The Political Economy of Bilateral Bailouts

Christina J. Schneider*
University of California, San Diego

Jennifer L. Tobin
Georgetown University

Abstract. Why do governments provide bilateral financial bailouts to countries that experience financial crises? We argue that governments face a trade off. On one hand, they want to stabilize crisis countries by providing additional liquidity, particularly if the crisis country is economically or politically important to the potential creditor government. On the other hand, governments are sometimes constrained by their own domestic political and economic factors. Politicians aim to balance these countervailing pressures. While they are more likely to provide a bailout when their economy is exposed to negative spillover effects and when the crisis country is important for geo-strategic, military or political reasons, domestic economic and political constraints may limit their ability to provide bailouts. We test our hypotheses using an original data set on bilateral bailouts by G7 countries between 1970 and 2010. Our statistical analysis finds support for out hypotheses that as the creditor country's economic or political exposure to a crisis country increases, so does the probability of a bailout. Domestic political constraints, on the other hand, decrease the probability of a bailout.

*Christina Schneider is Associate Professor and Jean Monnet Chair at the University of California, San Diego (*cjschneider@ucsd.edu*). Jennifer Tobin is Assistant Professor at Georgetown University. We thank Despina Alexiadou, Michael Bechtel, Ben Bohr, Sarah Brooks, Lawrence Broz, Stephen Chaudoin, Mark Copelovitch, Daniela Donno, Jude Hays, Hyeran Jo, Tom Pepinsky, Nita Rudra, Burcu Savun, Stephanie Walter, Erik Wibbels, participants of the IPES conference, as well as the seminar audience at the University of Pittsburgh for valuable comments and suggestions on previous versions of this paper. Ben Bohr provided valuable research assistance. We also gratefully acknowledge financial support from the Hellman Foundation.

1 Introduction

Over the last decades, financial crises have become more frequent, virulent, and global. Since its foundation in 1944, the International Monetary Fund (IMF) has developed into the main coordinating actor in the financial rescues of crisis economies. The IMF pools resources from its member countries and lends it to countries that experience a financial crisis but lack access to the international capital markets to solve their balance of payments difficulties. Despite these IMF-led multilateral financial rescues, countries that undergo a financial crisis often receive additional bailout packages from individual countries. For example, during the Asian financial crisis Thailand received an IMF rescue package as well as bilateral bailouts from various countries, notably Japan and other Asian economies. In 2010, Greece received a $145 bn. rescue package of which only $40bn. came from the IMF. Eurozone members provided the remaining $105bn. in bilateral loans. Participation in such bilateral bailouts varies considerably. While Thailand received large bilateral bailouts from a number of Asian economies, it did not receive a bailout from the United States, even though the United States had offered a bailout to South Korea during the same period, and one to Mexico in 1995.

Why do governments provide bilateral bailouts to countries in financial crisis?[1] And why is there so much variation in the provision of these bailouts? We provide a political economy theory of bilateral financial rescue packages. We argue that a government's decision to provide a bilateral bailout to a crisis country is predominantly driven by strategic economic and political concerns at both the international and domestic level. Creditor governments face different, sometimes countervailing pressures when deciding whether or not to provide a bilateral bailout (to distinguish potential donor governments from crisis governments, we refer to them as 'creditor governments'). On one hand, creditor country politicians have an incentive to offer a financial rescue when they want to prevent potential negative spillovers from the crisis country to their own. Moreover, crisis countries may be systemically important both economically and politically to the creditor countries. Economic exposure to the crisis country can increase the incentives to provide a bilateral bailout to minimize economic risks such as a decline in economic growth due to falling exports to the crisis country or a banking crisis due to defaults on loans provided by banks in the creditor country. Similarly, creditor governments should have a greater incentive to provide a bailout to crisis countries that are of geo-political and/or strategic importance, to minimize economic and political instability in countries that are central

[1] We define a bilateral bailout as a situation where a creditor offers liquidity to a crisis country to fill that country's financing gap to help prevent the potential negative consequences that arise from default. Bailouts can take the form of loans, bonds, stocks or cash. This manuscript focuses on the provision of bilateral loans during a financial crisis. Recently, the word 'bailout' has received a negative connotation. We use the term neutrally, but also interchangeably with the term 'financial rescue.'

to their own foreign policy or regional stability. On the other hand, creditor governments may be reluctant to provide bailouts when they are electorally vulnerable or when they face other political and economic constraints. Media and opposition often portray bilateral bailouts as costly to domestic taxpayers, especially if the likelihood of a default on the loan is high. Governments often do not know whether the media or the opposition will politicize the provision of the bailout and, therefore, might be more reluctant to provide them when they are electorally vulnerable or constrained by other government bodies from doing so.

To test our theoretical hypotheses, we collect an original data set on bilateral bailouts provided by G7 countries during financial crises between 1970 and 2010. Using logistic regression with multiply imputed data, we find support for our theoretical argument. The more economically or politically exposed a creditor country is to a crisis country, the more likely that the creditor government will provide a financial rescue. At the same time, creditor governments are less likely to provide bailouts if they are electorally vulnerable or constrained by other political actors. The effects of both economic and political exposure and domestic political constraints are robust to a number of alternative model specifications, different measures of key variables, and potential endogeneity issues.

These findings provide new insights into the political economy of bilateral bailouts. Economic analyses of bilateral bailouts have focused on more narrow economic criteria that would support a bilateral bailout; strategic economic and political considerations have only played a minor role in these analyses. Our paper develops a theoretical argument for why such factors should matter, and how they matter. The empirical results not only provide support for such a political economy explanation; it also shows that, at least for the bilateral bailouts in our sample, such considerations are often more important than the more objective economic criteria for providing a bailout.

2 International Cooperation During Financial Crises

Throughout history, rich and poor countries alike have experienced boom-and-bust cycles; the number of financial crises has been extraordinarily high and the countries that experience them diverse (Reinhart and Rogoff, 2009). Financial crises are highly problematic for any country for a variety of reasons, but one problem stands out: countries that experience financial crises typically experience an external financing gap because the size of capital outflows and debt that they must service are in excess of their foreign reserves. This financing gap often remains even after the crisis government has made domestic policy adjustments (Frankel and Roubini, 2001). In these situations, crisis countries often rely on support from international creditors to provide them with sufficient liquidity and other resources (including technical assistance) to solve their financial issues. The literature focuses on the

IMF as the central actor in this process. The IMF attempts to provide crisis countries with sufficient liquidity to overcome balance-of-payments crises while at the same time minimizing the risk of moral hazard in repayment by limiting the size of the loans and requiring policy reforms (Dreher, 2009; Dreher and Walter, 2010).[2]

The role of the IMF is without doubt important, but international cooperation on financial crisis resolution generally involves a large number of additional actors. IMF lending decisions usually occur in conjunction with other forms of crisis lending, most importantly official bilateral lending by individual creditor countries, sovereign debt restructuring or rescheduling through the Paris Club and other informal channels,[3] swap agreements,[4] and private sector involvement (Gould, 2003, 2006). The need for additional sources of lending arises from a central dilemma of international cooperation during financial crises. While central banks often carry out lender of last resort functions when domestic banks experience serious liquidity problems, there is no international equivalent of a lender of last resort. While the IMF comes closest, it cannot provide unlimited funds to crisis countries. To minimize moral hazard in crisis countries, the IMF has institutional limits on the size of loans it can provide.[5] A crisis country's access to IMF financing is based on its quota–which is assigned when a country joins the IMF–as a weighted average of GDP (50%), openness (30%), economic variability (15%), and international reserves (5%). For example, under the Stand-By and Extended Arrangements – which are the most common IMF programs – a crisis country can request up to 145% of its quota annually and 435% cumulatively (access may be somewhat higher in exceptional circumstances).

These caps can lead to situations where the ability of the IMF to provide funds is insufficient for solving the liquidity crises of these countries. When the IMF does step in, it typically provides resources that are just enough to cover "the most obvious sources of payment difficulties" (Roubini and Setser, 2004, 19). For example, in 1995, the IMF approved a loan for Mexico of up to approximately $17.8 billion, which was the largest-ever loan approved by the IMF, both in terms of amount and the overall percentage of quota (about 688.4%) (IMF, 1995). Still, the amount was insufficient for addressing Mexico's financial crisis and other external financing was needed to fill the gap. Similarly, in May 2010 the IMF contributed $30bn. to a financial rescue package for Greece (the overall amount of the package was

[2]Bordo and Schwartz (1999) provide a historical account of international lending which predates the foundation of the IMF.

[3]The Paris Club is a major forum for crisis management and resolution, as it is in charge (in consultation with the IMF) of the rescheduling of official bilateral credits to emerging markets.

[4]Swap agreements were introduced by the Federal Reserve in 1962. Swap agreements allow Central banks to provide foreign Central banks with liquidity.

[5]Moral hazard of crisis countries usually derives from expectations that some multilateral or bilateral official creditors will provide bailout support to a country if necessary, thus leading the sovereign, ex-ante, to follow loose economic policies that may eventually cause economic and financial problems (Frankel and Roubini, 2001, 40).

$145bn.). It was the biggest bailout in the IMF's history. And yet, even with the supplementary bilateral loans provided by the Eurozone countries, experts doubted that the amount would be sufficient to address Greece's financing gap.

By design, the IMF is often ill-equipped to sufficiently fill the external financing gaps of crisis countries. The extent of this problem becomes clear when considering one proposal of the Meltzer Commission, which was created by US Congress in 1999 to provide recommendations for the reform of the IMF. Although never enacted, the report, among other suggestions, recommended that the IMF provide large-scale financial support to pre-qualifying countries that are sound in their financial system and fiscal affairs (essentially granting the IMF lender of last resort capabilities) (International Financial Institution Advisory Commission, 2000). According to the United States Treasury Department, the recommendations would have implied a $139 billion loan to Brazil, which was significantly above Brazil's IMF quota of $4.5 billion (and also above its most recent IMF loan of $14.5 billion). Similarly, during the Mexican peso crisis in 1994/5, experts estimated that Mexico would need a loan of at least $50 billion, which was more than double what the IMF actually provided.

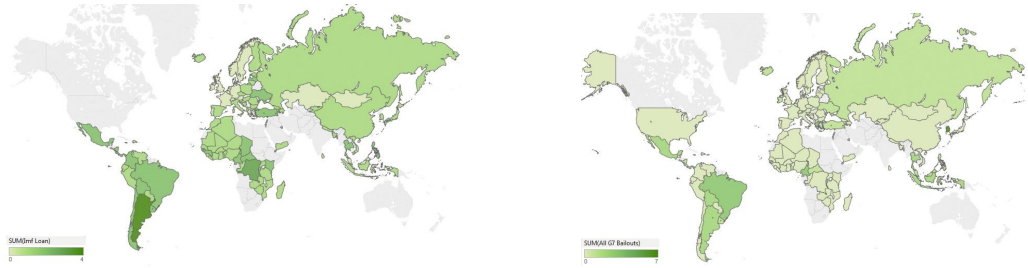
Thus, the IMF is highly dependent on supplementary financiers to help ensure the success of its loan programs. IMF programs are usually based on the assumption that the crisis country will secure supplementary financing from other sources (Gould, 2003, 555). As Jacques Polak, former director of research and a former executive director of the IMF noted early on:

> "Traditionally, a key component of any Fund arrangement was that the resources provided by the Fund together with those from the World Bank, aid donors, commercial banks, and other sources, would cover the country's projected balance-of-payments gap. In the absence of an integral financing package, the Fund could not be confident that the degree of adjustment negotiated with the country would be sufficient. To this end the Fund sought financial assurances from other suppliers of financial assistance" (Cited in Gould (2006, 21)).

While some scholars argue that the negotiation of an IMF agreement would automatically lead to an increase in supplementary financing (catalytic effect) because the IMF serves as a signal of "good house keeping," any supplementary financing is explicitly negotiated, often in conjunction with IMF negotiations. In addition to the involvement of the private sector, national governments, particularly the G-7 countries, have played a central role during financial crises.[6] Potential creditor governments are usually consulted in the negotiations between the IMF and the crisis country. These negotiations also serve to determine how much supplementary financing the crisis country should receive from non-IMF sources.

[6]For a discussion of the role of private supplementary financiers, see Gould (2003, 2006).

Consequently, national governments frequently provide bilateral official loans (i.e. bailouts) to supplement IMF loans, particularly during financial crises.[7] Although decision-makers have strategically refrained from developing any rigid rules on the participation and responsibilities of these various actors (the ambiguity mainly serves to reduce expectations of large-scale bailouts for systemically important countries (Frankel and Roubini, 2001, 88)), international official loans for crisis countries are typically the consequence of some form of cooperation. Much ink has been spilled on the causes (and consequences) of IMF loans and conditionality,[8] and there is an increasing interest in sovereign debt restructuring and private sector involvement in financial rescue packages.[9] However, we know surprisingly little about the decision-making process by creditor countries during times of financial crisis. This lack of research is puzzling because creditor countries' participation in these coordinated bailouts is often substantial. During the Peso crisis, for example, the United States contributed the largest share of the overall package. Of the approximately $50 bn. bailout, the United States provided $20 bn., the IMF provided $17.8 bn., the BIS provided $10 bn., and a consortium of Latin American countries and Canada both provided $1 bn. each (Lustig, 1995). But the United States is not the only provider of large-scale bilateral bailouts during financial crises. Germany was by far the largest creditor to Greece in the most recent crisis, which by 2015 had received about €242.9 n. ($271 bn.) in official loans.[10] While the IMF provided about €48.1 bn. (some of this money has not been dispersed yet), Eurozone governments promised Greece almost €194.7 bn. Of this amount, Germany's exposure for the two bailouts totals €57.2 bn., France's is €43 bn., Italy's is €37.8 bn. and Spain's is €25.1 bn.



(a) IMF loans (b) Bilateral Bailouts

Figure 1: Count of IMF and Bilateral Bailouts (Source: IMF and Authors)

[7] In some cases, we find bilateral bailouts without corresponding IMF loans.

[8] See, for example, Knight and Santaella (1997); Thacker (1999); Gould (2003, 2006); Vreeland (2003); Stone (2004, 2008, 2012); Dreher (2004); Dreher and Vaubel (2004); Copelovitch (2010*a*,*b*).

[9] See, among others, Chauvin Depetris and Kraay (2007); Sturzenegger and Zettelmeyer (2008); Broz (2012); Cruces and Trebesch (2013); Dobbie and Song (2015); Reinhart and Trebesch (2016).

[10] *Reuters* June 28, 2015. "How much Greece owes to international creditors." These figures include loans made under the two bailouts in 2010 and 2012.

Figure 1 provides a more general picture of the importance of bilateral bailouts. The maps in each panel indicate how many loans countries have received during times of financial distress, both from the IMF (Figure 1a) and OECD creditor nations NEED TO CHANGE TO G7!! (Figure 1b). Many countries that receive IMF loans also receive bilateral bailouts, although the number of bailouts varies across crisis countries. Despite the prevalence and importance of bilateral bailouts, we know little about the motivations that drive creditor governments to provide or withhold them. This is particularly troubling because we would not expect the dynamics of bilateral lending to necessarily mirror the dynamics of IMF lending. The IMF is an international organization where states pool authority and delegate implementation to a supranational agency. Thus, IMF decision-making should move beyond individual national (political) interests and instead focus on considerations of economic efficiency and effectiveness. Although powerful actors can sometimes bias IMF decisions in their interest (Thacker, 1999; Stone, 2004, 2008, 2012; Dreher, Sturm, and Vreeland, 2009; Copelovitch, 2010*a*,*b*), politics does not play the central role that it does in the unilateral decision-making of bilateral bailouts.

Existing explanations for bilateral bailouts have focused on the effects of economic interests on policy making, thereby attributing comparable motivations to creditor countries. Initial research on this topic argued that the primary rationale for bilateral bailouts is to preserve the openness of the world economy (Kindleberger, 1986; Frankel and Roubini, 2001). Broz (2005), for example, analyzes US congressional voting on the financial rescue of Mexico and several Asian economies in the 1990s, and finds that members of Congress were more likely to vote in favor of an international financial rescue when they represented districts with highly skilled workers (who benefit from globalization according to the Stolper-Samuelson theorem). More recently, scholars have addressed other economic rationales for bilateral bailouts, such as the possibility of spillovers from the crisis country (Lipscy, 2003; Schneider and Slantchev, 2017). For example, in his qualitative analysis of the Asian Financial Crisis, Lipscy (2003) argues that cross-temporal variation in the incentives to provide bailouts mainly depended on the importance of the crisis country's economy for the creditor country.

Our goal is to incorporate some of these qualitative findings into a general political economy theory of why creditor governments provide bilateral bailouts. Our theory emphasizes the importance of economic interdependencies which can give rise to bilateral financial rescues as a strategy to minimize negative economic externalities. In a nutshell, we argue that creditor governments are more likely to address the financing gap of crisis countries if they are systemically important to them, both on a political and on an economic dimension. At the same time, domestic political considerations may mitigate the incentives to provide bilateral bailouts.

3 Why Bilateral Financial Rescues?

Our theory focuses on the decision of a potential *creditor country* to bailout a country that is experiencing a financial crisis and is in need of a financial rescue package (*crisis country*). We define a *bilateral bailout* as the provision of liquidity in the form of a loan to help solve the crisis country's external financing gap during a financial crisis. Whereas there is strategic ambiguity about the exact nature of international cooperation amongst various creditors – including the IMF, national governments, central banks, the Paris club, and private creditors – we can assume that in most cases (but not always) bilateral bailouts occur in conjunction with other financial rescue strategies, most notably IMF rescue packages. It is out of the scope of the paper to discuss the negotiation dynamics between the various actors in this paper,[11] but these dynamics provide us with important clues to the political and economic issues at hand in the decision over bilateral bailouts.

As we discussed above, major creditor countries get involved in the negotiations between the IMF and the creditor countries to discuss the potential of outside supplementary financing. We can therefore assume that creditor governments assume the role of providers of liquidity to fill the financing gap between what the IMF can provide and what the creditor country really needs to serve its debt payments, particularly in the short term. Economic analysis suggests that IMF loans serve to reduce moral hazard and to maximize the likelihood of policy reform in the crisis countries. While powerful member governments sometimes bias IMF decision-making toward strategically important countries, thereby increasing moral hazard problems, the IMF is better able to reduce moral hazard in the aggregate by pooling authority in its collective intergovernmental forum and delegating agenda setting and implementation to its own agents.

Supplementary bilateral financing from creditor governments is often based on IMF conditionality, insuring that creditor governments will be less driven by moral hazard concerns.[12] Because they can build on IMF conditionality (and try to influence it through the IMF Executive Board), we argue that the creditor governments' calculus depends more crucially on strategic considerations regarding the perceived importance of rescuing a particular crisis country. In other words, creditor countries are more likely to fill the financing gap if the financial crisis (or potential default) could have negative spillover effects for the creditor country itself. But when and how does a financial crisis in one country affect potential creditor countries? In the following, we discuss how economic and political interdependencies can increase the incentives of creditor governments to provide bilateral financial bailouts to a

[11] Schneider and Tobin (2017) provide a theoretical and empirical analysis on this question.

[12] That is not to say that creditor governments do not care about moral hazard issues. In fact, governments that provide bilateral bailouts often attach the same IMF conditions or their own conditions to loans. Yet, moral hazard may seem somewhat less important if the crisis country is strategically important to the creditor government because it induces problems in the short-term.

country in crisis.

Economic Exposure and Bilateral Bailouts

In open economies, financial crises in one country usually exert negative effects for individuals, companies, and political elites in other countries even if these countries do not face a financial crisis themselves. Financial and economic spillovers (externalities) from the crisis to the creditor country are two of the main mechanisms through which economic exposure may matter for a creditor country. Financial crises carry the risk of a sovereign default of the crisis country. A sovereign, or bank, default results in economic problems for foreign banks that hold some of the crisis country's government debt. These banks will lose their foreign assets and may slide into economic difficulties themselves. These difficulties lead, in the worst case scenario, to a default of the foreign bank. Even if a sovereign default does not lead to a default of foreign banks, it usually decreases the confidence of investors in highly exposed foreign banks. The more of the crisis country's debt the bank holds, the more exposed the bank. For example, Japan and EU countries held the majority of unsecured claims against the investment bank Lehman Brothers (the US government only held about 10%). The decision of the US government to let Lehman Brothers go bankrupt wiped out confidence in interbank markets of OECD countries, and was a major factor in the spread of the US banking crisis to Asian and European economies (Welfens, 2008). Creditor governments should therefore have a strong incentive to provide the necessary liquidity to prevent a spread of the crisis to their own country. This explains why the United States was anxious to assist South Korea, but not Indonesia, during the Asian Financial Crisis in the 1990s. Its American-based banks had substantial exposure to South Korea, but not to Indonesia (Pempel, 1999, 9).

Second, financial crises are usually accompanied by economic recessions. Declining consumer demand affects foreign firms that operate in the crisis country as well as foreign companies that export to the crisis country. Multinational corporations can lose important markets and have to scale down production. This naturally affects the economic welfare of the companies in the creditor country with consequences for the company's profits as well as employment. National firms in the creditor country that export to the crisis country have similar concerns. If the demand for their products slows down in the crisis country, then exports will fall, with negative effects for the profitability of production and employment. These negative effects intensify if the financial crisis leads to a devaluation of the crisis country's currency, because it (a) further lowers the demand in the crisis country for now costlier imports from the creditor country, and (b) increases export competition on third markets for the creditor country due to the ability of the crisis country to sell its goods for less. For example, debates about the Eurozone bailouts were accompanied by discussions about the effect of these countries' exit from the Eurozone

on Germany's economy. Since Germany is a main exporter to its Eurozone partners (about 71% of German goods were shipped to European countries in 2011, and 59% to EU members), it is expected to lose significant market share due to a decline in consumer demand in the crisis countries (Data from the Statistical Office of Germany). If the crisis countries were to leave the Euro, and consequently experienced a depreciation of their currency against the Euro, Germany would expect to lose additional market share against the new rivals.[13]

In more general terms, financial crises may have negative externalities for other countries and they will be felt particularly in those that are more exposed to the crisis country economically. The more interlinked the creditor country's financial and trade sectors are with the crisis economy, the greater is the expectation that a worsening of the crisis may lead to negative spillovers. The spillover effects will be felt throughout the creditor's economy: Employers will experience losses in profits and potential bankruptcies; Employees in the exposed sectors will experience a greater likelihood of unemployment due to the economic hardship of their companies. Declining consumer demand may also have a negative impact on other sectors of the economy, particularly if the creditor country is sliding into a financial and economic crisis itself. Since a bad economy tends to be the surest way to lose political office, creditor governments whose trade and financial sectors are exposed to negative externalities from the crisis country are likely to work to prevent spillovers. The most straightforward solution is to contribute much needed financial resources to an IMF rescue package. But where these rescue packages do not fully meet the needs of the crisis country, creditor country politicians whose economic sectors are exposed to a crisis country should have an incentive to provide a bilateral bailout:

Hypothesis 1 *The greater a potential creditor country's economic exposure to a crisis country, the more likely is a bilateral bailout, ceteris paribus.*

International Political Exposure and Bilateral Bailouts

Creditor governments may also want to become involved in a rescue program when they have political interests in the crisis country. Crisis countries may be systemically important for geopolitical, strategic, and or military reasons. As with foreign aid, donors may be more willing to ensure the stability of countries with similar ideological viewpoints (such as democracies), those involved in important alliances, or those with military or defensive importance. The influence of political interests is already prevalent in IMF negotiations where major donors such as the United States time and again bias lending decisions when it considers crisis countries as strategically important.

[13]The Guardian, May 2012, "Eurozone Crisis: If Greece Goes, Germany's Prosperity Goes with it."

The patterns in foreign aid and IMF lending suggest that creditor governments are more willing to provide additional financing during a financial crisis if they can help a "friend." These friends are important for many reasons. They pursue policies that are in the creditor country's interest, including trade policies and military policies. Friends are more likely to lower barriers to trade, they may pursue economic and institutional reforms that are in the interest of the creditor country, and they may provide important allies during UN negotiations or military interventions. For example, the United States provided a bailout to South Korea not only because US banks were exposed to Korea but also because the US had thirty-five thousand troops stationed there at the time (Pempel, 1999, 9). The ability to secure the "right" governments in place and to guarantee regime stability also provides lucrative benefits for creditor governments ranging from political support in multilateral negotiations to the creation of profitable business opportunities for domestic companies abroad. For example, the US bailout to Mexico during the peso crisis in the 1990s served to safeguard US exporters interests after the signing of NAFTA just a few years before the crisis hit. It also served to prevent the inflow of illegal immigrants from recession-ridden Mexico into the United States, with very clear political implications for the Clinton administration (de Long, de Long, and Robinson, 1996). Similarly, Russian loans and foreign aid to Kyrgyzstan in the 1990s and 2000s (and the lack of similar loans from the United States) induced the Kyrgyz government to expand security cooperation with Russia while forcing the US to vacate its air base in the region (Kinne and Bunte, 2016). For this reason, it is not surprising that heads of state, national security agencies and foreign affairs ministries in potential creditor countries often get heavily involved in consultations with finance ministries on the response to financial crises (Frankel and Roubini, 2001).

A bilateral financial rescue can also ensure that crisis governments pursue policies that are in the creditor country's foreign policy interests. Financial crises have a destabilizing effect, and defaults almost certainly lead to the ousting of governments from office, sometimes forcefully (Broz, 2013). If incumbent governments cooperate closely with the creditor country government, then the creditor should have a strong incentive to prevent the removal of these politicians from office. Failing to provide a bilateral bailout in a time of crisis could mean providing support to the crisis governments' opposition, or potentially to a new government that is less positively inclined to cooperate with the creditor government. For example, Brazil has always been strategically important to the United States. In the 1960s, the United States had a strong incentive to secure a new military government in Brazil as a way to foster democratization against Communist forces. For this reason, not only did the US allow Brazil to bypass the IMF, which insisted on greater austerity, but it also acted as the largest provider of supplementary emergency loans to the country during its 1965 crisis (Gould, 2006, 32ff.). Of course, this also means that if crisis governments are not closely aligned with the creditor government, then the creditor

should have little incentive to provide bilateral financial rescues. Donors have used foreign aid to stabilize and to de-stabilize developing regimes that are strategically important to them in much the same way (Higgott and Fuglestad, 1975; Hourani, 1991; Easterly, Satyanath, and Berger, 2008).

The geo-political and strategic importance of crisis countries should therefore play an important role in determining whether a creditor country is willing to fill the external financing gap of that country through a bilateral bailout:

Hypothesis 2 *The greater a crisis country's political exposure to a potential creditor country, the more likely is a bilateral bailout, ceteris paribus.*

Domestic Politics and Bilateral Bailouts

The discussion so far suggests that potential creditor governments have greater incentives to provide bilateral bailouts to crisis countries when the country is economically and/or politically exposed to that crisis country. But even if creditor governments might dearly want to provide such a bailout to prevent negative economic and political spillovers, they may be constrained domestically. Governments may have ideological constraints, they may face opposition from domestic veto players, or they may be constrained by unfavorable public opinion.

Political parties may have different predispositions toward international bailouts. While some governments believe that rescue packages are effective in resolving a crisis in another country, others believe that such bailouts are counterproductive and would rather support IMF loans or more private sector involvement. During the Greek debt crisis the French, amongst others, favored providing more liquidity to countries in crisis, while the more conservative Germany favored more austerity measures. The basic conflict occurs between those who emphasize the importance of stimulating the domestic economy in the crisis country by providing more liquidity and those who emphasize the importance of pursuing domestic macroeconomic and structural reforms to prevent future crises. The former group is more concerned about the immediate contagion effects and less about future moral hazard, while the latter is much more concerned about moral hazard to the extent that they would accept an economic crisis in the short-to-medium term.

Even if a creditor government wants to provide a bailout, they may be constrained by domestic veto players and institutions. For example, US President Bill Clinton had to resort to a loophole in US law to provide a bilateral bailout to Mexico during the Peso crisis because Congress rejected such a loan. Following the failure of Congress to pass the Mexican Stabilization Act, the Clinton administration resorted to using the Treasury's Exchange Stabilization Fund over which Congress did not have veto power. Similarly, EU member countries faced obstacles to providing bailouts because of the no-bailout clause in the EU treaties and domestic veto players. Consequently, domestic institutional and partisan veto players could reduce the

ability of potential creditor governments to offer bilateral bailouts to crisis countries. The more veto players a country has, and the more diverse the interests of these veto players, the more difficult it will be to gain approval for an official bilateral bailout. In countries with many veto players, the likelihood that these proposals either get vetoed in the legislative process or blocked by domestic courts based on a violation of some existing institutional rules is high.

Governments may also be constrained by electoral concerns. The current Eurozone crisis indicates that bailouts can be highly politicized in creditor countries. Concerns about re-distributional effects have led to much opposition by domestic publics in the EU (Katada, 1998; Bechtel, Hainmueller, and Margalit, 2012, 2014). For example, Bechtel, Hainmueller, and Margalit (2014) find that only 3% of respondents in Germany strongly favor the European bailouts (24% somewhat support bailouts). 61%, on the other hand, are either somewhat against or strongly against the bailouts. Burden-sharing therefore seems to be one of the most important points of contention in the public and political debates (Bechtel, Hainmueller, and Margalit, 2012). A similar politicization of public debates occurred during the discussions of a US bailout for Mexico in the 1990s, which led Republicans to oppose the bailout in Congress (de Long, de Long, and Robinson, 1996).

One problem is that bilateral bailouts imply a diversion of financial resources away from the government budget. Eventually, most of these loans will be repaid. However, in the short term the creditor government has to transfer at least some of its resources to the crisis country. If the crisis country defaults, or is granted debt relief (as is currently being discussed for Greece), then the creditor government also loses these resources in the long term. Creditor governments will thus face increasing pressure from domestic constituents who oppose bilateral bailouts. Usually, these bailout decisions take place away from the public debate and are not politicized. However, as the earlier examples show, opposition parties and the media can politicize the issue, which almost always means public opposition to a bailout in the creditor countries. The incentive to politicize these issues should be most likely before elections. Opposition parties are easily able to point to costly and often unpopular bailouts on the part of incumbent governments to score political points, especially before an upcoming election. Because incumbent governments are uncertain as to whether the issue will get politicized, they should be particularly wary of committing to a bilateral bailout before domestic elections, when electoral accountability is the greatest. For example, the German government delayed the first bailout to Greece in 2010 because it faced important and highly competitive elections at the regional level and was worried that the strong negative public opinion toward the bailout could affect the electoral outcome (Schneider and Slantchev, 2017).

Hypothesis 3 *Domestic political constraints decrease the likelihood of a bilateral bailout, ceteris paribus.*

4 Research Design

Our theory implies that economic and political exposure of a potential creditor country to a crisis country should increase the probability of a bailout, while domestic political constraints are likely to decrease the probability of a bailout. To test the empirical implications of our theoretical argument, we analyze creditor governments' decisions to provide bilateral bailouts to countries that experience financial crises between 1975 and 2010. To define a crisis country, we focus on those countries that have undergone a balance of payments crisis, currency crisis, sovereign debt crisis or a banking crisis. We rely on the two most cited papers and data sources on financial crises, Reinhart and Rogoff (2009) and Valencia and Laeven (2012). These two sources overlap significantly and provide the most comprehensive listing of countries that have undergone crises.

By creditor country, we refer to states that consider offering bilateral bailouts to a country in crisis. Creditor states tend to be large countries with resources sufficient to mitigate economic hardship via relatively large rescue packages (almost all bilateral rescue packages are greater than one billion US dollars). For this reason, we include the members of the G-7 as our sample of creditor countries.[14] Whereas this does not include the entire population of countries providing bilateral bailouts – for example, Russia, Poland, and the Faroe Islands offered bilateral bailouts to Iceland in 2010 – it includes most countries that have offered bilateral bailouts in the sample period; the G7 countries gave more than 75 percent of all bilateral bailouts in our sample. It also prevents us from selecting sample observations on the dependent variable. The unit of analysis is the potential creditor country–crisis country dyad in the year of a financial crisis. For example, Germany as the creditor country and Thailand as the crisis country in 1997 constitute one such dyad. To be clear, while all potential G7 countries are included in our analysis as creditor countries, only those countries that experienced a financial crisis are included in our analysis as crisis countries in the year that their crisis began.

Dependent Variable

Data on bilateral financial rescues are not readily available from creditor countries, the IMF or other international organizations. We compiled an original dataset containing the dollar amounts (or evidence of a bailout) that each G7 country contributed to crisis states. Data sources include government reports, data provided by Bordo and Schwartz (1999) and Roubini and Setser (2004), and newspapers such as the New York Times and Financial Times that were gathered through newspaper databases (including Lexis Nexis) and search engines. Our coding process, including sources and keywords, is available from the authors' websites. Every positive data entry on a bilateral bailout is supported by at least two different sources of

[14]The G7 includes Germany, France, Italy, Japan, Canada, the United Kingdom, and the USA.

information. Whereas the dollar amounts are not fully reliable (in a few cases different amounts were reported by different sources), the occurrence of a bilateral bailout is consistent across different sources. Thus, our dependent variable is coded 1 if a given creditor country provided a bilateral bailout to a given crisis country, and 0 otherwise.[15]

Explanatory Variables

According to Hypothesis 1, a creditor country should be more likely to provide a bilateral bailout, the greater its economic exposure to the crisis country. The concept of economic exposure includes both financial and trade exposure. We measure *Financial Exposure* as the logged amount of crisis country debt held by creditor country banks in millions of constant US dollars.[16] Data are from the Bank of International Settlements (BIS). We measure the degree of *Trade Exposure* as the logged amount of a creditor country's total bilateral trade with the crisis country, i.e. the sum of exports and imports.[17] Data are from the OECD.

Because we are using multiple variables to proxy for some latent measure of economic exposure, we turn to factor analysis to create an indicator of economic exposure. Principal component analysis (PCA) is typically used to reduce the amount of variables to a few while retaining the variation in all of the original variables (Jolliffe, 2002). Moreover, financial exposure and trade exposure are, perhaps unsurprisingly, highly correlated (the correlation coefficient is 0.81). Including both simultaneously in any model would introduce multicollinearity and our coefficient estimates of both trade and financial exposure are likely to be biased. Appendix A lists the variables included in the PCA along with their factor loadings. Both financial exposure and trade exposure are highly correlated with the standardized factor (greater than 0.4 is generally the standard by which this is judged). The economic exposure factor itself (the eigenvalue) accounts for 92 percent of the variance in financial and trade exposure.[18]

According to Hypothesis 2, a creditor country should be more likely to provide a bilateral bailout the more strategically important or geopolitically similar the cri-

[15] One difficulty in coding the dependent variable is the question of how to treat the regional bailouts from the EU to Greece and Ireland in 2010. EU members experienced considerable pressure to participate in the regional bailouts and Ireland received bilateral bailouts from EU member that also provided resources toward the EU bailout package. Since coding EU bailouts as bilateral bailouts could bias the results, we do not include them as bilateral bailouts for each EU member. Our main results are robust to excluding Greece and Ireland from the sample entirely, see Appendix E.

[16] Since the decision to provide bailouts are generally taken in a very short period of time, we measure all independent variables for the year in which the bailout was granted.

[17] Using trade as a share of the creditor country's total GDP does not significantly change the results.

[18] In constructing each of our independent variables through principal components analysis, the variables are standardized to have a mean of 0 and a standard deviation of 0.5. This eases interpretation of the results and enables comparisons across the indicators.

sis country is to the creditor country. There are a variety of ways to measure this idea of *Political Exposure*. We focus on three distinct measures. Our first measure is a dummy variable equal to one in any year that a country-pair is involved in a defense pact (*Alliance*). The idea is that countries that hold strategic or geopolitical importance for each other often enter into alliances. Perhaps the deepest form of alliance is a defense compact that requires states to give military assistance to each other if attacked. Data are from the Correlates of War (COW) Alliances dataset. Second, potential creditor countries are more likely to provide a bailout to crisis countries that are of a similar regime type. As all of our potential creditor countries are democracies, we include a dummy variable equal to one if the crisis country is also a democracy (*Democracy*). Data are from Boix, Miller, and Rosato (2013). Third, we include a measure for the potential similarity of foreign policy preferences between the crisis country and the creditor country. We use the difference in UN General Assembly ideal points that reflects the positions of the creditor and crisis countries toward the US-led liberal order. The idea is that countries with similar political ideologies may be more politically aligned. Data are from Strezhnev and Voeten (2012). As suggested by Bailey, Strezhnev, and Voeten (2017), we measure *Preference Similarity* as the negative absolute difference in the ideal points of both sides of each dyad. As with our economic exposure variable, we create a linear measure of this latent construct of political exposure by using principal component analysis. Appendix A lists the variables included in the PCA along with their factor loadings and the overall variation in the variables explained by the factor. Again, each of the variables is important for our proxy of political exposure.

According to Hypothesis 3, a country should be less likely to provide a bilateral bailout, the greater the domestic political constraints. We measure domestic political constraints through variables on election timing and veto players (*Domestic Constraints*). First, home countries should be less likely to provide bilateral bailouts if elections are close. To test for the effect of national elections we use a dummy variable equal to one if a legislative election was held in the creditor country in the same year as the crisis (*Election Timing*). Data on elections are from the Database of Political Institutions (Beck, Keefer, and Clarke, 2010). Creditor countries should also be less likely to provide bilateral bailouts when they are constrained by domestic veto players. To account for political constraints, we use Henisz' index of political constraints (Henisz, 2012). The index ranges from 0 to 1 and measures the number of veto players and their alignment across branches of government as opposed to a simple count of veto players (*Veto Players*). We combine these two variables into a latent measure of domestic political constraints using PCA. As with our other proxy variables, we include the factor loadings and eigenvalues in Appendix A, showing that the variables are important for our proxy of domestic political constraints and that the factor accounts for a substantial proportion of the variation in the included measures.

In addition to our main variables, we control for a variety of factors that may

influence the likelihood of a bilateral bailout. The economic status of the creditor country should matter for whether or not they provide bailouts. A potential creditor country facing its own economic problems is less likely to participate in a bailout of another country. We measure the economic well-being of the creditor country with both its economic growth rate (*GDP Growth*) and the unemployment rate (*Unemployment*). Data are from the World Bank. Second, we control for the effect of a creditor country's income on the likelihood of a bilateral bailout. Creditor countries with higher per capita income should be more likely to participate. *Per Capita GDP* is measured as the per capita GDP of the creditor country in thousands of constant US dollars. Next, we focus on the financial health of the crisis country. Even though all crisis countries in our data set are experiencing a financial crisis at the time they enter into our analysis, some will be in greater need of additional financing. Crisis countries with higher per capita incomes should be less likely to receive bailouts. *Per Capita GDP (Crisis)* is measured as the per capita GDP of the crisis country in thousands of constant US dollars. Data are from the World Bank. Second, the crisis country's current account as a percentage of GDP *Current Account (Crisis)*. Geographic proximity between the creditor and crisis countries might also affect financial rescues. We include we include a variable that measures the logged distance (in miles) between the creditor and crisis state (*Distance*). Data are from Gleditsch and Ward (2001). In addition, the size of any IMF bailout is likely to affect the crisis country's decision to provide a bailout in the first place. We include the logged amount of any (*IMF loan*). Finally, we include a measure of (*IMF liquidity*) to account for the possibility that a bilateral bailout is a response to IMF credit constraints. We measure IMF liquidity as the natural log of the IMF's holdings minus its disbursements in a given year (cash on hand). Data are from the IMF. To be comparable with our exposure and constraint measures, we standardize all of our controls to have a mean of 0 and a standard deviation of 0.5.

Appendix B contains summary statistics of all of the variables in our analysis. Perhaps the most notable feature is the amount of missing data on some of our variables of interest, especially on financial exposure. These data are not missing completely at random: the crisis countries with missing data tend to be poorer and with weak democratic institutions. Our coefficient estimates would likely be both inefficient and biased if we were to utilize listwise deletion for missing data (King et al., 2001). We estimate our primary model using multiple imputation, which has emerged as one of the primary methods for dealing with missing data. We impute five data sets producing predicted observations for all variables with missing data for each creditor country-crisis country dyad. We present coefficient estimates averaged over the five datasets with imputation-corrected standard errors. Over-imputation tests suggest that the imputation model performs well.

Model Specification

Since the creditor country's choice to initiate a bilateral bailout is a dichotomous choice, we estimate the following equation using logistic regression:

$$\begin{aligned} Pr(\text{Bilateral Bailout}_{ijt} = 1|X_{ijt}) = P(\beta_1(\text{Economic Exposure}_{ijt}) \\ +\beta_2(\text{Political Exposure}_{ijt}) + \beta_3(\text{Domestic Constraints}_{jt}) \\ +\beta_4(\text{Controls}_{ijt}) + \epsilon_{ijt}) \end{aligned} \quad (1)$$

where *Bilateral Bailout*$_{ij}$ indicates a financial bailout of crisis country i by creditor country j in year t. *Economic Exposure*$_{ijt}$, *International Political Exposure*$_{ijt}$, and *Domestic Politics*$_{jt}$ are our main independent variables of interest. *Controls*$_{ij}$ represents a vector of control variables defined above that are expected to impact the probability of a bilateral bailout and ϵ_{ijt} is the error term. We use robust standard errors to control for heteroscedasticity and cluster the standard errors by the creditor country.

5 Empirical Results

Table 1 reports the results of our analysis. Model 1 presents the log-odds ratios and Model 2 presents the average marginal effects to ease interpretation. The models fit the data well. The F-statistics are statistically significant, indicating that we can reject the null hypothesis that together the independent variables have no effect on the likelihood of a bilateral bailout.

Turning to the substantive effects, economic and political exposure are both positively associated with the probability of a bilateral bailout, while domestic political constraints reduce the probability of a bailout. Supporting Hypothesis 1, a one half of a standard deviation increase in a creditor country's economic exposure to a crisis country is associated with a 5 percentage point increase in the probability of a bailout, for an otherwise average country pair. Similarly for Hypothesis 2, a one half of a standard deviation increase in a creditor country's political exposure to a crisis country is associated with a 0.69 percentage point increase in the probability of a bailout. Finally, in support of Hypothesis 3, a one half of a standard deviation increase in a creditor country's domestic political constraints is associated with a 0.75 percentage point *decrease* in the probability of a bailout.

Two aspects of these results are important to note. First, and not surprising, the association between economic exposure and the probability of a bilateral bailout dwarfs that of political exposure or domestic political constraints. In fact, the effect sizes for the political exposure and domestic constraints variables are quite small. This may be because we have standardized our variables and a change of half of a standard deviation is a large change. It is also possible that while political exposure and domestic constraints matter, they simply play a much smaller role

	Model 1 (Log Odds)	Model 2 (Marginal Effects)
Economic Exposure	113.211***	4.729***
	(82.477)	(0.729)
Political Exposure	1.986**	0.686**
	(0.558)	(0.281)
Domestic Political Constraints	0.471**	-0.753**
	(0.153)	(0.324)
GDP Growth (Creditor)	1.608	0.475
	(1.036)	(0.644)
Unemployment (Creditor)	0.357**	-1.029**
	(0.176)	(0.492)
Per Capita GDP (Creditor)	3.037	1.111
	(2.190)	(0.721)
Per Capita GDP (Crisis)	0.157*	-1.850*
	(0.154)	(0.978)
Current Account (Crisis)	1.975*	0.680*
	(0.734)	(0.372)
Distance	1.00985	0.00980
	(0.457)	(0.452)
IMF Loan	3.109***	1.134***
	(0.964)	(0.310)
IMF Liquidity	0.752	-0.285
	(0.200)	(0.266)
Constant	0.00352***	-5.651***
	(0.00154)	(0.437)
Observations	946	946
F	285.5***	285.5***

Standard errors in parentheses

* p<0.10, ** p<0.05 *** p<0.01

Table 1: The Political Economy of Bilateral Bailouts.

than economic exposure in determining bilateral bailouts. Second, and probably more surprising, economic exposure seems to matter more than more narrow economic criteria for supporting adjustment in a crisis country. Economic exposure matters more than, for example, the crisis country's current account to GDP or its per capita GDP.[19] Overall, the single most important determinant of a bilateral bailout appears to be the economic exposure a creditor country has to a crisis country. This is followed by the economic well-being of the creditor county (proxied by its unemployment rate and its per capita income), the economic strength of the crisis country–both of which have a negative association with the probability of a bailout– and the size of any IMF disbursements. Our other control variables are mainly in the expected direction, but the estimates are less precise and the magnitude of their effects are much smaller. Distance between a creditor and a crisis country, creditor GDP growth as well as the crisis country's current account to GDP are positively associated with the probability of a bailout, while IMF liquidity has a negative association.

Because our measures of economic and political exposure and political constraints are continuous variables, the size effects are not the same at different levels of our variables of interest. Appendix C graphs the predicted probability of a half of a standard deviation increase in the level of exposure at different levels of initial exposure, while holding all other variables at their means. Because the proxy variables are standardized, 0 represents the average level of exposure and each one point movement along the x-axis is one half of a standard deviation above or below the mean. The black line indicates the predicted probability of a bailout and the dashed lines are the 95 percent confidence intervals around the predicted probability. The economic and political exposure figures slope upwards, indicating support for Hypotheses 1 and 2. For economic exposure, at low levels of economic exposure, a change in exposure has little effect on the probability of a bailout. As the existing level of economic exposure increases, however, an increase in that exposure creates a larger association with the probability of a bailout, reaching nearly 95 percent at the highest levels of economic exposure. In other words, at the highest levels of economic exposure (e.g., the United States and Mexico in 1994), any additional increase in economic exposure almost insures the possibility of a bailout. For political exposure, the change associated with an increase in international political exposure is always positive, but does not change significantly at different initial levels of political exposure. The domestic constraints figure slopes downward, indicating that as domestic political constraints increase, the probability of a bailout decreases. At the lowest levels of domestic constraints, an increase in the level of constraint has a large association with the probability of a bailout (though our estimates are less precise at these low levels of constraints). However, as the

[19] Appendix F shows that further economic indicators that measure the crisis country's debt are less important than economic exposure.

initial level of domestic political constraints increases, any additional constraints on the creditor government has a smaller association with the probability of a bailout.

6 Sensitivity Analysis

To test the robustness of our results to changes in the specification of our model, we consider additional proxies, changes to our estimation technique, and additional control variables.

In Appendix D, we test the robustness of our model to differences in the estimation technique. First, we deal with the possible endogeneity of the IMF bailout amount to the decision to bailout. It is possible that the IMF bailout affects the decision to provide a bilateral bailout, but a bilateral bailout might also be associated with the amount of the IMF loan. To deal with this possible endogeneity (which could affect our coefficient estimates), we follow Lang (2016) and exploit exogenous variation over time in the IMF's liquidity, interacted with a country's probability of participating in an IMF program. This instrument introduces variation across countries, is correlated with the IMF loan, but should be uncorrelated with the probability of a bilateral bailout. In the first stage, we regress the IMF loan amount on the interaction of IMF liquidity with a country's probability of receiving an IMF loan and substitute these predicted values for the IMF loan amount in a second stage. Model 1 presents our estimates of the instrumental variable estimation. The results are robust to dealing with this possible endogeneity. In fact, the similarity of the substantive results to our main model give us confidence that we do not need to worry a great deal about the possible endogeneity of IMF programs for our variables of interest. Next, we test the robustness of our method for dealing with missing data. In Model 2 we implement Equation 1 using full information maximum likelihood (FIML). Rather than imputing missing data, FIML adjusts the likelihood function so that each case contributes information on the variables that are observed. While not widely used in the political science literature, this method is often used in structural equation model and psychology (van Buuren, 2012). Using FIML does not significantly alter our results. Finally, in Model 3, we use listwise deletion of the missing variables. In doing this, we lose more than half of our observations and, as we have already explained, this data is not missing completely at random. Nevertheless, our results remain robust to using listwise deletion.

In Appendix E, we test the robustness of our latent measures of economic exposure and international political exposure to the inclusion of additional variables. An additional possible proxy for economic exposure is FDI between a home and crisis country. We do not include FDI in our main analysis because (a) trade and commercial credit are stronger proxies for the economic relationship between countries, (b) trade and investment flows are often highly correlated and (c) bilateral FDI data tend to be incomplete. Beyond the theoretical reasons for its exclusion, the factor

loadings for FDI are quite small (0.14), indicating a lack of correlation between FDI and our latent measure of economic exposure. Nevertheless, in Model 1 we include FDI as part of our economic exposure proxy. The inclusion of FDI in our linear proxy as little impact on our results. An additional proxy for political exposure could be the similarity of political ideology between the creditor and the crisis country. We create a dummy variable equal to 1 in every year that the creditor and crisis countries both have an executive categorized as either right, center or left and a 0 in years where the parties differ. Data are from the Database of Political Institutions (Beck, Keefer, and Clarke, 2010). As with FDI, ideological similarity has a low correlation with our proxy for political exposure (0.02), but its inclusion in the proxy has little effect on the results.

In Appendix F we include additional control variables and remove potential outliers from our sample. Creditor governments could be less likely to provide a bilateral bailout due to bailout 'fatigue.' Repeated financial crises may signal that the crisis government is not willing or able to implement the economic and financial reforms necessary to provide long-term stability. We approximate the idea of bailout fatigue by generating a variable that counts the number of crisis in the ten years prior to the financial crisis (*Bailout Fatigue*). Data are from Reinhart and Rogoff (2009). The results are presented in Model 1. The type of crisis the country is experiencing could determine whether or not a creditor country is willing to provide a bailout. In Model 2, we include a series of dummy variables for whether the crisis country is experiencing a currency crisis, stock market crash, domestic sovereign debt crisis, or a banking crisis. While distance may be an important determinant of bilateral bailouts, regional neighbors may also be more likely to provide bailouts. In Model 3, we include a dummy variable equal to one if the creditor country and the crisis country are in the same region. As we discuss above, regional bailouts from the EU to Greece and Ireland in 2010 could skew our results. In Model 4 we exclude Greece and Ireland from our analysis. None of the changes have strong impacts on our results.

In Appendix G, we include macroeconomic crisis country variables as identified in the IMF literature as key macroeconomic determinants of IMF bailouts (Bird and Rowlands, 2003; Copelovitch, 2010*b*). We include the crisis country's (i) external debt service to exports (*Debt Service*), (ii) the ratio of short-term debt to reserves (*Short-term Debt*), and (iii) the external debt to GDP ratio (*Debt to GDP*). We do not include these in our main regression because we are more concerned with the creditor-country decision-making process and because they are highly correlated with many of the variables that are theoretically important for our model. We include each variable individually in Models 1-3, and combined in Model 4. We find that their inclusion has little impact on our results and only the debt to GDP ratio enters significantly into our model.

Finally, Appendix H provides results of analyses that deal with potential time effects. The structure of our data is different from the typical binary dependent

variable time-series cross-sectional analysis. While we are concerned with the possibility of temporal dependence, we do not analyze all dyads in all years, but rather analyze countries only in times of financial crisis. Thus, we do not include (nor would we be able to include) cubic splines to account for temporal dependence as suggested by Beck, Keefer, and Clarke (2010). Instead, we include both a time counter (Model 1) and year fixed effects (Model 2). The results are robust to these changes.

In sum, the analysis provides support that the economic and political exposure of a potential creditor country to a country in crisis increases the probability of a bilateral bailout, while domestic political constraints decrease this probability. We find support for our argument that governments balance various, often contradicting interests when deciding whether to provide a bilateral rescue package to a country in financial trouble. Creditor governments indeed face a time inconsistency problem. Although they have incentives to provide bilateral bailouts to mitigate the potential negative spillovers from financial crises in countries to which they are exposed, domestic political constraints provide incentives to forgo bilateral bailouts. Importantly, these considerations play an important, and oftentimes dominant role, even if we take into account more narrow economic considerations for whether a country should receive financial aid.

7 Conclusion

In this paper, we analyzed the determinants of bilateral bailouts. We argued that it is not just the narrow economic considerations (i.e., the need for adjustment) that drives governments' decisions to provide bailouts, but also broader strategic economic and political factors. Creditor governments have to balance different domestic and international pressures. On one hand, the greater the economic and (to a lesser extent) political exposure to the crisis country, the greater is the incentive to provide a bilateral bailout. The greater the domestic political constraints in the creditor country, the less likely is a bilateral bailout. To analyze the politics of bilateral bailouts, we collected original data on bilateral financial bailouts of G7 creditor countries to crisis countries between 1970 and 2010. The findings demonstrate that strategic considerations play an important role in the decisions to provide bilateral bailouts. They also provide information about the type of exposure that drives creditor governments' decisions. Whereas both political and economic exposure matter, unsurprisingly it is economic exposure that has the largest impact on bilateral bailouts; an influence that even trumps less strategic economic considerations.

With these results, our paper provides a first step toward a theory of the political determinants of bilateral bailouts. Whereas economic analyses have largely focused on non-strategic considerations, our results provide more general support to the existing case studies that find that economic and political exposure matter. The

collection of a data set on bilateral financial bailouts also provides opportunities to scrutinize the causes and consequences of bilateral bailouts more fully in future research. Whereas our paper focuses on the likelihood that a bailout is provided, governments have pursued other strategies to financially rescue crisis countries. An important question is under which conditions governments choose particular strategies. Our analysis provides some initial insight for such a theory. Whereas bilateral bailouts are highly public and salient in the home countries' population – and therefore often influenced by electoral politics – other policies, such as currency swaps or privately financed haircuts, are either less public or less salient, and therefore a potential solution when bailouts would be too costly politically.

References

Bailey, Michael A., Anton Strezhnev, and Erik Voeten. 2017. "Estimating Dynamic State Preferences from United Nations Voting Data." *Journal of Conflict Resolution* 61 (2): 430–456.

Bechtel, Michael, Jens Hainmueller, and Yotam Margalit. 2014. "Preferences for International Redistribution: The Divide Over the Eurozone Bailouts." *American Journal of Political Science* 58 (4): 835–856.

Bechtel, Michael M., Jens Hainmueller, and Yotam Margalit. 2012. "Studying Public Opinion on Multidimensional Policies: The Case of the Eurozone Bailouts." Unpublished Working Paper.

Beck, Thorsten, Philip E. Keefer, and Geroge R. Clarke. 2010. "Database of Political Institutions." *World Bank Economic Review* 15 (1): 165–176.

Bird, Graham, and Dane Rowlands. 2003. "Political Economy Influences Within the Life-Cycle of IMF Programmes." *The World Economy* 26 (9): 1255–1278.

Boix, Carles, Michael Miller, and Sebastian Rosato. 2013. "A Complete Data Set of Political Regimes, 1800-2007." *Comparative Political Studies* 46 (12): 1523–1554.

Bordo, Michael D., and Anna J. Schwartz. 1999. "Under What Circumstances, Past and Present, Have International Rescues of Countries in Financial Distress Been Successful?" *Journal of International Money and Finance* 18: 683–708.

Broz, J. Lawrence. 2005. "Congressional Politics of International Financial Rescues." *American Journal of Political Science* 49 (3): 479–496.

Broz, J. Lawrence. 2012. "The Federal Reserve as Global Lender of Last Resort, 2007-2010." Unpublished Working Paper.

Broz, Lawrence. 2013. "Partisan Financial Cycles." In *Politics of the New Hard Times: The Great Recession in Comparative Perspective*, ed. David L. Lake, and Miles Kahler. Ithaca: Cornell University Press.

Chauvin Depetris, Nicolas, and Art Kraay. 2007. "Who Gets Debt Relief?" *Journal of the European Economic Association* 5: 333–42.

Copelovitch, Mark S. 2010*a*. *The International Monetary Fund in the Global Economy*. Cambridge: Cambridge University Press.

Copelovitch, Mark S. 2010*b*. "Master or Servant? Common Agency and the Political Economy of IMF Lending." *International Studies Quarterly* 54 (1): 49–77.

Cruces, Juan J., and Christoph Trebesch. 2013. "Sovereign Defaults: The Price of Haircuts." *American Economic Journal: Macroeconomics* 5 (85-117).

de Long, Bradford, Christopher de Long, and Sherman Robinson. 1996. "The Case for Mexico's Rescue: The Peso Package Looks Even Better Now." *Foreign Affairs* 75 (3): 8–14.

Dobbie, Will, and Jae Song. 2015. "Debt Relief and Debtor Outcomes: Measuring the Effects of Consumer Bankruptcy Protection." *American Economic Review* 105 (3): 1272–1311.

Dreher, Axel. 2004. "The Influence of IMF Programs on the Re-election of Debtor Governments." *Economics & Politics* 16: 53–75.

Dreher, Axel. 2009. "IMF Conditionality: Theory and Evidence." *Public Choice* 141: 233–267.

Dreher, Axel, Jan-Egbert Sturm, and James R. Vreeland. 2009. "Global Horse Trading: IMF Loans For Votes in the United Nations Security Council." *European Economic Review* 53 (7): 742–757.

Dreher, Axel, and Roland Vaubel. 2004. "Do IMF and IBRD Cause Moral Hazard and Political Business Cycles? Evidence from Panel Data." *Open Economies Review* 15: 5–22.

Dreher, Axel, and Stefanie Walter. 2010. "Does the IMF Help or Hurt? The Effect of IMF Programs on the Likelihood and Outcome of Currency Crises." *World Development* 38 (1): 403–426.

Easterly, William, S. Satyanath, and D. Berger. 2008. "Superpower Interventions and their Consequences for Democracy: an Empirical Inquiry." Unpublished Working Paper.

Frankel, Jeffrey, and Nouriel Roubini. 2001. "The Role of Industrial Country Policies in Emerging Market Crises." NBER Working Paper No. 8634.

Gleditsch, Kristian S., and Michael D. Ward. 2001. "Measuring Space: A Minimum Distance Database." *Journal of Peace Research* 38 (748-768).

Gould, Erica. 2006. *Money Talks: The International Monetary Fund, Conditionality, and Supplementary Financiers*. Palo Alto: Stanford University Press.

Gould, Erica R. 2003. "Money Talks: Supplementary Financiers and International Monetary Fund Conditionality." *International Organization* 57 (3): 551–586.

Henisz, Witold. 2012. "Political Constraint Index (POLCON) Dataset." Machine-readable Data File.

Higgott, R., and F. Fuglestad. 1975. "The 1974 Coup d'Etat in Niger: Towards an Explanation." *The Journal of Modern African Studies* 13 (3): 383–398.

Hourani, A. 1991. *A History of the Arab Peoples*. London: Faber and Faber.

IMF. 1995. Press Release: IMF Approves US$17.8 Billion Stand-By Credit for Mexico. Technical report International Monetary Fund Washington, D.C.: .

International Financial Institution Advisory Commission. 2000. Report of the International Financial Institution Advisory Commission ("Meltzer Commission"). Technical report International Financial Institution Advisory Commission Washington, D.C.: .

Jolliffe, Ian T. 2002. *Principal Component Analysis*. Berlin: Springer.

Katada, Saori N. 1998. "Collective Management of International Financial Crises: The Japanese Government in the Pacific Rim." CIAO Working Paper.

Kindleberger, Charles. 1986. "International Public Goods without International Government." *American Economic Review* 76 (1): 1–13.

King, Gary, James Honaker, Anne Joseph, and Kenneth Scheve. 2001. "Analyzing Incomplete Political Science Data: An Alternative Algorithm for Multiple Imputation." *American Political Science Review* 95: 49–69.

Kinne, Brandon, and Jonas Bunte. 2016. "Troops or Cash? Analyzing the Interdependencies Between Security and Financial Cooperation." Unpublished Working Paper.

Knight, Malcolm, and Julio A. Santaella. 1997. "Economic Determinants of IMF Financial Arrangements." *Journal of Development Economics* 54 (2): 405–436.

Lang, Valentin. 2016. "The Economics of the Democratic Deficit: The Effect of IMF Programs on Inequality." Heidelberg University Discussion Paper 617.

Lipscy, Phillip Y. 2003. "Japan's Asian Monetary Fund Proposal." *Stanford Journal of East Asian Affairs* 3 (1): 93–104.

Lustig, Nora. 1995. "The Mexican Peso Crisis: The Foreseeable and the Surprise." Brookings Institutions Working Paper.

Pempel, T.J., ed. 1999. *The Politics of the Asian Economic Crisis*. Ithaca: Cornell University Press.

Reinhart, Carmen M., and Christoph Trebesch. 2016. "Sovereign Debt Relief and Its Aftermath." *Journal of the European Economic Association* 14 (1): 215–251.

Reinhart, Carmen M., and Kenneth S. Rogoff. 2009. *This Time is Different: Eight Centuries of Financial Folly*. Princeton: Princeton University Press.

Roubini, Nouriel, and Brad Setser. 2004. *Bailouts or Bail-Ins?: Responding to Financial Crises in Emerging Economies*. Washington, D.C.: Institute for International Economics.

Schneider, Christina J., and Branislav L. Slantchev. 2017. "The Domestic Politics of International Cooperation. Germany and the European Debt Crisis." International Organization (forthcoming).

Schneider, Christina, and Jennifer Tobin. 2017. "International Cooperation during Financial Crises." Unpublished Working Paper.

Stone, Randall W. 2004. "The Political Economy of IMF Lending in Africa." *American Political Science Review* 98 (4): 577–591.

Stone, Randall W. 2008. "The Scope of IMF Conditionality." *International Organization* 62 (4): 589–620.

Stone, Randall W. 2012. *Controlling Institutions: International Organizations and the Global Economy*. Cambridge: Cambridge University Press.

Strezhnev, Anton, and Erik Voeten. 2012. "United Nations General Assembly Voting Data." http://hdl.handle.net/1902.1/12379 UNF:5:fWzDBiI+iY41v5zJF3JnoQ== Erik Voeten [Distributor] V4 [Version].

Sturzenegger, Federico, and Jeromin Zettelmeyer. 2008. "Haircuts: Estimating Investor Losses in Sovereign Debt Restructurings, 1998-2005." *Journal of International Money and Finance* 27: 780–805.

Thacker, Strom C. 1999. "The High Politics of IMF Lending." *World Politics* 52: 38–75.

Valencia, Fabian, and Luc Laeven. 2012. "Systematic Banking Crisis Database: An Update." IMF Working Paper No. 12/163.

van Buuren, Stef. 2012. *Flexible Imputation of Missing Data*. New York: CRC Press.

Vreeland, James. 2003. *The IMF and Economic Development*. New York: Cambridge University Press.

Welfens, Paul J. J. 2008. "The International Banking Crisis: Lessons and EU Reforms." Unpublished Working Paper.