

**MASTER OR SERVANT?
COMMON AGENCY AND THE POLITICS OF IMF LENDING**

Mark Copelovitch
Assistant Professor
Department of Political Science &
La Follette School of Public Affairs
University of Wisconsin-Madison
306 North Hall, 1050 Bascom Mall
Madison, WI 53706
copelovitch@wisc.edu

February 2008

Paper prepared for the First Conference on the Political Economy of International Organizations, February 3-8, 2008, Monte Verità, Switzerland. Earlier versions of this paper were presented at the 2006 Annual Meeting of the American Political Science Association and the 2006 International Political Economy Society Conference. I thank Menzie Chinn, Jon Pevehouse, Tonya Putnam, Nadav Shelef, David Singer, Jim Vreeland, and seminar participants at the University of Wisconsin-Madison for comments.

ABSTRACT

Recent work in international political economy has identified two key political factors influencing IMF lending decisions: the economic and geopolitical interests of the United States, and the rent-seeking behavior of IMF bureaucrats. This article addresses potential problems with each of these approaches, as well as potential inconsistencies between them. First, it argues that focusing exclusively on American interests overlooks the importance of other powerful states within the IMF, as well as the effects of preference heterogeneity among these states on Fund lending decisions. To illustrate this, I present a “common agency” model of IMF lending, in which the Fund’s five largest shareholders, the “G-5” countries (US, UK, Germany, Japan, France), exercise *de facto* control over IMF lending decisions. Second, the paper also argues that the IMF staff’s autonomy – and therefore the extent to which G-5 governments influence Fund lending decisions – is conditional on both the intensity and heterogeneity of G-5 interests. Using an original dataset of IMF lending to 47 countries from 1984-2003, I find strong support for this model and its hypotheses. Ultimately, both powerful states and IMF bureaucrats influence Fund policymaking, but the IMF is neither the servant of its member-states nor its own master.

Introduction

Over the last two decades, the International Monetary Fund (IMF) has played an increasingly prominent role in global financial governance. As the primary lender to developing countries facing financial crises, the IMF provided over \$400 billion in loans from 1984 to 2003, ranging in size from less than \$10 million to over \$30 billion. Many of these loans far exceeded the amount the borrower countries were eligible to receive based on their allotted IMF “quota,” while others were significantly smaller than their quota share.¹ Likewise, conditionality – the policy reforms a country must implement in exchange for IMF credit – varied widely over this period. Some IMF loans included numerous conditions, while others contained relatively few. This variation presents a puzzle: how and why does the IMF make lending decisions, and what explains patterns of variation in the size and terms of its loans?

Despite an extensive empirical literature, scholars continue to disagree about the key determinants of the IMF’s lending policies.² Some argue that the Fund is a technocratic institution whose policies are determined largely by macroeconomic criteria and concerns about global financial stability (Knight and Santaella 1997). Others argue that the IMF’s decisions are driven by one or more political factors, including the financial and geopolitical interests the United States (Dreher and Jensen 2007, Broz and Hawes 2006, Oatley and Yackee 2004, Stone 2004/2002, Thacker 1999), political institutions in borrower countries (Vreeland 2005/2003), and/or the bureaucratic incentives of the Fund’s staff (Dreher and Vaubel 2003, Vaubel 1991). Thus, the empirical literature reinforces popular stereotypes of the IMF, which is described by politicians and the media as an unaccountable technocracy, as a group of “silk-suited dilettantes”

¹ The IMF operates like a credit union: each member-state contributes to the Fund’s “quota” resources and is eligible to borrow in proportion to these contributions.

² See Joyce 2004 and Steinwand and Stone 2008 for excellent surveys of recent empirical studies in both economics and political science.

enjoying “champagne and caviar at the expense of [American] taxpayers,”³ and as the United States’ “lap dog.”⁴ Quite clearly, the Fund cannot be all of these things simultaneously, yet the existing literature provides few tests of whether, to what extent, and under what conditions the IMF conforms to each of these stereotypes. Indeed, our current knowledge of the political economy of IMF lending leaves many critical questions unanswered: How important is politics relative to economics? Are some lending cases more politicized than others? Is the IMF the “servant” of its largest shareholders or an autonomous “master”? Does this vary over time and across cases?

In this article, I seek to answer these questions and to explain the substantial variation in IMF loan size and conditionality over the last two decades. Drawing on principal-agent theories of international institutions, I treat IMF policymaking as a case of common agency in which the “agent” (the IMF staff) acts on behalf of a “collective principal” comprising the Fund’s five largest shareholders, the “G-5” countries (US, UK, Germany, Japan, France), which exercise *de facto* control over the Fund’s ultimate decision-making body, the Executive Board (EB). At the same time, the IMF staff enjoys substantial autonomy, given its lead role in negotiating, designing, and proposing lending programs. Ultimately, both states and IMF bureaucrats exercise partial but incomplete authority over Fund lending decisions.

This common agency framework yields two central hypotheses. First, it emphasizes that the US government does not unilaterally control IMF decision-making. While the US remains the Fund’s largest and most influential shareholder, the other “G-5” countries also exert substantial influence within the EB. Consequently, both the collective *intensity* of these countries’ preferences and the degree to which their interests coincide or conflict (*preference*

³ Senator Lauch Faircloth (R-NC), quoted in *The Atlanta Journal Constitution*, March 31, 1998.

⁴ David Sanger, *New York Times*, October 2, 1998.

heterogeneity) should be key determinants of variation in Fund lending decisions. In contrast to both popular perceptions and recent scholarly analyses, the common agency approach therefore stresses that the IMF – while disproportionately influenced by a handful of industrialized countries – is not simply a conduit for American interests.

Second, the common agency framework predicts that IMF lending will vary based on the relative influence of G-5 governments and the Fund staff in a particular case. In cases where the borrower country is of substantial financial and/or geopolitical importance to G-5 governments, preference heterogeneity among the IMF's principals should be a significant determinant of variation in IMF lending. However, in cases where G-5 interests are less intense, the staff's influence should be greater and loans should more closely reflect its technocratic and/or bureaucratic interests. In short, IMF lending behavior depends not only on the strength and distribution of preferences among powerful states, but also on the relative influence of states and Fund bureaucrats in particular cases. Using an original dataset of IMF lending to 47 countries from 1984-2003, I test these hypotheses and find strong support for this common agency view of IMF lending. Ultimately, the Fund is neither the servant of the US nor its own master; rather, the relative influence of international bureaucrats and powerful member-states varies significantly over time and across cases.

The remainder of the article proceeds as follows. I first describe the substantial variation in IMF lending policies and review existing economic and political explanations for it. I then present my common agency framework and test its hypotheses using an original dataset constructed from IMF archival sources. Finally, I conclude with a discussion of the important implications of these findings for our understanding of both the IMF and policymaking within international organizations (IOs) more broadly.

The empirical puzzle: variation in IMF lending

IMF lending programs consist of two elements: a certain amount of financing and a set of economic policy adjustments, or “conditionality,” that the borrower country must implement in order to receive IMF credit. Along each of these dimensions, short-term IMF loans have varied widely over the last two decades. Indeed, despite the accusations of some critics that the Fund imposes identical “cookie-cutter” programs in all cases (Stiglitz 2002), IMF lending policies exhibit substantial variation. Between 1984 and 2003, the Fund provided 197 short-term loans to 47 middle-income developing countries, totaling SDR 253.8 billion.⁵ While the mean loan amount was SDR 1.21 billion, these loans have ranged widely in size, from SDR 7.1 million (Belize 1984) to SDR 22.8 billion (Brazil 2002). This variation is not simply a function of country size or the size of a country’s external debt, although these factors do matter to some extent.⁶ However, when controlling for country size by measuring loans in relation to a country’s IMF quota, one sees substantial puzzling variation.⁷ Turkey, with only the 18th-largest quota among developing countries, has received three of the ten largest loans over the last twenty years; Uruguay, with the 33rd-largest quota, received the fifth largest loan ever (SDR 2.13 billion, 694% of quota) in 2002; and Thailand, with the 22nd-largest quota, received a loan of SDR 2.9 billion (505% of quota) in 1997.⁸ On the other hand, many large countries of substantial economic and political importance in international relations have received relatively modest loans (e.g., Russia 1999: 56% of quota; Brazil 1992: 69%; Argentina 1996: 46%). At the same

⁵ The SDR, or Standard Depository Receipt, is the Fund’s unit of account. Its value is derived from a basket of major international currencies. Currently (as of January 3, 2008), one SDR equals \$1.58567 (<http://www.imf.org>).

⁶ The correlation between absolute loan size (log) and country GDP (log) is 0.86. Pairwise correlations between absolute loan size and three key measures of indebtedness (external debt/GDP, debt service/exports, short-term debt/reserves) are -0.06, 0.40, and 0.20, respectively.

⁷ The IMF operates much like a credit union: each member-state provides a portion of the Fund’s “quota” resources and is eligible to borrow in proportion to these contributions. Country quotas and GDP are almost perfectly correlated (0.92). Thus, amount/quota more accurately measures when a loan is “oversized.”

⁸ Rankings exclude the OECD countries.

time, individual countries have received very different loans at different times from the IMF.

For example, Argentina's ten IMF loans during the 1984-2003 period ranged in size from 47% of its quota to 527%, while Mexico's five loans ranged in size from 120% of quota to 688%.

Similar patterns of variation are evident when examining the IMF's use of conditionality over the last two decades. Conditionality refers to the policies the Fund expects a member to follow in exchange for IMF credit (Gold 1979). Fund programs contain several different types of conditionality, each differing in content, specificity, and the degree to which it is "binding" on the borrower. *Performance criteria* (PCs) are conditions explicitly specified in IMF program documents that must be met by the borrower in order for the agreed amount of credit to be disbursed (IMF 2005). PCs typically specify quantitative targets for key macroeconomic policy variables such as international reserves, government budget balances, or limits on external borrowing. For example, a program might specify a minimum level of net international reserves, a maximum level of central bank net domestic assets, or a maximum level of government borrowing. Increasingly, IMF programs have also incorporated "structural" PCs, which include such measures as requirements to privatize state-owned enterprises, reform social welfare policies, remove price controls, and/or strengthen financial regulation (IMF 2005).

In addition to PCs, IMF programs generally contain one or more additional types of conditionality. As Figure 1 shows, these conditions account for nearly all of the expansion in Fund conditionality in recent years.

[FIGURE 1 HERE]

Non-PC conditions consist of three types: prior actions, quantitative indicative targets, and structural benchmarks. *Prior actions* are measures that a country agrees to take before the IMF approves a loan; they are designed to "ensure that the program has the necessary foundation to

succeed” (IMF 2005). Furthermore, prior actions (PAs) are intended as a signal to the IMF and private markets that a borrower government has made a firm “upfront” commitment to reforming its economic policies and resolving its financial problems. *Indicative targets* are similar in content to quantitative PCs, but are non-binding on the borrower country; that is, failure to meet targets does not automatically result in the suspension of loan disbursement. Likewise, *structural benchmarks* are similar to structural PCs in substance but not stringency. Benchmarks are often used “for measures that cannot be monitored objectively enough to be PCs, or for small steps in a critical reform process that would not individually warrant an interruption of Fund financing” (IMF 2005). While there has been only a slight increase in recent years in the average number of PCs, there has been substantial cross-sectional variation in the IMF’s use of these binding conditions, with the number ranging from 0 to 16 during the 1984-2003 period. In contrast, the IMF’s use of prior actions (PAs) and the less stringent forms of conditionality (benchmarks and targets) has increased notably since the late 1980s. Thus, both the number and type of conditions included in IMF loans has grown significantly over time.

The political economy of IMF lending

What explains this variation in IMF lending? In deciding how much and on what terms to lend, the IMF faces a central tradeoff between *liquidity* and *moral hazard*. This tradeoff arises because IMF loans have two simultaneous effects. On the one hand, Fund lending directly benefits a country by providing it with the financing (“liquidity”) needed to service its debts. Indirectly, it may also enhance global financial stability by preventing a crisis in one country from becoming a larger systemic problem. On the other hand, IMF loans also create “moral hazard” – incentives for borrower countries and international lenders to assume additional risk in

the expectation that the Fund will provide additional “bailouts” in the future (Crockett 1997).⁹ This tradeoff presents the IMF with a difficult choice: lend freely (i.e., large amounts on lenient terms) at the risk of increasing future demand for such “bailouts,” or limit current lending (i.e., smaller loans with more extensive conditionality) at the risk of having a country default and triggering a broader financial crisis.

How does the IMF weigh this tradeoff? From a purely economic perspective, this choice depends on whether a borrower is insolvent or illiquid – that is, whether the country is “bankrupt” due to bad economic policies, or whether it faces a temporary liquidity problem caused by an unforeseen macroeconomic shock or a “financial panic” (Chang 1999).¹⁰ In this view, IMF lending is a technocratic exercise: Fund economists design loans based on a variety of country-specific macroeconomic indicators that determine a borrower’s financing needs, as well as amount of policy adjustment necessary to ensure that its long-term debt sustainability. To be sure, macroeconomic factors play a large role IMF decision-making: past studies have found robust evidence that loans are larger and contain more conditions when a country has fewer foreign exchange reserves, higher levels of external debt, and a record of past Fund borrowing (Knight and Santaella 1997, Bird and Rowlands 2003). Nonetheless, the empirical record of this technocratic view of IMF behavior is mixed: many macroeconomic variables emphasized in the literature, including GDP, GDP per capita, and government spending, have weak or indeterminate effects on IMF lending (Joyce 2004).¹¹ Furthermore, the fact that the IMF has provided large-scale financing with relatively lenient conditionality in a number of high-profile

⁹ The classic example of moral hazard is in insurance, where insurers assume two types of risk: the “real hazard” (e.g., auto accident/theft) and the “moral hazard” arising from risky actions an individual may take once he is insured (e.g., more reckless driving/not locking one’s home).

¹⁰ Unlike a firm, a country technically cannot be declared bankrupt. However, the analogy is commonly used to refer to an unsustainable level of sovereign debt.

¹¹ One suggested reason for these results is that the Fund uses a range of indicators, rather than a single “trigger” variable, in making decisions (Bird and Rowlands 2003).

cases where the borrowing country appeared to be insolvent – most notably to Russia in the late 1990s and to Argentina in the early 2000s – suggests that political factors also influence IMF lending decisions (Mussa 2002).

Consequently, a growing literature in IPE has focused on identifying the political determinants of IMF lending. In general, this literature offers two competing explanations of IMF politics. Some scholars argue that the IMF is the servant of the United States, which utilizes its position as the Fund's largest shareholder to direct credit toward countries it deems important either for geopolitical or financial reasons. Along these lines, several recent studies have found a relationship between IMF lending and countries' voting patterns in the United Nations General Assembly (UNGA) and/or levels of US foreign and military aid to a given borrower country (Vreeland 2005, Stone 2004/2002, Barro and Lee 2002, Thacker 1999). Several recent high-profile lending cases are also frequently cited in support of this argument, including Russia, Turkey, and Pakistan (Stone 2004). Likewise, several recent analyses have found that IMF loans tend to be larger when a borrower country owes large amounts of debt to private creditors – primarily commercial banks – located within the US and other major IMF shareholders (Broz and Hawes 2006, Broz 2005, Copelovitch 2005, Oatley and Yackee 2004).

On the other hand, “public choice” scholars argue that bureaucratic politics, rather than American interests, is the key political factor in IMF lending (Vaubel 1991, Willett 2000, Dreher and Vaubel 2003). These scholars view the Fund not as the servant of its shareholders, but rather as a highly independent actor in its own right. Drawing on principal-agent theory, public choice theorists portray the IMF staff as a group of “rent-seeking” bureaucrats eager to maximize its

autonomy, budget, and/or the likelihood of program success.¹² From this perspective, we should observe the staff consistently favoring larger loans with more extensive conditionality, since more lending and a larger role for the Fund in monitoring its borrowers' economic policies enhances the staff's own influence.

As with purely economic explanations of IMF lending, neither of these political arguments fits closely with the empirical evidence. Bureaucratic politics theories generate clear predictions about variation in IMF lending over time, but they do not explain variation across cases within time periods. For example, while it may be the case that the staff proposes larger loans during quota reviews, this prediction does not explain variation in loan size within years in which a quota review is underway. Furthermore, the public choice logic begs the question of when the IMF staff is able to "get away" with this type of rent-seeking behavior. However, while bureaucratic arguments draw explicitly on principal-agent theory, they tend to leave unspecified both the identity and interests of the IMF staff's principal(s). As a result, they offer few predictions about the conditions under which the staff is able to act independently.

At the same time, arguments that the US controls the IMF pay insufficient attention to both the role of the Fund staff and the influence of other large shareholder countries. To be sure, the US exercises disproportionate influence within the Fund: it holds a permanent seat on the Executive Board and the largest share (17.4%) of the IMF's votes. Nevertheless, the Fund's four next largest shareholders (Japan, Germany, United Kingdom, France) also exert substantial influence by virtue of their own permanent EB seats. It is therefore extremely unlikely that we can accurately explain variation in Fund lending without also considering the interests of these

¹² The "rents" accruing to the staff in this approach are defined broadly to include all of these factors; strictly speaking, staff members do not receive personal financial gains from more extensive IMF lending or conditionality.

other powerful states, as well as the extent to which their interests are in harmony or conflict with those of the US.

IMF decision-making: a common agency perspective

In recent years, IR scholars have turned increasingly to principal-agent theories to study international institutions in general and the IMF in particular.¹³ A central tenet of agency theories of delegation is the assumption that agents pursue their own interests, subject to the constraints imposed upon them by their principals (Kiewiet and McCubbins 1991). Principals will try to control their agents, but doing so is costly and some degree of *agency slack* is inevitable: agents always possess some degree of autonomy due to incomplete contracting and/or the costs associated with monitoring and enforcement of the principal-agent contract (Hawkins et. al. 2006). The problem of agency slack is even more severe in cases of *common agency* (i.e., collective or multiple principals), because the multiple members comprising the agent's principal may have heterogeneous preferences about the agent's behavior (Ferejohn 1986). When the members of the collective principal have heterogeneous preferences over policy outcomes, the agent can exploit these differences and independently pursue its interests and preferred policies. Similarly, the intensity of the principals' preferences affects agent discretion. When the principal has strong preferences over a particular decision, it has greater incentives to monitor the agent's behavior; conversely, the principal is likely to allow greater discretion to the agent when it has little direct interest in a given policy decision.

¹³ See Hawkins et. al. 2006 and Lyne, Nielson, and Tierney 2006 for overviews of principal-agent theory and its application to international institutions. For specific applications to the IMF, see Martin 2006 and Gould 2006/2003.

G-5 governments as the Fund's "collective" principal

The IMF's member-states are its shareholders and formal political principals. Acting through the Executive Board (EB), a 24-member body composed of Executive Directors representing shareholder governments, member-states have the final say over all IMF policy decisions. Because member-states' voting power is directly proportional to their quota contributions to the Fund's general resources, the advanced industrialized countries' preferences carry the most weight in Fund decision-making. Moreover, the Fund's five largest shareholders, the "G-5" countries (United States, United Kingdom, Germany, Japan, France) hold permanent appointed seats on the Board comprising 39.22% of the quota-based votes.¹⁴

These institutional rules and procedures give the G-5 countries *de facto* control over IMF decision-making. In fact, since many of the Fund's decisions require Board super-majorities of 70-85%, the G-5 countries hold collective (or the US, with 17.1% of the votes, unilateral) veto power over a wide range of Fund policies, including quota increases and amendments of the Articles of Agreement. This veto power, however, does not extend to IMF lending decisions: formally, approval of a lending arrangement requires the support of only a simple majority of Directors, rather than a super-majority of weighted Board votes. In practice, moreover, the EB does not actually vote to approve IMF programs; rather, lending decisions are made on a "consensus basis with respect given to the relative voting power of the states" (Mussa and Savastano 1999, Van Houtven 2002, Vreeland 2005). This informal decision rule suggests that the interests of the advanced industrialized countries in general – and G-5 governments in particular – are the dominant factor influencing Board decisions about the characteristics of IMF loans. As others have argued, it is almost inconceivable that the IMF will approve a loan without

¹⁴ Three additional countries (China, Russia, Saudi Arabia) also hold their own Board seats, with a combined 8.84% of the votes. The remaining 16 EB seats are elected, with Directors from a single country representing various regional sub-groups of the remaining member-states.

the support – or at least consent – of its five largest shareholders (Fратиanni and Pattison 2005, Rieffel 2003).¹⁵

The IMF staff as agent

While member-states hold ultimate authority over IMF policymaking, they have delegated authority to the Fund’s bureaucratic staff based in Washington, DC. Consisting of approximately 2,600 members (primarily professional economists) from 143 countries, the staff acts as the agent of the IMF’s member-states in executing the day-to-day operations of the Fund.¹⁶ In particular, the staff plays a lead role in negotiating, designing, and proposing lending arrangements to the EB for approval (Mussa and Savastano 1999). Although the staff may consult with the Board throughout the process, the Board cannot approve a program without first receiving a proposal from the staff. Moreover, while the EB retains formal authority to amend staff proposals, it almost never exercises this power (Gould 2006, Martin 2006, Southard 1979). Indeed, “there are only a few instances in the Fund’s entire history of the Board turning down or even modifying a request for a conditional loan arrangement” (Gould 2006, 286). This agenda-setting power gives the Fund staff significant influence over IMF lending decisions.¹⁷ Nonetheless, as it operates “in the shadow” of an Executive Board vote, the staff does not enjoy complete autonomy; rather, it must take the Executive Directors’ preferences into account if it is to design and propose a program that will secure approval by the Board.

¹⁵ As Rieffel writes, “There is no example that comes easily to mind of a position taken by the IMF on any systemic issue without the tacit, if not explicit, support of the United States and the other G-7 countries” (2003, 28-29).

¹⁶ <http://www.imf.org/external/np/exr/facts/glance.htm>.

¹⁷ The rarity of such events is itself evidence of the staff’s “gatekeeping power” (Martin 2006): “if the staff anticipates that the outcome of EB decisions will not be to its liking, it can refuse to present a program in the first place” (2006, 149). Martin also argues that the staff has informational advantages of the EB, since EDs are replaced more frequently than staff bureaucrats; this further increases the Board’s propensity to accept staff proposals (2006, 145-7).

The literature emphasizes two main determinants of IMF staff preferences over the liquidity/moral hazard tradeoff: policy goals and bureaucratic incentives. Above all, staff members are economists and civil servants interested in achieving the Fund's policy objectives: "to enable countries to rebuild their international reserves, stabilize their currencies, continue paying for imports, and restore conditions for strong economic growth" (IMF 2002). This institutional mandate clearly suggests that the staff will take macroeconomic factors, such as the level of foreign exchange reserves and the current account deficit, into account as it designs IMF programs. At the same time, public choice theorists argue that the IMF staff members have a bureaucratic interest in proposing larger loans with more conditions, in order to maximize their budget, autonomy, and influence (Dreher and Vaubel 2003, Willett 2000, Vaubel 1991). While scholars differ over the relative importance assigned by the Fund staff to each of these objectives, I assume simply that both of these factors – policy goals and bureaucratic incentives – influence IMF staff preferences. In short, Fund bureaucrats "seek to do good, but are not immune to bureaucratic incentives and external pressures" (Willett 2000).

Common agency and agency slack in IMF lending

Neither US-centric theories of IMF politics nor bureaucratic approaches adequately explore the implications of this common agency relationship for Fund lending decisions. Theories that treat the US as the Fund's sole political principal overlook the influence of the other G-5 governments, as well as the distribution of preferences among these countries. Similarly, theories that focus only on the IMF staff's policy goals and bureaucratic incentives, without also specifying their relative weight vis-à-vis those of the G-5 collective principal, are also unlikely to accurately predict IMF lending behavior. Rather, we need to know the

conditions under which G-5 governments exert the greatest influence, as well as those under which the Fund staff enjoys the greatest amount of “agency slack.” Although measuring agency slack is notoriously difficult, principal-agent theory suggests that agent autonomy is largely a function of the *intensity* of the principal’s preferences (Hawkins, et. al. 2006; McCubbins, Noll, and Weingast 1987). Since monitoring an agent’s behavior is costly, a principal will only do so when it has a strong interest in a particular policy outcome. In the case of common agency, where the principal is composed of multiple actors (e.g., member-states within the IMF Executive Board), agency slack also depends on the *heterogeneity* of these actors’ preferences. When a collective principal’s component members share common preferences over a policy outcome, their ability to exert control over the agent is strongest. In contrast, agent autonomy will be greater when the members of the collective principal have more heterogeneous or divergent preferences; in these cases, the agent can exploit these divisions and exert its own, independent influence over policy outcomes.

With respect to the IMF, this logic suggests that G-5 governments’ influence over IMF lending decisions (and, by extension, the staff’s autonomy) will be conditional on both the *intensity* and *heterogeneity* of their preferences within the EB in a particular case. The impact of G-5 preference intensity is straightforward: when G-5 governments collectively have a strong (intense) interest in lending to a particular IMF borrower country, Fund loans should more closely reflect their economic and financial interests. In contrast, when G-5 preferences, as a group, are weaker, the IMF staff should enjoy greater autonomy and Fund loans should more closely reflect its technocratic and/or bureaucratic interests. Exactly how G-5 preference heterogeneity influences IMF lending decisions is less clear. Indeed, more divergent G-5 interests might affect IMF policymaking in three very different ways. First, greater G-5

preference heterogeneity might lead to distributional conflict within the EB, with different principals preferring different policy outcomes (Martin 2006). For example, it might be the case that the US government strongly favors a “bailout” for a country (i.e., a larger loan on more lenient terms) given its financial and/or geopolitical importance to the US (e.g., Mexico), while the European G-5 countries have weaker financial and/or political ties to the borrower and are opposed to this outcome on moral hazard grounds.¹⁸ If this “distributional conflict” view is correct, divergence in G-5 preferences should result in approval of smaller IMF loans with more extensive conditionality. In effect, a reduction in loan size and/or the imposition of more stringent conditionality is the price required by the less enthusiastic G-5 governments in exchange for setting aside their moral hazard concerns and supporting their counterparts’ interests within the EB.

Alternatively, greater G-5 preference heterogeneity might have exactly the opposite effect: rather than creating distributional conflict within the EB, it might create opportunities for “logrolling” or “horse trading” among the Fund’s largest shareholders. Put simply, while G-5 governments may disagree significantly over the size and terms of a specific IMF program, they might support the demands of their “most interested” counterpart in the hopes of receiving similar treatment in the future for their own preferred borrowers. The underlying logic here is that EB policymaking is not a one-shot game, but rather entails repeated strategic interaction among the same group of countries. Consequently, G-5 governments may find it useful to strike

¹⁸ This outcome is precisely what occurred during the debate preceding the 1995 IMF bailout of Mexico (Copelovitch 2005). Similarly, conflict emerged over IMF lending to Thailand during the Asian financial crisis in 1997, with the Japanese government strongly favoring preferential treatment based on its commercial banks’ heavy exposure to Thailand; in contrast, the remaining G-5 countries expressed less enthusiasm for the Thai bailout (Blustein 2001).

intertemporal bargains in exchange for the promise of future reciprocity.¹⁹ The observable implications of this “logrolling” logic are the exact opposite of those for the “distributional conflict” argument: we should observe the Fund treating its borrowers more generously (larger loans with fewer conditions) as G-5 disagreement over the financial and geopolitical importance of a borrower country increases.

Finally, it may be the case that greater G-5 preference heterogeneity simply increases the autonomy of the IMF staff. Thus, rather than creating conflict or logrolling opportunities within the EB, G-5 preference heterogeneity may create scope for the staff – like all bureaucrats in situations involving multiple or collective principals – to exploit agency slack and maximize its independence (Hawkins, et. al. 2006). The key factor underlying this logic is the staff’s agenda-setting authority: the Board cannot approve a loan unless and until it receives a proposal from the staff. However, the observable implications of greater agency slack for IMF lending outcomes are unclear, given that – as noted above – the Fund staff’s interests are both technocratic and bureaucratic in nature. On the one hand, it may be the case that greater staff autonomy removes “politics” (i.e., G-5 financial and geopolitical interests) from the IMF lending process and frees the staff to act in a technocratic manner. On the other hand, more agency slack may free the IMF staff to pursue its own bureaucratic political interests and engage in “rent-seeking.”

In short, there are at least three ways in which preference heterogeneity among the IMF’s collective principal might influence Fund lending outcomes. Within the EB, preference heterogeneity may create distributional conflict among G-5 governments that results in smaller loans with more “strings” attached in the form of conditionality. Conversely, preference

¹⁹ Although it is difficult to find explicit evidence of such G-5 “logrolling” given the lack of formal votes in the EB, there are good reasons to believe that it does occur. Indeed, analysis of available Executive Board minutes for two key country cases – Mexico and Korea – does indicate that logrolling occurred within the IMF in the 1980s and 1990s (Copelovitch 2005).

heterogeneity may lead to logrolling within the EB, as the G-5 support each other's demands for "bailouts" when their domestic financial and/or geopolitical interests are at stake. Finally, G-5 preference heterogeneity might actually reduce the influence of the EB and IMF member-states altogether, as the Fund staff exploits agency slack and acts in its own technocratic and/or bureaucratic interests.

Which of these effects will dominate in a particular case? I argue that the effects of G-5 preference heterogeneity are conditional on G-5 preference intensity – in other words, there is an interactive relationship between the two variables. When G-5 governments, as a group, have a strong interest in an IMF borrower (i.e., high "intensity"), we should observe greater preference heterogeneity leading to either distributional conflict or "logrolling" within the EB, and IMF loans should strongly reflect these countries' interests.²⁰ In contrast, when G-5 governments collectively have a weak interest in a particular country, preference heterogeneity should create scope for the staff to act autonomously, and Fund loans should more closely reflect their technocratic and/or bureaucratic interests.

In sum, the extent to which the US and other large shareholder countries "control" IMF lending varies over time and across cases based on the intensity and heterogeneity of their policy preferences. Likewise, IMF staff autonomy is also conditional and variable. Ultimately, the IMF is neither "master" nor "servant"; rather, the common agency relationship at the heart of Fund policymaking grants both G-5 governments and the IMF staff substantial, but incomplete, authority over IMF lending. Focusing on the intensity and heterogeneity of G-5 preferences within the Fund, I argue, provides testable hypotheses about the extent of state and bureaucratic influence over IMF policies in particular cases.

²⁰ I do not have strong priors on which of these two effects will dominate in these cases. The evidence presented below, however, suggests that both dynamics are at work within the IMF Board.

Empirical analysis

In the remainder of this paper, I test these hypotheses using an original dataset of 197 short-term IMF loans from 1984-2003.²¹ For each loan in this dataset, data on loan size and conditionality are taken from several categories of documents I have gathered during research at the IMF Archives: the “Letter of Intent” declaring the borrower country’s intent to enter into a Fund program, the attached “Memorandum of Economic Policies” specifying the policy reforms and conditionality the borrower country will implement during the course of the IMF loan, and the “Staff Report” to the Executive Board that outlines the draft program and provides further details on conditionality. Each observation in the dataset is a unique country-year-loan.²²

Dependent variables

Loan size

The first dependent variable is loan size, measured as a share of a country’s IMF quota. This variable (*AMTQTA*) is the total amount of new short-term IMF lending approved for country i in year t , divided by the country’s Fund quota.²³ *AMTQTA* enters as a natural log to control for outlier observations and to ensure that the data correspond as closely as possible to the OLS assumption of a normally distributed dependent variable. Summary statistics for *AMTQTA* and all other variables described below are presented in Table 1.

²¹ These countries are middle-income developing nations that seek short-term loans from the IMF when facing balance of payments problems. The IMF also lends on a long-term basis to extremely poor countries. While many studies of IMF lending pool these two types of loans and countries (e.g., Gould 2006/2003), doing so is likely to result in biased predictions about the Fund’s short-term lending behavior (Copelovitch 2005). Oatley and Yackee (2004) and Broz and Hawes (2006) are notable exceptions.

²² The full dataset of all country-years for these countries, as well as eligible countries that did not borrow from the IMF during the 1984-2003 period, consists of 892 observations and 55 countries. This larger sample is used in the propensity score matching estimation described below to control for possible selection effects.

²³ Disbursements of credit from loans approved in prior years are not included in *AMTQTA*.

[TABLE 1 HERE]

As a robustness check, I also test two alternative measures of loan size: loan amount relative to GDP (*AMTGDP*), and absolute loan size in millions of SDRs (*AMTSDR*); the results are broadly robust to each of these alternative specifications, as discussed further below.²⁴ I focus on *AMTQTA* as the primary dependent variable for two reasons: access to short-term IMF credit is explicitly linked to country quotas, and absolute loan size is almost perfectly correlated with country size (0.87). Thus, measuring size relative to quotas provides a more accurate measure of an “oversized” IMF loan.

Conditionality

To measure variation in IMF conditionality, I count the number of conditions included in a Fund program. More extensive conditionality indicates a stronger commitment on the part of the borrower to significant economic reform over the lifetime of the loan, as well as the Fund’s greater concern about the potential moral hazard effects of lending to countries requiring significant macroeconomic reform. This coding strategy follows in the tradition of most recent quantitative analyses of IMF conditionality (e.g., Gould 2006/2003, Dreher and Jensen 2007). Moreover, there are good reasons to believe that the number of conditions, rather than their specific policy or numerical content, is a more accurate metric of the overall stringency of conditionality. First, it is extremely difficult to measure the relative stringency of individual conditions (such as specific current account balance targets or foreign exchange reserve requirements), given the vastly different macroeconomic and external debt characteristics of IMF borrowers. Furthermore, cross-national comparison of the content of conditionality is made

²⁴ As with *AMTQTA*, each of these alternative variables enters as a natural log.

difficult by the possibility that a waiver will be granted for any individual missed condition. As a result, it is almost impossible to ascertain whether or not the same policy condition will be considered equally “binding” in two different cases (even if both targets are identical) or whether the IMF will view one condition as more critical than another in certain cases.

When measuring conditionality, I focus on the total number of conditions specified at the initial stage of a loan’s approval. Although the IMF staff and Executive Board review conditionality prior to each stage of a program, they almost never alter the number of conditions from stage to stage, even if they modify the specific quantitative targets and policies specified in these conditions.²⁵ For example, if the initial program includes performance criteria governing central bank reserves and the overall government budget balance, these criteria customarily remain throughout the lifespan of the loan, even if the specific numerical targets are adjusted over time. Thus, the basic parameters of conditionality are established when the Fund first approves a loan, rather than at later stages. Moreover, since the number of conditions rarely varies from stage to stage of a Fund program, counting each stage as a separate “case” would give undue weight to longer loans in the IMF lending dataset without actually multiplying the number of relevant observations.²⁶

Based on these parameters, I create three dependent variables for the conditionality models. The first variable, *Performance criteria*, is the number of performance criteria included in the IMF program. Performance criteria, as noted above, are the most “binding” form of conditionality, since disbursement of IMF credit is explicitly linked to the implementation. The second variable is a count of the number of *Prior actions* included in the program. Like

²⁵ The aforementioned archival sources provide clear empirical evidence of this pattern (Copelovitch 2005).

²⁶ For example, a 36-month Extended Fund Facility containing six reviews would count as seven cases (each with an identical number of conditions), while a 12-month Stand-by loan with a single program review would count as only two cases.

performance criteria, prior actions are “hard” conditions, in that their implementation is mandatory in order for the borrower to receive IMF credit. Unlike performance criteria, however, prior actions are preconditions: they must be implemented before the first tranche of a loan is disbursed. The final variable, *Benchmarks/targets*, counts the number of “soft” conditions included in an IMF loan, including quantitative benchmarks, indicative targets, and structural benchmarks. I also test a fourth variable, *Total conditions*, which is the sum of these three measures.

Independent variables

To test my hypotheses, it is necessary to identify proxies for the intensity and heterogeneity of G-5 interests in specific IMF lending cases. As noted above, there significant debate about which variables are most relevant in shaping the political interests of the US and other powerful states within the IMF. Some argue that G-5 interests are driven primarily by geopolitics, while others emphasize the importance of rich countries’ domestic financial interests. In the analysis, I test measures of both types of G-5 interests. While each of these variables measures something potentially different about an IMF borrower country’s importance for G-5 governments, each gauges – to some extent – the relative importance these countries assign to a borrower as they make decisions within the IMF.

As a proxy for G-5 geopolitical interests, I follow the recent literature in using voting affinity within the UN General Assembly (UNGA). While most votes in the UNGA are symbolic, they are a good proxy for the overall foreign policy alignment between countries (Thacker 1999, Stone 2004, Vreeland 2005). For UN voting affinity, I utilize Erik Gartzke’s Affinity of Nations dataset (Gartzke 2006), which calculates “S-scores” that measure “the

similarity between two countries' voting profiles as the length of a line between two points in a multidimensional issue space" (Stone 2004, 580).²⁷

As a measure of G-5 economic or financial interests, I follow most recent work in utilizing commercial bank exposure data (Broz and Hawes 2006, Copelovitch 2005, Oatley and Yackee 2004). While other economic links between G-5 countries and IMF borrowers are also important (e.g., equity financing, foreign direct investment, trade), these flows are highly correlated with bank lending in most country cases. Moreover, banks and other private creditors (e.g., institutional investors) stand to benefit most directly from IMF lending, since Fund credit is frequently transferred from the borrower to private creditors in the form of external debt payments. Thus, bank exposure provides a strong measure of a country's overall economic and financial importance to the G-5 countries. Data on bank exposure are taken from the Bank for International Settlements' *Consolidating International Banking Statistics* database.

Utilizing these datasets, I calculate four variables. The first two are measures of aggregate G-5 interests, which are intended to capture the overall *intensity* of G-5 preferences in a particular lending case. *G5BANK* is the sum of G-5 commercial bank exposure to country *i* in year *t*, in billions of dollars. It enters the model as a natural log, in order to control for the severe right-hand skew in the data's distribution.²⁸ The second variable, *G5S*, is the mean "S-score," measuring voting similarity between the G-5 countries and each borrower country. The final two variables measure the *heterogeneity* of G-5 financial and geopolitical interests in a particular case. Using individual data for each G-5 country, I calculate the coefficient of variation of bank exposure (*COVG5BANK*) and UN voting affinity "S-scores" (*COVS*). The coefficient of

²⁷ The specific variable is *S3UN*, which ranges from -1 to 1 and is coded based on a yes/abstain/no voting record. To calculate the standard deviations and coefficients of variation below, I rescale *S3UN* from 0 to 2.

²⁸ Since the minimum non-zero value of G-5 bank exposure is \$0.001 billion, I add 0.0009 to the zero values to calculate the natural log. The results are not sensitive to the use of alternative constant values.

variation (COV), which is the ratio of the standard deviation to the mean, expressed as a percentage, measures the relative dispersion of G-5 bank exposure and G-5 UN voting affinity.²⁹ Higher values indicate a more uneven distribution among the G-5 countries for each variable. Finally, to test hypothesis that the relationship between G-5 preference intensity and heterogeneity is conditional and interactive, I also include multiplicative two interaction terms. Each of these terms (*COVXBANK*, *COVXS*) is the product of the relevant *G-* and *COV-* terms described above.

While these four variables measure the aggregate intensity and heterogeneity of G-5 domestic financial interests in a particular IMF borrower country, they do not tell us which G-5 country has the most at stake in a given lending case. Consequently, I also calculate an additional set of variables: the share of total G-5 commercial bank lending provided by banks in each individual G-5 country. These five variables (*USSHARE*, *UKSHARE*, *GRSHARE*, *FRSHARE*, *JPSHARE*) measure the extent to which each G-5 government (US, UK, Germany, France, and Japan) has strong domestic financial interests in supporting IMF lending in a particular case. All else equal, I expect that each of these variables will be associated with larger IMF loans and less stringent conditionality.³⁰

Control variables

Along with these variables of interest, I also include an extensive battery of additional controls for the alternative economic and political explanations of IMF lending in the existing literature. The first set of variables controls for both relevant characteristics of IMF programs

²⁹ $COV=100*(STD/MEAN)$.

³⁰ The individual G-5 “S” scores are extremely collinear, with correlations between the five variables range from 0.75 to 0.94. As a result, I do not include these separate variables for individual G-5 countries’ UN voting affinity in the statistical analysis.

and a borrower's past history with the Fund. These include the duration of the current loan in months (*LENGTH*) and a dummy (*PASTLOAN*) if a country is already under an IMF program at the time of the new loan. Although tests indicate that serial correlation is not a problem in the loan size models, *PASTLOAN* acts as a modified lagged dependent variable controlling for a country's prior experience with the IMF.³¹ In the conditionality regressions, I replace *PASTLOAN* with an alternative variable (*LASTLOAN*) that measures the number of years since a country last borrowed from the Fund; as with lagged dependent variables in linear regression models, this variable controls for potential temporal dependence and serial correlation in event count and binary models (Beck, Katz, and Tucker 1998).³²

The second set of control includes a variety of country-specific macroeconomic factors identified in the economics literature as the key "technocratic" determinants of IMF lending (Knight and Santaella 1997, Bird and Rowlands 2003, Joyce 2004). These variables include: the borrower country's external debt to GDP ratio (*DEBTGDP*); the ratio of external debt service to exports (*DEBTSVC*); the log of GDP in millions of current dollars (*GDP*); the log of GDP per capita (*GDPPC*), the GDP growth rate (*GROWTH*), the current account as a percentage of GDP (*CURRGDP*), and the logged ratio of short-term debt to reserves (*STDRES*).³³ I also include a dummy variable, *CRASH*, which takes a value of 1 if a country experienced a sharp depreciation, or "currency crash" in the year prior to the IMF loan. Following Frankel and Rose (1996), I define a currency crash as a nominal depreciation of the currency of at least 25 per cent that is also at least a 10 per cent increase over the previous year's depreciation rate.

³¹ Substituting the actual amount of outstanding credit (and credit relative to a country's quota) as an alternative control for temporal dependence does not alter the substantive results of the models.

³² Two cubic splines, which further model duration dependence in nonlinear regression models, are also included. See Beck, Katz, and Tucker 1998 for a detailed discussion.

³³ Data are from the World Bank's *World Development Indicators* and *Global Development Finance*; missing values are filled using *Country Data* from the Economist Intelligence Unit (EIU).

The third group of control variables includes proxies for a alternative political explanations of IMF lending. Following Vreeland (2005/2003), I include the natural log of the number of veto players in a borrower country (*CHECKS*), as a control for the impact of a borrower country's domestic political institutions on IMF lending. Vreeland finds this variable to be a key determinant of both a country's decision to seek IMF financing, as well as the Fund's decision to lend. Thus, there is good reason to believe that veto players also influence IMF program characteristics. I also include variables identified by "public choice" scholars as key determinants of the IMF staff's bureaucratic incentives. Past studies in this vein have found that the staff's bureaucratic incentives are particularly strong when the Fund has more resources to spare, and when its member-states are reviewing the Fund's quotas and considering whether to increase the size of the IMF's "war chest." As a test of this argument, I include two variables. The first, *LIQRATIO*, is the IMF's "liquidity ratio," which is generated by dividing the sum of the IMF's outstanding loans and used administrative resources by the Fund's total quota resources, then subtracting this value from 1 (Dreher and Vaubel 2004). The expectation is that greater IMF liquidity will be positively associated with both loan size and conditionality. The second variable, *REVIEW*, is a dummy indicating years in which a quota review was underway. *REVIEW* tests the public choice argument's "hurry-up" lending hypothesis (Vaubel 1991, Dreher and Vaubel 2004).³⁴ According to this argument, the Fund staff will propose larger loans during quota reviews in order to exhaust the Fund's available resources and generate pressure on the Board to approve quota increases.³⁵

As a final set of controls, I include a time trend variable (*DATE*), country fixed effects to control for unobserved panel heterogeneity, and the borrower's propensity score (*PSCORE*),

³⁴ The effect of this variable on conditionality is more ambiguous. On the one hand, the staff may have incentives to decrease conditionality and lend more freely; on the other, it

³⁵ Both *LIQRATIO* and *REVIEW* are taken from Dreher and Vaubel 2004.

which, as discussed below, controls for the possibility of non-random selection into IMF programs.³⁶ In addition, I include two variables to capture the effects of broader global macroeconomic trends on IMF lending decisions. *CRISES*, is the lagged count of the number of currency crashes in the 47-country sample in a given year (Frankel and Rose 1996). It serves as a proxy for the level of global financial instability at the time in which a country seeks IMF financing. *LIBOR* is the 3-month London Interbank Offer Rate – the interest rate that banks charge each other on interbank loans. It serves as the primary benchmark on private international capital markets. Since higher global interest rates may increase both a country’s external debt service and new borrowing costs, IMF loan characteristics are likely to be influenced by their movements. Data are taken from the IMF’s *International Financial Statistics* and Dreher and Vaubel (2004).

Model specifications: addressing endogeneity and selection effects

Given the duration of both the economic problems leading a country to seek IMF financing and the loan negotiations themselves, the time at which the independent variables are measured in studies of IMF lending involves difficult problems of interpretation and the potential for endogeneity (Knight and Santaella 1997). To mitigate these issues, I follow most previous studies in lagging the explanatory variables by one period.³⁷ This one-period lag also reflects IMF officials’ assessments about the timing and nature of the lending process. As Knight and Santaella explain, “programs approved by the end of the second quarter of a calendar year will normally have been designed on the basis of information about the macroeconomic picture for

³⁶ These geographic variables are based on the World Bank’s regional classifications. The five dummy variables are: Americas (North/South America/Caribbean), Central Asia/Europe, Middle East/North Africa, East/South Asia, and Sub-Saharan Africa (dropped in the analysis).

³⁷ See, for example, Thacker 1999, Dreher and Vaubel 2003, and Stone 2002.

the preceding calendar year, while arrangements approved in the second half of the calendar year will generally be based on information that extends through the first half of the same year.”³⁸ In the dataset, 92 of the 197 IMF loans were approved on or after July 1 of the given year (i.e., on the basis of current year data), while the remaining 105 were approved in the first half of the year. Therefore, lagging the explanatory variables by one year for all observations is actually a conservative estimate of the time lag between the initiation of the Fund lending process and ultimate approval of a loan by the EB.

In addition to addressing endogeneity concerns, statistical analyses of IMF lending must also address the problem of *selection effects* (Przeworski and Vreeland 2000, Vreeland 2003). The basic problem is that selection into IMF programs may be non-random; that is, the same variables that explain variation in loan size and conditionality also may explain a country’s initial decision to request an IMF loan. If these effects are not taken into account in the statistical model, estimates of IMF loan characteristics may be biased. To minimize concerns about selection effects, I “preprocess” my dataset using propensity score matching (Ho, et. al. 2007; Simmons and Hopkins 2005).³⁹ The critical idea behind matching is to match each “treated” observation (in this case, each country-year observation of an IMF loan) with a “control” observation for which all the values of the explanatory variables are as close to identical as possible.⁴⁰ For each observation, this process generates a “propensity score” (*PSCORE*) ranging from 0 to 1, which measures the predicted probability that a country will enter an IMF program

³⁸ Knight and Santaella 1997, 413. The staff also considers “the latest annual estimates for the country’s main macroeconomic variables and preliminary projections for at least one year ahead” (Mussa and Savastano 1999, 87).

³⁹ While the Heckman selection model (Heckman 1979) is used most frequently in political science to address selection effects (Berinsky 1999, Vreeland 2003, von Stein 2005), this specification has a number of weaknesses, including its sensitivity to specification and strong reliance on distributional assumptions about the model’s residuals (Simmons and Hopkins 2005, Sartori 2003, Winship and Mare 1992).

⁴⁰ This strategy is known as “nearest neighbor” or “one-to-one” propensity matching. Other matching methods are also available, although the results presented here do not vary based on the choice of matching estimators. Matching was done using the PSMATCH2 module for Stata (Leuven and Sianesi 2003).

given the observed values of the covariates. Including *PSCORE* in the subsequent loan size and conditionality regressions controls for potential selection bias in the observed sample of countries receiving IMF loans during the 1984-2003 period.

For the loan size models, I specify an ordinary least squares (OLS) model with panel-corrected standard errors and the aforementioned variant of the lagged dependent variable, *PASTLOAN* (Beck and Katz 1995, Beck 2004). This specification accounts for the issues in time-series cross-sectional (TSCS) data that are evident in the sample (heteroskedasticity, serial and spatial autocorrelation).⁴¹ For the conditionality analysis, I utilize a series of event count models for panel data (Long and Freese 2001). For the performance criteria regressions, the specification is a conditional fixed effects Poisson model with robust standard errors. For the other types of conditionality, the standard Poisson model is not appropriate, given the overdispersion of this dependent variable.⁴² I therefore specify a conditional fixed effects negative binomial regression model.⁴³

Loan size results

Tables 2 and 3 present the loan size regression results. In Table 2, model 1 presents the logit analysis used to generate the propensity score, with the binary dependent variable taking a value of 1 if a country receives an IMF loan in a given year. In this specification, G-5 interests are not significantly correlated with a country's decision to enter into an IMF program. Rather, this decision appears to be driven largely by technocratic factors. Larger countries are more likely to seek and receive IMF financing, while richer countries are less likely to do so. In line

⁴¹ The results are robust to a variety of alternative specifications. Results available on request.

⁴² A central assumption of the Poisson model is that the variance equals the mean. This is a reasonable assumption for performance criteria (mean=6.38, variance=6.01), but not for prior actions (mean=2.81, variance=5.62) or benchmarks/targets (mean=4.13, variance=5.79).

⁴³ See <http://data.princeton.edu/wws509/stata/overdispersion.html>.

with the findings of previous work, countries are more likely to enter into IMF programs when they face lower economic growth and larger current account deficits. Finally, levels of global financial instability play a key role in whether or not a country seeks IMF lending: a loan is more likely in years in which financial instability (measured by *CRISES*) is more widespread.

[TABLES 2 & 3 HERE]

Models 2-4 in Table 2 test three different measures of loan size: amount/quota, amount/GDP, and absolute loan amount (millions of SDRs). Using amount/quota as the dependent variable, model 5 then presents the full interactive specification, in which both intensity variables (*G5BANK* and *G5S*) interact with the heterogeneity measures (*COVG5BANK*, *COVS*). In these specifications, many of the control variables are consistently significant. As expected, economic factors play an important role in shaping Fund decisions about the size of IMF loans: a borrower's GDP, GDP per capita, GDP growth, external debt/GDP and external debt service/exports are all significant determinants of loan size, although significance levels for some of these variables differ across specifications. Not surprisingly, longer loans (*LENGTH*) tend to be larger, and the Fund provides smaller loans to countries that are already receiving IMF credit under a preexisting program (*PASTLOAN*).

In addition, several of the “political” control variables are also significant in some models, although not always in the expected direction. The veto players variable (*CHECKS*) is negatively associated with IMF loan size in models 2, 3, and 5, which supports the existing literature's argument that the Fund provides smaller loans in cases where the borrower government faces greater domestic opposition to economic reform. (Vreeland 2003). In contrast, the results provide evidence directly contrary to the predictions of the “public choice” view of IMF lending: in models 1 and 5, greater IMF liquidity (*LIQRATIO*) is associated with *smaller*

Fund loans, and all five models strongly suggest that loans are smaller during IMF quota reviews (*REVIEW*).

Turning to the variables of direct interest for the common agency argument, the loan size models provide clear and robust evidence that the intensity and heterogeneity of G-5 governments' interests heavily influence IMF lending decisions. First, the measure of G-5 bank exposure heterogeneity (*COVG5BANK*) is *negative* and significant at the 99% confidence level in each of the models. This finding suggests that greater divergence of financial interests among the members of the Fund's collective principal leads to distributional conflict within the EB and the approval of smaller loans. Second, the measure of G-5 UN voting affinity heterogeneity (*COVS*) is *positive* and significant in all of the models at the 90% confidence level or greater. Thus, G-5 governments appear to engage in "logrolling" or "horse trading" when a borrower country is of geopolitical rather than financial importance; they vote as a group to provide large IMF loans, even though they do not share common preferences over the importance of lending. Finally, while neither measure of aggregate G-5 preferences (*G5BANK*, *G5S*) is consistently significant in the loan size regressions, IMF loans are significantly larger in cases where American, German, and French banks hold a larger share of international claims on a borrower country (*USSHARE*, *GRSHARE*, *FRSHARE*).

Figures 2 and 3 extend the analysis further by testing the hypothesized interactive relationship (Model 5) between G-5 preference heterogeneity and G-5 preference intensity. Since one cannot simply interpret the regression coefficients on each component term and the

interaction term in such specifications (Braumoeller 2004), these charts graph the coefficients on *COVG5BANK* and *COVS* as *G5BANK* and *G5S* vary, respectively.⁴⁴

[FIGURES 2 & 3]

Figure 2 illustrates that negative effect of G-5 bank exposure heterogeneity on IMF loan size identified in models 2-4 only exists at higher levels of aggregate G-5 bank exposure. In other words, distributional conflict among the Fund's principals only influences IMF lending decisions in cases (i.e., when *G5BANK* is at or above its median value) where the G-5 have a strong collective financial interest in the policy outcome. Conversely, in cases where G-5 bank exposure is limited, the distribution of financial interests among the Fund's principal member-states has no significant influence on lending decisions.

Figure 3 illustrates that heterogeneity in G-5 foreign policy interests (*COVS*) also influences Fund lending decisions only when the G-5 collectively have strong ties with a borrower country. However, in these cases, greater G-5 preference heterogeneity leads to *larger* loans: the Fund's principals appear to engage in "geopolitical logrolling" by approving larger loans for each other's preferred foreign policy allies, even though they themselves have relatively weaker ties to the particular country. In contrast, the distribution of G-5 foreign policy preferences has no significant effect on IMF loan size when *G5S* is below its median value. Thus, the loan size models provide strong evidence in support of the common agency perspective of IMF policymaking. When the Fund's principals have strong collective financial or geopolitical interests in a borrower country, the extent to which their preferences are unified or divergent heavily influences Fund lending outcomes. However, when G-5 governments have weaker interests in a particular country, their ability to influence IMF policymaking dissipates.

⁴⁴ Charts calculated using Bear Braumoeller's Stata module (<http://www.people.fas.harvard.edu/~bfraum/>).

By extension, this implies that IMF staff autonomy is greater in such cases, with Fund loans more closely reflecting the technocratic economic criteria found to be significant in the analysis.

Conditionality results

Table 3 presents the conditionality regressions results. In model 1, the dependent variable is the number of performance criteria (PCs). In models 2-4, the dependent variables are counts of prior actions (PAs), benchmarks/targets (BTs), and total conditions (TCs), respectively. Given the clear evidence in support of the interactive specification in the loan size regression, each of these models includes the multiplicative interaction terms, *COVXBANK* and *COVS*. Once again, many of the standard control variables are significant in these models. In model 1, program length, external debt service/exports, and the time trend are all statistically significant at the 95% level or greater and positively associated with the number of PCs. The veto players measure (*CHECKS*) is negative and significant, suggesting that the Fund is less likely to impose stringent conditionality in cases where the borrower government faces strong domestic political opposition.

In model 2, several of the macroeconomic variables are significant, including GDP growth, the current account balance, debt service/exports, and short-term debt/reserves. In addition, *CHECKS* is once again negative and significant, while the time trend is positive and significant, indicating a general trend toward the more extensive use of PAs. The IMF liquidity ratio (*LIQRATIO*) is also positive and significant in model 2; thus, the Fund appears to require more PAs of its borrowers when it has more resources to spend. *CRISES*, the measure of global financial instability, is negative and significant in model 2, suggesting that the Fund is less likely to require “upfront” policy reform of its borrowers in times of major international financial

crises. Lastly, *PSCORE*, the propensity score, is positive and significant, indicating that selection effects do exist in IMF lending.

Four control variables are positive and significant in both model 3 (BTs) and model 4 (TCs): short-term debt/reserves, the time trend, the IMF quota review dummy, and LIBOR. These results suggest that the Fund's use of "soft" conditionality is a function of a country's level of indebtedness, as well as broader global and temporal trends. In model 3, *CRISES* is also negative and significant, while GDP, program length, and debt service/exports are also significant determinants of the total number of conditions in model 4. Thus, there is substantial evidence across the models that technocratic economic factors, as well as some of the political variables previously identified in the literature, are key determinants of IMF lending decisions. These findings suggest that the IMF staff does play a key role in shaping the characteristics of Fund programs.

Furthermore, in contrast to the loan size results, the models in Table 3 also suggest that G-5 governments have significantly less influence over the IMF's use of conditionality. Indeed, as the interactive charts presented in Figures 4-9 illustrate, G-5 preference heterogeneity (whether measured in financial or geopolitical terms) has no significant effect on the Fund's use of prior actions or total conditions. In fact, the distribution of preferences among the Fund's principal shareholders only has a significant effect on the number of conditions included in an IMF loan in two cases: 1) greater heterogeneity of G-5 bank exposure results in fewer performance criteria, but only at low levels of aggregate G-5 bank exposure; 2) greater heterogeneity of G-5 UN voting affinity leads to fewer benchmarks/targets, but only when the borrower country's mean "S" score is low.

[FIGURES 4-9 HERE]

Together, these results provide additional support the “logrolling” view of politics within the IMF Board: G-5 governments appear to support each others’ financial or geopolitical interests by approving loans with less extensive conditionality. However, this behavior only occurs in countries of relatively limited financial and/or geopolitical importance to the group as a whole. When G-5 collective interests are more intense, by contrast, the negative coefficient on preference heterogeneity loses statistical significance; in fact, the coefficients on *COVG5BANK* and *COVS* actually turn positive (although they remain statistically insignificant) at the highest values of G-5 bank exposure and G-5 UN voting affinity. This suggests that, to some extent, the “distributional conflict” dynamic re-emerges in more high-profile cases involving countries of broader importance to all of the G-5.

Finally, the conditionality models also offer some evidence that certain G-5 countries are better able to achieve their interests within the IMF Board than others. Specifically, Germany and France appear to be less successful than the other G-5 countries in securing preferential treatment for countries they deem financially important: IMF loans contain *more* PCs as German banks’ share of total G-5 bank exposure increases, and they contain *more* PAs in cases where French banks are more heavily exposed. In contrast, the variables measuring American, British, and Japanese bank exposure shares have no significant effect on conditionality outcomes.

Ultimately, this analysis of the determinants of loan size and conditionality provides three key insights about the politics of IMF decision-making. First, they illustrate that the US does not unilaterally control IMF lending. Rather, the G-5 countries as a group exercise substantial influence over IMF lending decisions, and the intensity and heterogeneity of their preferences are key determinants of both the size and terms of Fund programs. Second, the results presented here also illustrate that G-5 governments’ influence – and, by extension, the autonomy of the

IMF staff – varies over time and across cases. In some instances, G-5 preference heterogeneity leads to distributional conflict within the EB and the approval of smaller loans with more extensive conditionality, while in others preference heterogeneity creates scope for “logrolling” and the G-5 support each other’s demands for bailouts (larger loans with fewer conditions). Finally, the models reinforce the idea that the IMF staff also exercise significant authority within the Fund policymaking process. Indeed, while G-5 governments’ financial and geopolitical interests carry great weight in the IMF’s decision-making calculus, the staff’s technocratic and bureaucratic interests also factor heavily into the equation.

Conclusions

Who controls the IMF, and what explains variation in its lending policies over time and across cases? In this article, I seek to answer this question using a common agency framework, in which a subset of member-states – the G-5 countries that exercise *de facto* control over the IMF Executive Board – acts collectively as the Fund’s political principal. Within this framework, lending decisions are heavily influenced by the intensity and heterogeneity of G-5 governments’ preferences, as well as the extent to which the IMF staff exercises autonomy or “agency slack.” The empirical analysis provides strong support for this framework and its empirical predictions.

These findings have important implications for our understanding of the politics of IMF lending. Above all, they clearly illustrate that no single actor controls the IMF. While powerful states exert great influence over IMF decisions, this influence does not lie unilaterally with the US, and it is partially constrained by the staff’s substantial autonomy. Likewise, the EB’s ultimate authority circumscribes the staff’s autonomy, despite its agenda-setting authority and

lead role in negotiating lending programs. Ultimately, the relative influence of states and IMF bureaucrats varies over time, and control over Fund lending policies depends on what is at stake in a particular case.

Thus, rather than rejecting existing explanations of IMF lending, this article contributes to the literature by more clearly delineating the scope conditions under which competing political theories hold true. As its critics argue, the Fund does indeed act as the servant of its largest shareholders in some cases, while it acts as a largely autonomous bureaucracy in others. To some extent, prevailing stereotypes of the Fund among politicians, the media, and academics are therefore accurate. The results presented here, however, suggest that these one-dimensional “blanket” explanations of IMF behavior are overly simplistic. In the end, “who controls the IMF?” is a complex question that can only be answered on a case-specific basis. The Fund is neither “runaway bureaucracy” nor “lap dog,” despite accusations to the contrary.

In addition to clarifying our understanding of the politics of IMF lending, this article also speaks to the relative merit of recent proposals to reform the Fund. In particular, the paper casts doubt on the merits of proposals to alter the distribution of votes within the EB in order to give developing countries a greater say in Fund decisions.⁴⁵ Implicit in these proposals is the assumption that reducing the influence of the G-5 countries will remove “politics” from IMF lending and enhance the Fund’s independence. In contrast, my findings suggest that this outcome is highly unlikely occur. Indeed, replacing G-5 votes with those of other countries would not necessarily result in a more technocratic or independent IMF; rather, it would simply replace G-5 governments’ political interests with those of other large countries. Moreover, spreading voting power more evenly among a broader group of states would likely increase the

⁴⁵ Chris Giles and Krishna Guha, “IMF Chief Seeks More Say for Asian Nations,” *Financial Times*, April 6, 2006.

scope for agency slack by exacerbating the problem of preference heterogeneity among the EB, the Fund's collective principal. Thus, eliminating the influence of G-5 domestic politics through EB voting reform might have the paradoxical effect of increasing the prevalence of bureaucratic politics in IMF lending.

More broadly, this article also addresses an important yet under-research question about international organizations (IO): what exactly do they do and why? Surprisingly, IR scholars have paid relatively little attention to dynamics of IO policymaking, choosing instead to focus on questions about cooperation, institutional design, and compliance. While these are critical issues, the results presented here suggest that we can significantly enhance our understanding of IOs by focusing on the policies they make, rather than solely on the reasons they are created or why they vary in design. Furthermore, this study addresses a key question for both rationalist and constructivist IPE scholars: the relative influence of states and bureaucrats in IO policymaking. Rationalists have addressed this issue largely from a state-centric standpoint by focusing on agency slack and the logic of delegation (Hawkins, et. al. 2006). In contrast, constructivists have focused more extensively on the independent influence of IO bureaucrats, arguing that they are "authorities in their own right, and that authority gives them autonomy vis-à-vis states, individuals, and other international actors" (Barnett and Finnemore 2004, 5). My findings strongly suggest that these approaches are complementary, and that we cannot explain IO behavior without considering the interests and influence of both sets of actors.

Finally, this article highlights the utility of common agency models of delegation for analyzing policymaking within a variety of different institutions. For instance, this framework might be applied usefully in the domestic context to analyze the extent to which central banks and regulatory agencies act independently of their legislative or executive principals. Likewise,

we might explain variation in the policies of the World Bank, the World Trade Organization, and other formal IOs by focusing more closely on the heterogeneity of interests among these institutions' member-states. By focusing on preference heterogeneity as an important variable, we can generate and test clear hypotheses about the relative influence of principals and agents in a wide variety of institutions at both the domestic and international levels.

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TABLE 1 – SUMMARY STATISTICS, IMF LENDING DATASET

| Variable | Observations | Mean | Standard deviation | Minimum | Maximum |
|---|---------------------|-------------|---------------------------|----------------|----------------|
| Amount/quota | 177 | 1.26 | 2.21 | 0.15 | 19.38 |
| Amount/GDP | 177 | 2.00 | 2.13 | 0.22 | 14.85 |
| Amount (SDR, million) | 177 | 1319.67 | 3218.43 | 11.63 | 22821.12 |
| Total conditions | 171 | 13.36 | 10.48 | 0 | 58 |
| Performance criteria | 173 | 6.51 | 2.49 | 0 | 16 |
| Prior actions | 171 | 2.67 | 5.70 | 0 | 37 |
| Benchmarks/targets | 171 | 4.18 | 5.84 | 0 | 27 |
| G-5 bank exposure (\$billions) | 892 | 8.82 | 14.04 | 0.00 | 78.05 |
| Coefficient of variation, G-5 bank exposure | 892 | 115.77 | 45.77 | 0.00 | 223.61 |
| US share, G-5 bank exposure | 892 | 0.28 | 0.23 | 0.00 | 1.00 |
| UK share, G-5 bank exposure | 892 | 0.11 | 0.14 | 0.00 | 1.00 |
| Japanese share, G-5 bank exposure | 892 | 0.14 | 0.19 | 0.00 | 0.94 |
| German share, G-5 bank exposure | 892 | 0.23 | 0.24 | 0.00 | 1.00 |
| French share, G-5 bank exposure | 892 | 0.19 | 0.22 | 0.00 | 1.00 |
| Percent bond debt | 892 | 22.98 | 27.89 | 0.00 | 95.63 |
| Percent private non-guaranteed debt | 892 | 23.56 | 24.91 | 0.00 | 100.00 |
| Program length (months) | 177 | 20.27 | 9.35 | 8.25 | 48.00 |
| GDP (log) | 892 | 10.05 | 1.62 | 5.68 | 14.05 |
| GDP per capita (log) | 892 | 8.61 | 0.44 | 6.83 | 9.71 |
| GDP growth (%) | 892 | 3.22 | 5.46 | -42.45 | 38.20 |
| Current account/GDP (%) | 892 | -2.25 | 6.69 | -56.20 | 25.60 |
| External debt/GDP (%) | 892 | 51.25 | 29.74 | 0.74 | 231.33 |
| External debt service/exports (%) | 892 | 20.37 | 14.58 | 0.28 | 117.81 |
| Short-term debt/reserves (log) | 892 | -0.66 | 1.30 | -4.61 | 5.03 |
| Currency crash | 892 | 0.12 | 0.32 | 0 | 1 |
| Veto players (log) | 892 | 0.89 | 0.62 | 0.00 | 2.08 |
| G-5 UN voting affinity (mean "S" score) | 892 | 0.17 | 0.22 | -0.22 | 1.00 |
| Coefficient of variation, G-5 "S" scores | 892 | 24.89 | 6.47 | 0.00 | 49.39 |
| Propensity score | 892 | 0.20 | 0.15 | 0.002 | 0.75 |
| IMF liquidity ratio | 892 | 0.31 | 0.07 | 0.20 | 0.46 |
| IMF quota review | 892 | 0.60 | 0.49 | 0 | 1 |
| Number of currency crises globally | 892 | 6.16 | 2.85 | 1 | 12 |
| LIBOR | 892 | 5.98 | 2.15 | 1.73 | 10.75 |

TABLE 2 – LOAN SIZE REGRESSIONS

| Model | 1 | 2 | 3 | 4 | 5 |
|---|------------------------|-------------------------|------------------------|---------------------------|-------------------------|
| Variable | IMF loan (binary) | Amount/quota | Amount/GDP | Amount (SDR, millions) | Amount/quota |
| G-5 bank exposure (log) | 0.0936 [0.1785] | -0.0333 [0.0598] | -0.1211* [0.0680] | -0.0156 [0.0607] | 0.0781 [0.1127] |
| Coefficient of variation, G-5 bank exposure | -0.0041 [0.0043] | -0.0048*** [0.0016] | -0.0050*** [0.0019] | -0.0050*** [0.0017] | -0.0054*** [0.0017] |
| G5BANK*COVG5BANK | | | | | -0.0008 [0.0007] |
| US share of G-5 bank exposure (%) | -0.6398 [2.2199] | 1.5343*** [0.4957] | 1.8608*** [0.6134] | 1.8417*** [0.5322] | 1.0761* [0.6372] |
| UK share of G-5 bank exposure (%) | -1.3817 [2.9475] | -0.3682 [0.9821] | 0.6086 [1.0412] | 0.0252 [0.9954] | -0.5436 [0.9444] |
| Japanese share, G-5 bank exposure (%) | -0.4057 [2.5082] | 0.7163 [0.7112] | 1.1253 [0.8633] | 0.5013 [0.7691] | 0.2290 [0.8687] |
| German share, G-5 bank exposure (%) | -0.7820 [2.0190] | 1.9793*** [0.3599] | 2.3248*** [0.4215] | 2.0099*** [0.3906] | 1.4771** [0.6261] |
| French share, G-5 bank exposure (%) | -1.4749 [2.6769] | 2.2266** [0.9265] | 2.7372** [1.0682] | 2.4650** [0.9704] | 1.8460* [1.0076] |
| G-5 UN voting affinity ("S") score (mean) | 1.0436 [1.3245] | 0.6043 [0.6276] | 0.4065 [0.6049] | 0.8413 [0.6253] | -0.2791 [1.0547] |
| Coefficient of variation, G-5 "S" scores | 0.0176 [0.0265] | 0.0236* [0.0124] | 0.0194* [0.0105] | 0.0265** [0.0119] | 0.0251* [0.0129] |
| G5S*COVS | | | | | 0.0562 [0.0409] |
| Years since last IMF loan | 0.0274 [0.0220] | | | | |
| Past IMF loan (dummy) | | -0.2796** [0.1132] | -0.2358** [0.1159] | -0.2811** [0.1164] | -0.2516** [0.1225] |
| IMF program length (months) | | 0.0462*** [0.0035] | 0.0439*** [0.0041] | 0.0453*** [0.0035] | 0.0450*** [0.0034] |
| GDP (log) | 4.4453** [2.1889] | 2.7950*** [0.9736] | 2.5662** [1.0743] | 3.1838*** [0.9809] | 2.8402*** [0.9285] |
| GDP per capita (log) | -6.8922*** [2.2177] | -1.8398* [0.9484] | -2.3972** [1.0084] | -2.1520** [0.9314] | -1.9265** [0.9279] |
| GDP growth (%) | -0.0496** [0.0216] | -0.0347** [0.0135] | -0.0300** [0.0139] | -0.0335** [0.0132] | -0.0375*** [0.0134] |
| Current account/GDP (%) | -0.0651*** [0.0250] | -0.0124 [0.0108] | -0.0019 [0.0121] | -0.0088 [0.0109] | -0.0117 [0.0106] |
| External debt/GDP (%) | 0.0008 [0.0061] | 0.0039 [0.0028] | 0.0098*** [0.0030] | 0.0045* [0.0027] | 0.0032 [0.0028] |
| External debt service/exports (%) | 0.0161 [0.0104] | 0.0214*** [0.0056] | 0.0212*** [0.0055] | 0.0228*** [0.0054] | 0.0221*** [0.0056] |
| Short-term debt/reserves (log) | 0.1991 [0.1328] | 0.0768 [0.0543] | 0.0617 [0.0564] | 0.0731 [0.0538] | 0.0784 [0.0547] |
| Currency crisis (dummy) | -0.1448 [0.3193] | 0.1527 [0.1404] | 0.2050* [0.1221] | 0.1141 [0.1274] | 0.1558 [0.1434] |
| Number of veto players (CHECKS, log) | 0.3377 [0.2958] | -0.2268* [0.1299] | -0.1320 [0.1357] | -0.2142* [0.1299] | -0.2380* [0.1311] |
| Time trend | -0.0512 [0.0664] | -0.0616** [0.0292] | -0.0462 [0.0293] | -0.0346 [0.0285] | -0.0653** [0.0293] |
| IMF liquidity ratio (%) | -1.7395 [1.7061] | -1.2080* [0.6802] | -0.5490 [0.6046] | -0.7383 [0.6114] | -1.2803* [0.6686] |
| IMF quota review (dummy) | 0.0670 [0.2561] | -0.2173*** [0.0767] | -0.1132* [0.0639] | -0.1914*** [0.0658] | -0.1974** [0.0823] |
| Number of currency crises worldwide | 0.0875* [0.0494] | -0.0234 [0.0226] | -0.0150 [0.0193] | -0.0133 [0.0205] | -0.0204 [0.0220] |
| LIBOR (%) | 0.0784 [0.0768] | -0.0015 [0.0235] | -0.0197 [0.0221] | -0.0264 [0.0229] | -0.0014 [0.0242] |
| Propensity score | | -0.3576 [0.6288] | 0.0522 [0.6693] | -0.1615 [0.6269] | -0.3530 [0.5935] |
| Constant | | -23.7578*** [8.1891] | -22.0850** [8.7438] | -19.1450** [8.2142] | -22.1818*** [8.1236] |
| Observations | 730 | 177 | 177 | 177 | 177 |
| Number of countries | 43 | 43 | 43 | 43 | 43 |
| R-squared | -- | 0.791 | 0.731 | 0.945 | 0.795 |
| Adjusted R-squared | -- | 0.660 | 0.561 | 0.910 | 0.659 |
| Log-likelihood | -279.790 | -92.950 | -95.343 | -90.667 | -91.483 |

Standard errors in brackets (model 1, robust; models 2-5, panel-corrected)

* significant at 10%; ** significant at 5%; *** significant at 1%

Country fixed effects (all models) and two temporal splines (model 1) not shown

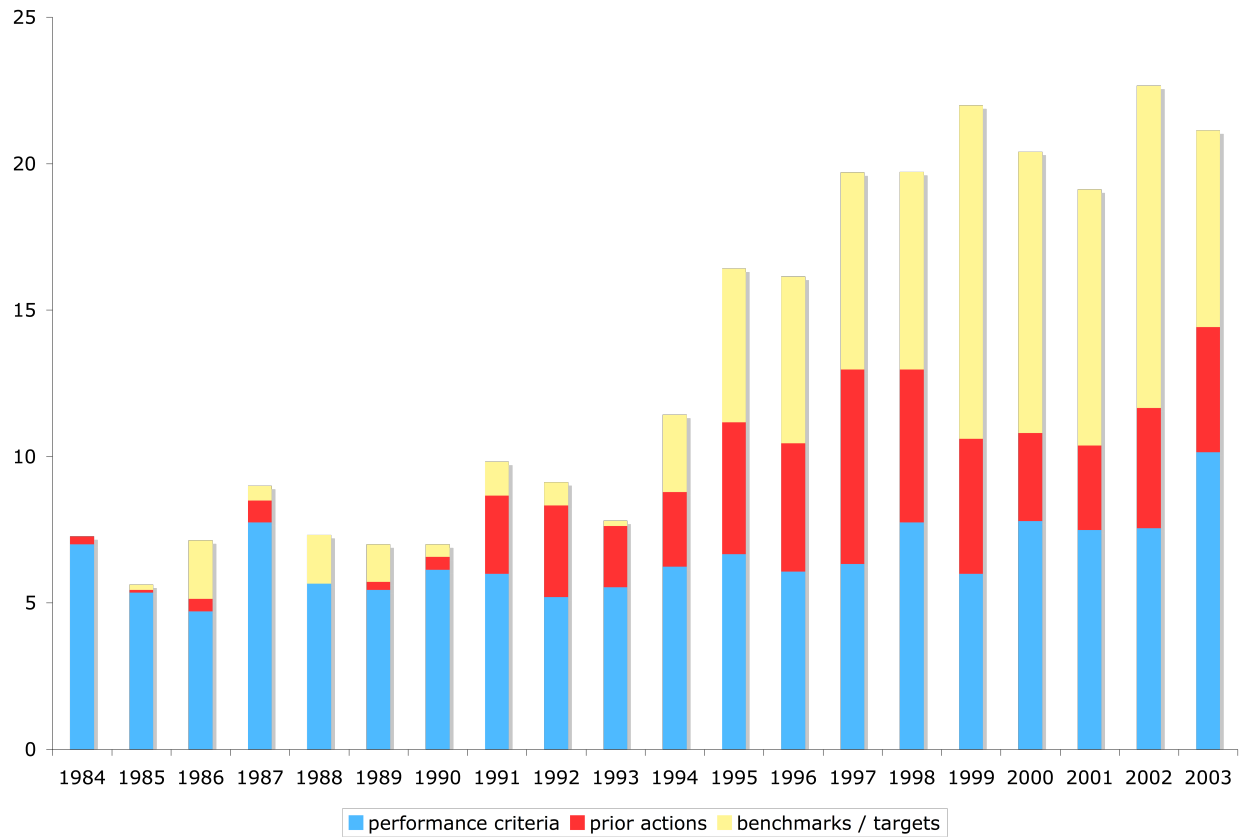
TABLE 3 – CONDITIONALITY REGRESSIONS

| Model | 1 | 2 | 3 | 4 |
|---|----------------------|---------------|--------------------|------------------|
| Variable | Performance criteria | Prior actions | Benchmarks/targets | Total conditions |
| G-5 bank exposure (log) | -0.1649* | -0.0134 | -0.8865 | -0.2086 |
| | [0.0921] | [0.5937] | [0.5815] | [0.1469] |
| Coefficient of variation, G-5 bank exposure | -0.0016 | 0.0079 | 0.0059 | -0.0021 |
| | [0.0013] | [0.0089] | [0.0061] | [0.0021] |
| G5BANK*COVG5BANK | 0.0006** | 0.001 | -0.0002 | 0.0003 |
| | [0.0003] | [0.0029] | [0.0024] | [0.0007] |
| US share of G-5 bank exposure (%) | 0.2347 | 2.0639 | -0.7037 | 0.9177 |
| | [0.3547] | [3.0949] | [2.5313] | [0.7899] |
| UK share of G-5 bank exposure (%) | 0.0369 | 3.8986 | 2.0086 | -1.4397 |
| | [0.8217] | [3.9353] | [3.7898] | [1.0835] |
| Japanese share, G-5 bank exposure (%) | 0.7517 | 0.44 | -2.701 | -0.5214 |
| | [0.4885] | [4.1596] | [3.1637] | [0.9937] |
| German share, G-5 bank exposure (%) | 0.7359** | 0.8544 | 2.0419 | 0.8541 |
| | [0.3337] | [3.4276] | [2.5417] | [0.8140] |
| French share, G-5 bank exposure (%) | 0.1954 | 8.9450*** | 1.2298 | -0.6086 |
| | [0.5104] | [3.1342] | [2.7972] | [0.9650] |
| G-5 UN voting affinity ("S") score (mean) | -0.4951 | -0.0138 | -9.5359** | -0.7592 |
| | [0.3948] | [4.3417] | [3.9367] | [0.9857] |
| Coefficient of variation, G-5 "S" scores | -0.0010 | -0.0445 | -0.0746 | 0.0006 |
| | [0.0053] | [0.0590] | [0.0487] | [0.0121] |
| G5S*COVS | 0.0084 | -0.2007 | 0.3399** | 0.0199 |
| | [0.0284] | [0.2040] | [0.1591] | [0.0485] |
| Years since last IMF loan | 0.0033 | 0.0158 | 0.0002 | 0.0007 |
| | [0.0084] | [0.0400] | [0.0336] | [0.0098] |
| IMF program length (months) | 0.0090*** | -0.0106 | -0.0044 | 0.0075* |
| | [0.0031] | [0.0261] | [0.0166] | [0.0044] |
| GDP (log) | 0.2346 | 0.3553 | 0.2312 | -0.5839** |
| | [0.7564] | [0.6085] | [0.6794] | [0.2838] |
| GDP per capita (log) | -1.1635 | 0.348 | 0.2448 | 0.1619 |
| | [0.9389] | [1.2567] | [0.8831] | [0.4448] |
| GDP growth (%) | -0.0267 | 0.2857** | -0.1461 | -0.0428 |
| | [0.0176] | [0.1297] | [0.0929] | [0.0277] |
| Current account/GDP (%) | -0.0080 | 0.2292*** | -0.0094 | -0.002 |
| | [0.0100] | [0.0766] | [0.0680] | [0.0176] |
| External debt/GDP (%) | 0.0023 | 0.0004 | 0.0131 | 0.0033 |
| | [0.0021] | [0.0122] | [0.0101] | [0.0030] |
| External debt service/exports (%) | 0.0108*** | -0.0601** | 0.0345 | 0.0102* |
| | [0.0039] | [0.0248] | [0.0214] | [0.0058] |
| Short-term debt/reserves (log) | 0.1674* | -1.4509*** | 1.0610** | 0.2654** |
| | [0.0956] | [0.5228] | [0.5068] | [0.1346] |
| Currency crisis (dummy) | 0.1165 | 0.6374 | -1.0934** | 0.1436 |
| | [0.1001] | [0.4287] | [0.5355] | [0.1378] |
| Number of veto players (CHECKS, log) | -0.1050** | -1.6134*** | 0.2022 | 0.0792 |
| | [0.0526] | [0.5012] | [0.3510] | [0.1233] |
| Time trend | 0.0465** | 0.1522* | 0.5263*** | 0.1558*** |
| | [0.0190] | [0.0861] | [0.1014] | [0.0248] |
| IMF liquidity ratio (%) | -0.8268 | 14.1998*** | 5.2278 | 1.3378 |
| | [0.6533] | [5.0021] | [3.4650] | [1.0999] |
| IMF quota review (dummy) | 0.0288 | -0.0007 | 1.5796*** | 0.3525*** |
| | [0.0915] | [0.5359] | [0.4654] | [0.1250] |
| Number of currency crises worldwide | 0.0142 | -0.2694* | 0.2033 | 0.0386 |
| | [0.0269] | [0.1613] | [0.1512] | [0.0397] |
| LIBOR (%) | 0.0175 | -0.0163 | 0.4393*** | 0.0983*** |
| | [0.0283] | [0.1431] | [0.1407] | [0.0365] |
| Propensity score | -2.2020 | 19.5814** | -12.1089 | -2.9984 |
| | [1.3582] | [8.5463] | [7.7090] | [2.0106] |
| Constant | | -17.3412 | -1.8201 | 5.6015 |
| | | [17.2715] | [9.3380] | [4.1056] |
| Observations | 167 | 122 | 157 | 165 |
| Number of countries | 37 | 26 | 35 | 37 |
| Log-likelihood | -244.982 | -118.976 | -176.596 | -340.146 |

Standard errors in brackets (model 1, robust)

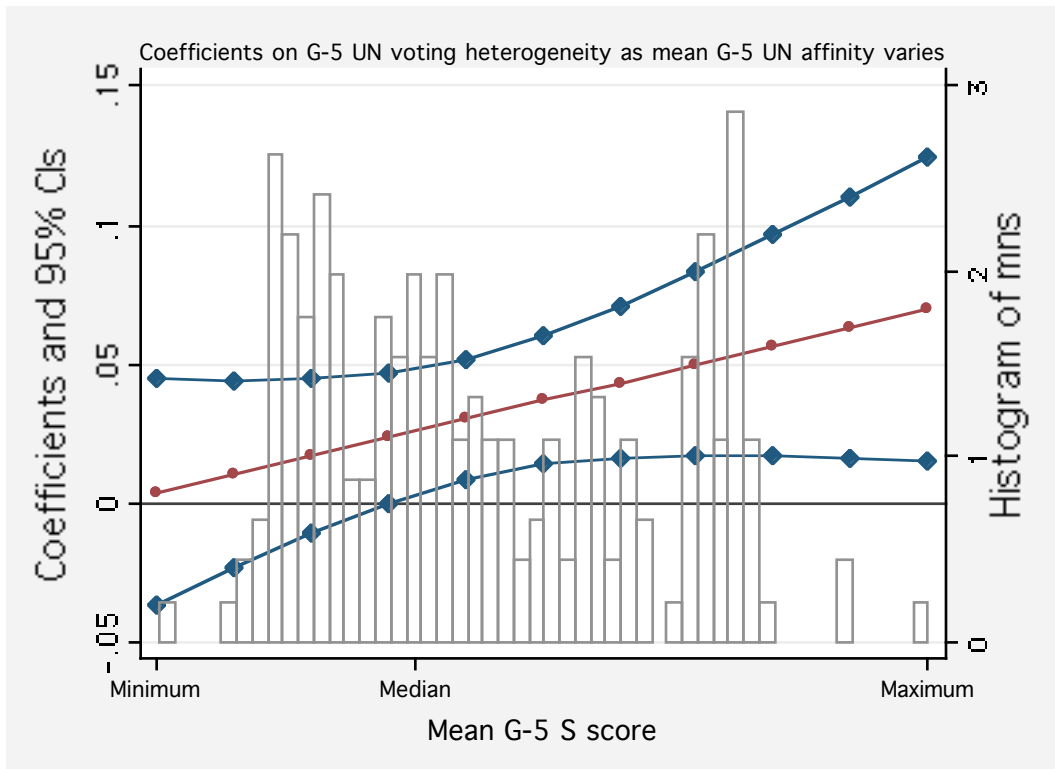
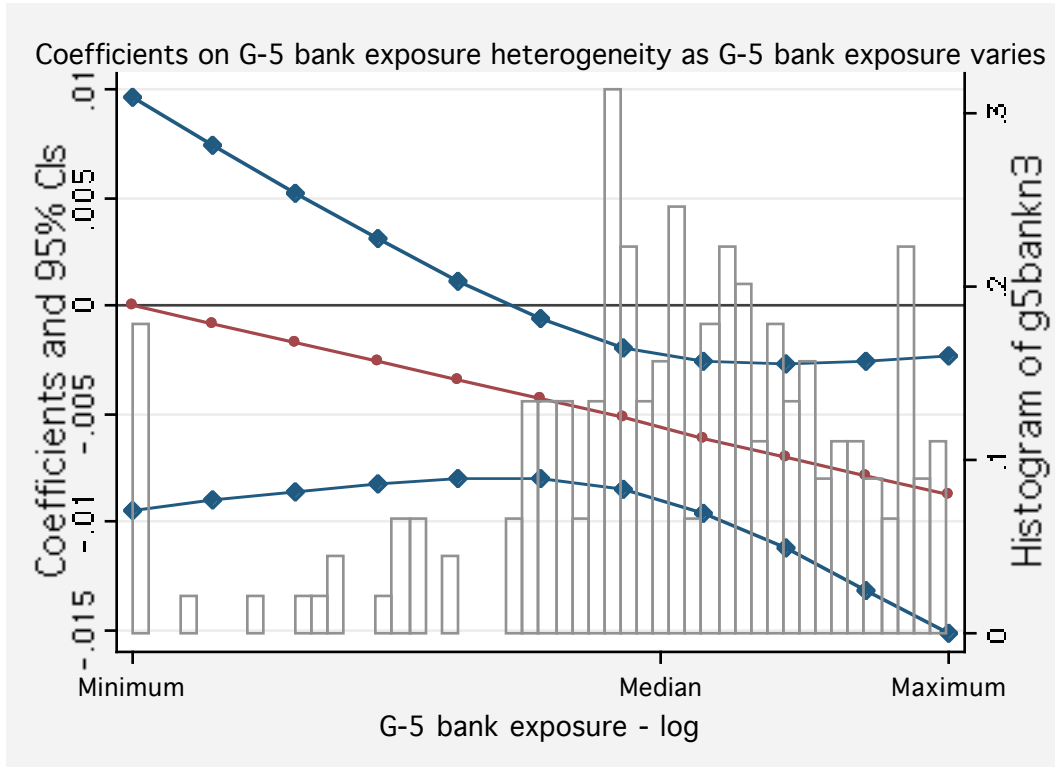
* significant at 10%; ** significant at 5%; *** significant at 1%

FIGURE 1 – IMF CONDITIONALITY: AVERAGE NUMBER OF CONDITIONS, BY TYPE, SHORT-TERM IMF LOANS, 47 COUNTRIES, 1984-2003

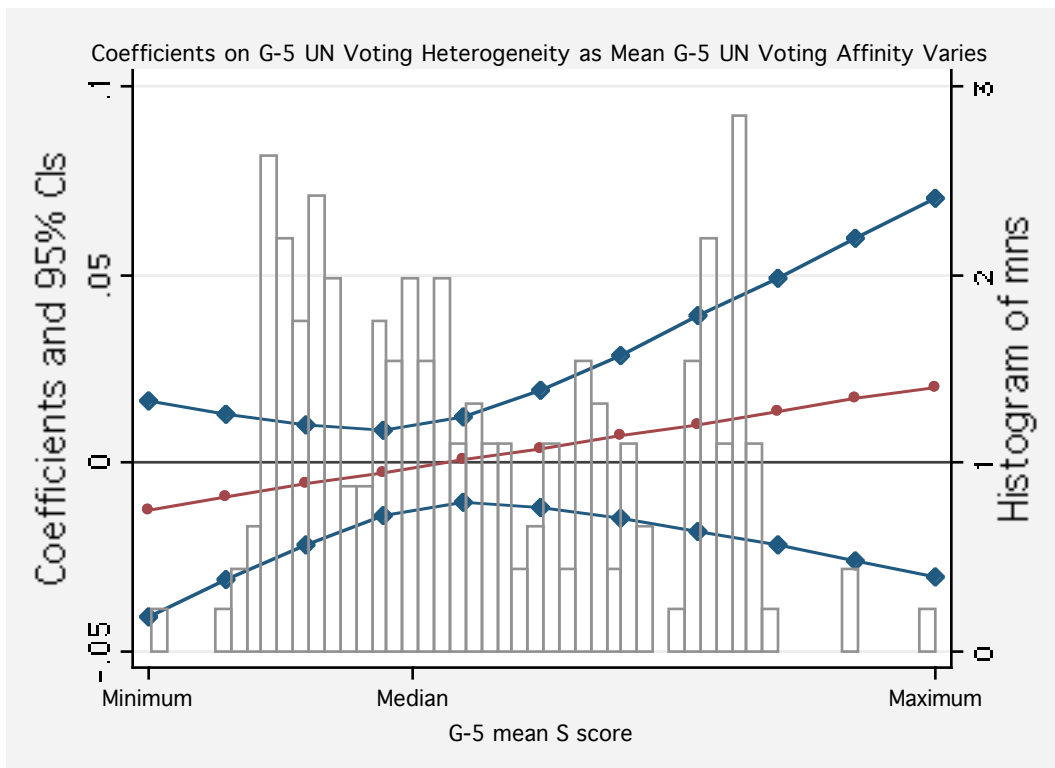
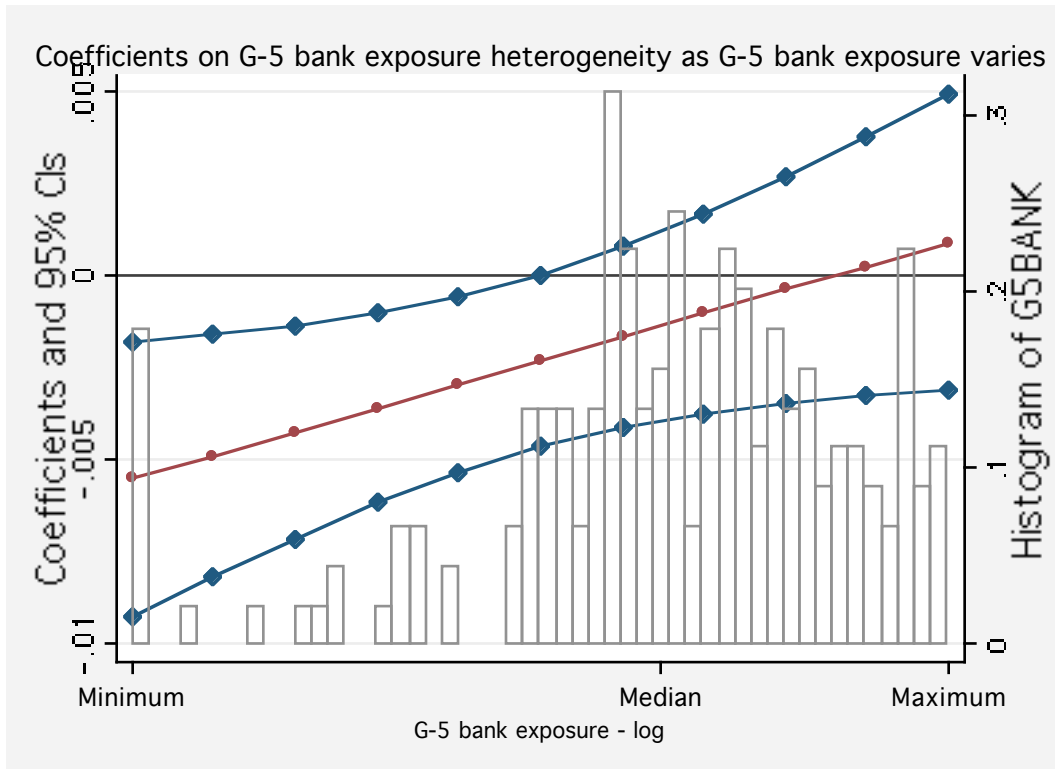


SOURCE: IMF Archives. Data are calculated from information provided in Letters of Intent, Memoranda of Economic Policies, and IMF Staff Reports.

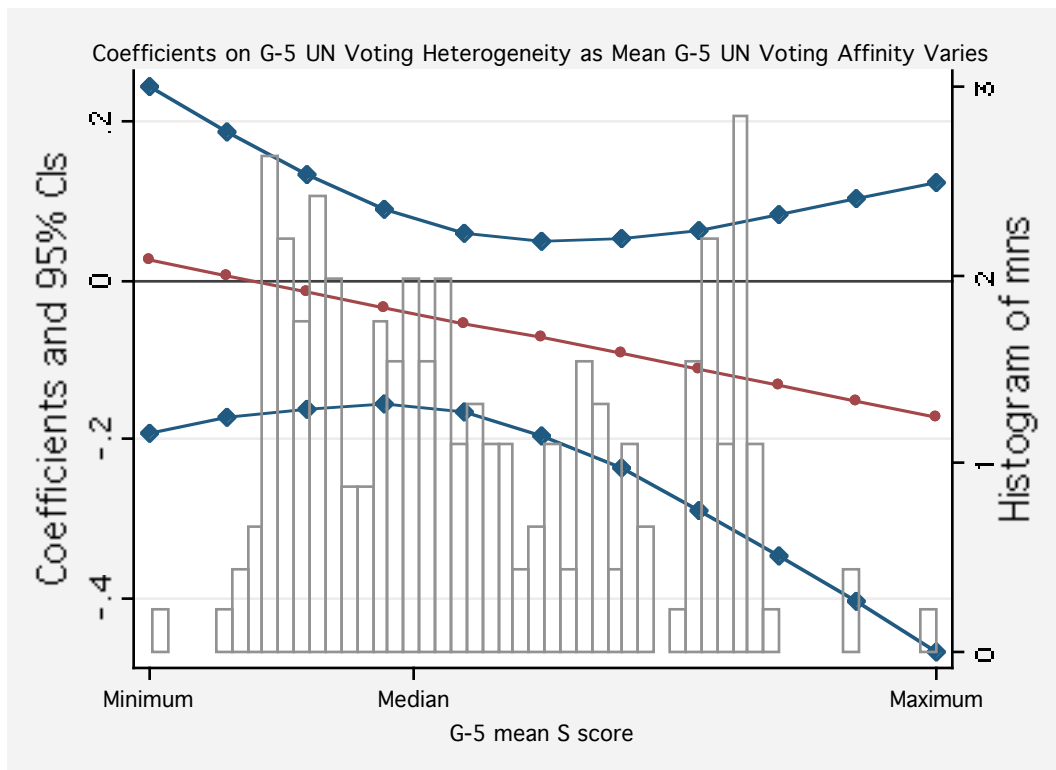
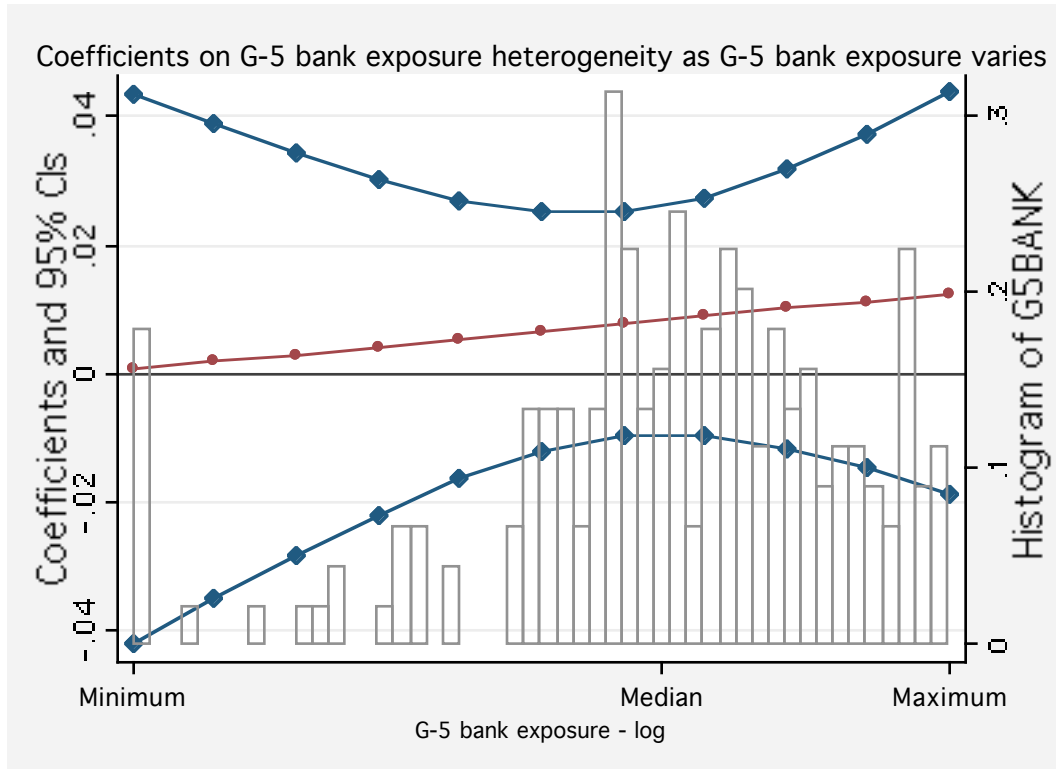
FIGURES 2 & 3 – LOAN SIZE (AMOUNT/QUOTA): INTERACTIVE EFFECTS



FIGURES 4 & 5 – PERFORMANCE CRITERIA: INTERACTIVE EFFECTS



FIGURES 6 & 7 – PRIOR ACTIONS: INTERACTIVE EFFECTS



FIGURES 8 & 9 – BENCHMARKS/TARGETS: INTERACTIVE EFFECTS

