variables capture various types of political institutions that the literature has identified as important drivers of or constraints on multinational investment. These include the level of democracy (*Polity*), an index of political accountability (*Voice*), institutional and political constraints on executive or government behavior (veto players, *Checks*; executive constraints, *Exec Cons*; and government fractionalization, *Fractionalization*), and political stability (*Pol Stab*). The six indicators of governance include the World Bank's estimates of regulatory quality (*Reg Qual*), the rule of law (*Rule Law*), and government effectiveness (*Gov Effect*); an index of Political Risk (*Pol Risk*) derived from Political Risk Services' estimates of bureaucratic quality, corruption, and law and order; the Heritage Foundation's index of property rights (*Prop Rts*); and the World Bank's "Ease of Doing Business" rankings (*Do Business*). All institutional and governance variables are measured as averages for the period 2004–2008 to smooth out year-specific shocks.

As an initial exploration of governance, institutions, and post-crisis capital flows, Figures 2 and 3 are scatterplot matrices of the dependent variable, *Post-Crisis Portfolio Flows*, and the twelve governance and institutional variables. Each panel contains both a bivariate scatterplot and a loess fit of two of these variables for the full sample of countries. Looking down the leftmost column in Figure 2, it is clear the post-crisis outflows were greater (i.e., net flows were lower) in countries that scored lower on each of the first five indicators of governance quality (for each indicator, higher scores can be interpreted as "better" governance). The only exception is *Do Business*. Loess fits are nearly flat for most variables capturing political institutions in Figure 3; only voice and political stability appear correlated with post-crisis flows, and the slopes of the loess fits are closer to zero for these two indicators that for the five indicators of governance. These visual results suggest that governance matters for explaining post-crisis equity flows, but that political institutions do not.

Figure 2 also establishes the tight intercorrelations among most governance variables: regulatory quality, rule of law, government effectiveness, political risk, property rights are all highly correlated with one another (after standardizing these five variables, Cronbach's $\alpha > 0.98$). The correlation is looser for sixth governance variable, the ease of doing business. This suggests that either the first five variables capture a single latent dimension of governance quality, or alternatively that these factors are all so interrelated that they will be difficult to distinguish from one another empirically. By contrast, most of the indicators of political institutions in Figure 3 are not strongly correlated with one another or with indicators of governance. There are some exceptions among institutional variables (*Voice* and *Polity*, and *Voice* and *Exec Cons*), and both *Voice* and *Pol Stab* appear to be correlated with most measures of governance in the full sample, but overall there are few patterns among the institutional variables that stand out as clearly as the tight relationships among the five governance variables.

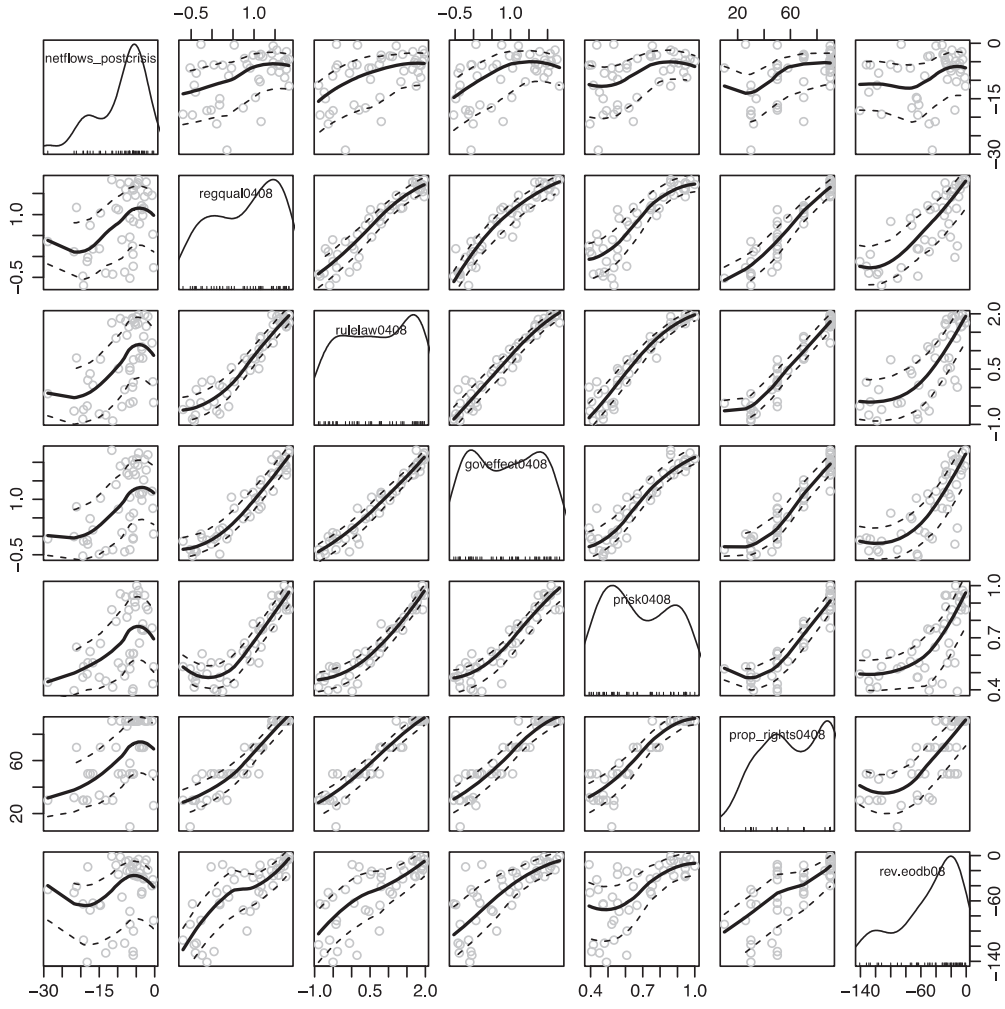

Figure 2. Post-crisis portfolio flows and governance.

Notes: This matrix of scatterplots illustrates the bivariate relationship between net portfolio capital flows and various indicators of governance. The leftmost column contains capital flows: reading straight down that column, the figure illustrates the strong bivariate correlations between capital flows and each of the variables that capture governance. The black and dotted lines denote bivariate loess fits. See text for variable definitions.

Figure 4 narrows the focus to one indicator of governance quality, the rule of law, and post-crisis capital flows. The linear fits corresponding to both the full sample (solid line) and emerging markets only (dashed line) confirm that countries with better quality of governance experienced higher net portfolio capital outflows (that is, lower net inflows) in the 6 months after the crisis, supporting the relationships identified in Figure 2.

Of course, other national-level variables surely shaped the cross-national pattern of capital flows after the Lehman collapse. Specifically, purely economic factors may shape investors' decision to divest from an economy in search of liquidity.

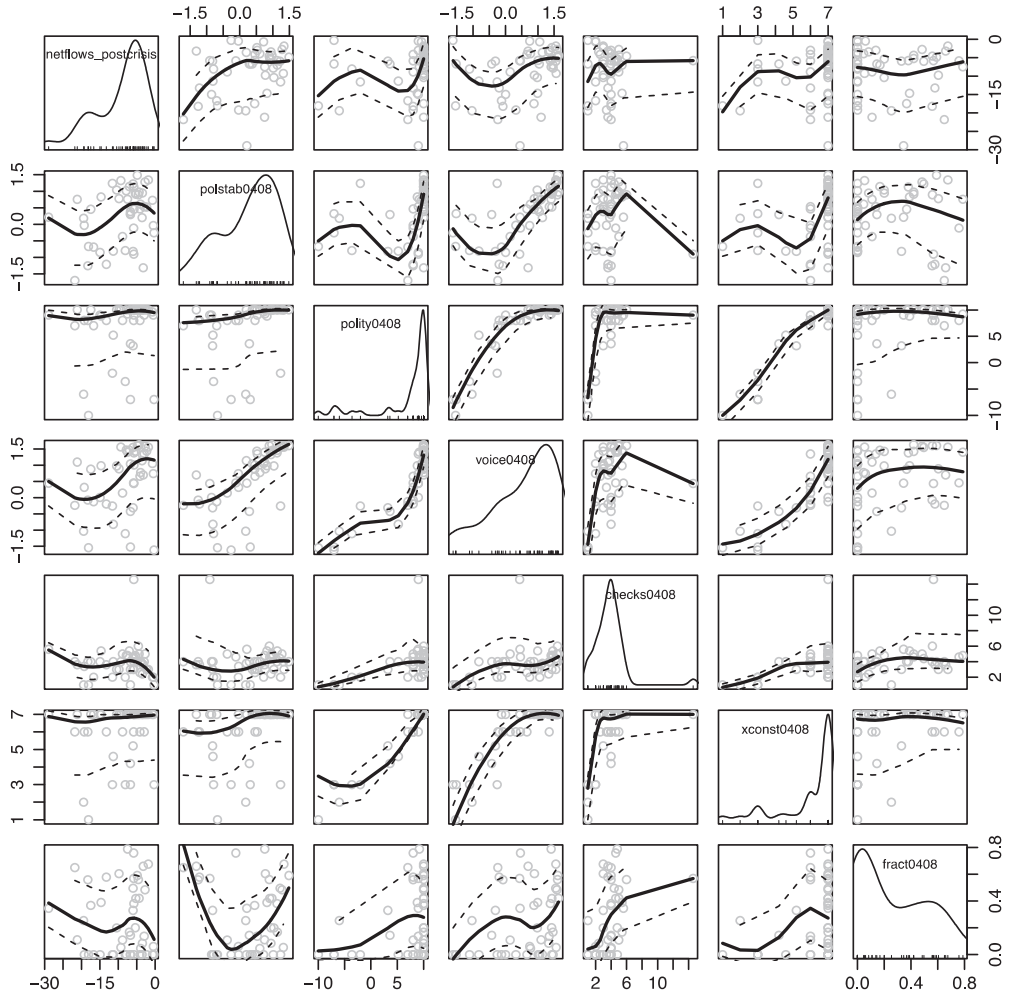

Figure 3. Post-crisis portfolio flows and institutions.

Notes: This matrix of scatterplots illustrates the bivariate relationship between net portfolio capital flows and various indicators of institutions. The leftmost column contains capital flows: reading straight down that column, the figure illustrates the weak relationships between capital flows and each institutional variable. The black and dotted lines denote bivariate loess fits. See text for variable definitions.

Following existing research, economic size, economic development, economic performance, and historical patterns of capital inflows should each be associated with portfolio flows (see Papaioannou, 2009 for a recent model). I measure these as the log of real GDP (*Size*), log of per capita real GDP (*Development*), and yearly growth in real GDP per capita (*Growth*). The expectation is that larger, more developed, and more rapidly growing economies should experience lower net portfolio outflows than smaller, less developed, and poorer performing economies. As with the institutional and governance variables, these controls are measured as 2004–2008 averages.

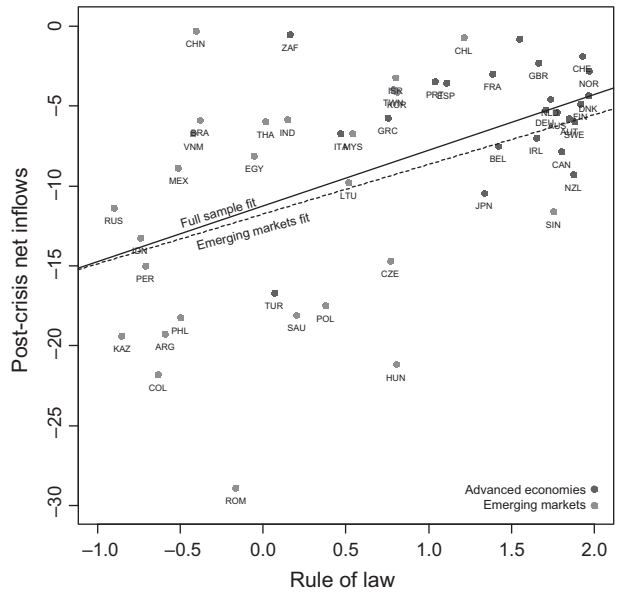

Figure 4. Post-crisis portfolio flows and rule of law.

Notes: This scatterplot focuses on the relationship between postcrisis portfolio flows (more negative values for flows indicate higher outflows) and the rule of law. See text for sample definitions.

Historical patterns of capital inflows are measured as cumulated net inflows for the 21 months prior to the onset of the global economic crisis (that is, October 2005 until July 2007) (*History*). Including historical capital flows as a control variable not only sets a baseline against which to gauge the size of post-crisis portfolio outflows, it also helps to capture investors' unobservable beliefs about the likely profitability of these economies in the short term (under the assumption that portfolio investors would not have channeled funds to countries that they considered risky for reasons that we cannot observe today). As a result, my preferred model of post-crisis portfolio flows takes the following form:

$$\textit{Post-crisis flows} = \beta_1 * \textit{History} + \beta_2 * \textit{Size} + \beta_3 * \textit{Development} + \beta_4 * \textit{Growth} + \beta_5 * \textit{Politics} \quad (1)$$

where *Politics* represents one of the twelve indicators of governance and political institutions. All models in this paper are estimated via OLS.[9]

3.2 *Identifying Assumptions*

There are several assumptions that underlie a causal interpretation of the results below. The first is that governance and institutions are not the results of portfolio capital flows. The measures of institutions and governance that I employ are constructed from data that are measured prior to the onset of the crisis. Moreover, the dependent variable captures capital flows over a short time period after Lehman, a period during

[9]Although the dependent variable is a percentage, it is not bounded on the interval of 0–100, meaning that there is no danger of censoring.

which national political institutions and national governance indicators cannot have changed appreciably.

A second assumption is that seasonal patterns of portfolio investment are orthogonal to the estimated relationship between politics and post-crisis flows. While financial market activity measured at higher frequencies than the year may display seasonal fluctuations (end-of-year effects, tax deadline effects, etc.), this assumption is quite innocuous for two reasons. First, it is well established that there are seasonal patterns in portfolio fund *performance*, but there is no evidence that cross-national portfolio *flows* display similar seasonal patterns. Second, and more importantly, the empirical analysis here relies on inferences *within* seasons. Seasonality in portfolio flows, if it existed, would only threaten the inferences in this paper if it took the form of "politics-conditional seasonal portfolio flow effects," meaning that portfolio investment flows at the end of the calendar year regularly differed across recipient countries according to political factors such as those that identified here.

Third, I do not include an exhaustive set of economic control variables in the baseline specifications (factors like government debt service, exchange rate volatility, etc.). The main reason is to maximize the degrees of freedom in models that already have very small sample sizes. The second is to guard against posttreatment bias.[10] I explore this issue further in the following section and in the Supplemental Appendix; despite the very small sample size and concerns about posttreatment bias, my findings remains largely unchanged when exploring models that include these and other additional control variables.

Fourth, the methodology through which some of the governance indicators were created (Kaufmann et al., 2009) raises the possibility that the same fund managers who provide the data on post-crisis capital flows are also the experts who rate countries. If so, then if the expert surveys were fielded after September 2008, perhaps survey respondents rate countries poorly *because* they have decided to withdraw from their equity and bond funds after Lehman. It is impossible to gauge the extent to which the same individuals provided governance ratings and portfolio flow data because the identities of survey respondents are confidential, and it is not possible to tell from publicly available data if the 2008 governance rankings preceded or followed the Lehman event. But while some fund managers may have contributed to the country rankings, the large sample of experts from which the governance rankings were drawn is unlikely to overlap very much with the large sample of fund managers who provide fund flow data. Moreover, averaging the governance indicators from 2004–2008 will place greater weight on rankings prior to the Lehman event 2008, which cannot have been driven by post-Lehman investment choices.

Additionally, Kurtz and Schrank's (2007) critique of governance as an explanation for long-run development questions whether the governance indicators measure anything fundamental about economic management (as opposed to experts' biases or subjective opinions). While it is probably not true that governance rankings are nothing more than the aggregated biases of self-described experts, the goal of this paper is to estimate the relationship between various indicators of governance quality and

[10]Posttreatment bias is also a plausible concern for the baseline economic variables *Size*, *Development*, and *Growth*. But as the graphical results in Figure 2 and the results from the model averaging exercise below show, there is no evidence that controlling for these variables is responsible for the results that I uncover.

investor behavior in times of crisis, which is meaningful even if the governance indicators are noisy proxies of objective governance quality. Economic governance can certainly affect investor behavior in the short term even if it does not affect economic development over the long run. Below, I also describe an alternative measure of governance – Contract-Intensive Money (Clague et al., 1999) – that I use to check that these results are not an artifact of the survey-based measures of governance.

Fifth, one may question how unexpected Lehman's collapse was. Most accounts of the Global Economic Crisis describe Lehman's collapse as a shock, but there had been clear evidence of financial market turmoil in the previous 8 months, dating at least to the bailout of Bear Stearns. It is for this reason that the "baseline" or "normal" period in all models runs from October 2005 until July 2007, ending the month that Bear Stearns first began publicly to display signs of vulnerability (Mody, 2009). Moreover, my research design does not require that there is no anticipation of continued economic turmoil in the summer of 2008, but only that the *panic* which accompanied the Lehman event in mid-September was unanticipated, and that the portfolio rebalancing that preceded the Lehman event was independent of the flight to liquidity that followed Lehman. There is some evidence that advanced economies experienced began to experience financial turmoil during the summer of 2008, prior to Lehman, whereas capital flight from emerging economies came almost entirely post-Lehman (Fratzscher, 2011, pp. 7–8). To ensure that this fact does not drive my results – which would be the case if the advanced economies *as a whole* featured better governance or different institutions than did the emerging economies – I estimate every model on both a full sample and an emerging markets sample.

Finally, the implicit causal ordering from institutions to governance to investment necessitates care in the specification of any empirical model of how institutions and governance affect capital flows. For researchers interested in the effects of institutions, a model of institutions' effects on capital flows that controls for governance may generate misleading inferences about the effects of institutions, "disguising" the positive effects of institutions if institutions affect capital flows through governance. There are no easy solutions to this potential problem of posttreatment bias (King, 2010). The strategy adopted here is to be as flexible as possible, both by omitting potential posttreatment confounders like governance in empirical models that include institutional variables, and by rigorously exploring various alternative functional forms using methods describe below.

4. RESULTS

The main results appear in Table 2 (for the full sample) and Table 3 (for the emerging markets sample). Each model follows the specification in equation (1), replacing *Politics* with one of the twelve indicators of governance or political institutions. The results are consistent with the conclusions drawn from Figures 2 and 3. Each of the first five indicators of governance is strongly associated with post-crisis portfolio flows: countries rated as having better governance prior to Lehman experienced higher net portfolio inflows (that is, lower outflows) after Lehman. The results hold even when discarding advanced industrial economies from the analysis. By contrast, among the six indicators capturing political institutions, only political stability is associated with lower post-crisis outflows, and this effect is only marginally statistically significant ($p = 0.08$) in the full sample. In the context of a global flight to

TABLE 2 POLITICAL INSTITUTIONS AND POSTCRISIS PORTFOLIO FLOWS, FULL SAMPLE

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Controls												
CONSTANT	−28.846	−17.944	−15.654	−34.330	−26.894	−36.203	−31.096	−41.017	−39.565	−40.974	−42.973	−42.699
	(27.553)	(25.949)	(26.207)	(27.309)	(26.779)	(29.718)	(28.697)	(29.215)	(28.638)	(29.252)	(29.552)	(30.130)
HISTORY	0.166^{+}	0.169*	0.116	0.146^{+}	0.144^{+}	0.188*	0.190*	0.195*	0.205*	0.197*	0.201*	0.197*
	(0.085)	(0.079)	(0.081)	(0.087)	(0.084)	(0.091)	(0.087)	(0.091)	(0.089)	(0.092)	(0.091)	(0.091)
SIZE	1.590^{+}	1.433^{+}	1.549*	1.305	1.271	1.198	1.314	1.024	1.137	1.013	1.025	1.060
	(0.816)	(0.737)	(0.745)	(0.794)	(0.767)	(0.871)	(0.831)	(0.844)	(0.833)	(0.869)	(0.842)	(0.861)
DEVELOPMENT	−2.740	−3.425^{+}	−3.994*	−2.027	−2.910	−0.096	−1.145	0.778	0.007	0.782	0.772	0.811
	(1.985)	(1.731)	(1.849)	(1.810)	(1.838)	(1.920)	(1.832)	(1.522)	(1.614)	(1.526)	(1.518)	(1.529)
GROWTH	−0.606	−0.511	−0.640	−0.855	−0.483	−1.136^{+}	−1.135*	−1.176^{+}	−0.797	−1.166*	−1.092^{+}	−1.150^{+}
	(0.571)	(0.519)	(0.511)	(0.542)	(0.559)	(0.563)	(0.546)	(0.607)	(0.629)	(0.566)	(0.600)	(0.570)
Governance												
REG QUAL	5.508*											
	(2.182)											
RULE LAW		5.609***										
		(1.505)										
GOV EFFECT			5.912***									
			(1.607)									
POL RISK				17.661*								
				(7.098)								
PROP RTS					0.199**							
					(0.066)							
DO BUSINESS						−0.024						
						(0.033)						
Institution												

TABLE 2 (continued)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
POL STAB							2.615^{+}					
							(1.495)					
POLITY								−0.009				
								(0.199)				
VOICE									1.864			
									(1.491)			
CHECKS										0.023		
										(0.444)		
EXEC CONS											0.241	
											(0.659)	
FRACTIONALIZATION												0.728
												(3.498)
N	47	47	47	47	47	47	47	47	47	47	47	47
Adj. R^2	0.295	0.392	0.388	0.293	0.334	0.196	0.242	0.186	0.216	0.186	0.189	0.187
F	4.856	6.930	6.831	4.807	5.618	3.250	3.944	3.101	3.531	3.101	3.137	3.112
p	0.001	0.000	0.000	0.002	0.000	0.015	0.005	0.018	0.010	0.018	0.017	0.018

Notes:+ < 0.1, * < 0.05, ** < 0.01, *** < 0.001. The dependent variable is *POST-CRISIS PORTFOLIO FLOWS*. The *F* test is a test of the joint significance of all independent variables. All models estimated via OLS.

Table 3 Political Institutions and Postcrisis Portfolio Flows, Emerging Markets Only

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Controls												
Constant	−64.607	−49.563	−39.830	−62.858	−44.684	−60.098	−58.714	−63.317	−64.798	−66.398	−64.451	−62.222
	(43.994)	(39.924)	(42.038)	(42.200)	(41.070)	(47.641)	(48.053)	(49.005)	(48.866)	(49.355)	(49.910)	(50.372)
History	0.153	0.191^{+}	0.120	0.150	0.128	0.154	0.183	0.169	0.179	0.161	0.174	0.170
	(0.109)	(0.098)	(0.103)	(0.105)	(0.101)	(0.119)	(0.118)	(0.122)	(0.122)	(0.128)	(0.122)	(0.122)
Size	2.910^{+}	2.516^{+}	2.450^{+}	2.317^{+}	1.946	2.545	2.198	1.906	1.952	2.071	1.910	1.891
	(1.425)	(1.227)	(1.271)	(1.299)	(1.238)	(1.566)	(1.487)	(1.492)	(1.501)	(1.593)	(1.496)	(1.498)
Development	−3.186	−3.394	−4.299^{+}	−2.994	−4.053^{+}	−1.730	−1.042	0.192	0.085	0.052	0.210	0.088
	(2.534)	(2.107)	(2.439)	(2.262)	(2.316)	(2.776)	(2.479)	(2.182)	(2.228)	(2.244)	(2.196)	(2.291)
Growth	0.003	−0.238	−0.301	−0.641	0.512	−0.408	−0.750	−0.563	−0.425	−0.488	−0.492	−0.525
	(0.873)	(0.762)	(0.789)	(0.809)	(0.847)	(0.911)	(0.948)	(0.974)	(0.970)	(0.933)	(0.959)	(0.950)
Governance												
Reg Qual	6.516*											
	(3.074)											
Rule Law		7.102**										
		(2.254)										
Gov Effect			7.054*									
			(2.512)									
Pol Risk				32.968*								
				(12.893)								
Prop Rts					0.274**							
					(0.093)							
Do Business						−0.055						
						(0.051)						

TABLE 3 (continued)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Institutions												
POL STAB							2.193					
							(2.228)					
POLITY								−0.061				
								(0.250)				
VOICE									0.553			
									(2.072)			
CHECKS										−0.185		
										(0.640)		
EXEC CONS											0.014	
											(0.859)	
FRACTIONALIZATION												−1.012
												(5.945)
N	25	25	25	25	25	25	25	25	25	25	25	25
Adj. R^2	0.202	0.351	0.302	0.265	0.322	0.070	0.061	0.016	0.016	0.017	0.013	0.014
F	2.212	3.601	3.080	2.735	3.284	1.361	1.310	1.077	1.080	1.083	1.062	1.069
p	0.096	0.018	0.033	0.050	0.026	0.283	0.302	0.404	0.403	0.401	0.412	0.408

Notes:+ < 0.1, * < 0.05, ** < 0.01, *** < 0.001. The dependent variable is *POST-CRISIS PORTFOLIO FLOWS*. The *F* test is a test of the joint significance of all independent variables. All models estimated via OLS.

liquidity, when portfolio investors use the tools at their disposal to address immediate concerns about liquidity, they do not respond to institutions. They, however, are quite sensitive to governance.

These effects are substantively large. The results for Model 1 in Table 2, for example, imply that a 1 SD increase in regulatory quality (*Reg Qual*) caused a 0.66 SD decrease in net portfolio outflows in the wake of the Lehman event. The analogous decreases in net portfolio outflows – measured in standard deviations – for the other four governance variables are as follows:

- Model 2 (Rule of law, *Rule Law*): 0.81
- Model 3 (Government effectiveness, *Gov Effect*): 0.82
- Model 4 (Political risk, *Pol Risk*): 0.52
- Model 5 (Property Rights, *Prop Rts*): 0.72

These findings do not reflect the fact that (1) portfolio investors tend to be domiciled in advanced economies, (2) these investors repatriated capital to cover losses, and (3) advanced economies tend to have better governance, for the findings remain identical for the emerging markets sample. Moreover, as Fratzscher (2011) discusses, post-Lehman capital flight was overwhelmingly to the United States, not to all advanced economies; it is for this very reason that the United States was excluded from the analysis (see footnote 7). Additionally, there is no evidence that FDI flows respond to either governance or institutions in the wake of the crisis. Using standard yearly measures of FDI flows in place of the EPFR portfolio data, I repeat the exercises in Tables 2 and 3. The results appear in the Supplemental Appendix, and show no consistent relationship between either governance or institutions and FDI flows. This result is consistent with a model in which FDI is more costly to liquidate than portfolio investment, meaning that portfolio flows are more likely to respond to a global shock to liquidity than is FDI.[11]

There are few consistent results concerning economic fundamentals and post-crisis portfolio flows. *History* and *Size* are associated with higher post-crisis portfolio flows, as expected, but the size and significance of this relationship vary across specifications in the two samples. Based on these results, in fact, governance is the most consistent predictor of capital flows across specifications and samples.

This finding warrants further scrutiny. Given the inconsistent results for the control variables across models, one may question whether functional form assumptions are driving the findings for governance and the non-findings for institutions. Perhaps most worryingly, in the emerging markets sample, the models including institutions as the explanatory variable perform poorly (as measured by the *F* tests). This could indicate that the preferred specification is either failing to reject the null that institutions have no relationship with post-crisis flows, or incorrectly rejecting the null that governance does have a relationship with post-crisis flows.

To ensure that this is not the case, I turn to a statistical technique known as Bayesian model averaging (BMA), searching across the parameter space defined by all possible combinations of independent variables to generate inferences, conditional on the observed data, about the posterior probabilities that any particular combination of independent variables (with or without the governance and institutional variables) is the "true" model. As Montgomery and Nyhan (2010, p. 250) explain, this helps to answer two related questions about the effects of governance and institutions on

[11]I thank an anonymous reviewer for this point.

post-crisis portfolio flows. First, does the inclusion of any individual indicator of governance or institutions "contribute to the model's explanatory power?" Comparing estimates of the posterior probability that governance and institutional indicators are different from zero with the posterior probability that the control variables are different from zero can provide a measure of the relative explanatory power of the independent variables. Second, when an institutional or governance indicator is included, is it "correlated with unexplained variance," helping to explain post-crisis outflows? This will illustrate whether the positive findings for governance (or the non-findings for institutions) can be attributed to the "erroneous" inclusion of some or all of the controls in the preferred specification.

I follow the graphical techniques introduced by Clyde (2010) and discussed by Montgomery and Nyhan (2010) to interpret the results of the model averaging exercise. I estimate 24 separate models, corresponding to twelve political variables and two different samples. Following Montgomery and Nyhan's suggestions, I do not allow any combination of institutional or governance variables to enter any model jointly. This guards against both posttreatment bias and the collinear nature of most governance indicators. For each result, I plot first the posterior probability of the models in which each independent variable is included in order to compare the extent to which each independent variable contributes to the model's explanatory power. I also plot the posterior probability that each coefficient is greater than zero, conditional on that independent variable having been included in the model. These plots appear in Figure 5. These two collections of plots reveal that in models where the five governance variables that were identified as statistically significant in the preferred specification are included, these variables have the highest posterior probability of inclusion of any of the independent variables. Conditional on having been included, the probability of their being greater than zero is highly statistically significant. (The single exception is *Reg Qual* in the emerging markets sample, which has the second highest posterior probability of inclusion and which is statistically significant at the $p < 0.13$ level.) *Do Business*, statistically insignificant in the preferred specifications, has a low posterior probability of inclusion, as do all institutional variables. This is strong evidence that the earlier conclusions are not an artifact of functional form assumptions in equation (1). It also helps to mitigate concerns that the findings for governance simply reflect the possibility that some other variable jointly causes both governance and post-crisis flows (see footnote 5).

Next, I plot the conditional posterior distribution of each indicator of institutions or governance for the models in which the variable is included in the model $p(\beta \mid \beta \neq 0,\ Y)$. These appear in Figure 6. If the substantive conclusions identified from the results in Tables 2 and 3 are to hold, the mass of these conditional posterior distributions should lie to the right of zero for plots of the conditional posterior distribution of governance variables, and the mass of these distributions should straddle zero for plots of the conditional posterior distribution of institutional variables. That is what Figure 6 shows. On the whole, variance of the conditional posterior density for the governance indicators is wider in the full sample than in the emerging markets sample, but this reflects the sample size of just 24 observations, and its location is consistent with the earlier conclusion that governance explains post-crisis portfolio flows. More importantly, the center of the distributions for the governance indicators is almost unchanged in the full sample and the emerging markets sample.

The decision to include BMA results may strike some as inconsistent with the logic of frequentist hypothesis testing in the main results. If the goal of this analysis were

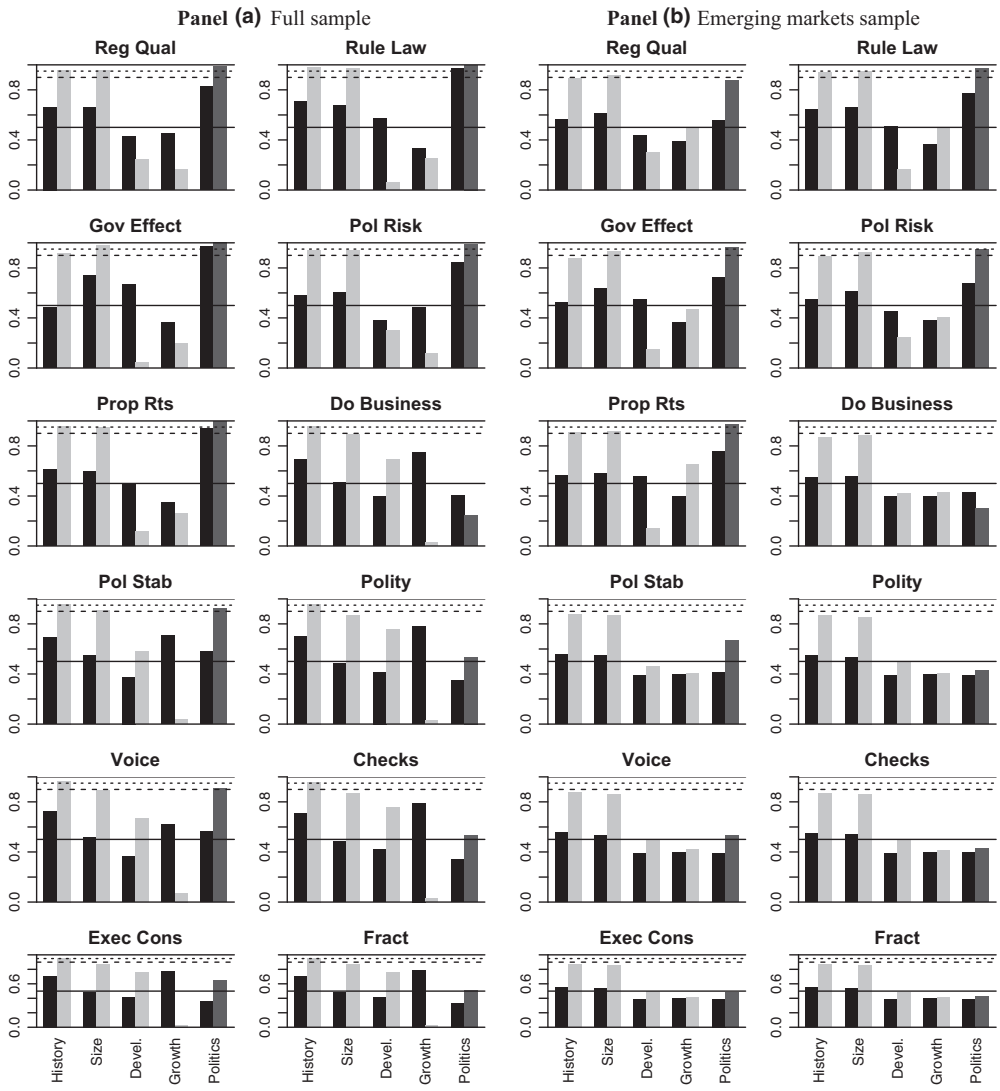

Figure 5. Posterior probabilities of inclusion.

Notes: The black bars in correspond to the posterior probability that the coefficient on each variable is not equal to zero – $p(\beta_i \neq 0 \mid Y)$. The gray bars (red for each governance or institutions variable) correspond to the posterior conditional probability that the parameter is greater than zero in models where it is included – $p(\beta_i > 0 \mid \beta_i \neq 0 \mid Y)$. The reference lines are drawn at 0.5 (solid line), 0.9 (dashed line), and 0.95 (dotted line).

simply to uncover the best predictors of post-crisis capital flight, then a BMA analysis alone would suffice. But the motivating question is not "what predicts post-crisis capital flows," it is "what are the effects of institutions and governance on capital flight during the Global Financial Crisis?" And here, a flexible method to uncover the model dependence of the findings for governance and the non-findings for institutions nicely complements the main results above. Having embedded the main results in a

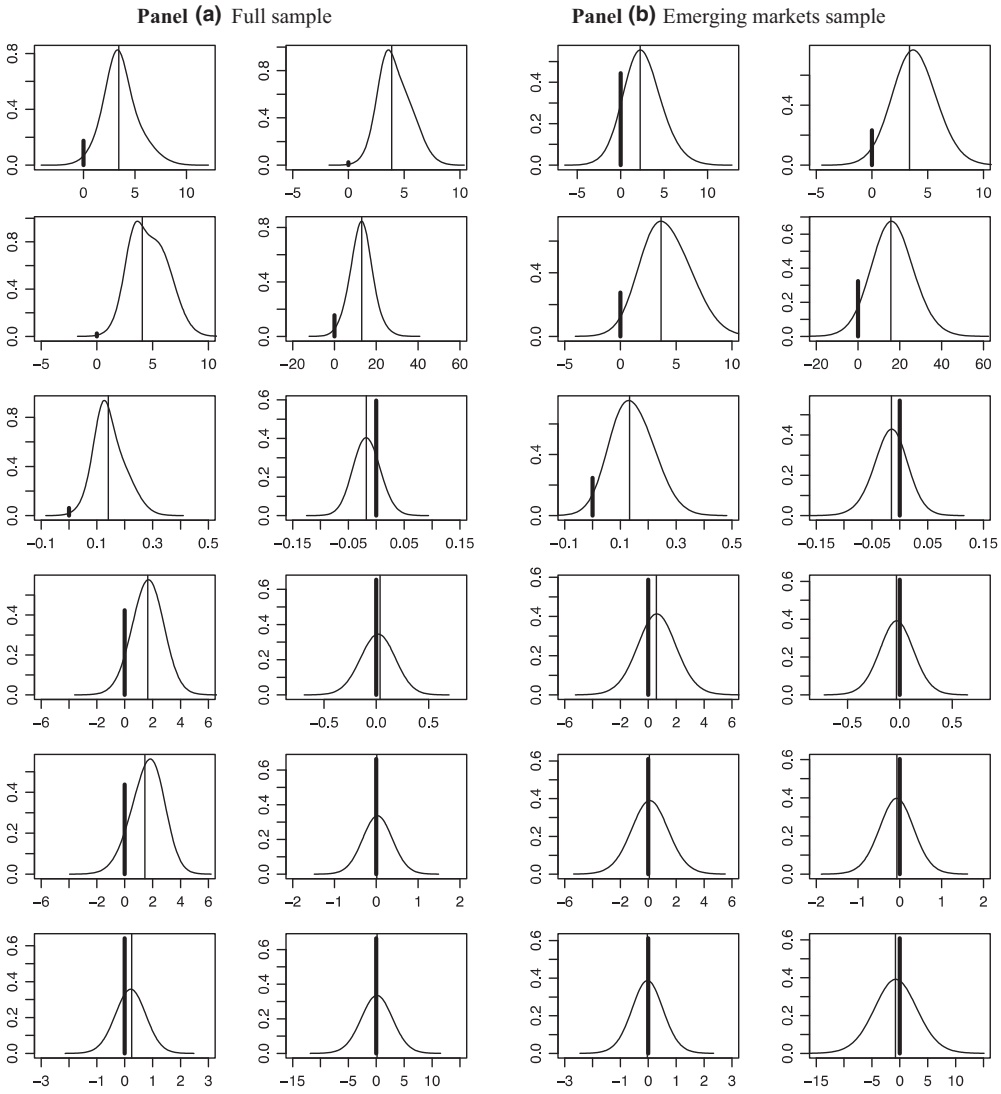

Figure 6. Conditional posterior probabilities.

Notes: The thick vertical line in each plot corresponds to the posterior probability that the coefficient on each indicator of governance or institutions is zero – $p(\beta = 0 \mid Y)$. The density plot corresponds to the distribution of estimated coefficients for that indicator when it is not assumed to be zero – $p(\beta \mid \beta \neq 0, Y)$. The thin vertical line corresponds to the mean of that distribution.

theoretically motivated empirical model of portfolio capital flows, the results of the BMA analysis are reassuring evidence that neither findings for governance nor non-findings for institutions depend on that particular empirical model.

The results presented thus far are also robust to a wide range of plausible alternative specifications. In the Supplemental Appendix, I detail a wealth of additional models (246 in total), which include clustering standard errors by region, using 2008 data only, controlling for EU-specific effects in the full sample, exploring the interactive effects of

governance indicators and institutional variables, and using a "revealed" measure of governance quality, *Contract-Intensive Money* (Clague et al., 1999). The results prove remarkably consistent across specifications. Perhaps most importantly, the consistent results for *Contract-Intensive Money* are critical evidence that different measures of governance quality yield similar results, allaying concerns about measures constructed from survey responses.

In the Supplemental Appendix, I also add a series of economic and policy variables to the baseline specification. Doing so with such a small sample size quickly absorbs the few remaining degrees of freedom, but I have included six additional economic controls that capture various other economic and policy variables: government debt service, government expenditure, exchange rate volatility, a measure of capital account openness, the real interest rate, and stock market capitalization. The substantive conclusions that I outline below remain unchanged when including these additional economic controls, both in simple regressions and when repeating the BMA analysis.

Why include these additional controls separately from the main results? The main distinction lies in the theoretical foundations for each independent variable: the main specification draws on Papaioannou (2009) and related work, while the additional controls represent a mix of plausible explanations for the link between governance, institutions, and capital flight that do not emerge from any single theoretical framework. Nevertheless, consistent results for governance and institutions using either the main controls alone or adding the additional controls confirm that neither the strong relationship between governance and post-crisis capital flows nor the non-findings for institutions and capital flows is an artifact of the modeling assumptions.

5. CONCLUSION

This paper has focused on the global flight to liquidity during the Global Economic Crisis to study a critical question in international political economy: the politics of capital flight during financial crises. Unlike foreign direct investors, portfolio investors do not own or control foreign enterprises, and modern technology makes divestment of portfolio assets easy and instantaneous. Consequently, portfolio investors have shorter time horizons than direct investors, and political institutions may not figure as prominently in portfolio investment decisions as do factors such as the rule of law, property rights, political risk, and related indicators of economic governance. Using data that directly capture the short term responses of portfolio investors to the sharp increase in global liquidity premiums after the collapse of Lehman, I show that governance, not institutions, explains cross-national variation in portfolio capital flows during this period of global financial instability.

These findings from the post-Lehman flight to liquidity cannot be used to adjudicate the effects of political institutions on portfolio investment flows across all time periods, or when the latter are measured at the country-year level, or even in recent years as the Global Economic Crisis continues but acute financial panic has abated. However, these findings represent a key contribution to the politics of international investment in revealing the "state dependence" of the responsiveness of portfolio investors' preferences for good institutions.[12] During normal times, portfolio investors may be highly sensitive to both institutions and governance in the countries in which

[12]I thank an anonymous reviewer for suggesting this formulation.

they invest. But when investors need liquidity, they respond to economic governance, not political institutions like regime type, political accountability or political stability. Following Williamson's conceit, when the chips are down, portfolio investors care more about how the investment game is played in foreign markets than what its formal rules are.

In invoking these multiple indicators of governance as explaining capital flight during the Global Economic Crisis, my argument does not require that portfolio investors make decisions based on these actual scores. Rather, these indices capture various broad aspects of economic governance which condition investors' behavior, but which are themselves unobservable. Analyses of investor behavior have concluded that broad governance or policy orientations shape investor behavior in the aggregate, but that portfolio investors do not follow specific policies or political decisions very closely, either because of rational inattention, or because investors rely on informational short cuts or impressionistic accounts of national politics (Mosley, 2000). The argument in this paper is consistent with this perspective. During the Global Economic Crisis, investors in the aggregate respond to broad facets of economic governance, rather than to the specific institutional features of national politics, about which they may not even know or care.

Beyond emphasizing the essential politics of capital flight in the Global Economic Crisis, these findings have implications for the relationship between political institutions and economic outcomes more generally. Measured over the long term, the effects of political institutions on economic performance are well established (Acemoglu et al., 2005; although see Glaeser et al., 2004 for a dissenting view). However, these same institutional explanations for long-term economic performance need not explain the short-term consequences to important economic events. "Bad" institutions can govern the economy "well" in the short run, and facing acute economic shocks, investors with shorter time horizons should care primarily about the extent to which governments will protect their immediate profitability and the security of their investments. It makes sense that most portfolio investors do not respond to the institutions that promote long-term economic growth during periods of financial distress, because economic performance over the long term is not directly relevant to them under those conditions. Direct investors, who by necessity must take a longer view of their investments, are probably more likely to take political institutions into account when adjusting to economic shocks. In all, these results caution scholars of institutions that the drivers of long-term economic outcomes are unlikely to be relevant to all economic actors facing acute economic crises.

It is also important to emphasize the scope conditions around these findings: capital flight following the Global Economic Crisis was heavily influenced by economic governance, but the same might not be true in the context of a different type of economic crisis or change in the global economy, in particular an economic crisis that is itself triggered by a political crisis. Under such circumstances – a coup in Thailand, or an irregular election in Venezuela – political institutions may be the proximate drivers of portfolio capital flight. Other shocks to the global financial system that do not yield such a sharp increase in the demand for liquidity should also have different effects. Eichengreen and Gupta (2014), for example, find that governance is not consistently related to stock price, reserves, or exchange rates in the wake the Fed's "taper" announcement in May 2013. Exploring the conditions under which investors respond to political vs. economic factors in the face of sudden changes in the global economy is a fruitful avenue for further inquiry.

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SUPPORTING INFORMATION

Additional Supporting Information may be found in the online version of this article:
Data. S1. Supporting information.