

“Private Debt Composition
and the Political Economy of
IMF Lending”

by
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ABSTRACT

Over the last two decades, the International Monetary Fund has provided developing countries with over \$400 billion in conditional loans, ranging in size from less than \$10 million to over \$30 billion. What explains the significant variation in the amount and terms (conditionality) of these loans? Why do some countries get a better deal from the IMF, while others receive less Fund credit on more stringent terms? I argue that IMF lending behavior is driven by the interests of and interaction between three key actors: the IMF's professional staff, the Fund's five largest member-states (the "G-5"), and private international creditors. Each of these actors influences the IMF policymaking process, but none exercises complete control. Furthermore, these actors' preferences are not constant; rather, they vary over time and across cases based on the composition of a prospective Fund borrower's private international debt. Changes in debt composition — specifically, differences in the instruments (commercial bank loans vs. bonds) and maturity (short- vs. long-term) of a borrower country's external debt — shape the preferences of all three key actors over the size and terms of IMF lending packages.

Using a new time-series cross-sectional dataset developed for this project, I find that differences in the amount and concentration of G-5 bank exposure, along with changes in the instruments and maturity of a borrower country's private external debt, have had significant and substantive effects on the size and terms of short-term IMF loans from 1984-2003. Moreover, these effects are at least as large as those of other economic and political factors identified in the literature as important determinants of IMF lending. Ultimately, these results suggest the need to move beyond one-dimensional explanations of Fund policymaking that privilege a single economic or political variable in favor of a more complex and dynamic understanding of the political economy of IMF lending.

INTRODUCTION

Over the last thirty years, international institutions have come to play a central role in global financial governance — the design, implementation, and enforcement of the rules and policies regulating international financial markets. The International Monetary Fund (IMF, or Fund) is the most visible and controversial of these institutions. Over the last two decades, the IMF has provided developing countries with over \$400 billion in conditional loans, ranging in size from less than \$10 million to over \$30 billion (IMF 2003). While these loans have often assisted borrower countries in financing balance of payments deficits, they have generated a firestorm of criticism in both developed and developing countries. The IMF's critics have assailed it for a variety of shortcomings, including failing to maintain global financial stability, exacerbating poverty in borrower countries, and catering to the demands of Wall Street and the United States government. In the aftermath of the major financial crises of the mid-to-late 1990s, these critiques intensified, as numerous academics and policymakers advocated the radical curtailment of the IMF and its lending policies (Calomiris 1998, Meltzer 2000). Even more moderate analysts have called for substantial reform of the “international financial architecture” to avoid the need for future large-scale IMF packages and to enhance global financial stability in the coming decades (Rubin 1998).¹

This policy debate about the future of global financial governance is important, but it has developed in the absence of a clear understanding of how the Fund operates and makes policy decisions. Indeed, positive analyses of the IMF and its policies over the last two decades are surprisingly limited, given the amount of ink devoted to more normative treatments of the Fund.² This gap in the literature is problematic, given the substantial variation in the IMF's lending behavior over the last two decades. During this period, many of the IMF's loans have far exceeded the “normal” amount of financing these borrowers were eligible to receive under the

¹ See Kenen 2001 and Eichengreen 1999 for comprehensive overviews of this sizeable literature.

² See Joyce 2002 for a survey of the existing empirical literature on IMF lending.

Fund's quota-based credit system. For example, Mexico received SDR 12.1 billion in financing, or over 6.8 times its quota share in the Fund, in 1995, while Korea (SDR 15.5 billion, 19.4 times quota), Indonesia (SDR 8.3 billion, 5.6 times quota) and Thailand (SDR 2.9 billion, 5.1 times quota) received comparable IMF packages at the height of the Asian financial crisis in 1997.³ By contrast, other countries, including Russia (SDR 4.0 billion in 1998, 0.9 times quota) and China (SDR 0.6 billion in 1986, 0.3 times quota), have received far less generous packages from the Fund. Similarly, IMF conditionality — the policy reforms a borrower must implement in order to receive disbursement of a Fund loan — has varied widely over time and across cases. While the average short-term IMF loan over the 1984-2003 period included 7.6 binding conditions ("performance criteria"), some loans (e.g., Korea 1997, 19 conditions) have included substantially more, while others (e.g., Brazil 1998, 4 conditions) have contained far fewer. Even the IMF's treatment of individual borrower countries has varied widely: Argentina's ten IMF loans between 1984 and 2003 have ranged in size from 0.5 times quota (1996) to 5.3 times quota (2003), while the number of binding conditions included in these loans has varied from five to nine.

What explains this variation in IMF lending policies over the last two decades? Why do some countries get a better deal from the IMF, while others receive less Fund credit on more stringent terms? Why does this vary over time, even for individual borrower countries? Despite a growing body of empirical work, scholars disagree about the determinants of IMF lending behavior. Economic explanations of Fund behavior generally treat the IMF as a "technocratic" organization whose lending decisions depend on the macroeconomic characteristics of a particular borrower country (Knight and Santaella 1997, Bird and Rowlands 2003). However, while this approach identifies a number of potentially important variables, it has several

³ 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 August 21, 2004), one SDR equals \$1.473 (<http://www.imf.org>).

important limitations.⁴ For example, a purely technocratic view of IMF policymaking does not explain why countries in similar economic situations (e.g., similar external debt and debt service ratios) have received substantially different deals from the Fund. In addition, the fact that the IMF has repeatedly provided large-scale financing in a number of high-profile “insolvency” cases — most notably Russia in the late 1990s and Argentina over the last four years — suggests that political factors also influence IMF lending decisions.

Recognizing these limitations, scholars of international political economy (IPE) have sought to identify the political determinants of IMF lending. The most common approach in the IPE literature argues that IMF’s major shareholder countries — the United States and other advanced industrialized countries — control Fund lending and approve larger loans for countries deemed important for domestic financial or geopolitical reasons (Thacker 1999, Oatley 2002, Broz and Hawes 2003, Copelovitch 2003). An alternative perspective argues that IMF lending is driven not by member-states, but by the self-interested behavior of IMF bureaucrats, who benefit personally and professionally from larger IMF loans and increased conditionality (Vaubel 1991, 1994; Dreher and Vaubel 2004). Still others argue that private creditors, rather than member-states or the IMF staff, are the Fund’s real principals by virtue of their ability to withhold “supplementary financing” in the aftermath of an IMF lending package (Gould 2001, 2003).

While these studies have significantly improved our understanding of the political economy of IMF lending, they raise nearly as many questions as they resolve. To what extent is each of these views of the IMF valid? Which actor (or actors) exerts the most influence over Fund decision-making? Does this influence vary over time and across cases? If so, how and why? On their own, the empirical record of each of these competing explanations is mixed. If

⁴ These studies find that IMF loans are more likely and tend to be larger when the prospective borrower country has fewer foreign exchange reserves, higher levels of external debt, and a record of past IMF borrowing (Bird 1996, Knight and Santaella 1997, Barro and Lee 2002). On the other hand, a number of other macroeconomic variables (GDP, GDP per capita, government spending) have less clear effects on the availability and size of IMF lending (Joyce 2002). One reason for these mixed results may be that the Fund utilizes a wide range of economic indicators, rather than a single “trigger” variable, in deciding how much financing to provide (Bird and Rowlands 2003).

rent-seeking IMF staff members control Fund lending behavior, we would expect to see a general trend toward larger loans and increased conditionality for all countries, rather than the observed temporal and case-specific variation evident in the data. If IMF loans simply reflect American national interests, some countries of major financial or geopolitical importance to the US (e.g., Argentina, Russia) should not receive less favorable deals than other strategic allies (e.g., Turkey, Korea). Finally, while private creditors play an increasingly important role in global finance, it seems clear from the IMF's role in recent high-profile financial crises in Mexico, Turkey, Russia, and Korea that the Fund's largest shareholder countries continue to exert a powerful influence over global financial governance. Thus, while each of these views may be partially correct, none seems to offer a convincing and coherent explanation for the behavior of the IMF in the contemporary world economy.

This lack of consensus about the determinants of IMF lending behavior is indicative of a larger gap in the IPE literature. Although political scientists have studied international institutions for decades, few have addressed the question of how and why these institutions operate and make policy at the global level. Rather, most studies of international institutions have focused on the question of how and why sovereign states cooperate in an anarchic international system (Keohane 1984, Snidal 1985, Martin 1992). More recently, IPE scholars have moved beyond this initial question to focus on issues of institutional design, institutional effects, and the influence of domestic politics on international cooperation (Koremenos, et. al. 2001, Simmons 2000, Broz 1997).⁵ In spite of these advances, we still know very little about how specific international institutions operate and make decisions.

In this paper, I address these empirical and theoretical gaps in the IPE literature by exploring the IMF's lending policies over the last twenty years. Specifically, I seek to explain the sizeable variation in the size and terms of short-term IMF loans to emerging market countries

⁵ The literature on international institutions is far too extensive to adequately summarize here. See Martin & Simmons 1998 and 2002 for excellent reviews of contemporary scholarship on international cooperation.

from 1984-2003. I argue that IMF lending behavior is determined by the interests of and interaction between three key actors: the IMF's professional staff, the Fund's largest member-states, and private international creditors. Each of these actors influences IMF decisions about the size and terms of its lending, but none exercises complete control. Furthermore, these actors' preferences are not constant; rather, they vary over time and across cases based on the composition of a prospective Fund borrower's private international debt. Changes in debt composition — specifically, differences in the instruments (commercial bank loans vs. bonds) and maturity (short- vs. long-term) of a borrower country's external debt — shape the preferences of all three key actors over the size and terms of IMF lending packages.

Using a new dataset developed for this project from international financial statistical databases and IMF archival sources, I find that differences in the amount and concentration of the G-5 countries' bank exposure, along with changes in the instruments and maturity of a borrower country's private external debt, have significant and substantive effects on the size and terms of short-term IMF loans. While borrower country economic characteristics and geopolitical concerns may influence a country's demand for Fund for assistance, these factors play only a limited role in the Fund's subsequent decisions about the size and terms of its financing. On the other hand, bureaucratic incentives appear to also influence IMF lending behavior; I find some evidence that Fund lending decisions depend on the IMF's available resources, the growth of the IMF staff, and staff incentives to engage in "hurry-up" lending during IMF quota reviews. Ultimately, these results suggest the need to move beyond one-dimensional explanations of Fund policymaking that privilege a single economic or political variable in favor of a more complex and dynamic understanding of the political economy of IMF lending.

The remainder of this paper proceeds as follows. In the following section, I provide an overview of the IMF's role in global finance and describe the significant variation in the size and

terms of short-term IMF lending arrangements over the last two decades. Next, I identify the three key actors involved in IMF decision-making and how they influence IMF lending decisions. I then develop my argument that these actors' interests — and therefore, the size and terms of IMF loans — vary in accordance with the composition of a borrower country's private external debt. This logic yields a number of testable hypotheses, which I test utilizing time-series cross-sectional statistical analysis on a dataset of 198 short-term IMF loans to 47 countries from 1984-2003. Finally, I conclude with some broader implications and identify several potential avenues of future research.

THE IMF'S ROLE IN GLOBAL FINANCIAL GOVERNANCE

In contrast to domestic markets, the international financial system lacks clear “rules of the game” for dealing with financial instability (IMF 2000): there is neither a clearly defined international lender of last resort (ILOLR) nor an institutionalized sovereign bankruptcy procedure to ensure that financial crises are managed and resolved in an orderly fashion.⁶ In the absence of these institutions, responsibility for managing financial crises and maintaining open and stable international financial markets has fallen largely to the IMF. As the chief steward of international financial stability, the Fund's primary policy tool is the short-term conditional loan to countries experiencing balance of payments problems. These loans are designed to enable a borrower country to continue servicing its external debt, while it simultaneously undertakes policy adjustments designed to ensure longer-term debt sustainability and generate economic growth.

In designing IMF programs, the IMF faces a critical tradeoff between liquidity provision and moral hazard. This dilemma exists because IMF loans have multiple effects. By providing a debtor with liquidity to continue servicing its debts, an IMF lending package directly benefits the

⁶ On the issues of whether an ILOLR is feasible and desirable, see Fischer 1999 and Giannini 1999; on recent proposals to develop a sovereign bankruptcy procedure, see Krueger 2001.

borrower country and may indirectly enhance the stability of the international financial system as a whole. Unfortunately, IMF loans simultaneously create moral hazard — incentives for both the borrower country and private creditors to engage in overly risky behavior in the expectation of a “bailout” if and when things go wrong in the future (Crockett 1997, Mussa 2002).⁷ Providing financing to a borrower country may, therefore, only increase the demand for future bailouts. Moreover, the repeated provision of large-scale IMF packages places a strain on the Fund’s limited resources.

IMF lending arrangements

The IMF’s main short-term lending arrangements are the Stand-By Arrangement (SBA) and the Extended Fund Facility (EFF). The SBA is designed to assist countries facing short-term (1-2 year) balance of payments problems, while the EFF is designed to assist countries facing slightly longer-term difficulties (~ three years) requiring more extensive structural reforms. In response to the Asian financial crisis, the IMF established an additional short-term lending facility, the Supplementary Reserve Facility (SRF).⁸ SRF loans, which supplement SBA or EFF financing, are designed for countries facing “severe balance of payments difficulties arising from a sudden loss of market confidence accompanied by capital flight and a sharp drain in international reserves”; the loans are made for one year and carry an additional penalty rate over and above the market rate at which SBA and EFF loans are extended.⁹ Since 1984, the IMF has

⁷ The moral hazard problem exists because efforts to regulate financial markets and provide a safety net encourage market participants to assume additional risk. Thus, any effort to ensure financial stability may, in fact, make the problem of instability and financial crises worse. The classic example of moral hazard is in insurance, where insurers assume two categories of risk: the “real hazard” arising from risks that are beyond the control of the insured (e.g., accidental fire); and the “moral hazard” arising from actions that the insured may take in light of the fact that he is insured (e.g., overstating the value of one’s property and arranging for its destruction in order to collect the insurance) (Eichengreen 1999).

⁸ In 1999, the Fund also established the Contingent Credit Lines (CCL) to assist countries with strong fundamentals that may be vulnerable to contagion; to date, however, no member has borrowed from the Fund under these terms due to concerns that such borrowing would trigger (rather than stem) private capital outflows by signaling a country’s potential debt problems.

⁹ In addition to providing short-term balance of payments financing, the IMF began providing long-term (5-10 year) financing to very low-income countries in the mid-1980s under the Structural Adjustment (SAF) and Enhanced

provided 198 short-term loans to 47 borrower countries, totaling SDR 253.8 billion in commitments.¹⁰ Each of these loans consists of two elements: a certain amount of loan financing and a set of policy conditions (“conditionality”) that the borrower country must implement in order for the IMF to disburse the pledged funds. Along each of these dimensions, short-term IMF loans have varied widely over the last twenty years.

Loan amount

Since 1984, the average short-term IMF loan has been SDR 1.21 billion (\$1.78 billion), ranging in size from SDR 7.1 million (Belize 1984) to SDR 22.8 billion (Brazil 2002). Table 1 provides an overview of the substantial case-specific variation in IMF loan size over the last two decades.

Structural Adjustment (ESAF) facilities. In 1999, the Poverty Reduction and Growth Facility (PRGF) replaced both the SAF and ESAF. These long-term lending programs serve a very different purpose and group of countries: whereas middle-income countries (“emerging markets”) approach the Fund for short-term, temporary balance of payments assistance when they face difficulty servicing their private external debts, low-income borrowers depend almost entirely on the Fund and other “official” international creditors for access to external financing. Moreover, the sources of financing for the two varieties of IMF lending are completely separate: PRGF loans are fully financed from a separate dedicated trust fund, rather than from the IMF’s main quota resources; the PRGF trust borrows directly from national governments and multilateral institutions and lends on a “pass-through” basis to eligible countries (IMF 2004). PRGF loans are extended at a below-market (concessional) interest rate of 0.5% and are based on a Poverty Reduction Strategy jointly prepared by the country and the IMF staff. These arrangements closely resemble the long-term development financing provided by the World Bank and other multilateral development banks (MDBs), and they are available only to very poor countries (currently, 77 nations are eligible): eligibility is limited to countries falling below the World Bank’s GDP/per capita ceiling (currently \$865 in 2001 dollars) for concessional financing (IMF 2004). Roughly one-third of Fund lending arrangements over the last decade have been long-term concessional loans (108 of 316 loans between 1989 and 2001), although these loans represent only a small portion (approximately 7%) of the total amount of current IMF lending. Due to the separate sources of and rationale for PRGF lending, the factors influencing IMF decision-making over long-term financing are likely to be substantially different from those affecting Fund decisions about the provision of short-term balance of payments financing. In the remainder of this dissertation, I focus exclusively on the IMF’s role as short-term lender to emerging market countries.

¹⁰ These data indicate short-term IMF lending to all countries not eligible for concessional (PRGF) IMF loans.

TABLE 1 – SELECTED SHORT-TERM IMF LENDING ARRANGEMENTS, 1983-2002*

Country (year)	Loan size (billions SDRs)	Loan size (amount/quota)	Number of performance criteria
Belize (1984)	7.1	0.75	4
Latvia (1992)	54.9	0.60	7
Ecuador (2003)	151.0	0.50	19
Romania (1997)	301.5	0.40	11
Philippines (1984)	615.0	1.40	13
Algeria (1995)	1169.2	1.28	9
Thailand (1997)	2900.0	5.05	9
Russia (1999)	3300.0	0.56	14
Mexico (1983)	3410.6	2.93	7
Brazil (1983)	4239.4	5.80	6
Mexico (1995)	12070.2	6.88	7
Turkey (2002)	12821.2	13.30	8
Korea (1997)	15500.0	19.39	7
Brazil (2002)	22821.1	7.52	8

***Amounts pledged upon loan approval**

One might expect that variation in the size of IMF loan arrangements would be purely a function of a borrower's need or relative size in the world economy. Clearly, these factors matter: Brazil, Mexico, and Argentina — three of the six largest emerging market countries — have been the largest recipients of IMF assistance over the last thirty years (IMF 2002b). A number of studies have also found correlations between various metrics of country indebtedness and the availability and size of IMF loans (Joyce 2002). Not surprisingly, the absolute size of an IMF loan is very strongly correlated with country size, as measured by a borrower's quota in the Fund.¹¹ Nonetheless, country size and indebtedness alone do not seem to explain much of the recent variation in the size of short-term IMF lending arrangements.¹² When controlling for a country's quota in the Fund, one sees substantial puzzling variation in the amount of IMF

¹¹ Pair wise correlations between loan size and country quota are 0.62 for the absolute values and 0.88 for the natural logs (both significant at 5%).

¹² Bivariate correlations between IMF loan size (amount/quota) and three key measures of country indebtedness (external debt/GDP, debt service/exports, reserves/months of imports) are -0.08, 0.36, and 0.16, respectively, with only the latter two achieving significance at the 95% level.

financing provided to borrowing countries: Turkey, with only the 18th-largest Fund quota, has received three of the top ten loans (in amount/quota terms) over the last twenty years; Uruguay, with the 33rd-largest Fund quota (SDR 306.5), received the fifth largest Fund loan ever (SDR 2.13 billion, 694% of its quota) in 2002; Thailand, with the 22nd-largest quota (SDR 573.9 billion) received a loan of SDR 2.9 billion (505% of its quota) in 1997.¹³ On the other hand, many larger IMF member-states have received relatively modest IMF loans in amount/quota terms (Russia 1999, 56% of quota; Brazil 1992, 69%; Argentina 1996, 46%; Venezuela 1996, 50%). As noted above, this variation in IMF loan size presents a puzzle: why does the IMF provides some countries with disproportionately large loans, even as it offers other borrowers less money than their quota shares or levels of indebtedness would indicate?

Conditionality

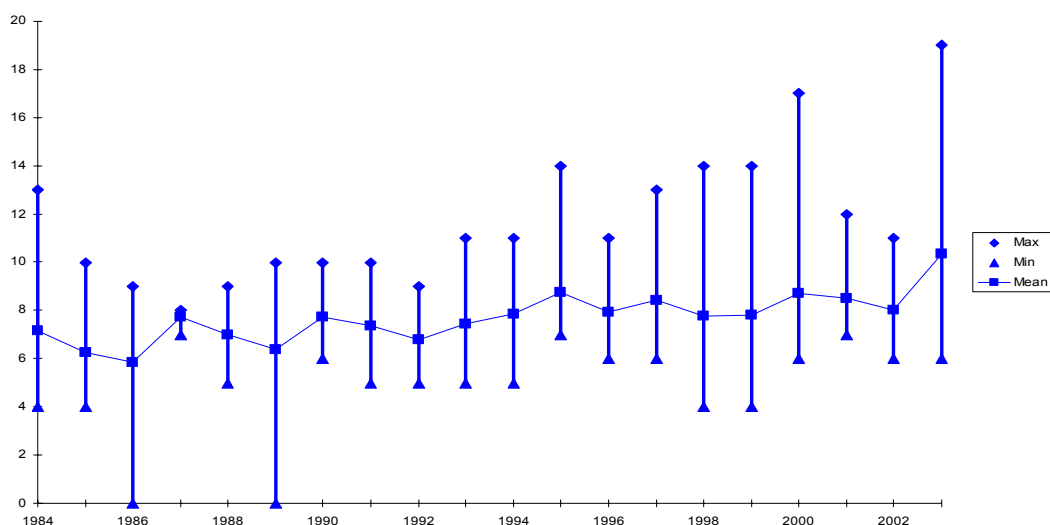
In addition to the size of its lending arrangements, the IMF's decisions about the terms, or "conditionality," of its loans have also varied significantly over the last two decades. Conditionality refers to the policies the Fund expects a member to follow in order to be able to access IMF credit (Gold 1979). By explicitly linking the approval or continuation of Fund financing to the implementation of specified government policies, conditionality serves several purposes. First, conditionality helps to mitigate problems of both debtor and creditor moral hazard. Rather than throwing "good money after bad" should the borrower country fail to meet its obligations, conditionality provides a mechanism by which the Fund can temporarily or permanently suspend its lending (IMF 2001c). Likewise, linking disbursement of Fund financing to specific policy changes provides incentives for the borrower country to hold up its end of the bargain (and assurances that the Fund will do the same) by guaranteeing loan disbursement if conditions are met. Conditionality also serves as a signal to private markets that

¹³ Quota rankings listed here exclude the advanced industrialized countries, which have not borrowed from the IMF since the 1970s.

a borrower country will pursue future policies compatible with long-term debt sustainability (Bird and Willett 2004).

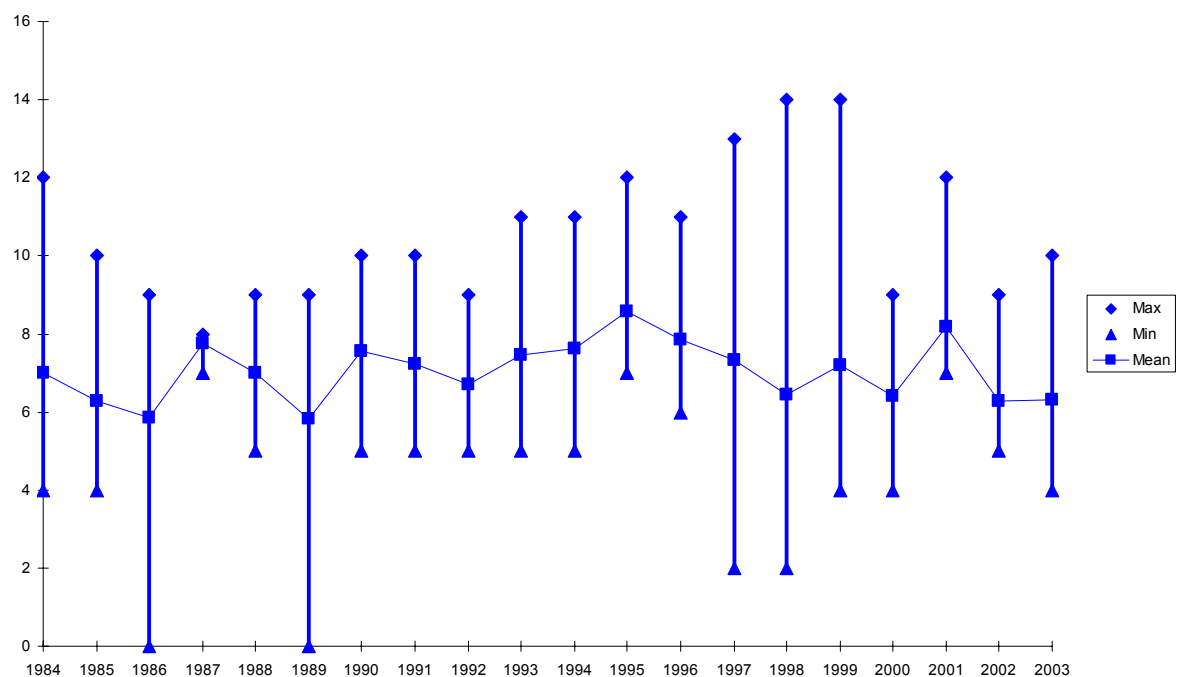
IMF conditionality comes in several varieties, each differing in content, specificity, and the degree to which it is binding on the borrower country. Performance criteria (PCs) are the most specific and binding type of conditions. These are policy conditions explicitly outlined in IMF lending arrangements documents that must be met by the borrower country for the agreed amount of IMF credit to be disbursed (IMF 2002c). Quantitative PCs typically refer to macroeconomic policy variables such as international reserves, government budget balances, or limits on external borrowing. For example, a program might include 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 included structural PCs, which include such measures as requirements to privatize state-owned enterprises, reform social welfare policies, or strengthen domestic financial regulation (IMF 2002c). Prior to the 1980s, IMF conditionality consisted almost exclusively of macroeconomic policy reforms, such as limits on government spending, targets for international reserves, and modifications of the borrower country's exchange rate regime. Over the last two decades, however, Fund conditionality has increasingly included "structural" policies, such as privatization of state-owned enterprises, reform of the domestic financial sector, and the removal of pricing controls (IMF 2002c). In part, the shift toward greater structural conditionality is due to the increase in medium- and long-term IMF lending; as the Fund has lent more money to low-income countries through the PRGF facility and its predecessors, structural reforms have become increasingly central. Nonetheless, even within short-term IMF programs, the number and type of conditions attached to Fund lending arrangements has varied widely. Figures 2-4 illustrate the significant variation in the number of binding conditions attached to short-term Fund loans.

**FIGURE 2 – Total Number of Binding Conditions (Performance Criteria),
Short-term IMF Lending Arrangements, 1984-2003***

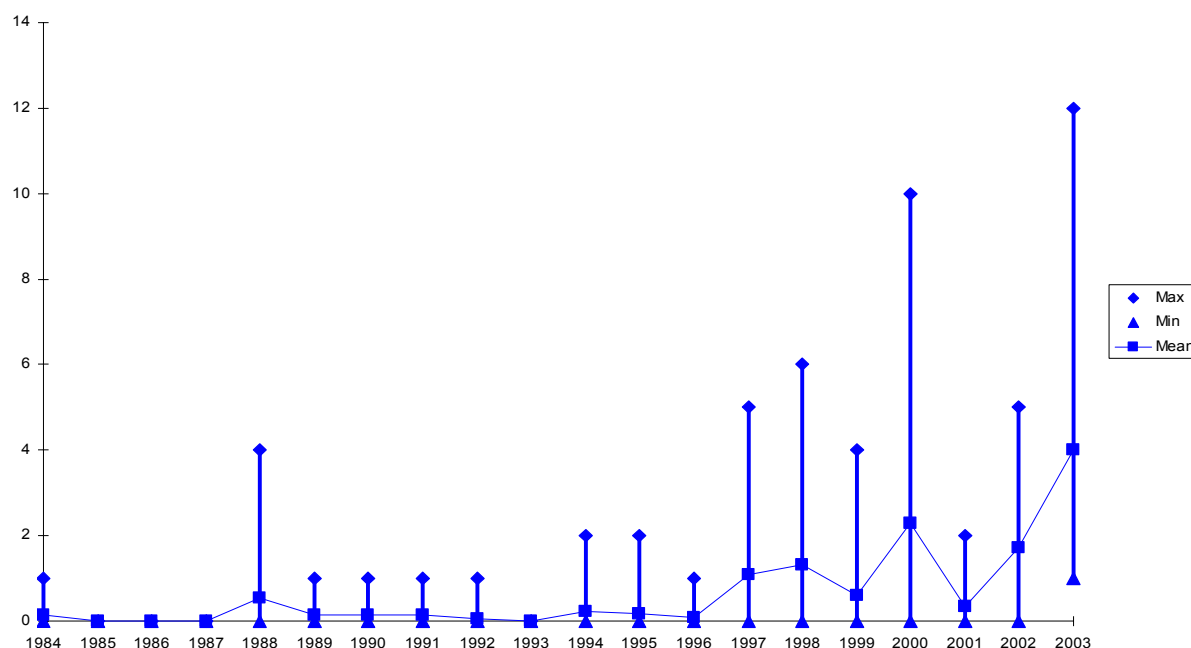


SOURCE: International Monetary Fund Archives: letters of intent, memoranda of economic policy, and IMF staff reports;
*47 countries not eligible for long-term (PRGF) concessional IMF financing

**FIGURE 3 – Number of Quantitative Performance Criteria,
Short-term IMF Lending Arrangements, 1984-2003***



**FIGURE 4 – Number of Structural Performance Criteria,
Short-term IMF Lending Arrangements, 1984-2003***



SOURCE: International Monetary Fund Archives: letters of intent, memoranda of economic policy, and IMF staff reports

*47 countries not eligible for long-term (PRGF) concessional IMF financing

While there has been only a slight increase in recent years in the average number of total and quantitative performance criteria attached to short-term IMF loans, there has been substantial cross-sectional variation.¹⁴ Moreover, there has been a notable increase in the use of structural PCs since 1997.

In addition to binding performance criteria, IMF lending arrangements often include one or more types of broader, non-binding conditions. Indicative targets are similar in content to quantitative PCs, but are non-binding on the borrower country. They are utilized when there is substantial uncertainty about economic trends beyond the first months of the program, after which they are often transformed into PCs for the remainder of the Fund program (IMF 2002c).

¹⁴ Data on short-term IMF conditionality presented here are taken from Fund sources (letters of intent, memoranda of economic policies, staff reports to the Executive Board) available at the IMF Archives in Washington, DC and (for selected post-1997 documents) at <http://www.imf.org>.

Similarly, structural benchmarks are similar to structural PCs, except that individual benchmarks “are less critical for meeting the program's objectives” (IMF 2002c). Benchmarks are often used by the Fund’s Executive Board to assess the borrower country’s adherence to policy reforms, but they are not strict requirements for the disbursement of funds. The IMF staff and the Executive Board monitor a borrower’s adherence to conditionality through periodic program reviews. Reviews typically occur at 4-12 month intervals, depending on the length of the program. At each review, a borrower may request a waiver for PCs it has failed to meet; if the Fund agrees to provide a waiver, the missed condition is generally included in the new set of conditions is specified for the subsequent stages of the lending arrangement.

As with the size of IMF lending arrangements, the obvious explanation for different types and levels of conditionality — variation in borrower-country economic characteristics — does not appear to explain this variation. One might expect larger loans to have a greater number of binding conditions, yet this pattern is not evident. For example, some very large loans (e.g., the SDR 13.02 billion Brazilian loan in 1998) have had relatively few binding conditions (4), while some small packages (e.g., Bulgaria’s SDR 371.9 million loan in 1997) have had substantially more (13). Moreover, bivariate correlations between the number of PCs and both loan size (amount/quota) and country quota are statistically insignificant over the 1984-2003 period (0.03 and 0.13, respectively). Existing analyses of IMF conditionality also suggest only weak relationships between borrower’s external debt and macroeconomic characteristics and the number of conditions attached to a loan (Dreher and Vaubel 2004).

KEY ACTORS IN IMF LENDING

The IMF’s lending process begins when one of the Fund’s member-states approaches the Fund with a request for external financing assistance. Once a country submits a request for official financing, the IMF staff enters into negotiations with the borrower government’s finance

ministry over the amount and terms of the loan package. Following the signing of a “letter of intent” detailing the loan package and the reforms the borrower will undertake as conditions of the loan (“conditionality”), the program must be approved by the IMF’s Executive Board (EB), a 24-member body composed of member-states’ representatives that is the Fund’s ultimate decision-making authority. If the loan package is approved, the Fund disburses the first “tranche” of the loan package and the IMF staff begins to monitor the borrower’s performance to see whether or not the conditions of the loan package are being met. Decisions about the disbursement of subsequent tranches of the initially pledged loan amount are made at periodic intervals and must also be approved by the EB. Once an IMF loan has been disbursed, private creditors react in international markets, either by continuing to lend to a borrower country or by seeking to “cut and run.” Thus, the IMF lending process involves three key actors: the Fund’s major shareholder countries, the IMF’s professional staff, and private international creditors.

G-5 governments and the IMF Executive Board

While all member-states are represented in the EB, each state’s voting power is directly proportional to its quota share in the Fund. The Fund’s five largest shareholders (US, Germany, Japan, France, UK – the “G-5”) hold permanent appointed seats on the EB comprising 39.22% of the quota-based votes. Three additional countries (China, Russia, Saudi Arabia) also hold their own EB seats, with a combined 8.84% of the votes. The remaining 16 seats on the EB are elected, with Executive Directors (EDs) from a single country representing various regional sub-groups of the remaining member-states.¹⁵ These procedures give the G-5 shareholder countries strong influence over IMF decision-making. Indeed, since many of the Fund’s decisions require EB 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

¹⁵ This voting structure gives substantial weight to the advanced industrialized countries: in addition to the G-5 votes, eight EDs represent the other OECD states hold 33.46% of the votes.

amendments of the Articles of Agreement. While lending arrangements formally require only a simple majority of the votes cast, in practice such decisions are made on a “consensus basis with respect given to the relative voting power of the states” (Mussa and Savastano 1999, IMF 2002b, Van Houtven 2002). This informal decision rule makes it highly unlikely that the EB will approve a lending arrangement without the consent of the Fund’s five largest quota contributors. Therefore, in spite of the legal stipulation that the Fund make all its decisions based on majority rule, *de facto* control over IMF lending arrangements ultimately rests with the G-5 EDs.¹⁶

The IMF staff

While member-states hold ultimate authority over IMF policymaking, they have delegated authority to design and propose lending arrangements to the Fund’s professional staff based in Washington, DC. Consisting of 2,680 members (primarily professional economists) from 141 countries, the IMF staff conducts the day-to-day business of the Fund and exercises substantial control over IMF lending policies (IMF 2002a). When a borrower country requests financial assistance, the IMF staff negotiates with the borrower government over the amount and terms of the program, and subsequently proposes a lending arrangement to the EB for approval (Mussa and Savastano 1999). Although the staff may consult with the EB throughout the process, the EB cannot approve a program without first receiving a proposal from the staff. Moreover, the EB can only vote up-or-down on staff proposals without amendment. This agenda-setting power gives the Fund staff significant influence over the IMF decision-making process.¹⁷

¹⁶ Recent empirical work supports this logic. Oatley (2002), Broz and Hawes (2003), and Copelovitch (2003) all find that IMF loans are larger when G-5 countries’ commercial banks are highly exposed to a borrower country.

¹⁷ Existing work identifies several potential ways in which IMF staff members influence Fund decision-making. For example, Martin (2002) argues that the IMF staff’s ability to influence Fund lending varies based on the extent of distributional conflict among the Fund’s member-states. An important observable implication of this argument is that staff autonomy increases as member-states’ preferences within the EB diverge. Other scholars have argued that IMF lending is controlled by rent-seeking IMF bureaucrats, who attempt to maximize their power, autonomy,

Private international creditors

In designing short-term lending arrangements, the IMF seeks to “to enable countries to rebuild their international reserves, stabilize their currencies, continue paying for imports, and restore conditions for strong economic growth” (IMF 2004). In other words, the Fund aims to restore its borrowers’ standing as “normal” members of the global financial system, i.e., states that can borrow on private international capital markets and service their external debt without undue difficulty. As a result, the IMF rarely fills a borrower country’s complete financing gap. Rather, the Fund seeks to have a “catalytic role” by providing only a limited portion of a country's external financing requirements (IMF 2002b). According to this catalytic financing logic, “the approval of IMF lending signals that a country's economic policies are on the right track, it reassures investors and the official community and helps generate additional financing from these sources. IMF financing can therefore act as an important lever, or catalyst, for attracting other funds” (IMF 2002b). Consequently, IMF lending arrangements are designed with the assumption that other creditors will provide additional financing enabling the borrower country to service its debts and implement the conditionality requirements of the Fund program. The ability to withhold this needed additional credit (“supplementary financing”) gives private creditors significant leverage over the IMF lending process.¹⁸

operational independence, and/or program success through more frequent lending, larger loans, and more extensive conditionality (Vaubel 1991, 1994; Willett 2001).

¹⁸ This need for “supplementary financing” has led some scholars to argue that private creditors, rather than member-states, are now the “effective principals” of the IMF (Gould 2001, 2003). Until the 1970s, creditor states and other IFIs provided nearly all supplementary financing to sovereign borrowers in the form of bilateral or multilateral loans or grants; in recent years, however, private creditors have become the dominant source of supplementary financing to IMF borrowers through commercial bank lending and bond financing. Gould finds that IMF conditionality has become more “bank-friendly” in content as private financial institutions’ share of supplementary financing has increased (2001).

ARGUMENT: PRIVATE DEBT COMPOSITION AND THE POLITICS OF IMF LENDING

I argue that each of these actors — G-5 governments, the IMF staff, and private creditors — influences IMF lending decisions, but none exercises complete control over the process. Rather, these actors' interests in and influence over IMF lending decisions are *variables* that depend on the composition of a given borrower country's private external debt. Private debt composition — specifically, the instruments (commercial bank loans vs. bonds) and maturity (short- vs. long-term) of a borrower country's outstanding external debt — has varied significantly over the last two decades. This variation matters because it affects all three actors' preferences over the central dilemma facing the IMF: the tradeoff between liquidity provision and moral hazard. These preferences, in turn, influence IMF decisions about the size and terms of its lending packages to emerging market borrowers.

Who are private international creditors?

Private international creditors to emerging market borrowers consist almost exclusively of two types of investors located in the advanced industrialized countries: commercial banks and bondholders. In 2001, commercial banks headquartered in the G-10 countries held claim to over 95% of international bank loans; G-5 banks held roughly two-thirds of these claims, down from nearly 80% in the early 1990s (BIS 2001). Until the 1990s, the most common type of international commercial bank lending was the medium-term syndicated loan.¹⁹ Syndicated lending involves the cooperation of multiple commercial banks — often from several countries — that negotiate a single loan with a single emerging market borrower (Smith and Walter 2003).²⁰ In addition to providing loans to emerging market sovereign borrowers, commercial

¹⁹ The World Bank classifies medium-term lending to encompass all lending with a maturity of greater than 1 year (Global Development Finance).

²⁰ Internationally-active commercial banks pursue syndication for several reasons. First, syndication reduces default risk through the use of cross-default clauses in the terms of the loan: if a borrower defaults on syndicated loan, it effectively defaults on all banks participating in the syndicate. As a result, a country that defaults on its commercial bank loans risks the possibility that none of the banks involved in the syndicate will provide it with future loans. By

banks often have further ties to developing countries. As providers of short-term trade credits, banks facilitate cross-border trade and payments, and some commercial banks also serve as managers of central bank reserves for some developing countries (Tomz 2001). Finally, commercial banks have increasingly engaged in short-term interbank lending directly to private financial institutions in emerging market countries; in some cases, interbank lending is syndicated, while in others individual banks provide financing to a single borrower.

Like commercial banks, bondholders are heavily concentrated in the G-10 countries.²¹ However, whereas less than 100 firms control the entire international commercial banking market, bondholders are significantly more heterogeneous and disaggregated.²² Bondholders consist largely of two types of investors: “retail” customers and “institutional” investors. Retail investors are wealthy individuals whose deposits are invested in emerging markets by banks and other wealth managers (Smith and Walter 2003). Institutional investors, by contrast, control billions of dollars in assets as the managers of pension funds, mutual funds, central bank portfolios, and insurance companies. The primary instrument of international bond financing is the “Eurobond” — an unsecured promissory note issued by emerging market governments or private institutions (Smith and Walter 2003). These bonds are almost universally denominated in one of the major international currencies (dollars, euro, pounds, yen).²³ Eurobonds are generally medium-term or long-term investments, although an increasing number of emerging market countries have issued short-term, dollar-denominated paper (e.g., the Mexican *tesobonos*) akin to

eliminating the possibility of selective default, syndication increases the borrower’s incentives to pay its debts. Second, syndication allows banks to participate in lending which they might not otherwise have access to on their own; by pooling multiple banks’ relationships and resources, all banks in the syndicate can take advantage of additional international lending opportunities. Third, as discussed further below, syndicated bank lending reduces the transactions costs and collective action problems associated with private creditor cooperation during times of financial crisis.

²¹ The ten largest investment banks and ten largest asset management firms – the underwriters and primary investors in international bonds – are all located in the G-5 countries plus Switzerland (Dobson and Hufbauer 2001).

²² Recent events in Argentina are illustrative: the Global Committee of Argentina Bondholders represents over 500,000 retail investors and over 100 institutional investors; by contrast, debt rescheduling during the 1980s Latin American debt crisis involved less than 100 commercial banks (<http://www.gcab.org>).

²³ In 2001, over 90% of international bond issues were denominated in one of these four currencies (Dobson and Hufbauer 2001).

U.S. Treasury bills in recent years. Like syndicated commercial bank loans, most international bond issues contain cross-default clauses preventing a sovereign debtor from selectively defaulting against individual creditors. In addition, many bonds also include “cross-acceleration clauses” to prevent individual creditors from cashing out their positions and triggering a creditor run (Smith and Walter 2003). Nonetheless, because bondholders are far more heterogeneous and disaggregated than commercial banks, these clauses may not ensure effective creditor cooperation in the case of a financial crisis.²⁴

Why debt composition influences IMF lending

Since the 1970s, private capital flows have become the dominant feature of international finance. Gross annual private flows to emerging markets have increased from less than \$100 billion in 1980, to nearly \$500 billion in 1997, while the stock of outstanding developing country external debt has grown from \$748 billion in 1982 to \$2.3 trillion in 2002 (World Bank 2003). These aggregate data, however, mask two broad trends in debt composition: an *instrument shift* from commercial bank loans to bond financing; and a *maturity shift* from long-term to short-term lending by private international creditors (Table 2).

TABLE 2: INTERNATIONAL DEBT OUTSTANDING, ALL DEVELOPING COUNTRIES, 1982-2002

	1982	1987	1992	1997	2002
<i>Long-term debt, public & publicly guaranteed</i>	479.8	972.8	1159.7	1373.9	1435.0
Commercial banks	170.0	334.6	234.0	200.3	154.0
Bonds	19.3	35.1	122.3	288.8	395.4
Other private creditors*	67.6	134.7	135.6	101.7	60.0
Bilateral official creditors	157.9	303.1	440.1	500.3	460.9
Multilateral creditors (non-IMF)	65.0	165.3	227.8	282.8	365.3
<i>Long-term debt, private non-guaranteed</i>	92.4	68.3	92.3	348.8	507.5
Bonds	0.0	0.0	9.3	87.8	95.6
Commercial banks	92.4	68.3	83.0	260.9	411.9
<i>Short-term debt (all types of creditors & borrowers)</i>	176.3	160.2	281.9	406.4	345.7
TOTAL	748.4	1201.3	1533.9	2129.1	2288.2

²⁴ On the issue of collective action clauses in international bond issues, see Eichengreen and Portes 1995.

First, there has been a marked shift in the instruments of private international lending from commercial bank loans to bond financing. In 1980, the total stock of emerging market external debt consisted of \$13 billion in bonds and \$200 billion in commercial bank loans; by 1998, the corresponding stocks were \$445 billion in bonds and \$556 billion in bank lending (Haldane 1999). Second, there has been a significant shift from long-term lending to short-term financing. The average maturity of bank loans to emerging markets has declined from 6.8 years in 1980 to 4.4 years in 1998; furthermore, loans with maturity of less than one year comprised more than 75% of the \$400 billion increase in commercial bank lending to emerging markets from 1985-1998 (BIS 2002).

These differences in the instruments and maturity of a Fund borrower's private external debt have important implications for IMF lending behavior, because they determine the interests of both G-5 governments and the IMF staff in providing Fund credit to borrower countries. First, because private international creditors are located primarily in the advanced industrialized countries, they constitute a potentially powerful domestic political constituency for G-5 governments. Second, because private international creditors determine whether — and how much — supplementary financing will be provided to an IMF borrower, they also influence the behavior of the IMF staff as they design and propose Fund programs to the Executive Board. Thus, differences in the composition of a borrower country's private external debt determine the interests of the key actors involved in IMF lending decisions.

Debt composition and G-5 domestic politics

Debt composition influences G-5 member-states' preferences over IMF lending, because private creditors represent an important domestic political constituency for these governments. For G-5 governments, the IMF's tradeoff between liquidity provision and moral hazard entails a

corresponding domestic political tradeoff between pursuing the aggregate welfare interests of taxpayers and catering to the special interests of the domestic financial sector. This tradeoff arises because IMF loans — even if they benefit the borrower and enhance international financial stability — allow private creditors to benefit from international lending without bearing the full risks involved (Broz and Hawes 2003). Indeed, when the IMF provides credit to a borrower country, these funds are frequently directly transferred to private creditors in the form of debt service payments (Bird 1996). For this reason, G-5 governments may face pressure from private creditors to support larger IMF loans on more lenient terms for countries to which they are highly exposed. On the other hand, despite the fact that IMF lending has no direct impact on G-5 government budgets, voters and their representatives perceive Fund programs as costly “bailouts” or “welfare for banks” (Broz 2002).²⁵ As a result, G-5 policymakers may also have competing incentives to limit the availability and amount of IMF lending.

How G-5 policymakers choose between this tradeoff, I argue, depends on the instrumental composition of a borrower country’s private debt. In particular, G-5 preferences depend on the extent to which a particular IMF borrower owes its debt to commercial banks, rather than bondholders. For national politicians, commercial bank failures are costly for two reasons. First, commercial banks occupy a central role in the domestic political economy as both financial intermediaries and providers of domestic credit (Crockett 1997); a failure of one or more large commercial banks may seriously disrupt the payments system and trigger a system-wide domestic financial crisis. Second, commercial banks represent a highly organized, well-financed political lobby with significant influence over economic policymaking. In contrast, bondholders and the institutions that underwrite bonds (investment banks) occupy a less central role in the domestic financial system (Oatley 2002). Because investment banks do not issue deposits and hold little or no actual debt on their books, they are less likely to be directly affected

²⁵ IMF quota contributions — and therefore, Fund loans — take the form of asset transfers and Fund loans are almost always repaid in full at interest. See Broz 2002.

by a borrower country default; moreover, the collapse of an investment bank is far less likely to have wide-ranging effects on domestic financial stability than the failure of a large commercial bank. Similarly, while individual bondholders may suffer significant losses in the event of an emerging market default, they are far less equipped to organize and lobby the government for assistance.

In short, G-5 policymakers may therefore have strong domestic political interests in the size and terms of IMF lending arrangements. Because the G-5 Executive Directors hold ultimate veto power over the approval of all IMF loans, these domestic incentives are a critical determinant of the amount and terms of short-term IMF financing extended to a prospective borrower country. All else equal, G-5 governments should support larger IMF loans on more lenient terms when their commercial banks are highly exposed to a prospective borrower country. In these situations, the potential economic and political costs of a large bank failure resulting from an international financial crisis will outweigh concerns about IMF-driven moral hazard and the opposition of domestic voters. Conversely, when their domestic commercial banks are less exposed to a potential Fund borrower, G-5 policymakers will be more concerned about the moral hazard costs of IMF lending and less inclined to approve large-scale loans. Furthermore, when they do provide financing, it is likely to be on more stringent terms. This logic suggests the following observable implications:

- *H1 (loan size): IMF loans will be larger when aggregate G-5 commercial bank exposure is greater*
- *H2 (conditionality): IMF loans will have fewer conditions as aggregate G-5 commercial bank exposure increases*

Thus, in the aggregate, G-5 governments' preferences over the size and terms of IMF lending packages will vary based on the total exposure of their commercial banks to a borrower country. At the same time, however, these countries may disagree amongst themselves about the

importance of providing financing in a particular case. These disagreements can arise when a borrower country's commercial bank debt is concentrated heavily in one or more G-5 member-states. When a borrower country's commercial bank debt is distributed evenly among private creditors in each of the G-5 countries, G-5 Executive Directors are more likely to agree on the amount and terms of an IMF loan package. On the other hand, when G-5 exposure to a prospective borrower is more heterogeneous, summoning an EB majority in support of a lending arrangement will be more difficult. G-5 policymakers whose domestic banks are at risk will support larger IMF loans on more lenient terms, while G-5 Executive Directors from countries with few or no direct ties to the prospective borrower will be less inclined to support a large-scale IMF package. In such cases, the IMF staff is likely to propose smaller loans on more stringent terms in order to maximize the likelihood of loan approval. From this perspective, the size and terms of IMF lending will vary based on the heterogeneity of G-5 commercial bank exposure to a prospective borrower country:

- *H3 (loan size): IMF loans will be smaller when G-5 commercial bank exposure is more heterogeneous*
- *H4 (conditionality): IMF loans will have more conditions when G-5 commercial bank exposure is more heterogeneous*

Debt composition, the IMF staff, and private supplementary financing

In addition to shaping G-5 government preferences, variation in debt composition also influences the IMF staff's calculations as it designs and proposes lending arrangements to the Executive Board. The Fund staff's preferences over the tradeoff between liquidity and moral hazard depend largely on the likelihood that private creditors will provide supplementary financing following the approval of an IMF lending package. If an IMF loan will not have a "catalytic effect" on private lending, the Fund will be less inclined to provide financing. Indeed, the worst-case outcome for the IMF — both for individual staff members and for the Fund as an

institution — is the “bailout” scenario, in which large-scale IMF financing fails to stem private capital flight. Repeated bailouts threaten to exhaust the Fund’s limited resources, and they create severe moral hazard on the part of both borrowers and creditors. When private supplementary financing is more likely, the Fund staff will be more amenable to providing larger loans on more lenient terms. On the other hand, when private creditors are less likely to “bail in” after an IMF loan, financing packages will be smaller and contain a larger number of binding conditions.

Whether or not private creditors will provide supplementary financing depends heavily on the both the instrumental and maturity composition of the debt they hold. First, the instrumental composition (bank loans vs. bonds) of a borrower country’s external debt determines the severity of private creditors’ collective action problems. Just as G-5 governments face coordination problems in controlling IMF lending decisions based on differences in preference heterogeneity and intensity, private creditors also face collective action problems that may hinder their ability and willingness to cooperate in the provision of supplementary financing to IMF borrower countries (Spiegel 1996, White 2000). While private creditors have a collective interest in making new loans to a Fund borrower to defend their existing claims and prevent a default, individual lenders may have incentives to defect and leave others to bear the costs of default and debt rescheduling (Cline 1983).

Private creditor coordination problems are significantly greater for bondholders than commercial banks for several reasons (Tomz 2001). First, commercial banks are few in number and cooperate repeatedly through syndicated lending; conversely, bondholders are far more numerous and heterogeneous (Spiegel 1996, White 2000). Second, the actors involved in commercial bank lending are easily identified and interact repeatedly through syndicated lending (Lipson 1985). In addition, there is little turnover among the players in commercial bank lending: money-center banks in New York, London, and other major financial centers have long-standing ties to each other and particular borrower countries. By contrast, large, heterogeneous

groups of bondholders rarely have long-standing relationships with a particular borrower country or with each other. Finally, commercial banks have established a standing institution (the London Club) to facilitate the rescheduling of syndicated commercial bank loans.²⁶ In contrast, no such permanent framework is in place for the rescheduling of international bond debt. Although the absence of a clear forum does not preclude private cooperation among bondholders, such *ad hoc* cooperation is historically more difficult to achieve.²⁷

As a result, commercial banks are more likely than bondholders to provide supplementary financing in the days, weeks, and months following the approval of an IMF lending arrangement. Consequently, I expect the IMF to be more likely to approve larger loans, on more lenient terms, when a larger percentage of a borrower country's private external debt is owed to commercial banks.

- *H5 (loan size): IMF loans will be smaller when a larger portion of the borrower country's external debt consists of bonds rather than bank loans.*
- *H6 (conditionality): IMF loans will have more conditions when a larger portion of the borrower country's external debt consists of bonds rather than bank loans.*

At the same time, the maturity profile of a Fund borrower's private debt also influences the IMF staff's behavior. On the one hand, the expected amount of supplementary financing will be smaller when a country owes a larger percentage of its debt to short-term creditors. This is true because short-term creditors lack the long-standing client relationships in emerging markets that long-term creditors have developed. Moreover, because short-term financing debt is generally more liquid than long-term credit, short-term creditors can more easily "cut and run"

²⁶ While private creditors often provide "new money" (fresh loans or bond purchases) in the aftermath of an IMF lending arrangement, supplementary financing most often involves the write-down or rescheduling of existing debts. The "new" portion of the financing, in these situations, is therefore the reduction (in net present value terms) of the creditors' existing claims on the IMF borrower country.

²⁷ On the role of bondholder committees in the interwar and pre-WWI eras, see Eichengreen 1991. For a discussion of the potential effectiveness of standing creditor committees in contemporary bond markets, see IMF 2000 and Eichengreen and Portes 1995. The ongoing difficulties faced by Argentina in rescheduling its current defaulted bond debt illustrate the difficulty in reaching cooperative agreements among thousands of fragmented bondholders.

during an emerging market financial crisis in search of higher profits elsewhere.²⁸ On the other hand, short-term investors are more likely to be influenced by the IMF’s “catalytic financing” logic. Since IMF credit allows a borrower country to continue servicing its debt obligations without interruption, short-term creditors will be more likely to “roll over” their investments following the approval of an IMF program. Moreover, since a large amount of short-term debt suggests that a borrower country faces a liquidity problem rather than a potential insolvency, the IMF will be less concerned about the long-term moral hazard consequences of a large financing package. All else equal, IMF loans should therefore be larger when the borrower country owes a greater share of its external debt to short-term creditors. These loans should also have fewer binding conditions, since major macroeconomic and structural reforms are unlikely to be necessary to alleviate the liquidity crunch. This logic generates the following observable implications:

- *H7 (loan size): IMF loans will be larger when a larger portion of the borrower country’s external debt consists of short-term debt rather than long-term debt.*
- *H8 (conditionality): IMF loans will have fewer conditions when a larger portion of the borrower country’s debt consists of short-term debt rather than long-term debt.*

EMPIRICAL ANALYSIS

To test these hypotheses, I analyze a time-series cross-sectional dataset of 198 short-term IMF lending arrangements (SBA, EFF, SRF) to 47 emerging market countries from 1984-2003.²⁹ I first test the effect of private external debt composition on the size of short-term IMF lending to emerging market countries over the last two decades. I then test the effect of debt composition

²⁸ For instance, long-term bonds or bank loans may be invested by a borrower country in projects that are only profitable over the span of several years. This money is therefore “tied up” and not easily recovered in the short-term. By contrast, short-term investors have the opportunity to adjust their portfolio on a quarterly or annual basis.

²⁹ Although data are available for most variables and countries beginning in 1970, the BIS international banking statistics — the key data source for international commercial bank lending — are available only from 1983 onward. Because I utilize lagged values of my independent variables to avoid endogeneity problems, the dataset begins with observations from 1984.

on the number of binding conditions (performance criteria) included in the initial stage of each of these agreements.

The dependent variables

Loan amount

I measure the size of IMF loans in two ways: 1) the absolute amount of the loan as specified in the initial stage of the lending arrangement (in millions of SDRs); and 2) the loan amount relative to the borrower country's quota in the Fund. The first dependent variable, *AMOUNT*, is the natural log of all new short-term IMF lending arrangements (measured in millions of SDRs) approved for country i in year t . IMF lending extended in year t under previously negotiated short-term arrangements is excluded from the dependent variable.³⁰ Data on IMF lending are taken from the Fund's online database of lending arrangements and from IMF annual reports.³¹ To control for outlier observations and to ensure that the data correspond as closely as possible to the linear regression model's assumption of a normally distributed dependent variable, I utilize the natural log of loan amount rather than the absolute value. The second dependent variable, *AMTQTA*, is the ratio of *AMOUNT* to a country's Fund quota at time t . This latter metric is my primary quantity of interest for loan size, because it controls for country size more accurately reflects deviations from the "normal" or "expected" amount of financing a given country will receive based on its designated IMF quota share. Like *AMOUNT*, I use the natural log of amount/quota to control for the severe right skew of the variable's distribution. Both of these variables are calculated for all 198 short-term lending arrangements to the 47 non-PRGF eligible emerging market members of the IMF over the last twenty years (1984-2003).

³⁰ I control for the possibility that these prior arrangements may influence IMF lending decisions at time t (see below), but they are not part of the quantity of interest, new IMF lending.

³¹ <http://www.imf.org/external/np/tre/tad/extarr1.cfm>

Conditionality

To gauge variation in the terms of short-term IMF loans, I focus on the total number of binding conditions (performance criteria) attached to a given loan at the initial stage of approval by the Executive Board. Although the IMF staff and EB review conditionality prior to each stage of a lending arrangement, they almost never change the number of conditions from stage to stage, even if they modify the specific quantitative targets and policies specified in these PCs. For example, if the initial lending arrangement includes quantitative PCs governing central bank reserves and the overall government budget balance, these criteria customarily remain throughout the lifespan of the lending arrangement, even if the specific numerical targets are adjusted. Thus, the basic terms of IMF lending are established when the Fund first approves a loan to a borrower country. Since the number of PCs rarely varies from stage to stage of a Fund program, counting each stage as a separate “case” would effectively “over-weight” the influence of longer arrangements in the sample.³²

Previous studies have also focused on the number of conditions as the relevant dependent variable (Gould 2003, Dreher and Jensen 2003). There is good reason to believe that this metric, rather than the specific content of performance criteria, is a more accurate metric of the overall stringency of an IMF lending arrangement. While data on the specific content of IMF conditionality is available, it is extremely difficult to measure the relative stringency of individual conditions. Indeed, cross-national comparison of the policy content of conditionality is extremely difficult, because of the possibility that a waiver will be granted for any individual missed PC; it is almost impossible to ascertain whether or not the same policy condition — such as a target for international reserves — will be considered equally “binding” in two different cases, or whether the IMF will view one binding condition as more critical than another in

³² For example, a 36-month EFF arrangement containing 6 program reviews would count as 7 cases (each with an identical number of conditions), while a 12-month SBA loan containing 1 review would count as only 2 cases.

certain cases. By contrast, the relative number of binding conditions is a clearer indicator of the overall stringency of the terms of a Fund loan to a given borrower; a larger number of PCs indicates a more intensive commitment on the part of the borrower country to significant economic policy reform over the lifetime of the Fund loan.

Nonetheless, I depart from earlier analyses of conditionality in two ways. First, I focus only on short-term IMF loans, whereas previous studies have included samples of both short-term and long-term (concessional) lending arrangements. Second, I include only binding conditions (performance criteria) in my analysis. Earlier studies have included samples of loans extended under the Fund's concessional lending facilities and measured non-binding conditions, including structural benchmarks and prior actions (Dreher and Jensen 2003, Gould 2003). As noted earlier, there are strong reasons to separate short-term and concessional IMF lending, given the substantial differences in the types of countries utilizing these facilities and the different purposes of each type of Fund program. Similarly, it is not at all clear that non-binding conditions should be included in measures of the terms or stringency of IMF lending arrangements, since failure to meet them rarely results in the suspension of Fund financing.

For the conditionality regressions, I therefore construct three dependent variables. First, I measure the total number of performance criteria included in each short-term IMF lending arrangement (*TPC*), as specified in the initial IMF policy documents at the time of the lending arrangement's initial approval by the Fund's Executive Board.³³ Second, I disaggregate this variable by type of PC and measure both the number of quantitative PCs (*QPC*) and the number of structural PCs (*SPC*). Table 3 presents summary statistics for each of the dependent variables.

³³ Policy documents include letters of intent, memoranda of economic policies, and IMF staff reports at the time the loan is proposed to the Executive Board for approval. These documents are available in the IMF Archives and (for selected post-1997 arrangements) online at <http://www.imf.org>.

TABLE 3 – IMF SHORT-TERM LENDING DATASET – SUMMARY STATISTICS

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
Loan size (millions SDRs)	197	1222.78	3066.63	7.13	22821.12
ln(loan size)	197	5.46	1.72	1.96	10.54
loan amount/quota	197	1.21	2.11	0.15	19.38
ln(amount/quota)	197	-0.35	0.88	-1.93	2.96
Total performance criteria (count)	190	7.64	2.41	0	19
Quantitative performance criteria (count)	190	7.07	2.15	0	14
Structural performance criteria (count)	190	0.57	1.59	0	12
Total outstanding Fund credit/quota	192	1.15	1.28	0	11.65
ln(outstanding Fund credit/quota)	192	0.29	0.65	-0.69	2.50
Extended Fund Facility (dummy)	197	0.17	0.37	0	1
Debt service/exports	186	23.54	17.49	0.02	93.63
Debt/GDP	191	48.42	28.15	0.67	197.56
Reserves (months of imports)	182	2.87	2.12	0.03	10.6
IMF quota	197	594.19	783.06	9.50	4313.10
ln(IMF quota)	197	5.75	1.12	2.25	8.37
IMF liquidity ratio	197	113.38	36.65	50.00	175.00
Total IMF quota resources	197	133.8	43.86	88.50	212.70
IMF quota review (dummy)	197	0.63	0.48	0	1
Staff growth rate (%)	196	0.04	0.04	-0.01	0.15
US military aid (\$millions)	197	42.01	185.73	0	1301.90
ln(US military aid)	197	-1.71	5.36	-11.51	7.17
G-5 commercial bank exposure, \$millions)	197	9279.80	15768.42	0	75199.00
ln(G-5 commercial bank exposure)	197	7.32	2.63	-0.69	11.23
Herfindahl index of G-5 bank exposure	197	0.39	0.19	0	1
Percent bond debt	194	26.36	31.26	0	99.89
Percent short-term debt	193	15.97	13.10	0	79.82
G5BANK*PCTBOND	194	211.24	258.02	0	899.06

Independent variables

Debt composition variables

To test my hypotheses about the influence of private international debt composition on IMF lending, I include several explanatory variables taken or derived from publicly available data from the World Bank, Bank for International Settlements (BIS), and the IMF. To develop proxies for G-5 government interests over IMF lending, I draw on the BIS *Consolidated International Banking Statistics*, which provide annual observations of total foreign claims by commercial banks in 23 countries (including the G-5), measured in millions of US dollars (BIS 2002). From these data, I construct a variable (*G5BANK*), which is a composite metric summing

G-5 bank exposure to country i in year $t-1$, weighted by the relative IMF voting power of the five largest Fund shareholders (US, Japan, Germany, France, UK).³⁴ The variable enters the regression as a natural log, in order to control for the highly skewed distribution of G-5 bank exposure over the 1984-2003 period.³⁵ *G5BANK* is intended to measure the aggregate bank exposure of the Fund's principal member-states to the prospective borrower country. I expect larger values of *G5BANK* to be positively associated with *AMOUNT* and *AMTQTA*.

To measure the extent to which G-5 governments disagree about the size and terms of an IMF lending package, I include a second variable (*G5HERF*), which is the Herfindahl index of G-5 bank exposure. The Herfindahl index, a measure of the relative "market share" or "industry concentration" of G-5 bank exposure, is intended to capture the heterogeneity of G-5 bank exposure to a prospective IMF borrower. The index is constructed by summing the squares of the differences between each of the G-5 countries' commercial bank exposure to a given country i at time $t-1$. I expect larger values of *G5HERF* (i.e., more concentration/greater heterogeneity of G-5 bank exposure) to be negatively correlated with the size of an IMF loan and positively associated with the number of conditions attached to the loan.

While the first two independent variables measure the absolute size and distribution of G-5 commercial bank exposure to IMF borrowers, the third debt composition variable, *PCTBOND*, measures the amount of debt country i owes in the form of bonds relative to commercial bank loans at time $t-1$. This variable, calculated from the World Bank's *Global Development Finance* database, is the percent of a country's private external debt owed to bondholders.³⁶ As noted earlier, variation in the instruments of private borrowing should have important implications for

³⁴ Data on IMF quota/voting shares are taken from the *International Financial Statistics* and the IMF web site: <http://www.imf.org/external/np/sec/memdir/members.htm>.

³⁵ A constant (.5) was added to each zero value of absolute G-5 bank exposure, in order to calculate the log transformations for these observations. The results, however, are insensitive to the use of alternative constant values.

³⁶ *PCTBOND* is calculated as the sum of both private non-guaranteed (PNGBOND) and publicly/publicly guaranteed (PPGBOND) bond debt divided by the sum of these variables and the sum of both private non-guaranteed (PNGBANK) and publicly/publicly guaranteed (PPGBANK) commercial bank debt.

the interests of both the G-5 member-states and private international creditors. Specifically, an increase in the relative amount of bond financing to bank lending has two effects: 1) it decreases G-5 member-state concerns about domestic financial contagion due to bank exposure; 2) it decreases the likelihood that private international creditors will effectively cooperate in rolling over a borrower's existing debt. In these situations, the IMF has less incentive to provide financing, both because its political principals have less at stake and because a Fund loan is less likely to have the desired catalytic effect. As a result, I expect an increase in *PCTBOND* to be negatively associated with loan size and positively associated with conditionality. At the same time, G-5 commercial banks may be highly exposed to a borrower country even if the majority of that borrower's debt is owed to bondholders; indeed, there is only a weak bivariate correlation between absolute G-5 bank exposure (*G5BANK*) and the relative amount of bank versus bond debt (*PCTBOND*) in the IMF lending dataset (0.14). In these situations, the potential risk to G-5 member states is particularly high but the likelihood of sufficient private supplementary financing is very low: even if all commercial banks rolled over their claims on the borrower country, a default might still occur as a result of bondholder-driven capital flight. To capture this phenomenon, I include an interaction term (*G5XBOND*), which is the product of *G5BANK* and *PCTBOND*. In addition to the separate effects of this term's components, I expect *G5XBOND* to be associated with larger IMF loans and fewer conditions.

Finally, I include a variable (*PCTSTD*) to gauge the effect of the maturity of a borrower country's private external debt on the size of IMF lending arrangements. This variable, taken from the World Bank's GDF database, is the ratio of short-term debt owed by country *i* at time *t-1* to its total outstanding external debt. Short-term creditors are more likely to "cut and run" when a borrower country faces financial difficulties than longer-term investors. However, because large amounts of short-term debt suggest that a borrower country faces a liquidity problem rather than a potential insolvency, sufficiently large IMF financing should have a

catalytic effect and avert this short-term capital flight. Thus, all else equal, I expect that IMF will be larger (with fewer conditions) when the borrower country owes a larger percentage of its external debt to short-term creditors.

Control variables

In addition to testing the aforementioned hypotheses about the influence of debt composition on the size of short-term IMF loans, I include variables to control for the alternative explanations of IMF lending behavior in the existing literature. First, I include several macroeconomic variables used in previous studies of Fund lending (Knight and Santaella 1997). For each country-year observation, these variables include the lagged ratio of reserves to imports, measured in months of imports of goods and services (*RESERVES*); the lagged ratio of total external debt to GDP (*DEBTGDP*); and the lagged ratio of total external debt service to exports of goods and services (*DEBTSVC*). These variables are intended to measure a borrower country's debt sustainability. Higher levels of debt to GDP and debt service to exports, along with lower levels of international reserves, are indicative of a higher risk of insolvency. The natural log of the borrower country's Fund quota (*QUOTA*) is also included to control for the expectation that IMF loan size and country size are highly correlated.³⁷ Data for these control variables are taken from the World Bank's *World Development Indicators* (WDI) and GDF databases and from the IMF's International Financial Statistics. I also include a dummy variable for loans extended under the Extended Fund Facility (*EFF*); since these loans are provided over longer time periods than Stand-by Arrangements, they are likely to be larger in size and contain a greater number of performance criteria.

Second, to control for the geopolitical hypothesis that the US directs larger IMF loans to its strategic allies, I include a variable (*USMIL AID*), which is the natural log of US military aid

³⁷ Quota size and GDP are almost perfectly correlated (0.92).

(in millions of dollars) provided to country i in year t .³⁸ Data for *USMIL AID* are taken from the US Agency for International Development's *US Overseas Loans and Grants "Greenbook"* (Appendix 1).³⁹ I have included these data, rather than the metric utilized in previous studies (UN General Assembly voting records, see Thacker 1999) because they provide much clearer and tangible evidence of US strategic ties to a borrower country. According to this hypothesis, countries that are larger recipients of US military and economic assistance should receive larger IMF loans with fewer conditions attached.

Third, I also include several variables to capture the "public choice" argument that IMF lending behavior is determined primarily by the interests of Fund bureaucrats seeking to maximize their budgets, autonomy, and/or program success (Vaubel 1991, 1994). According to this logic, the IMF staff has strong incentives to increase the size of lending arrangements and the number of conditions attached to these loans, particularly when the Fund has more resources to spare. The first variable, *TOTQUOTA*, is the absolute amount of the Fund's total quota resources, in millions of SDRs. The expectation is that IMF loans will be larger and contain more binding conditions as the Fund's resources increase.⁴⁰ The second variable, *LIQRATIO*, is the lagged ratio of available Fund resources. This variable 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). To the extent that bureaucratic incentives influence IMF lending behavior, the Fund's liquidity ratio should be positively associated with both loan size and conditionality. The third variable, *REVIEW*, is a dummy indicating years in which a general IMF quota review was in process; public choice

³⁸ The logged values are used to control for the severe skew in the data: 19.8% of the observations in the dataset were zero values, 93.4% of country-year observations took values of less than \$100 million, and 97.9% less than \$500 million. A value of 0.5 was added to each observation prior to taking the natural log to control for the zero observations.

³⁹ I also tested alternative specifications utilizing total military *and* foreign aid; the results were essentially identical, due to the nearly-perfect correlation (0.96) between the two variables.

⁴⁰ *TOTQUOTA* is almost perfectly correlated with a linear time trend variable (0.91). As such, this variable also measures the related hypothesis that bureaucratic slippage will inexorably lead to larger IMF loans and greater conditionality over time.

scholars have argued that the Fund staff will engage in “hurry-up lending” during these reviews in order to exhaust their resources and convince the member-states to approve budgetary and quota increases (Dreher and Vaubel 2004). Finally, public choice scholars have also argued that agency slack increases with the size of the IMF staff. To test this argument, I include a fourth variable, *DSTAFF*, which is the lagged annual percentage growth in the size of the Fund’s professional staff (Dreher and Vaubel 2004).⁴¹

Model specifications

Loan size models

I first estimate linear time-series cross-sectional (TSCS) regressions to test the impact of these independent variables on the size of short-term IMF loans. Because TSCS data often exhibit properties (heteroskedasticity, serial autocorrelation, panel heterogeneity, and spatially correlated errors) incompatible with the assumptions of standard ordinary least squares (OLS) regression, it is necessary to test for and model these conditions when estimating such models (Beck 2004). Inspection of the data suggests that heteroskedasticity (unequal variance of the error terms across units) and both serial and spatial autocorrelation (correlation of the error terms both over time within units and contemporaneously across units) are evident in the IMF lending dataset. To account for these violations of the standard OLS model, I specify a model with panel-corrected standard errors and include a variant of the lagged dependent variable (Beck and Katz 1995, Beck 2001). For the regressions using *AMOUNT*, the lagged variable is the natural log of the total amount of IMF credit outstanding to the borrower country at time $t-1$. For the regressions using *AMTQTA*, the lagged variable is the natural log of the borrower’s total outstanding Fund credit divided by the borrower country’s quota.⁴²

⁴¹ Table 3 provides summary statistics for all of the independent variables utilized in the analysis.

⁴² Although there is an ongoing debate about the appropriateness of the “Beck and Katz solution” for analyzing TSCS models, there are several compelling reasons for choosing this specification in the present case (Wilson and

Conditionality models

Because the dependent variables in the conditionality regressions are event counts, rather than continuous data, OLS regressions are not appropriate. Rather, the standard event count model is the Poisson regression, which assumes that the data are distributed such that the mean and variance of the dependent variable are equal. As the summary statistics in Table 3 illustrate, however, this is not the case in the IMF lending dataset: the number of total and quantitative performance criteria are roughly normally distributed, while the number of structural performance criteria are significantly “overdispersed” (i.e., variance greater than the mean). In these situations, the negative binomial model is often appropriate, since it relaxes the mean=variance assumption of the Poisson distribution. The relevant tests indicate that the Poisson model remains appropriate for the first two conditionality dependent variables (total and quantitative PCs), while the negative binomial model more accurately accounts for the overdispersion in the structural PC regressions. To control for the aforementioned TSCS problems in these event count regressions, I estimate fixed-effects models that include country-specific dummy variables and dummies for each year of the sample. With the exception of loan

Butler 2004). First, there is strong empirical evidence that previous use of IMF credit influences Fund decision-making (Conway 2003, Joyce 2002). Second, including each borrower’s total outstanding Fund credit as a lagged independent variable (rather than new Fund credit extended only at $t-1$) helps to overcome the difficulties of modeling temporal dependence in unbalanced panels; simply including a one-period lagged dependent variable does not account for the effect of older but still ongoing IMF lending arrangements on new IMF lending to a borrower country. Third, further analysis of the data suggests that the major critique of the Beck and Katz model — that it does not control for unobserved panel heterogeneity (i.e., the fact that countries differ in ways not explained by the observed independent variables) — is not a major problem in my data (Wilson and Butler 2004); indeed, the results presented here are robust to multiple alternative specifications, including standard OLS, OLS with country- and time-specific fixed effects, generalized least squares (GLS), and standard random effects models. While some of the variables lose statistical significance in the fixed effects model, this is almost definitely due to the extreme loss of degrees of freedom incurred by the use of 45 country dummy variables and 20 time (year) dummy variables in a dataset of only 180 observations. Moreover, Hausman tests for fixed effects are statistically insignificant, suggesting that this model is not appropriate for the current analysis. Finally, Stata’s *xtserial* test for TSCS regressions indicates that including the modified lagged dependent variable resolves the serial correlation problems in the data.

size (*AMTQTA*), which enters these models as a right-hand side variable, the conditionality regressions include the same independent variables as the loan size specifications.⁴³

Results and interpretation

Tables 4a and 4b present the raw regression results of the loan size models.⁴⁴ In each table, the first column (Model 1) includes the full model using all variables, while the subsequent columns reanalyze the data, sequentially dropping the variable that do not reach statistical significance at the 90% or greater level. Table 5 presents the full model results for all three conditionality regressions. The diagnostic charts in Appendix 2 suggest that both the loan size and conditionality models do quite well in predicting the respective dependent variables.

With respect to both measures of loan size (*AMOUNT*, *AMTQTA*), the results are encouraging. Each of the five measures of private debt composition has the expected effect at statistically significant levels. An increase in aggregate G-5 commercial bank exposure (*G5BANK*) increases the size of IMF lending on an amount/quota basis, while an increase in the heterogeneity of this exposure (*G5HERF*) decreases loan size. Countries owing a larger portion of their debt to bondholders (*PCTBOND*) receive smaller IMF loans, although this effect is partially offset in cases where G-5 commercial banks are highly exposed to countries owing mostly bond debt (*G5XBOND*). Finally, IMF lending increases in size as the percentage of short-term debt (*PCTSTD*) increases. These results suggest that G-5 government preferences do carry significant weight in the IMF decision-making process. In addition, they lend support for the argument that the IMF staff designs programs with an eye to the likelihood that private supplementary financing will follow.

⁴³ However, *LIQRATIO* and *DSTAFF* “drop out” of the regression as a result of multicollinearity with the fixed effects. This is due to the fact that these variables vary over time but not across cases.

⁴⁴ The data were analyzed using Stata 8.2 and the post-estimation supplementary software modules *SPOST* (<http://www.indiana.edu/~jsl650/spost.htm>) and *CLARIFY* (<http://gking.harvard.edu>).

In addition to the debt composition variables, several of the included control variables affect the size of short-term IMF loans. Not surprisingly, the Extended Fund Facility (*EFF*) dummy is positive and significant; this confirms the expectation that EFF loans will be larger than stand-by arrangements due to their longer duration. Country size, measured in terms of the borrower's quota in the Fund, influences the absolute size of the loan but has no significant impact on *AMTQTA*. This suggests that a borrower's importance in the world economy does not affect whether or not a country receives a "better-than-expected" deal (in amount/quota terms) from the IMF. Borrower country "demand" for IMF credit also influences loan size to some extent. Higher levels of debt service to exports (*DEBTSVC*) are associated with larger IMF loans, while increased levels of reserves (*RESERVES*) are associated with smaller loans. Finally, the data provide some support for the "public choice" perspective on IMF lending: IMF loans tend to increase in size in step with increases in the size of IMF quota resources (*TOTQUOTA*) and changes in the size of the Fund's professional staff (*DSTAFF*). In contrast, despite the popular notion that American geopolitical interests influence IMF lending, the results provide little support for this hypothesis. Neither loan size nor conditionality is statistically correlated with the amount of military aid a borrower country receives from the United States. These results suggest that, while geopolitical concerns may have played a role in shaping IMF responses to several recent high-profile financial crises, American strategic interests do not have a systematic effect on Fund decision-making.

The results of the conditionality models also provide support for my argument, although the relationship between debt composition and IMF conditionality appears more complex than hypothesized. First, aggregate G-5 commercial bank exposure has no significant effect on any of the three dependent variables. This suggests that, while G-5 governments use their influence to affect the size of IMF loans, decisions about conditionality are largely left to the IMF staff. On the other hand, the *G5XBOND* interaction term is negative and significant in both the total PC

and structural PC models, suggesting that IMF staff members — at least in some cases — do face pressure to relax conditionality for countries deemed financially critical to the Fund’s major shareholder countries. G-5 bank concentration (*G5HERF*) is also positively associated with the number of structural PCs included in a Fund loan. This suggests that at least part of the recent increase in the use of structural PCs is due to increased conflict among G-5 governments over the importance of lending in specific country cases; more stringent conditionality may, therefore, be the “price” of achieving consensus within the Executive Board when the Fund’s major shareholder countries disagree about the appropriate size of an IMF loan. In addition, both *PCTBOND* and *PCTSTD* have the expected effects, with one exception (short-term debt appears not to influence the number of quantitative PCs included in a loan). Thus, it does appear that IMF staff decisions about the stringency of conditionality depend on the likelihood that private creditors will provide supplementary financing. Finally, the results support earlier studies in finding that bureaucratic incentives and country-specific macroeconomic characteristics have the expected effects on the number of binding conditions attached to IMF loans (Dreher and Vaubel 2004). In particular, the data suggest strongly that IMF staff members have been more lenient with conditionality during quota reviews and more stringent as the Fund’s available resources have increased over time (Table 7).

Tables 6a, 6b, and 7 present more pertinent quantities of interest not readily apparent from the raw regression results. Specifically, the tables show the incremental effect of a one standard deviation change in each statistically significant variable on the size and terms of an IMF loan, holding all other variables constant at their means. These findings provide clear evidence of the importance of debt composition in shaping IMF lending decisions. Moreover, the magnitude of the effects of the debt composition variables on the size and terms of IMF lending are as large or larger than nearly all other variables in the analysis. For example, a one standard deviation increase in G-5 bank exposure increases the expected amount of an IMF loan

by SDR 95.2 million (or 0.33 times quota), while a one standard deviation increase in *PCTBOND* decreases IMF loan size by SDR 114.3 million (or 0.28 times quota). Similarly, while a country owing no G-5 commercial bank debt receives, on average, a loan of 0.36 times quota, countries to which G-5 commercial banks are the most highly exposed can expect to receive IMF packages over three times as large (1.41 times quota).

Figures 6.1-6.9 and 7.1-7.6 extend the analysis further. In these charts, I vary each statistically significant variable from Table 4b (model 5, amount/quota) and Table 5 (model 1, total PCs) its minimum to its maximum, holding all other variables constant at their means. In addition to providing a clearer view of each variable's impact on the dependent variables, these charts suggest that some factors have a clear, consistent effect on IMF loan size or conditionality, while other explanatory variables only have substantive effects at their extreme values. For example, *DEBTSVC* has almost no impact on loan size, except at values greater than the 90th percentile, while *DEBTGDP* only appears to affect conditionality at values above the 90th percentile; similarly, the *G5XBOND* interaction term has little effect on loan size below the 80th percentile. In contrast, *RESERVES* and the other significant debt composition variables (*G5BANK*, *G5HERF*, *PCTBOND*, *PCTSTD*) appear to have substantive effects regardless of their value. Ultimately, these results suggest that IMF does not make lending decisions based only on “technocratic” criteria, nor is the Fund completely dominated by either member-states or IMF bureaucrats. Rather, the political economy of IMF lending depends on a variety of factors, most notably the composition of a borrower country's private external debt.

CONCLUSION

In this paper, I have argued that IMF lending is influenced by three key actors: the Fund's five largest shareholder countries, the IMF's professional staff, and private international creditors. Each of these actors exercises some influence over Fund decision-making, but not

exercises complete control. Furthermore, these actors' preferences are not constant; rather, they vary over time and across cases based on the composition of a prospective Fund borrower's private international debt. Changes in debt composition — specifically, differences in the instruments (commercial bank loans vs. bonds) and maturity (short- vs. long-term) of a borrower country's external debt — shape the preferences of all three key actors over the size and terms of IMF lending packages. My results provide clear support for this debt composition argument. More importantly, however, they suggest the need to move beyond one-dimensional explanations of Fund policymaking that privilege a single economic or political variable in favor of a more complex and dynamic understanding of the political economy of IMF lending.

At the same time, the results presented here highlight new issues worthy of future research. First, the data and results suggest that, in some cases, loan size and conditionality are complements (i.e., larger loans have more conditionality), while in others they act as substitutes (i.e., more financing with less conditionality). Further research specifying the conditions under which each of these views holds is necessary. Second, more work analyzing the substantive content of IMF conditionality is warranted; the results here identify factors influencing Fund conditionality in broad terms, but additional research is needed to fully understand how and why specific policy targets are included in IMF loans. Third, a potential implication of the debt composition argument is that private creditors will, over time, shift their international lending toward the types of debt most likely to be “bailed out” by the IMF. This logic would suggest a return to commercial bank lending (rather than bond financing) and a shift from long-term to short-term financing. To some extent, this is exactly what we have seen in international capital markets, as short-term interbank lending from G-5 commercial banks to emerging market private financial institutions has grown in recent years (Dobson and Hufbauer 2001). Whether or not IMF lending has played a role in this new change in private international debt composition is an open empirical question.

Finally, this study has important broader implications for our understanding of the political economy of international institutions. As IPE scholars continue to move beyond questions of institutional design to analyze the decision-making process of specific international institutions, the approach followed here — specifying the actors involved in international policymaking and focusing on the variables that affect those interests over time and across cases — could prove fruitful. In particular, applying this approach to other international financial institutions, including the World Bank and the World Trade Organization (WTO), could further our understanding of the roles played by states, international organizations, and private actors in the political economy of global financial governance.

Table 4a – Loan Size Regression Results

Dependent variable: Natural log of loan amount (*AMOUNT*)

Model	(1)	(2)	(3)	(4)
LN(IMFOUT)	-0.025 (0.027)	-0.029 (0.026)	-0.028 (0.026)	-0.026 (0.025)
EFF	0.755*** (0.137)	0.746*** (0.137)	0.746*** (0.137)	0.738*** (0.137)
DEBTSVC	0.009** (0.004)	0.008** (0.004)	0.008** (0.004)	0.008** (0.004)
DEBTGDP	-0.001 (0.002)			
RESERVES	-0.054* (0.030)	-0.052* (0.030)	-0.051* (0.030)	-0.049* (0.029)
LN(QUOTA)	1.071*** (0.099)	1.096*** (0.084)	1.090*** (0.085)	1.080*** (0.084)
LIQRATIO	2.183** (0.915)	2.237** (0.914)	1.926** (0.822)	1.986** (0.820)
TOTQUOTA	0.004** (0.002)	0.003** (0.002)	0.003** (0.002)	0.003** (0.002)
REVIEW	0.090 (0.127)	0.087 (0.126)		
DSTAFF	2.391* (1.423)	2.385* (1.423)	2.585* (1.397)	2.575* (1.401)
LN(USMILAUD)	0.010 (0.013)	0.009 (0.013)	0.008 (0.013)	
LN(G5BANK)	0.099* (0.052)	0.089** (0.045)	0.092** (0.046)	0.095** (0.046)
G5HERF	-0.598** (0.301)	-0.590** (0.296)	-0.600** (0.297)	-0.584** (0.292)
PCTBOND	-0.014** (0.006)	-0.014** (0.006)	-0.014** (0.006)	-0.013** (0.006)
G5XBOND	0.002** (0.001)	0.002** (0.001)	0.002** (0.001)	0.002** (0.001)
PCTSTD	0.011*** (0.004)	0.011*** (0.004)	0.011*** (0.004)	0.010*** (0.004)
CONSTANT	-2.736*** (0.578)	-2.840*** (0.530)	-2.664*** (0.461)	-2.681*** (0.460)
Observations	179	180	180	180
Countries	45	45	45	45
R ²	0.849	0.849	0.848	0.848
Adj-R ²	0.834	0.835	0.835	0.836
SC (BIC)	453.44	449.67	444.9	440.26

Panel-corrected standard errors in parentheses

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

TABLE 4B – LOAN SIZE REGRESSION RESULTS

Dependent variable: Natural log of loan amount/quota (*AMTQTA*)

Model	(1)	(2)	(3)	(4)	(5)
LN(OUTQTA)	0.034 (0.108)	0.009 (0.104)	0.013 (0.104)	0.018 (0.102)	0.020 (0.102)
EFF	0.736*** (0.133)	0.714*** (0.134)	0.714*** (0.134)	0.708*** (0.134)	0.715*** (0.134)
DEBTSVC	0.011*** (0.004)	0.010*** (0.004)	0.010*** (0.004)	0.010*** (0.004)	0.010*** (0.004)
DEBTGDP	-0.003 (0.002)				
RESERVES	-0.060** (0.030)	-0.056* (0.030)	-0.054* (0.029)	-0.053* (0.029)	-0.053* (0.029)
LN(QUOTA)	-0.006 (0.089)	0.048 (0.077)	0.045 (0.077)	0.040 (0.077)	
LIQRATIO	1.442 (0.923)	1.623* (0.922)	1.420* (0.846)	1.449* (0.850)	1.413* (0.840)
TOTQUOTA	0.004** (0.002)	0.004** (0.002)	0.004** (0.002)	0.004** (0.002)	0.004*** (0.002)
REVIEW	0.060 (0.120)	0.055 (0.120)			
DSTAFF	3.030** (1.432)	3.038** (1.441)	3.164** (1.412)	3.156** (1.414)	3.271** (1.383)
LN(USMILAIID)	0.009 (0.012)	0.006 (0.012)	0.005 (0.012)		
LN(G5BANK)	0.124** (0.051)	0.099** (0.045)	0.101** (0.045)	0.102** (0.045)	0.117*** (0.032)
G5HERF	-0.571* (0.297)	-0.550* (0.295)	-0.556* (0.295)	-0.545* (0.291)	-0.559* (0.290)
PCTBOND	-0.012** (0.006)	-0.012** (0.006)	-0.012** (0.006)	-0.012** (0.006)	-0.012** (0.006)
G5XBOND	0.002** (0.001)	0.002** (0.001)	0.002** (0.001)	0.002** (0.001)	0.002** (0.001)
PCTSTD	0.011*** (0.004)	0.012*** (0.004)	0.011*** (0.004)	0.011*** (0.004)	0.011*** (0.004)
CONSTANT	-2.484*** (0.568)	-2.756*** (0.521)	-2.644*** (0.460)	-2.654*** (0.460)	-2.544*** (0.409)
Observations	179	180	180	180	180
Countries	45	45	45	45	45
R ²	0.468	0.463	0.463	0.462	0.461
Adj-R ²	0.416	0.414	0.417	0.420	0.422
SC (BIC)	444.72	442.44	437.42	432.47	427.57

Panel-corrected standard errors in parentheses

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

TABLE 5 – CONDITIONALITY REGRESSION RESULTS
(Performance criteria, fixed effects)

MODEL	(1) Poisson	(2) Poisson	(3) Negative binomial
Dependent variable	Total PCs	Quantitative PCs	Structural PCs
Amount/quota	0.093*** (0.033)	-0.006 (0.036)	1.458** (0.698)
Extended Fund Facility	0.022 (0.060)	0.058 (0.063)	0.751 (1.358)
LN(IMF credit out/quota)	-0.009 (0.065)	0.023 (0.063)	-0.611 (0.693)
Debt service/exports	0.002 (0.003)	0.006*** (0.002)	-0.107 (0.068)
Debt/GDP	0.003* (0.002)	0.002 (0.001)	0.039 (0.042)
Reserves/imports	-0.032** (0.013)	-0.015 (0.019)	-0.066 (0.378)
ln(country quota)	0.346 (0.313)	0.340 (0.348)	-31.789* (19.120)
Quota review	-2.167*** (0.651)	-1.412* (0.837)	-16.617* (8.628)
Total IMF quota resources	1.318*** (0.410)	0.787 (0.546)	2.661 (5.208)
ln(US military aid)	-0.001 (0.005)	0.006 (0.005)	-0.264 (0.211)
ln(G5 bank exposure)	-0.042 (0.034)	0.018 (0.039)	1.294 (1.165)
G5BANK concentration	0.011 (0.153)	-0.312 (0.196)	10.844** (4.570)
Percent bond debt	0.005* (0.003)	0.002 (0.002)	0.284*** (0.066)
G5BANK*PCTBOND	-0.001*** (0.000)	-0.000 (0.000)	-0.037*** (0.009)
Percent short-term debt	-0.006*** (0.002)	-0.003* (0.001)	-0.145*** (0.049)
Constant	-116.226*** (36.006)	-69.507 (48.110)	-115.269 (433.705)
Observations	176	176	176
Countries	43	43	32
Log-likelihood	-361.02	-353.89	-64.48
SC (BIC)	289.17	301.35	192.47

Robust standard errors in parentheses

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

TABLE 6A – FIRST DIFFERENCES –CHANGE IN IMF LOAN AMOUNT (MODEL 4)*

Variable	Change in size of IMF loan amount (Millions of SDRs)
Extended Fund Facility	324.94
Debt service/exports	59.22
Reserves/imports	-34.07
Country quota	704.53
Fund liquidity ratio	53.27
Total Fund quota resources	58.51
IMF staff growth	39.86
G-5 bank exposure	95.15
G-5 bank exposure concentration	-35.58
Percent bond debt	-114.34
G5BANK*PCTBOND	229.73
Percent short-term debt	49.46

*Effect of one standard deviation change in each independent variable; all other variables held constant at means. For EFF, change is from 0 to 1.

TABLE 6B – FIRST DIFFERENCES –CHANGE IN IMF LOAN AMOUNT/QUOTA (MODEL 5)*

Variable	Change in size of IMF loan amount/quota
Extended Fund Facility	0.861
Debt service/exports	0.209
Reserves/imports	-0.102
Fund liquidity ratio	0.107
Total Fund quota resources	0.189
IMF staff growth	0.145
G-5 bank exposure	0.325
G-5 bank exposure concentration	-0.096
Percent bond debt	-0.279
G5BANK*PCTBOND	0.525
Percent short-term debt	0.142

*Effect of one standard deviation change in each independent variable; all other variables held constant at means. For EFF, change is from 0 to 1.

TABLE 7 – FIRST DIFFERENCES – NUMBER OF TOTAL PERFORMANCE CRITERIA*

Variable	Change in expected number of performance criteria
Loan amount/quota	0.62
External debt/GDP	0.55
Reserves/imports	-0.48
Quota review	-4.41
Total IMF quota resources	6.89
Percent bond debt	1.17
G5BANK*PCTBOND	-1.52
Percent short-term debt	-0.48

*Effect of one standard deviation change in each independent variable; all other variables held constant at means; For REVIEW, change is from 0 to 1.

APPENDIX 1 – DATA SOURCES

Countries (N=47)

Europe/Central Asia

Belarus, Bosnia & Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Kazakhstan, Latvia, Lithuania, FYR Macedonia, Poland, Romania, Russia, Serbia & Montenegro, Slovak Republic, Turkey, Ukraine

Latin America/Caribbean

Argentina, Belize, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Jamaica, Mexico, Panama, Peru, Trinidad and Tobago, Uruguay, Venezuela

East/South Asia

China, Indonesia, Korea, Philippines, Thailand

Middle East/Africa

Algeria, Egypt, Gabon, Jordan, Mauritius, Morocco, Tunisia

Data sources for variables

IMF lending arrangement data, country quotas, and IMF resources outstanding: IMF, Annual Report, various years; IMF online lending arrangement database, IMF International Financial Statistics.

Number of quantitative and structural performance criteria: IMF archival documents (letters of intent, staff reports, memoranda of economic policies); IMF online database of country policy intention documents.

G-5 commercial bank exposure (G5BANK, G5HERF): Bank for International Settlements, Consolidated International Banking Statistics, various years.

Percent bond debt: World Bank, Global Development Finance.

Percent short-term debt: World Bank, Global Development Finance.

Reserves (months of imports): World Bank, Global Development Finance.

Debt service (% of exports): World Bank, Global Development Finance.

External debt (% GDP): World Bank, Global Development Finance/World Development Indicators.

IMF liquidity ratio: IMF, Annual Report, various years; Dreher and Vaubel 2004.

Total IMF quota resources: IMF, Annual Report; Dreher and Vaubel 2004.

IMF staff growth: IMF, Annual Report, various years; IMF website. Data taken from Dreher and Vaubel 2004.

IMF quota reviews: IMF, Annual Report, various years; IMF website. Data taken from Dreher and Vaubel 2004.

US Military and Economic Assistance (millions of dollars): US Agency for International Development, US Overseas Loans and Grants (Greenbook), online database. Military assistance includes all US grants and credit extended to foreign nations for military purchases through Military Assistance Program grants and the Foreign Military Sales and Foreign Military Financing programs; the data also include money allocated to training of foreign military troops under the International Military Education and Training program and transfers of military equipment under the Excess Defense Articles program. Economic assistance includes Export-Import Bank loans, food assistance programs, counter-narcotics assistance, Peace Corp funding, and contributions to international financial institutions. See <http://qesdb.cdie.org/gbk/concepts.html> for further details.

APPENDIX 2 – STATISTICAL APPENDIX

Chart 1: Model fit – predicted vs. actual values of AMTQTA (Model 5)

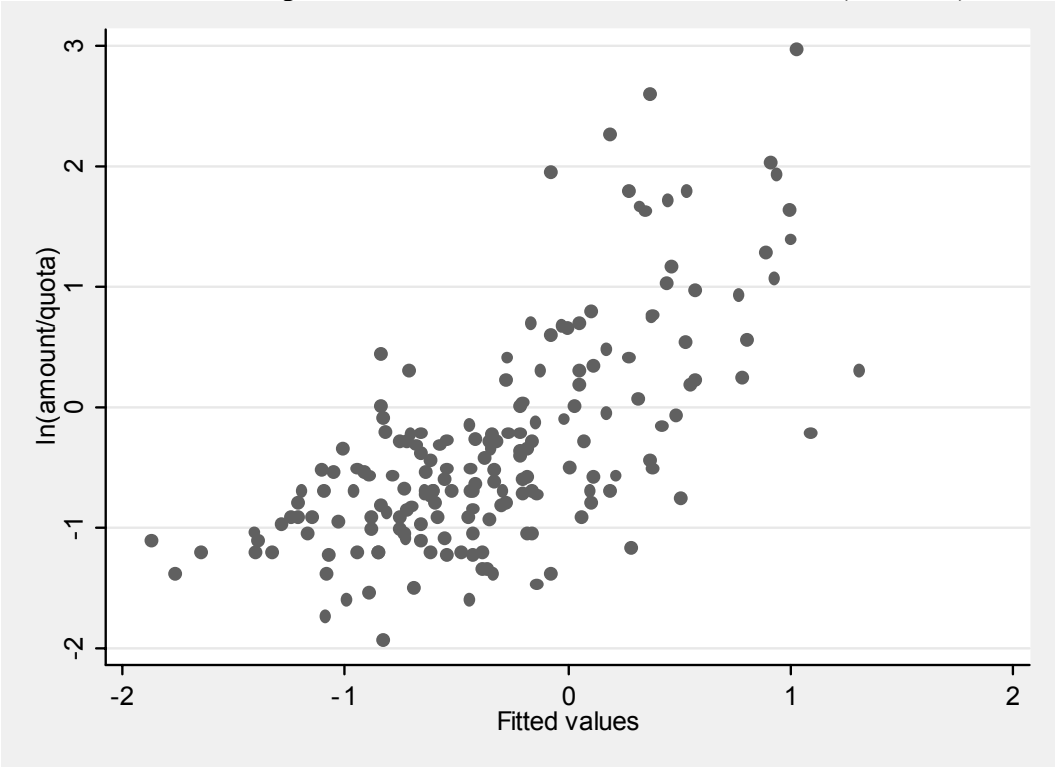


Chart 2: Residuals vs. Fitted values plot – AMTQTA (Model 5)

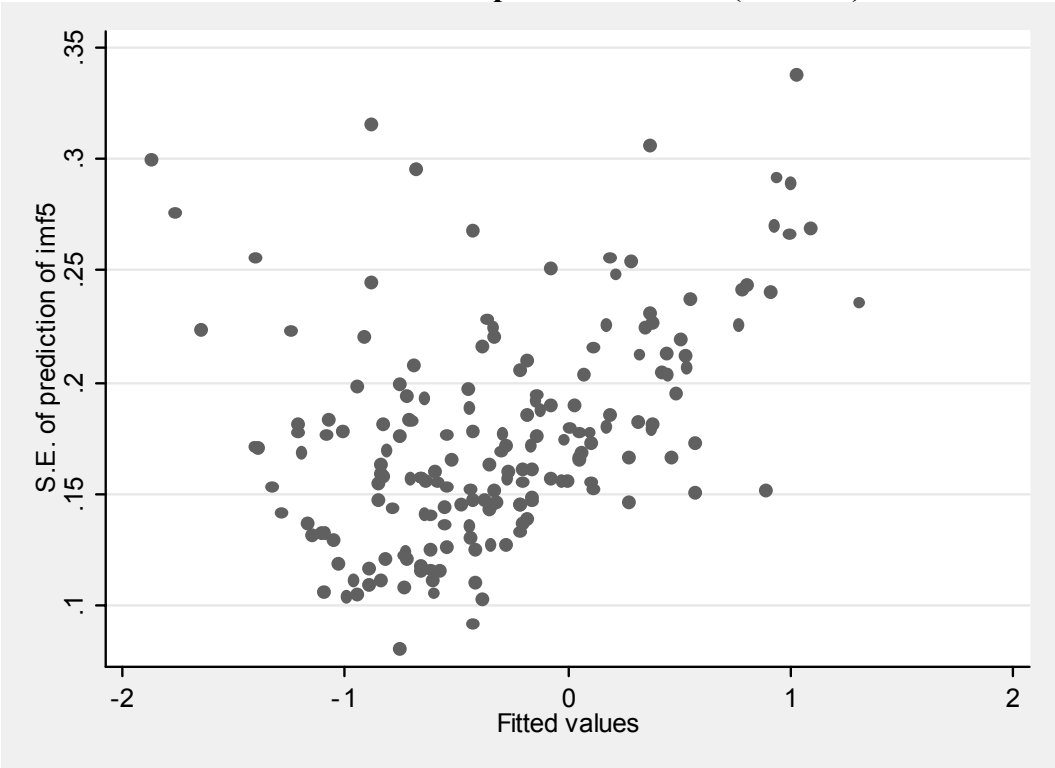


Chart 3: Model fit – predicted vs. actual values of TPC

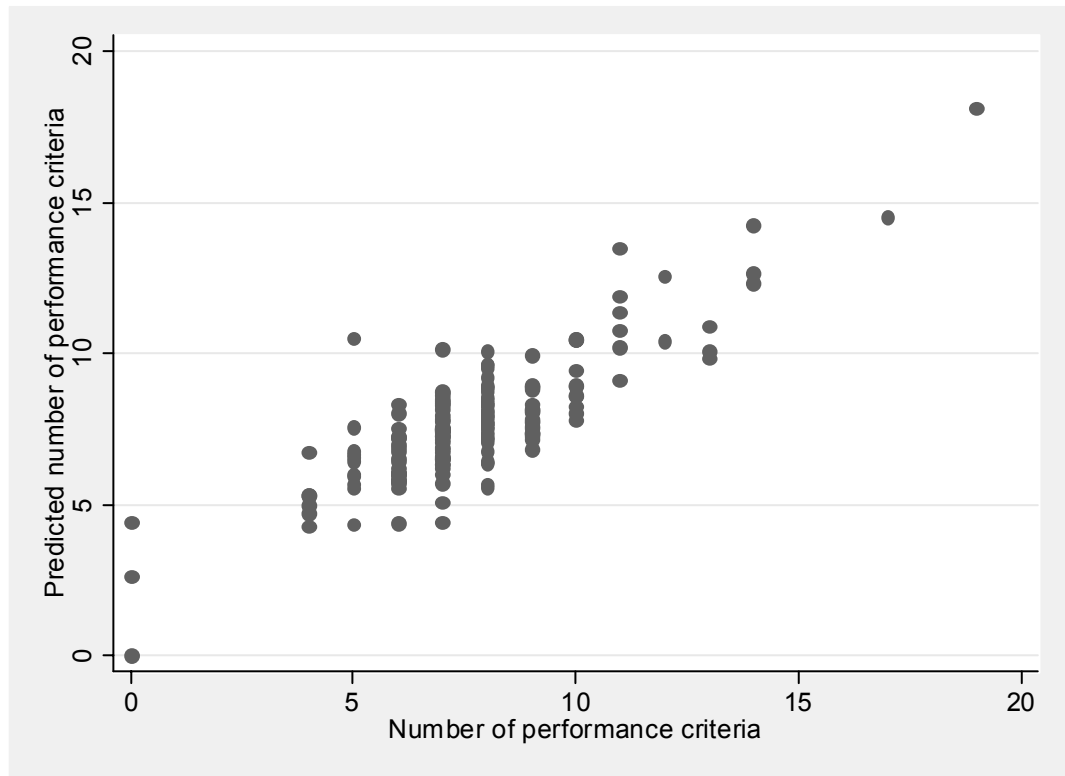
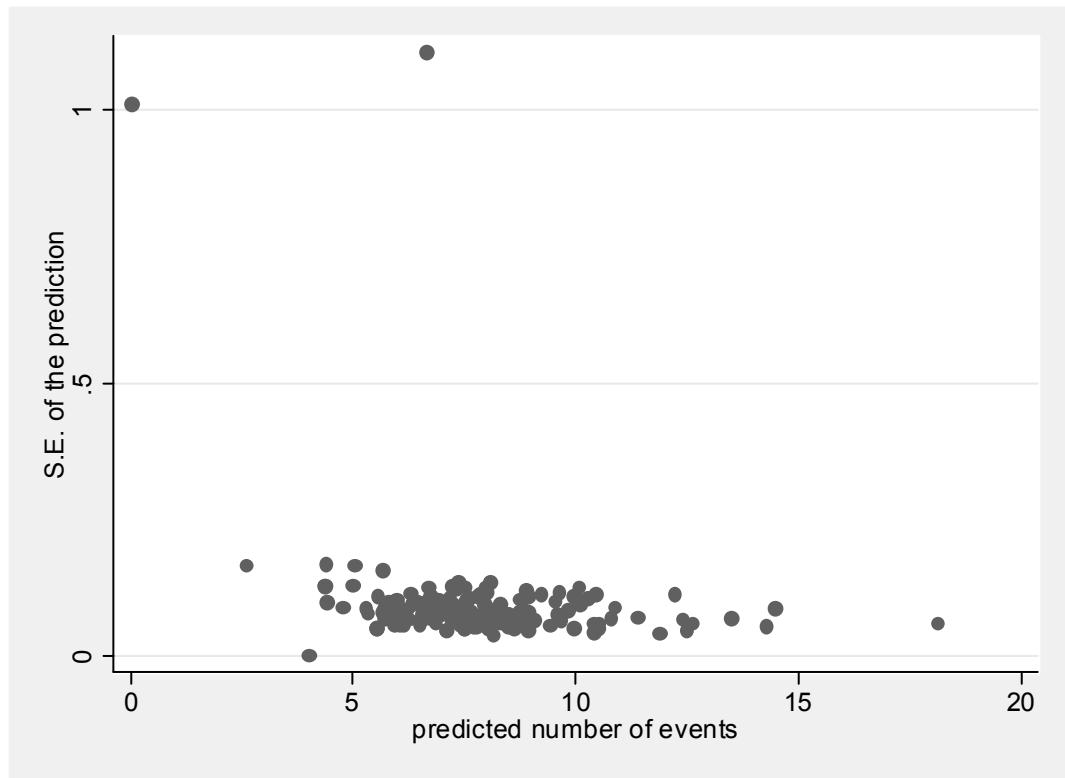
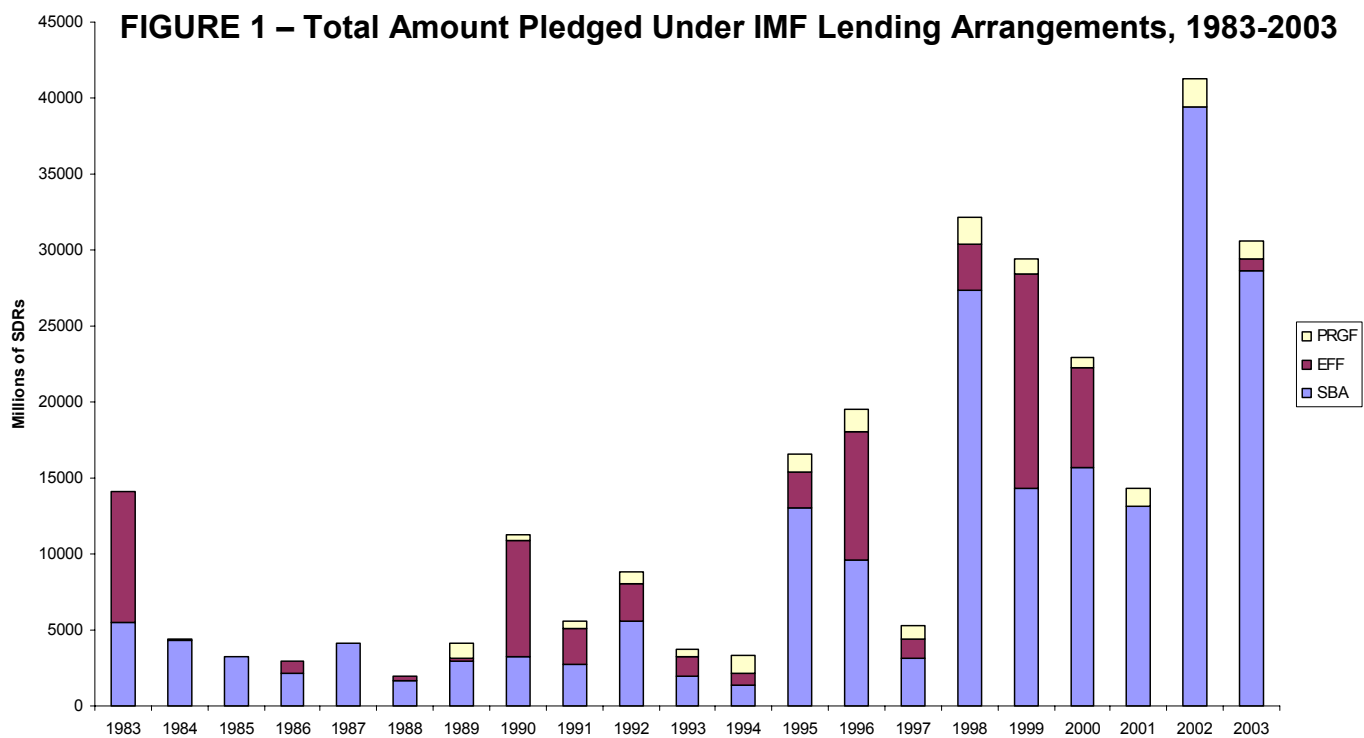


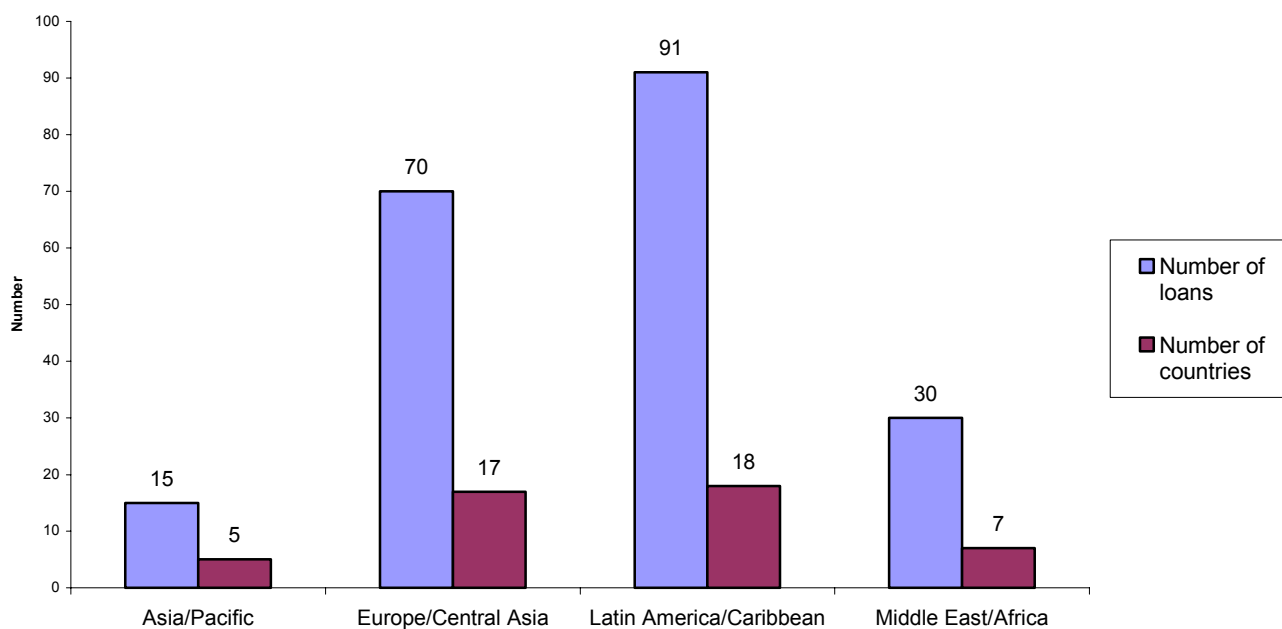
Chart 4: Residuals vs. Fitted values plot - TPC





SOURCE: International Monetary Fund, Annual Reports

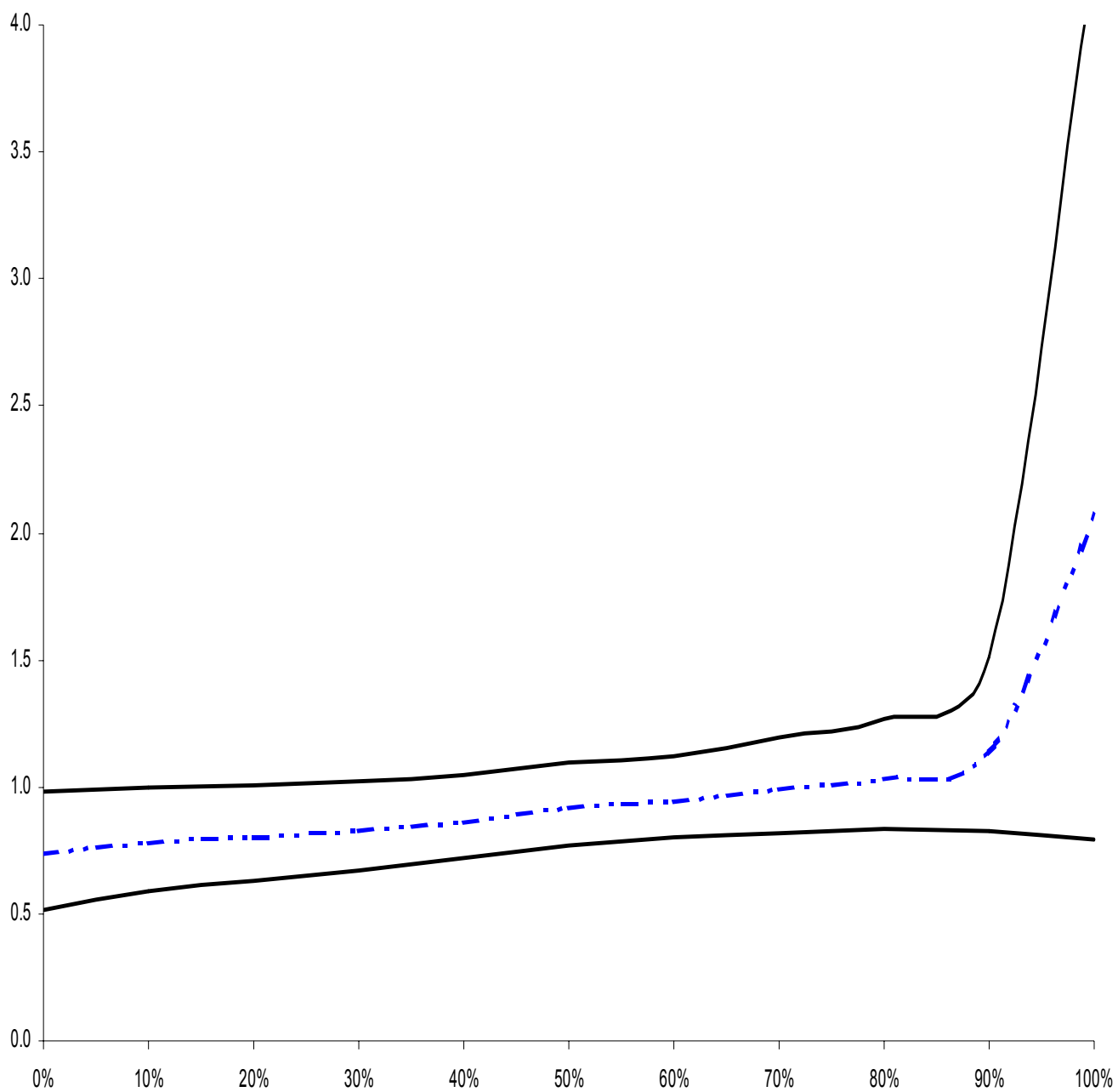
FIGURE 5 –Short-Term IMF Lending Arrangements, by Region, 1983-2003*



SOURCE: International Monetary Fund, Annual Reports

*47 countries not eligible for long-term (PRGF) concessional IMF financing

FIGURE 6.1 – Predicted IMF Loan Size (Amount/quota) by Debt service/exports



X-axis values are percentiles; solid lines indicate 95% confidence intervals

FIGURE 6.2 – Predicted IMF Loan Size (Amount/quota) by Reserves (months/imports)

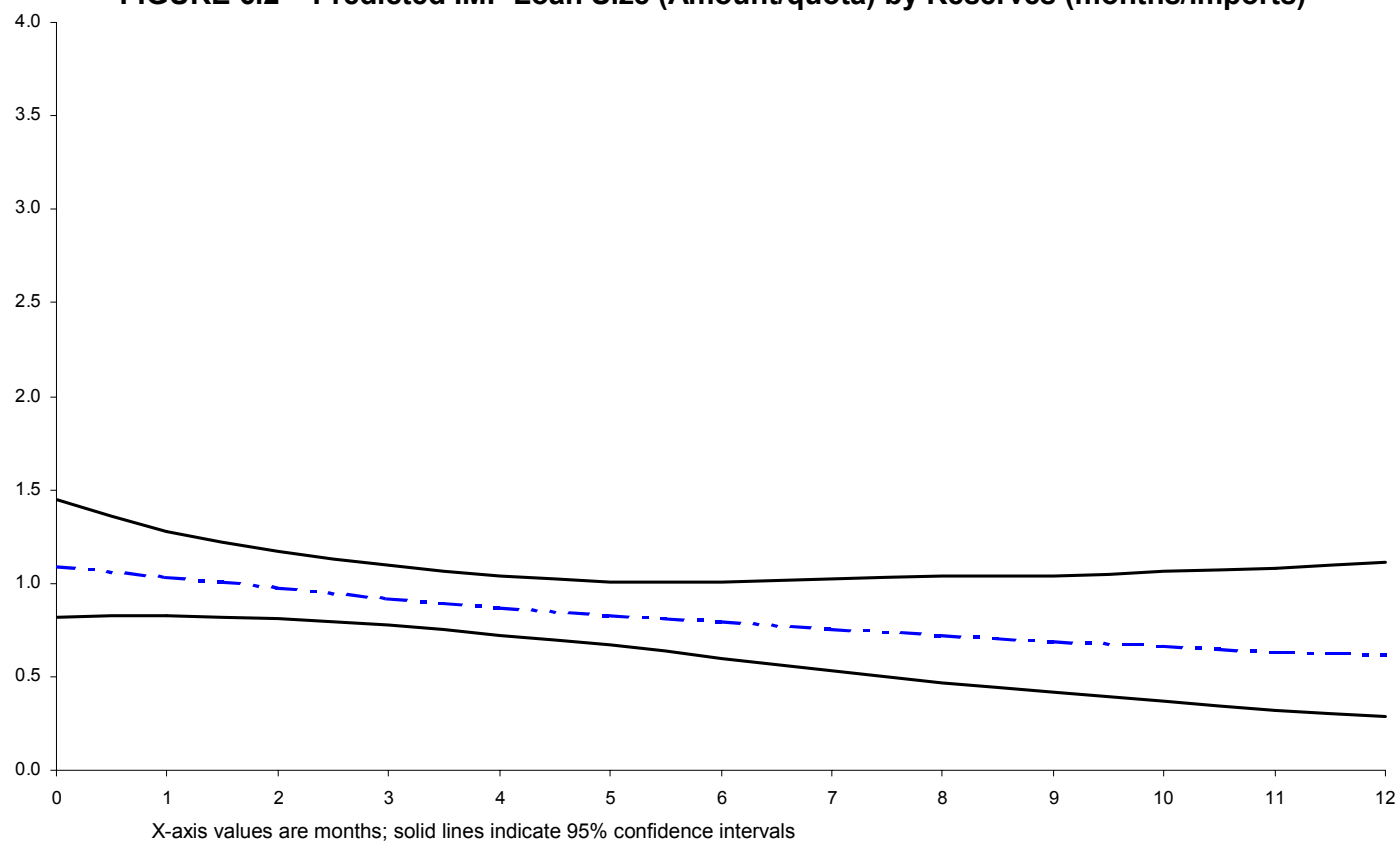


FIGURE 6.3 – Predicted IMF Loan Size (Amount/quota) by IMF Liquidity Ratio (%)

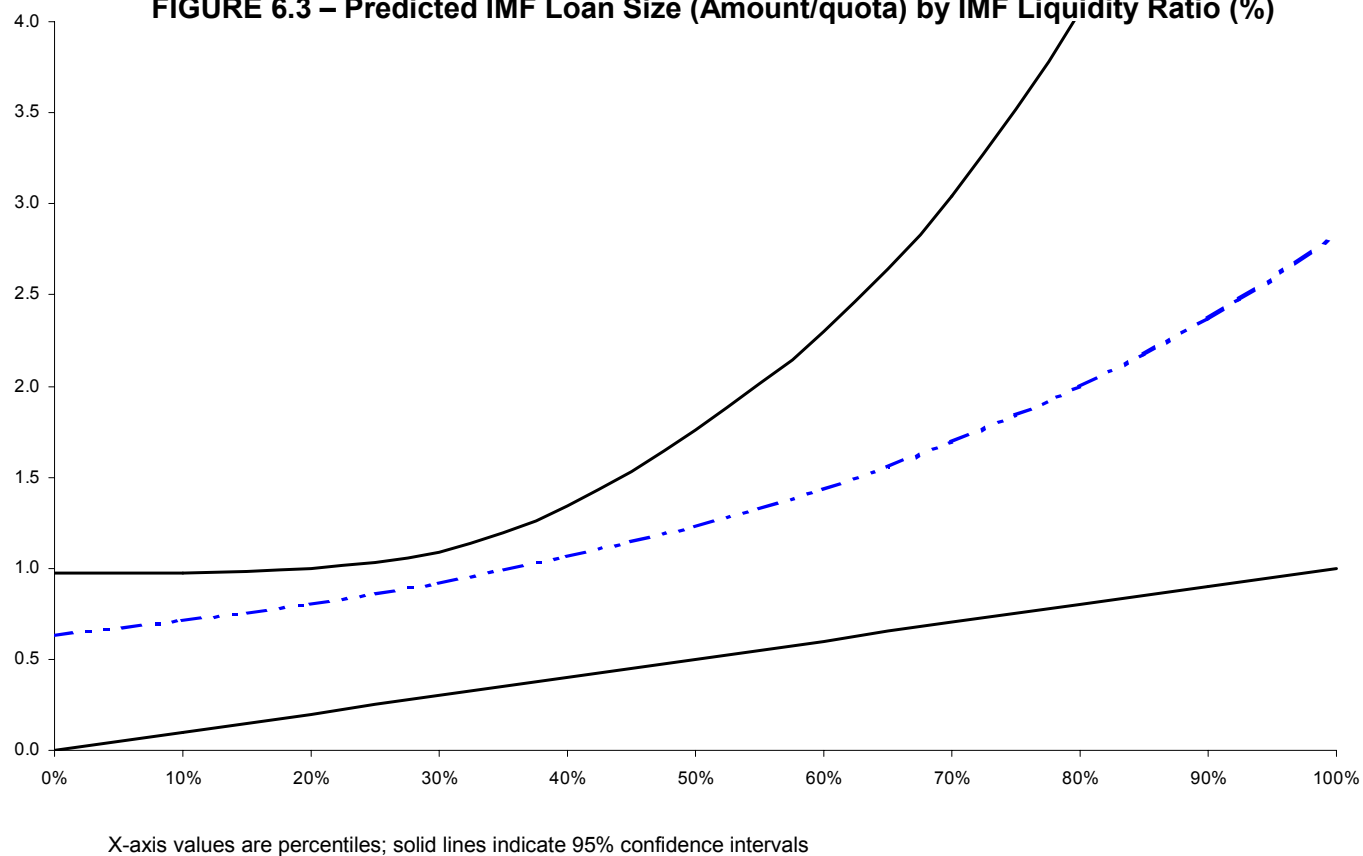


FIGURE 6.4 – Predicted IMF Loan Size (Amount/quota) by IMF Staff Growth (%)

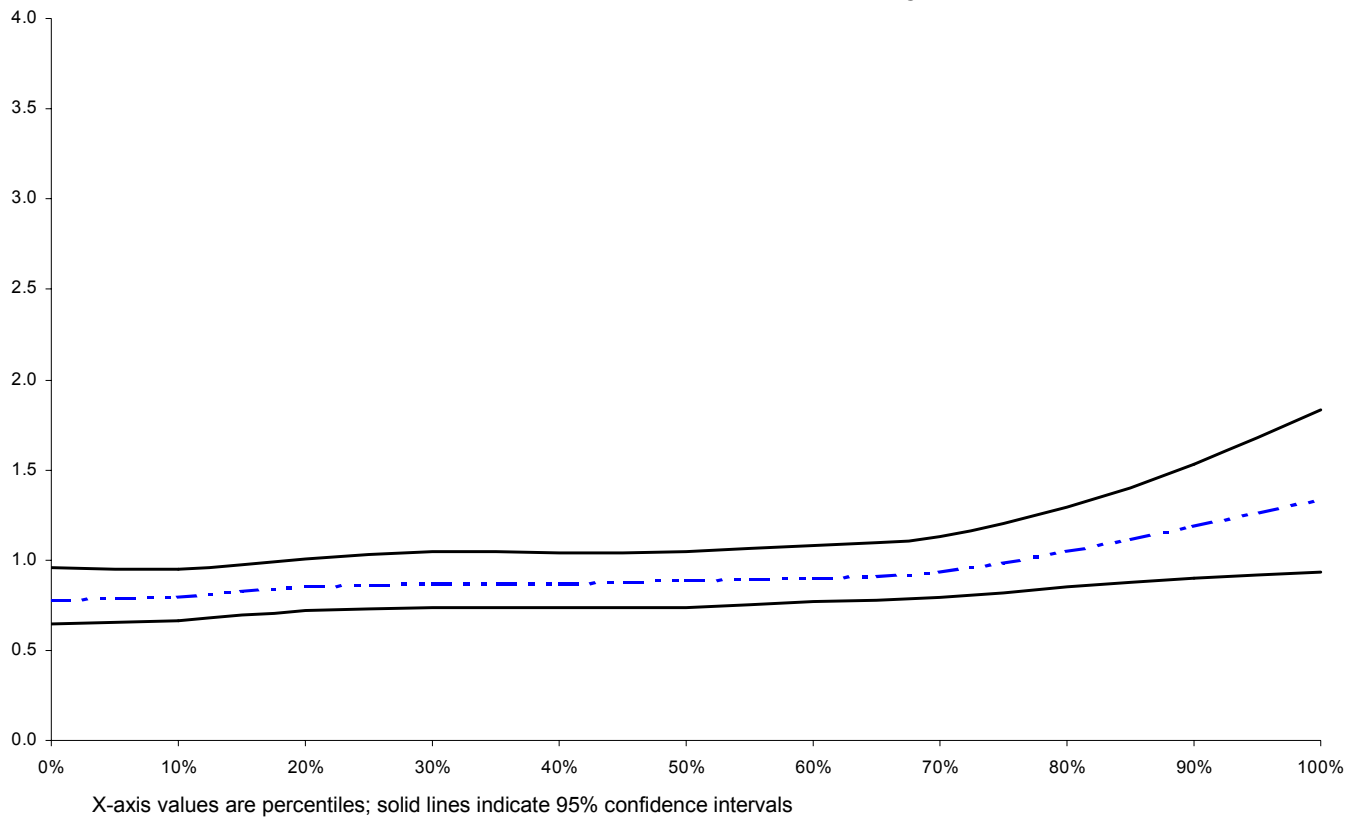


FIGURE 6.5 – Predicted IMF Loan Size (Amount/quota) by G-5 Bank Exposure

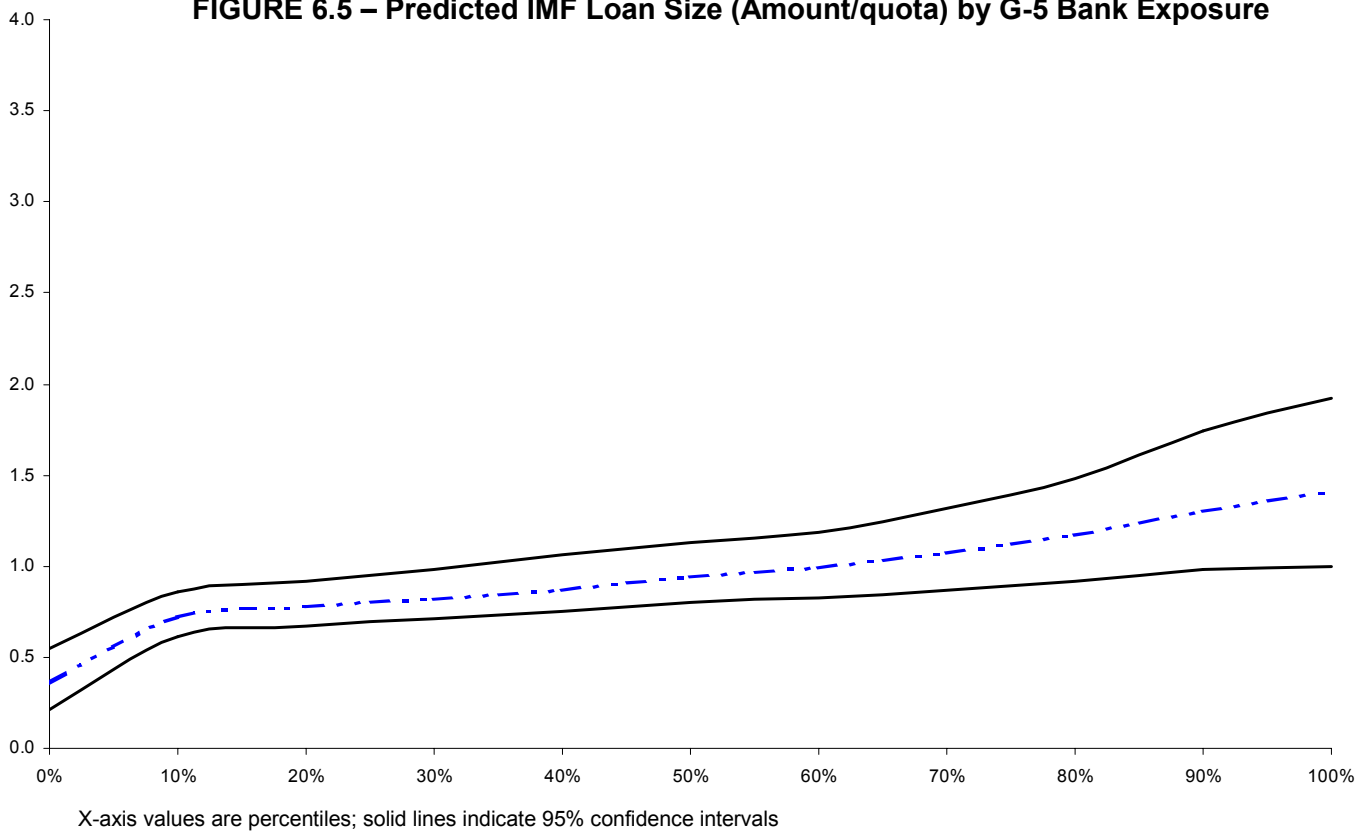


FIGURE 6.6 – Predicted IMF Loan Size (Amount/quota) by G-5 Bank Exposure Concentration (Normalized Herfindahl Index)

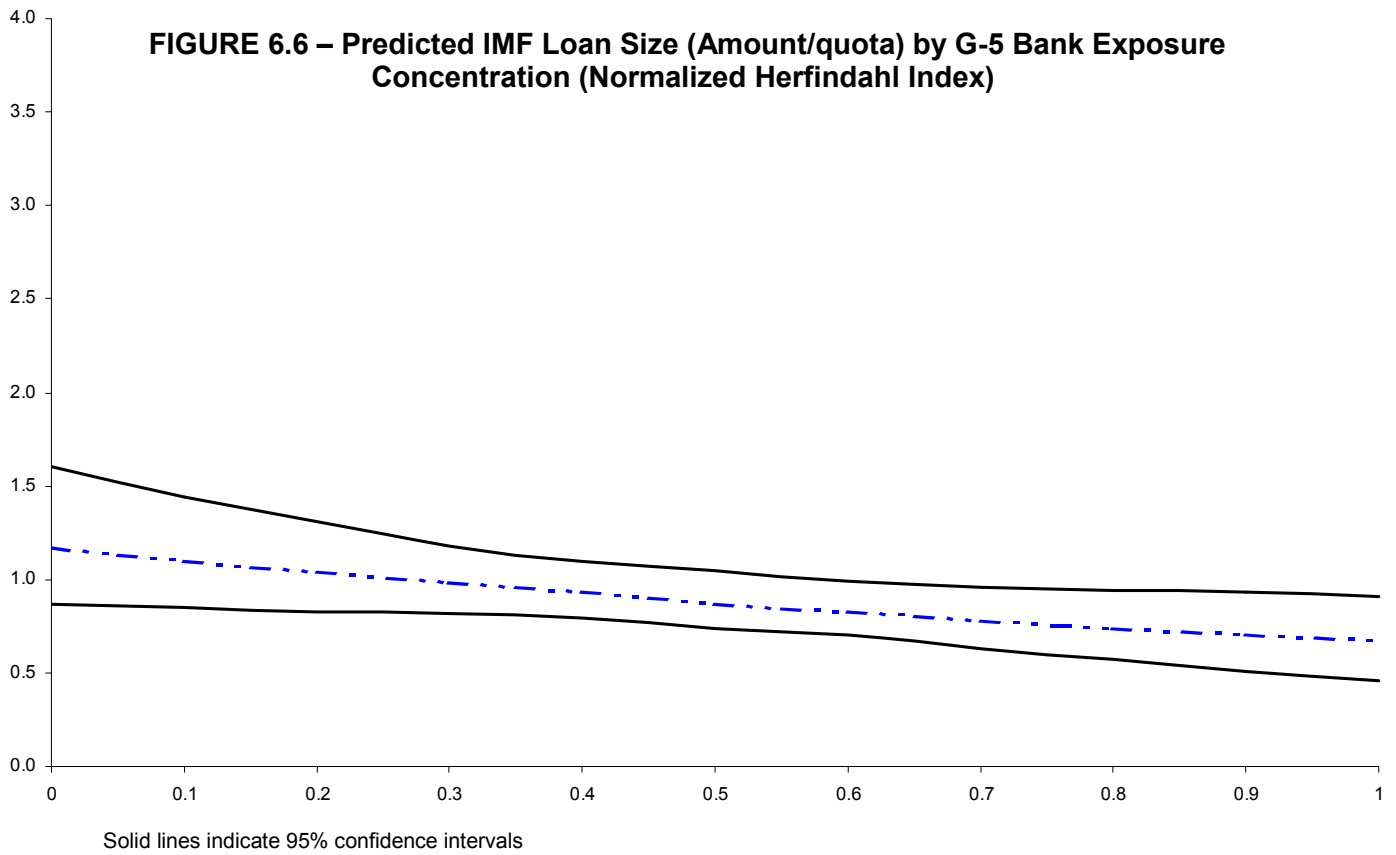


FIGURE 6.7 – Predicted IMF Loan Size (Amount/quota) by Percent Bond Debt

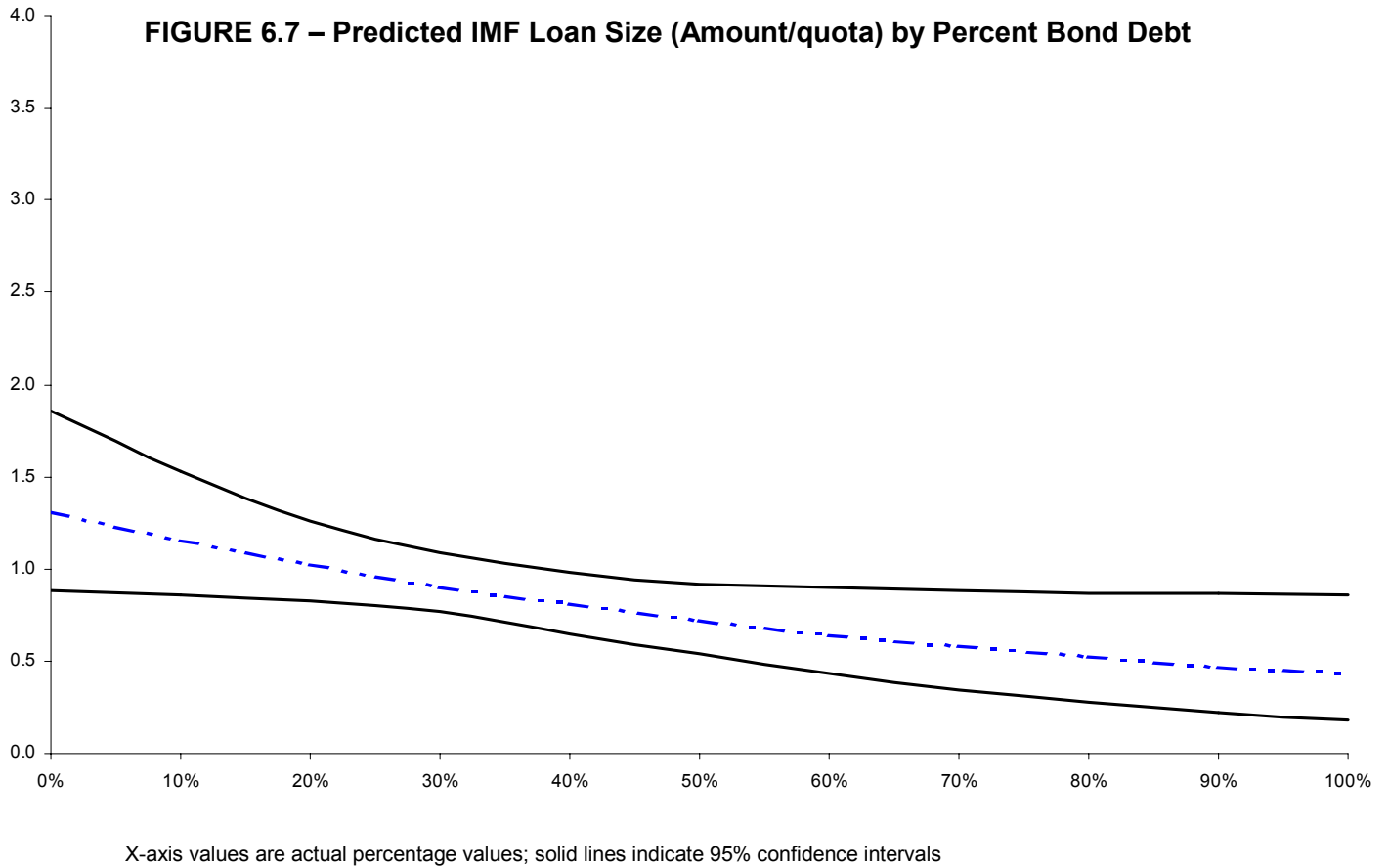


FIGURE 6.8 – Predicted IMF Loan Size (Amount/quota) by G5BANK*PCTBOND

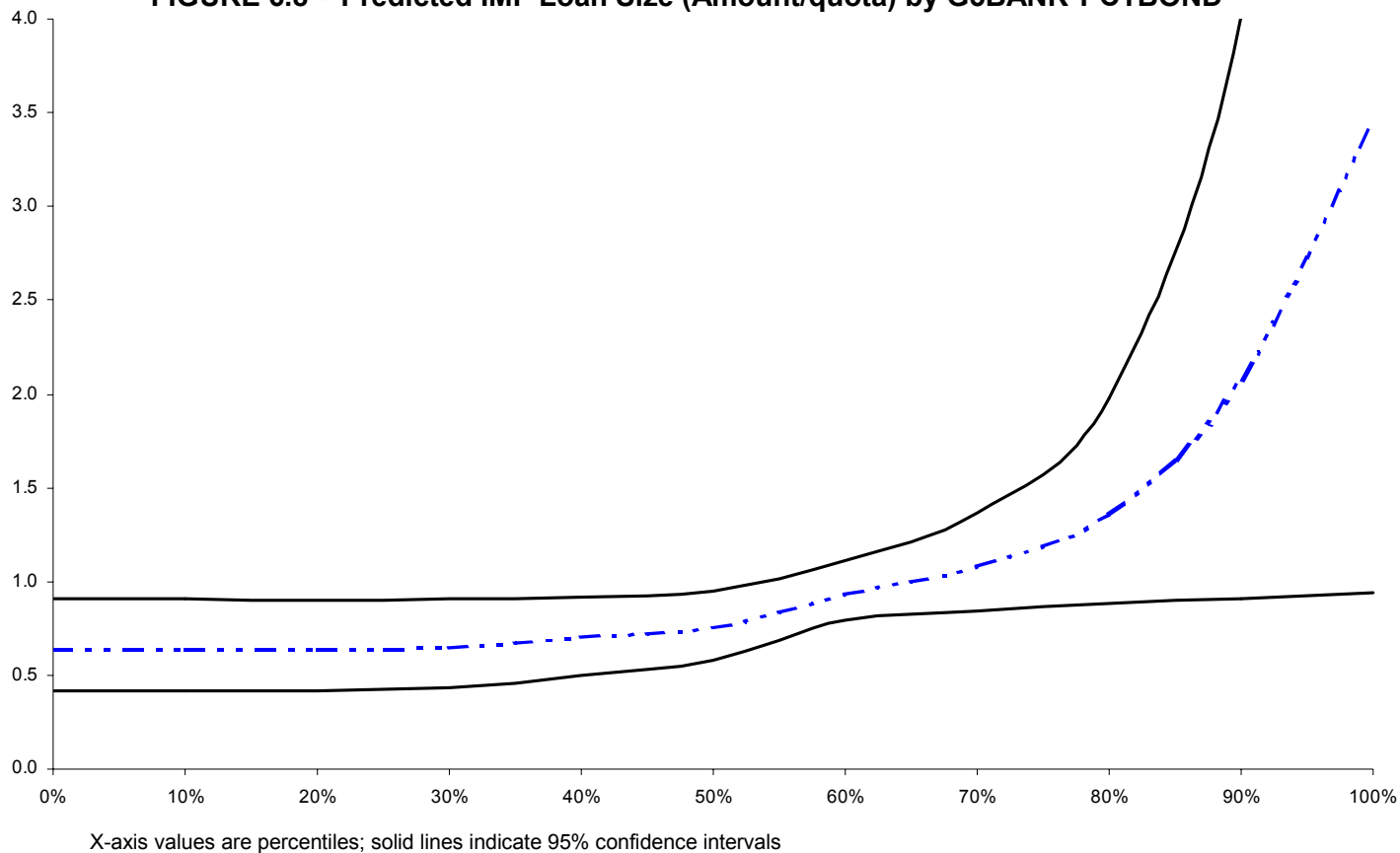


FIGURE 6.9 – Predicted IMF Loan Size (Amount/quota) by Percent Short-term Debt

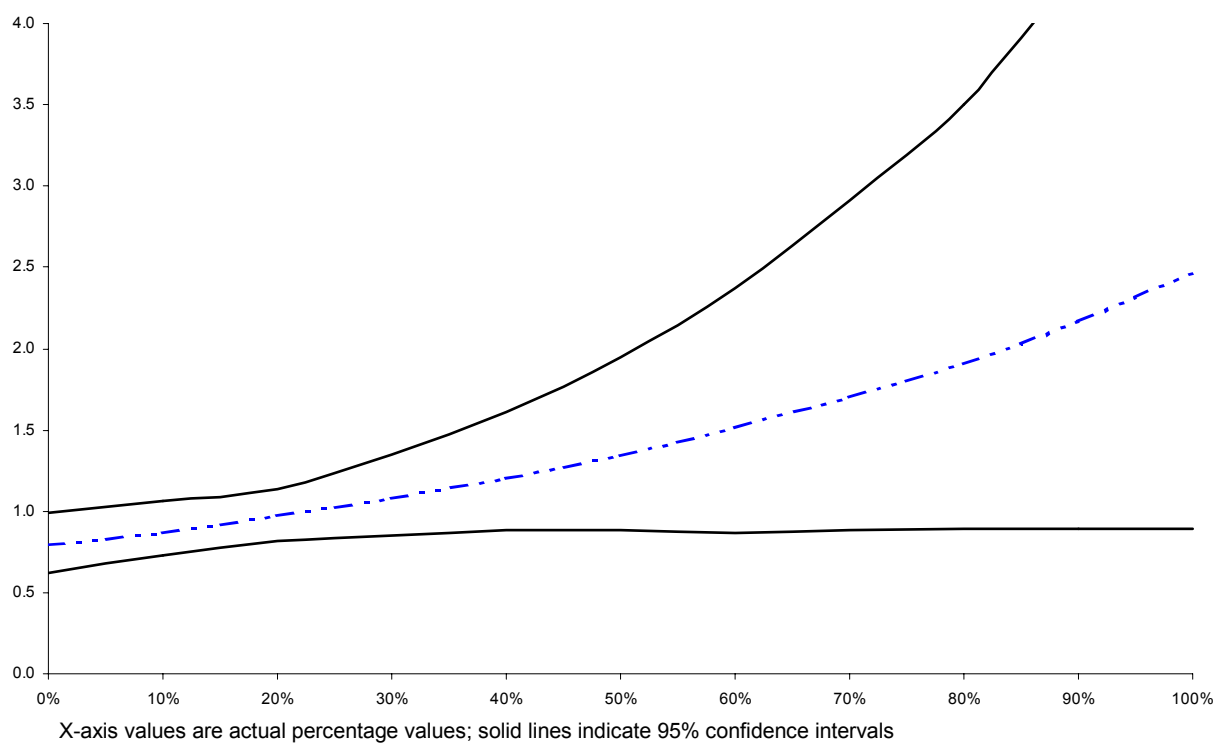


FIGURE 7.1 – Predicted Number of Performance Criteria – External Debt/GDP

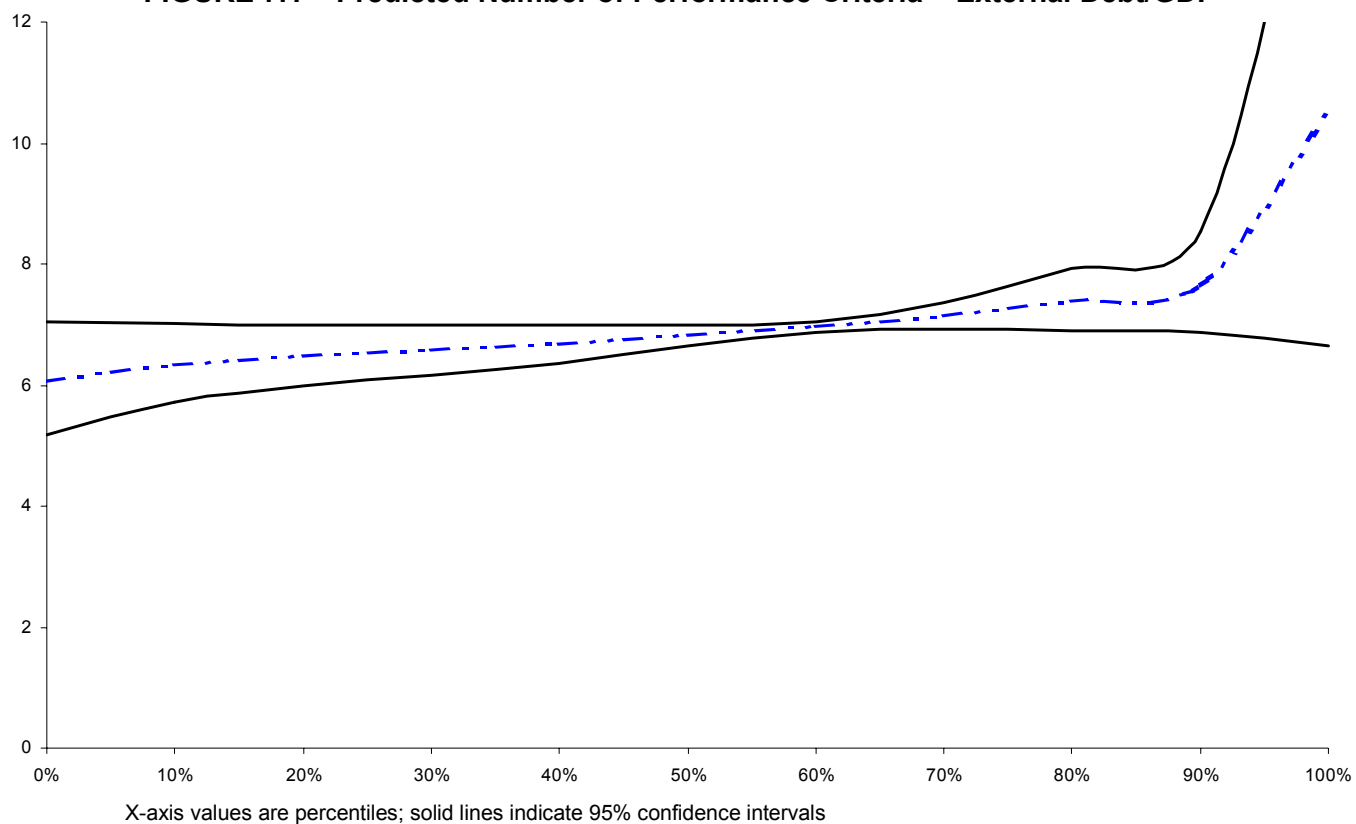


FIGURE 7.2 – Predicted Number of Performance Criteria – Reserves (months/imports)

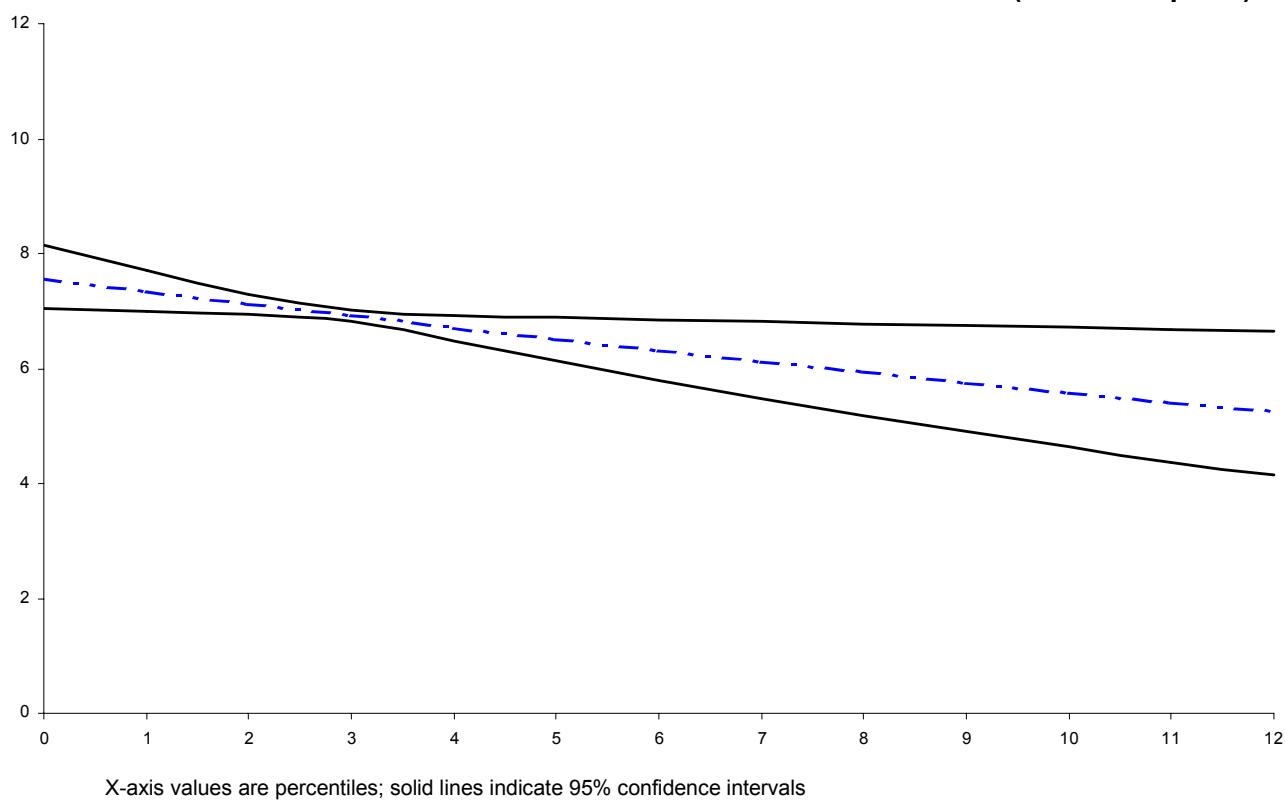


FIGURE 7.3 – Predicted Number of Performance Criteria – IMF Loan Size (Amount/quota) (\$Millions)

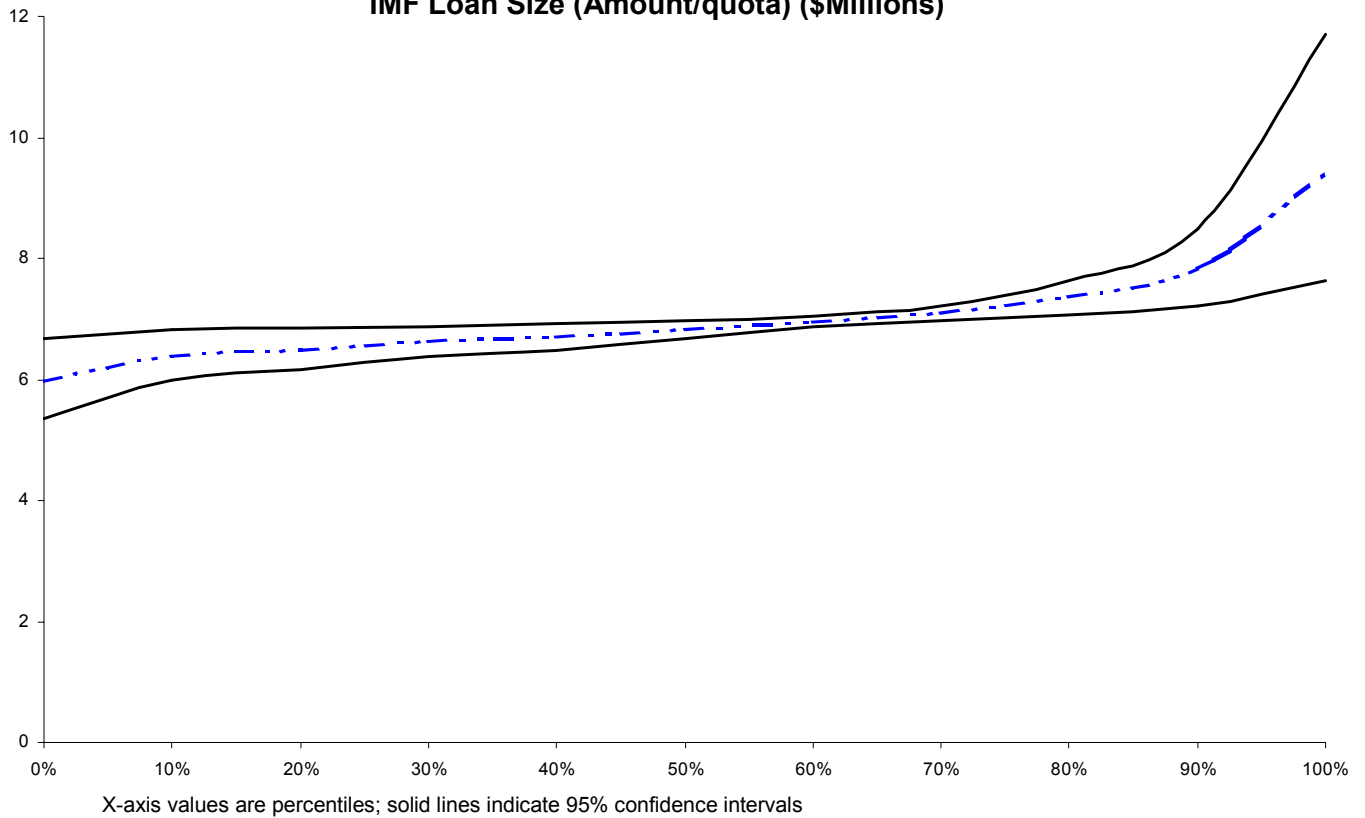


FIGURE 7.4 – Predicted Number of Performance Criteria – Percent Bond Debt

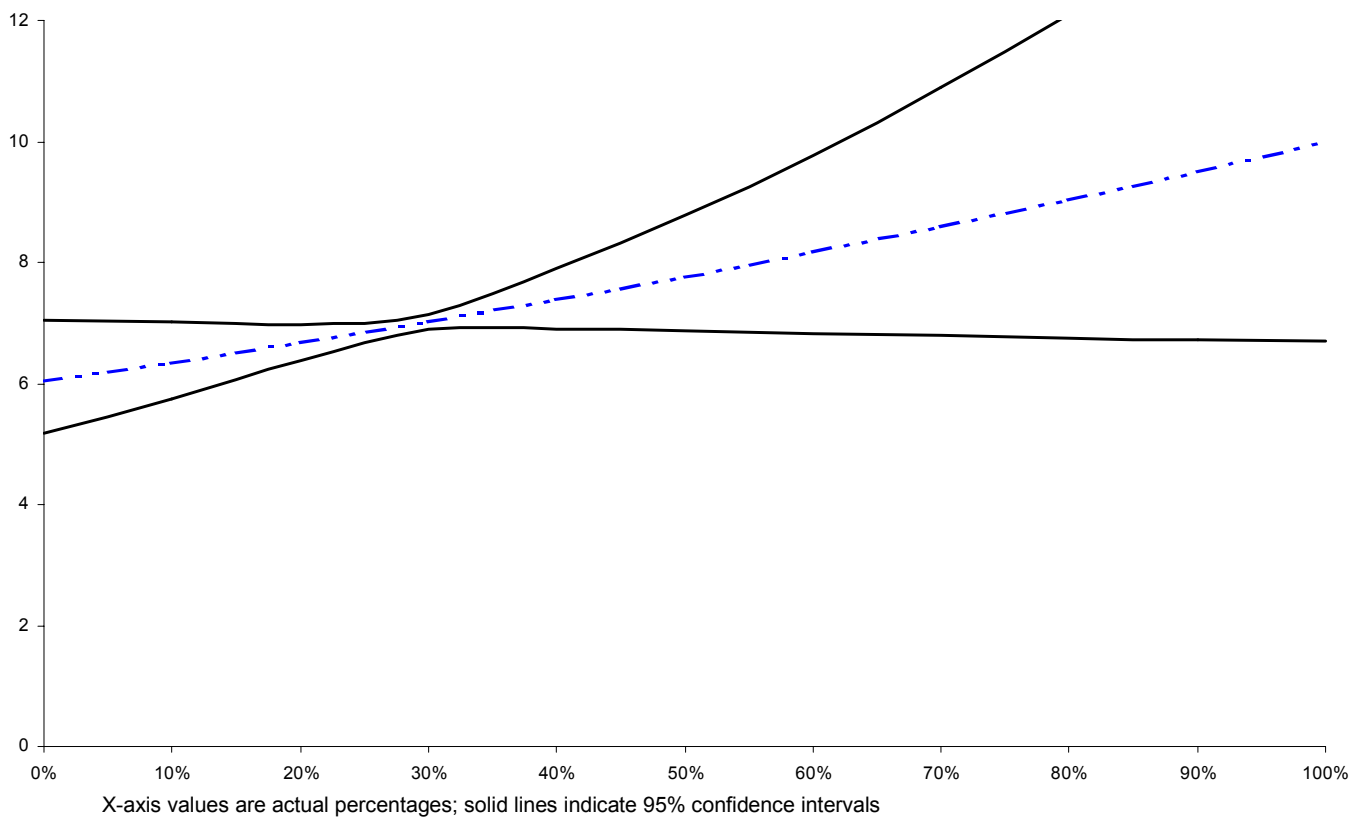
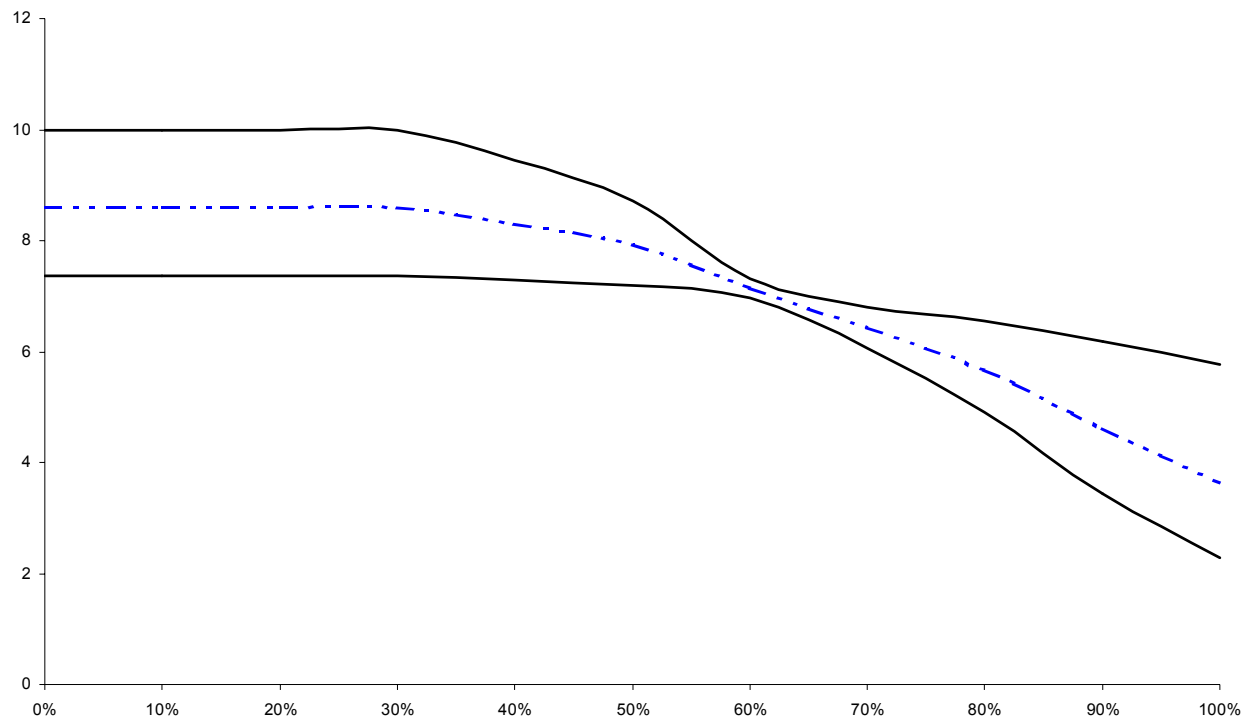
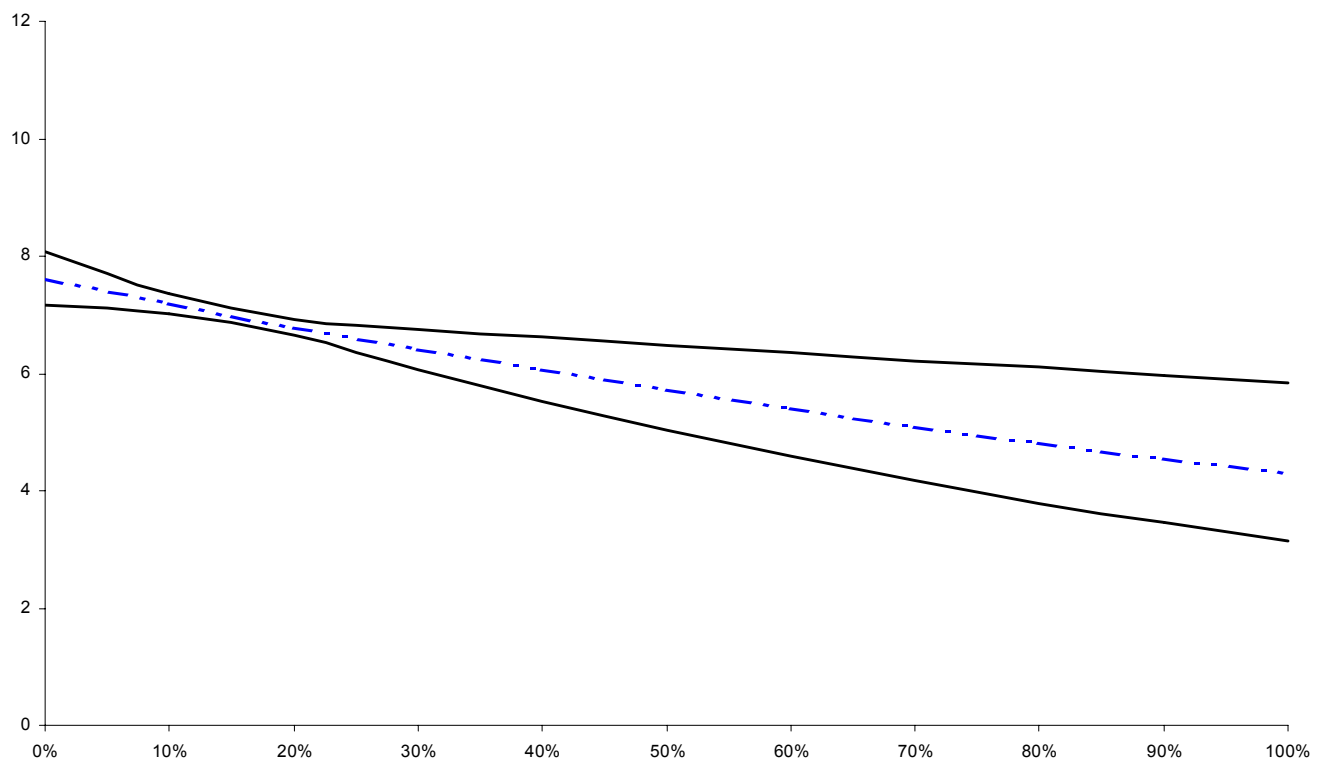


FIGURE 7.5 – Predicted Number of Performance Criteria – G5BANK*PCTBOND



X-axis values are percentiles; solid lines indicate 95% confidence intervals

FIGURE 7.6 – Predicted Number of Performance Criteria – Percent Short-term Debt



X-axis values are actual percentage values; solid lines indicate 95% confidence intervals

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