**THE POLITICAL ECONOMY OF BILATERAL BAILOUTS**

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**Abstract**

IMF loans during times of financial crisis often occur in conjunction with bilateral financial rescues. These bilateral bailouts are substantial in size and a central component of international cooperation during financial crises. We analyze the political economy of bilateral bailouts and study the trade-offs that potential creditor governments experience when other countries find themselves in financial distress. Creditor governments want to stabilize crisis countries by providing additional liquidity, particularly if the crisis country is economically or politically important to them. But they are constrained by domestic politics. Politicians aim to balance these countervailing pressures. Whereas governments want to provide a bailout when their own 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 limit their ability to bail out other countries. We test our hypotheses using an original data set on bilateral bailouts by the G-7 countries to countries that experienced financial crises between 1970 and 2010. The findings of our statistical analysis support our theoretical argument and contribute to a deeper understanding of the complex structure of international cooperation during financial crises.

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Financial crises have become more frequent, virulent, and global. The effects of these crises on global economic activity are “breathtaking.”¹ To stem their devastating effects, policy-makers implement structural reforms to bring about macroeconomic stability, and in the worst crises, they rely on large-scale financial support from the international community. Since its foundation, the International Monetary Fund (IMF) has become the cornerstone in international efforts to rescue troubled economies and to prevent regional and global contagion. The IMF pools resources from its member countries and lends it to countries that experience financial crises, but lack access to international capital markets to solve their balance-of-payments difficulties. Even though the IMF has given numerous loans to countries in crisis, historically it has been underfunded and its resources have fallen woefully short of what crisis economies need in order to fully recover.²

As a consequence, the IMF relies on the cooperation of other actors to bail out countries facing financial crises. When the Mexican peso suddenly deteriorated in 1994, the international financial rescue was a collaborative effort between the IMF ($17.8 billion), individual creditor countries ($22 billion), and the Bank of International Settlements ($10 billion). During the Asian financial crisis, Thailand received an IMF rescue package worth $4 billion but also over $9 billion in bilateral bailouts from various countries, notably Japan and other Asian economies. In 2010, Greece received a $145 billion rescue package of which only $40 billion came from the IMF. Eurozone members provided the remaining $105 billion in bilateral loans. The participation in such bilateral bailouts varies considerably. Although Thailand received large bailouts from a

¹ Reinhart and Rogoff 2009: 225.
² In addition, its concerted lending strategy has made the IMF’s crisis response very slow (McDowell 2016, 65).
number of Asian economies, the United States decided not to provide a bailout to the troubled Thai economy even though it had offered one to South Korea during the same period and one to Mexico in 1995. Some observers were puzzled by this decision because the massive U.S. bailout to Mexico had been considered instrumental in allowing the Mexican economy to recover relatively quickly.3

Bilateral financial rescues occur frequently, are substantial in size, and can significantly contribute to the recovery of crisis economies. Yet, we know very little about why and how governments bail out countries in crises. We develop and test a political economy theory of bilateral financial rescues.4 We argue that a government’s decision to bail out a crisis country is predominantly driven by strategic economic and political concerns at the international and the domestic level. Creditor governments experience countervailing pressures when deciding whether or not to bail out a country (to distinguish potential bailout-providing governments from crisis governments, we refer to them as creditor governments). Creditor governments use bailouts to prevent potential negative financial spillovers from the crisis country, especially if the two countries are economically interdependent. In these cases, creditor governments fear a decline in economic growth due to falling exports to the crisis country or a banking crisis when the crisis country defaults on loans provided by banks in the creditor country. To minimize economic and political instability in countries that are central to their own foreign policy or to the stability in a region, creditor governments should also want to bail out countries that are of geo-political and/or strategic importance. The downside is that these bailouts are politically costly. Creditor

3 Rubini and Setser 2004: 183.

4 A bilateral bailout occurs when a creditor offers liquidity to a crisis country in order to fill that country’s financing gap. Bailouts can take the form of loans, bonds, stocks or cash. We use the term interchangeably with ‘financial rescue.’
governments may therefore be reluctant to offer bailouts when they are electorally vulnerable or when they face other political and economic constraints at the domestic level. Media and opposition parties often portray bailouts as costly to domestic taxpayers, especially if the likelihood of a default on the loan is high. Governments do not know whether the media or the opposition will politicize a bailout, which makes them more reluctant to provide one.

We collect an original data set on bilateral bailouts provided by G-7 countries during financial crises between 1970 and 2010. The findings of a logistic regression analysis using multiple imputation and a spatial lag support 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 bailout the crisis country. Creditor governments are less likely to bailout countries in crises if they are electorally vulnerable. 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 after addressing potential endogeneity concerns.

With these findings, we shed new light on the complex nature of international cooperation during financial crises. Resolution of financial crises involves decisions over a large number of financial instruments, including IMF and official bilateral lending, sovereign debt restructuring and rescheduling through the Paris Club and other informal channels, swap agreements,⁵ and private sector involvement.⁶ Our analysis focuses on the dynamics of bilateral bailouts, which are a central but understudied part of international cooperation during financial crises. Even though governments often offer bilateral bailouts in conjunction with IMF lending—and our theory builds on the insights from that literature—the dynamics of bilateral bailouts underlie decision-making.

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⁵ Broz 2015.

processes that are different from the dynamics of IMF lending decisions. Strategic considerations matter for IMF lending (particularly when U.S. interests are at stake). Nevertheless, the collective intergovernmental decision-making process, the need to ensure the IMF’s legitimacy, and the potential institutional influence of the IMF bureaucracy constrains governments that want to pursue their individual preferences through IMF lending. Governments that provide bilateral bailouts face significantly fewer constraints and they command over significantly greater financial resources. At the same time, they are less insulated from domestic political pressure. Government decisions are more easily politicized at the domestic level by voters, the opposition, and the media. It is also easier for voters to attribute responsibility when governments reach unilateral decisions over bailouts than when they take positions on bailouts in IMF negotiations.

Our paper explicitly analyzes these incentives and constraints in a political economy model and tests its empirical implications. Economic analyses of bilateral bailouts focus on more narrow economic criteria that would support a bilateral bailout; strategic economic and political considerations only play a minor role in these analyses. Our paper develops a theoretical argument for why such factors should matter, and how they matter. The empirical analysis, which relies on a unique data set of bilateral bailouts during financial crises, offers the first comparative analysis of the politics of bilateral bailouts that spans across countries and over time. The findings


8 Dreher and Vaubel 2004; Stone 2008, 2012; Copelovitch 2010a,b; Lipsy 2015.

9 This explains why G-7 financial exposure has only a conditional impact on IMF lending (Copelovitch 2010), but a direct unconditional impact on bilateral bailouts (see results below).

10 Kindleberger 1986; Frankel and Roubini 2001; Broz 2005. Qualitative analyses on bilateral bailouts uncover some of the strategic rationales of bilateral bailouts (Lipsy 2003; McDowell 2016; Schneider and Slantchev 2018).
support a political economy explanation; they also show that, at least for the bilateral bailouts in our sample, such strategic considerations are often as important, if not more important than more objective economic criteria for a bailout.

INTERNATIONAL COOPERATION DURING FINANCIAL CRISSES

This section introduces the concept of bilateral financial rescues. Building on the existing literature and our own data collection efforts we demonstrate that bilateral bailouts are a central component of international cooperation during financial crises, discuss how bilateral bailouts can complement and even substitute IMF bailouts, and provide an overview of the variation in bilateral bailouts to crisis countries since the 1970s.

What is the Role of Official Lending During Financial Crises?
Throughout history, a large number of countries, rich and poor alike, have experienced boom-and-bust cycles.\textsuperscript{11} Boom-and-bust cycles lead to situations where the size of capital outflows and debt that countries must service exceed their foreign reserves. This external financing gap often remains even after the government has made domestic policy adjustments.\textsuperscript{12} The economic effects are profound. Financial crises lead to collapses in housing and equity prices, significant declines in economic output and employment, and explosions of government debt (by about 86% in some cases, typically driven by a significant decline in tax revenues). Historical crisis data indicate that unemployment rates rise by an average of 7% in the years following a financial crisis and output

\footnotesize{\textsuperscript{11} Reinhart and Rogoff 2009; Valencia and Laeven 2012.}

\footnotesize{\textsuperscript{12} Frankel and Roubini 2001.}
declines by over 9%. Countries that experience financial crises take years to recover. Years, in which citizens are plagued by unemployment, declining incomes, and significant (negative) changes to their overall quality of life. Greece offers a particularly stark example. Along with a 5% decline in GDP growth, the Greek unemployment rate climbed from an already high 14.1% in 2010 to an astounding 27.6% in 2013, and still lingered at 20.6% in early 2018. In 2017, 42.3% of the young active population was unemployed (easing from 47.1% in 2017). Consumer and business confidence crashed in 2009 and has not recovered to this date.

To avert the devastating effects of financial crises, countries with serious shortfalls in financial capital rely on support from international creditors to provide them with sufficient liquidity and other resources (i.e., technical assistance) to fulfill their financial obligations. The scholarly 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 by limiting the size of the loans and requiring policy reforms.

Why is IMF Lending Limited During Crisis Resolution?
The role of the IMF is indeed important, but international cooperation on financial crisis resolution involves a large number of additional actors. IMF loans usually occur together with other forms of crisis lending, most importantly official bilateral lending by individual creditor countries, sovereign debt restructuring, swap agreements, and private sector involvement. The need for additional sources of lending arises from a central dilemma of international cooperation during

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13 Reinhart and Rogoff 2009: 224.
14 Schneider 2019.
15 Vreeland 2007; Dreher 2009; Dreher and Walter 2010.
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. Even though the IMF comes closest, it cannot provide unlimited funds to crisis countries.\(^\text{16}\)

The IMF has institutional limits on the size of loans it can provide.\(^\text{17}\) A crisis country’s access to IMF financing is based on its quota, which is a weighted average of GDP (50%), openness (30%), economic variability (15%), and international reserves (5%). Under the Stand-By Arrangements—the IMF’s workhorse lending instrument—a crisis country can request up to 145% of its quota annually and 435% cumulatively (access may be somewhat higher in exceptional circumstances).\(^\text{18}\)

These caps can seriously hamper the ability of the IMF to address liquidity shortfalls adequately. When the IMF does step in, the size of the loans are typically just enough to cover “the most obvious sources of payment difficulties.”\(^\text{19}\) 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 at the time, both in terms of amount and overall quota (about 688.4%).\(^\text{20}\) Still, the amount was insufficient to address Mexico’s financial crisis adequately; other external financing was needed to fill the gap. Similarly, in May 2010 the IMF contributed $30 billion to a financial rescue package for Greece. This 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 problems.

\(^{16}\) For a recent discussion of these issues, see McDowell (2016, Chapter 2).

\(^{17}\) One reason for these limits are moral hazard concerns (Frankel and Roubini, 2001, 40).


\(^{19}\) Roubini and Setser 2004: 19.

By design, the IMF is slow in its response and often ill-equipped to fill the external financing gap of crisis countries. In fact, the IMF’s financial resources in relation to cross border capital flows have declined significantly over the last two decades.\textsuperscript{21} The extent of this problem becomes evident when considering the proposal of the Meltzer Commission, which was created by U.S. Congress in 1999 to offer recommendations for the reform of the IMF. Although never enacted, the report suggested that the IMF should 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).\textsuperscript{22} According to the U.S. 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, experts estimated that Mexico would need a loan of at least $50 billion, which was more than double of what the IMF \textit{de facto} provided.

\textit{What is the Role of Other Actors?}

The evidence suggests that the IMF is highly dependent on supplementary financiers to help ensure the success of its loan programs. In fact, IMF programs usually assume that the crisis country will secure additional financing from other sources.\textsuperscript{23} 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-

\begin{itemize}
  \item \textsuperscript{21} McDowell 2017: 30f.
  \item \textsuperscript{22} International Financial Institution Advisory Commission 2000.
  \item \textsuperscript{23} Gould 2003: 555.
\end{itemize}
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.”

While some scholars argue that an IMF agreement would automatically lead to an increase in supplementary financing (catalytic effect) because the IMF serves as a signal of “good housekeeping,” any supplementary financing is explicitly negotiated. In addition to the involvement of the private sector, national governments, particularly the G-7 countries, have played a central role in financial crisis resolution. The IMF and the crisis country usually consult with potential creditor governments in their loan negotiations. These negotiations also help determine how much financing the crisis country should receive from non-IMF sources. National governments frequently provide bilateral official loans, particularly during financial crises. 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—international official loans for crisis countries are a consequence of some form of international cooperation.

A New Data Set on Bilateral Bailouts


26 Frankel and Roubini 2001: 88.
Much ink has been spilled on the causes (and consequences) of IMF loans and conditionality, and there is an increasing interest in sovereign debt restructuring and private sector involvement. However, we know surprisingly little about the decision-making process of creditor countries despite the central role of bilateral bailouts in financial crisis resolution. During the Mexican peso crisis, the United States contributed the largest share of the overall rescue package. Of the approximately $50 billion bailout, the United States provided $20 billion, the IMF provided $17.8 billion, the Bank of International Settlements (BIS) provided $10 billion, and a consortium of Latin American countries and Canada both provided $1 billion each. 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 billion ($271 billion) in official loans. While the IMF committed about €48.1 billion, Eurozone governments promised Greece almost €194.7 billion. Of this amount, Germany’s exposure totals €57.2 billion, France’s is €43 billion, Italy’s is €37.8 billion, and Spain’s is €25.1 billion.

To gain a better understanding of the prevalence of bilateral financial rescues, we compiled an original dataset containing the dollar amounts (or evidence of a bailout when amounts conflicted) that the G-7 countries contributed to crisis states between 1975 and 2010. To define a crisis country, we focus on countries experiencing a balance-of-payments crisis, currency crisis, sovereign debt crisis, or a banking crisis. We rely on the extensive data collection efforts by

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27 See Fn. 7 & 8.

28 See, among others, Gould 2003, 2006; Chauvin Depetris and Kraay 2007; Sturzenegger and Zettelmeyer 2008; Cruces and Trebesch 2013; Dobbie and Song 2015; Reinhart and Trebesch 2016.

29 Lustig 1995.

30 Reuters June 28, 2015. “How much Greece owes to international creditors.” These figures include loans made under the two bailouts in 2010 and 2012.
Reinhart and Rogoff (2009) and Valencia and Laeven (2012) to identify crisis countries. Both data sources overlap significantly and provide the most comprehensive listing of countries that have undergone financial crises. Our dataset is constrained to the period 1975-2010 for two reasons. First, both data sets of financial crises end around 2010, which constrains the end date of our analysis. Second, it was difficult to find reliable data sources that document bilateral bailouts prior to 1975. Any available information before 1975 is likely biased toward the most salient cases. Our data set includes 136 financial crises.

By creditor country, we refer to states that consider offering bilateral bailouts to a country in financial crisis. Creditor states tend to be large countries with sufficient resources to mitigate economic hardship by providing relatively large rescue packages (almost all bilateral rescue packages are greater than $1 billion). For this reason, we include the members of the G-7 as our sample of potential creditor countries. Although this does not include the entire population of countries that have provided bilateral bailouts (for example, Russia, Poland, and the Faroe Islands bailed out Iceland in 2010), it does include most countries that have offered bilateral bailouts in the sample period; the G-7 countries gave more than 75 percent of all bilateral bailouts at least amongst OECD countries.

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 G-7 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

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31 The G-7 includes Germany, France, Italy, Japan, Canada, the United Kingdom, and the USA.
newspaper databases (including Lexis Nexis and AccessWorld) and other search engines. Every positive data entry on a bilateral bailout is supported by at least two different sources of 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.

The data set offers some evidence about the prevalence and relative importance of bilateral bailouts. The IMF provided 61 financial rescue packages across these crises, while creditor countries provided 78 bilateral bailouts. The larger number of bilateral bailouts is driven by the fact that crisis countries often receive more than one bilateral bailout. About 23% of the IMF loans were supplemented with at least one bilateral bailout.

![Figure 1 Regional Variation in IMF Loans and Bilateral Bailouts to Countries in Crisis](image)

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32 Details on the coding process, including sources and keywords, are available upon request.
Figure 1 provides a more general picture of the importance of bilateral bailouts from G-7 creditor countries to countries experiencing financial crises from 1970-2010, using the data that we collected. Among all countries that experienced a financial crisis, green-colored countries received neither IMF nor bilateral bailouts, blue-colored countries received both an IMF loan and at least one bilateral bailout, yellow-colored countries received only a bilateral bailout and red-colored countries received only an IMF bailout. While all four possibilities are prevalent, it is important to point out that there are only few instances in which the IMF was the sole actor in financial crisis resolution attempts (especially outside of Africa). Another interesting observation is that, though infrequently, countries have received bilateral bailouts without receiving an IMF loan. For example, Japan bailed out Malaysia in 1997; the IMF did not.

(a) IMF Loans

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33 A number of countries experience multiple financial crises and are bailed out (or not) by different sources each time. When this was the case, we selected the most recent bailout for the purposes of providing a snapshot.
While Figure 1 focuses on the variation of bilateral and multilateral bailouts, Figures 2a and 2b provide additional information on how many loans countries received during times of financial distress, both from the IMF (Figure 1a) and G-7 creditor nations (Figure 1b). The figures again highlight some of the regional differences and complementarities in multilateral versus bilateral bailouts, but also show the variation in the number of bailouts to crisis countries. This variation stems both from receiving multiple bailouts from different creditor countries during individual crises and from receiving repeated bailouts during multiple crises. For example, Greece received 13 bilateral bailouts during its most recent crisis, while Argentina received a bilateral bailout from the United States both in 1980 and 2001.

In sum, the data that we collected indicates that bilateral bailouts are important and sizeable complements to IMF bailouts with significant influence on the financial recovery of countries. We also observe a rather dramatic variation in the likelihood that bilateral bailouts are provided. While
creditor countries are often willing to provide bailouts to countries in financial distress, not all creditor countries bail out each country during every financial crisis.

*What We Know (And Don’t Know) About Bilateral Bailouts*

Despite their importance, bilateral bailouts have not received much scholarly attention. Existing explanations for bilateral bailouts focus on the effects of economic interests on policy making, thereby attributing comparable motivations to creditor countries. Aside from stressing objective economic criteria for providing bilateral bailouts that minimize the risks for the creditor country, scholars have argued that the primary rationale for bilateral bailouts is to preserve the openness of the world economy.\(^\text{34}\) Broz (2005) analyzes U.S. 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).

Scholars started to address other economic rationales for bilateral bailouts, such as the possibility of negative externalities from the crisis country, not until very recently. Lipsky (2003) argues that cross-temporal variation in the incentives to provide bailouts during the Asian Financial Crisis mainly depended on the importance of the crisis country’s economy for the creditor country. Schneider and Slantchev (2018) show that Germany’s decision-making calculus during the Greek debt crisis was driven by domestic political concerns.

Our goal is to incorporate some of these qualitative findings into a general political economy theory of why creditor governments provide bilateral bailouts. The theory emphasizes the

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\(^{34}\) Kindleberger 1986; Frankel and Roubini 2001.
importance of political and economic interdependencies which can give rise to bilateral financial rescues as a strategy to minimize negative 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 bail out countries in financial distress.

**Why Bilateral Financial Rescues?**

Our theory focuses on the decision of a potential creditor country to bail out a country that is experiencing a financial crisis and is in need of a financial rescue package (crisis country). Our theoretical analysis is based on the observation that moral hazard concerns tend to play a less central role for creditor countries than for the IMF, while politics is more likely to matter. There are two main reasons for this. First, the IMF is explicitly designed to minimize moral hazard. Creditor governments, on the other hand, find it harder to overcome time-inconsistency problems—especially if the bailout decisions are politicized domestically or if their economy is highly exposed to the crisis economy—and therefore should be more likely to consider factors that help them stay in power. Moreover, creditor governments face fewer institutional constraints that could prevent politics from becoming part of the decision-making calculus. They do not have to negotiate the terms of a loan with other governments in a multilateral forum but can largely reach

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35 Although 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 bureaucratic agents.
bailout decisions unilaterally. Economic and political pressures are therefore likely to have an almost unmitigated effect on creditor government’s bailout decisions.

Second, since creditor countries often provide bilateral bailouts to supplement IMF loans, they can at least indirectly rely on existing IMF conditionality to address moral hazard concerns. The IMF uses its conditionality to facilitate and encourage additional financing when it credibly commits the crisis country, thereby vouching for its reputation to implement necessary measures and repay the loans in a timely manner. Because creditor governments can rely on existing IMF conditionality (and try to influence it through the IMF Executive Board), we argue that the creditor government’s calculus depends 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. Next, we discuss how economic and political interdependencies can increase the incentives of creditor governments to provide a bailout to a country in crisis.

*Economic Exposure and Bilateral Bailouts*

In open economies, financial crises have negative externalities for individuals, companies, and political elites in other countries. Financial and economic spillovers from the crisis to the creditor country are important mechanisms through which economic exposure may matter for a creditor government.

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36 We do not argue that creditor governments do not care about moral hazard issues. In fact, there is evidence that governments that provide bilateral bailouts sometimes attach IMF conditionality or even their own conditions to loans (Gould 2004, 24). For example, countries that seek a U.S. bailout through the ESF must agree to long-term financial assistance through the IMF, including the acceptance of its conditionality (McDowell 2016, 32). Indeed, their active role in influencing IMF conditionality indicates that governments take moral hazard concerns seriously, though evidence indicates that they prefer lower conditionality than the IMF in order to retain political room to maneuver (Gould 2003; 2004).
country. Financial crises carry the risk of a sovereign or a bank default of the crisis country. Defaults are problematic for foreign banks that hold some of the crisis country’s government debt. These banks lose their foreign assets and may slide into economic difficulties, which lead, in the worst-case scenario, to a default of the foreign bank itself. Even if a sovereign default does not lead to a default elsewhere, it usually decreases the confidence of investors in highly exposed foreign markets. For example, Japan and the EU member countries held the majority of unsecured claims against the investment bank Lehman Brothers (the US government only held about 10%). The decision of the U.S. government to allow Lehman Brothers go bankrupt wiped out the confidence in the interbank markets of OECD countries, and was a major factor in the spread of the U.S. banking crisis to Asian and European economies.\textsuperscript{37} Confronted with these risks, creditor governments have strong incentives 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.\textsuperscript{38}

Second, financial crises are almost always 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. National firms in the creditor country that export to the crisis country have similar concerns. Their export opportunities decline if the demand for their products slows down in the crisis country, which negatively affects the

\textsuperscript{37} Welfens 2008.

\textsuperscript{38} Pempel 1999: 9.
export companies. These negative effects intensify if the financial crisis leads to a devaluation of the crisis country’s currency, because devaluation (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. 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 was 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 was expected to lose significant market share due to a decline in consumer demand in the crisis countries. 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 shares against the new rivals. The U.S. bailout of Mexico is probably the quintessential example of how economic exposure can affect a country’s decision to provide a bilateral bailout. As then-President Bill Clinton put it in his 1995 State of the Union Address:

“The financial crisis in Mexico is a case in point. I know it's not popular to say it tonight, but we have to act. Not for the Mexican people, but for the sake of the millions of Americans whose livelihoods are tied to Mexico's well-being. If we want to secure American jobs, preserve American exports, safeguard America's borders, then we must pass the stabilization program and help to put Mexico back on track.” (Bill Clinton, State of the Union Address, 1995).

Financial crises may exert negative externalities for other countries, and they will be felt particularly in countries that are economically and financially more exposed to the crisis country.

39 Data from the Statistical Office of Germany.

The more interlinked the creditor country’s financial and trade sectors are with the crisis economy, the greater the expectation that a worsening of the crisis may lead to negative spillover effects. These spillover effects will be felt throughout the creditor’s economy: employers will experience a decline in profits and potential bankruptcies, and 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 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 hard to prevent spillovers. The most straightforward solution is to offer the crisis country the much-needed liquidity:

*Hypothesis 1:* The greater a 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 should have incentives 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, potential creditor countries 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 defense importance. The influence of political interests is already prevalent in IMF negotiations where major donors, such as the United States, time and again have biased lending decisions when they
consider crisis countries to be strategically important. Political concerns should be even more prevalent for bilateral bailouts for the reasons discussed above.

Creditor governments should be 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 serve as important allies during UN negotiations or military interventions. For example, the United States provided a bailout through the Exchange Stabilization Fund (ESF) to South Korea not only because U.S. banks were exposed to Korea, but also because the US had thirty-five thousand troops stationed there at the time and was worried about what strategies North Korea would pursue if South Korea defaulted.\(^{41}\) Then-Treasury Secretary Robert Rubin pointedly remarked that “our nation’s economic and national security are vitally at stake in the situation in Asia.”\(^{42}\) Similarly, one reason that Thailand received a U.S. bailout was because it was the United States’ “oldest ally in Southeast Asia.”\(^{43}\)

The ability to secure the “right” governments in place and to contribute to regime stability also generates 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 U.S. bailout to Mexico during the peso crisis in the 1990s safeguarded U.S. exporters’ interests within NAFTA, which the United States, Mexico, and Canada had signed just

\(^{41}\) Pempel 1999: 9; Blustein 2011, 138.


\(^{43}\) Clinton 2004, 807.
a few years before the crisis hit. It also prevented the inflow of illegal immigrants from recession-ridden Mexico into the United States, with strikingly clear political implications for the Clinton administration.\(^4^4\) 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.\(^4^5\) If geopolitics becomes important it can, at times, override other concerns. For example, Poland received a U.S. bailout in 1989 even though U.S. bank claims in Poland represented little more than one-tenth of a percent of their total foreign portfolio. The main reason for the bailout was political: Poland was the first country in the Eastern bloc to hold democratic elections and its trajectory was widely seen as the linchpin for the democratization efforts across the region.\(^4^6\)

Similarly, Treasury’s assistant secretary for international affairs, David C. Mulford, defended the U.S. bailout to Argentina in the 1980s by pointing out central political concerns: \(^4^7\)

“We were motivated by our desire to support the new democratic government of Argentina and to help ensure continued and effective functioning of the international monetary system, not to help U.S. banks avoid reporting earning losses for the first quarter of 1984.”

It should therefore not be at all 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 about the response to financial crises.\(^4^8\)

\(^4^4\) de Long, de Long, and Robinson 1996.

\(^4^5\) Kinne and Bunte 2016.

\(^4^6\) McDowell 2016: 120.

\(^4^7\) Quoted in McDowell 2016: 97.

\(^4^8\) 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.\textsuperscript{49} If incumbent governments cooperate closely with the creditor government, then the creditor government should have strong incentives to prevent the removal of these politicians from office. Failing to bail out a country in a time of crisis could mean providing support to the crisis governments’ opposition, or potentially to a new government that would be less 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 strong incentives to secure a new military government in Brazil in order to foster Brazil’s democratization against Communist forces. The U.S. government even allowed Brazil to bypass the IMF, which insisted on painful austerity measures. It also acted as the largest provider of supplementary emergency loans to the country during its 1965 crisis.\textsuperscript{50} In turn, creditor governments should have little incentive to bail out crisis governments if they are not closely allied. Donors have used foreign aid to stabilize and de-stabilize developing regimes that are strategically important to them in much the same way.\textsuperscript{51}

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 a crisis country through a bilateral bailout:

\textit{Hypothesis 2:} The greater a creditor country’s political exposure to a crisis country, the more likely is a bilateral bailout, \textit{ceteris paribus}.

\textsuperscript{49} Broz 2013.

\textsuperscript{50} Gould 2006: 32ff.

\textsuperscript{51} Higgott and Fuglestad 1975; Hourani 1991; Easterly, Satyanath, and Berger 2008.
Domestic Politics and Bilateral Bailouts

Creditor governments have greater incentives to bail out a country in financial distress when the creditor country is economically and/or politically exposed to that crisis country. But even if creditor governments might dearly want to prevent negative economic and political externalities, they may be constrained by domestic politics. Governments may have ideological constraints, they may be opposed by domestic veto players, or they may face an unfavorable public.

Political parties have different predispositions toward international bailouts. While some governments believe that rescue packages are effective in resolving a financial crisis, others believe that such bailouts are counterproductive and favor strategies that involve the private sector. During the Asian Financial Crisis, many Republicans objected to the use of taxpayer money to help the troubled Asian economies. Senator Alfonse M. D'Amato, then the Republican chairman of the Senate Banking Committee, warned that we “must be vigilant and aware of what is taking place, but insist on discipline and thoughtful action before taxpayer dollars are put at risk.” Senator Lauch Faircloth, then a Republican from North Carolina, took it even further and suggested that the “free market is no longer at work in the field of international finance. (…) We have privatized the gains and socialized the losses.”52 Another 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. The former group is more concerned about the immediate contagion effects and economic recovery, while the latter is more concerned about moral hazard (to the extent that they

would accept an economic crisis in the short-to-medium term). During the Greek debt crisis, the French government, amongst others, favored providing more liquidity to countries in crisis, while the fiscally conservative German government favored stricter austerity measures.

Even if a creditor government wants to provide a bailout, they may be constrained by domestic veto players and institutions. For example, U.S. President Bill Clinton had to resort to a loophole in U.S. law to bail out Mexico in 1995. 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. Many European governments also had to battle against various institutional and partisan veto players. Consequently, domestic institutional and partisan veto players limit potential creditor governments in bailing out crisis countries. The more veto players a creditor government faces at the domestic level, and the more heterogeneous 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 is high.

Electoral concerns may constrain governments further. Bilateral bailouts are deeply unpopular because they imply a diversion of financial resources away from the government budget. Eventually, at least unless the crisis country defaults, these loans will be repaid (with interest). In the short term, the creditor government has to transfer at least some of its financial resources to the crisis country. If the crisis country defaults, or is granted debt relief, the creditor government

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53 For example, the Greek government paid back its loans to Germany and paid an estimated total of EUR1.1 billion in interest (Handelsblatt. July 12, 1017. “Germany Profits From Greek Debt Crisis.”)
also loses these resources in the long term. In addition, if these loans are given at below market rates (which would be higher the greater the risk of default) to accommodate the crisis country, this could further shift the burden from creditor banks to the creditor government. It is therefore not surprising that creditor governments often face pressure from domestic constituents who oppose bilateral bailouts. The current Eurozone crisis demonstrates 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.\textsuperscript{54} For example, Bechtel, Hainmueller and Margalit (2014) find that only 3\% of respondents in Germany strongly favored the European bailouts (24\% somewhat support bailouts). 61\%, on the other hand, were either somewhat against or strongly against the bailouts. Burden-sharing tends to be one of the most important points of contention in the public and political debates.\textsuperscript{55} A similar politicization took place during the discussions of a U.S. bailout for Mexico in the 1990s. Members of Congress from both parties felt uncomfortable approving a sizeable rescue package for Mexico when they advocated austerity measures in the United States at the very same time. Indeed, a \textit{Los Angeles Times} poll taken in late January showed that 81 percent of Americans opposed the granting of loan guarantees to Mexico. Republican leaders were responsive to public opinion. Pat Buchanan called the loan a “daylight robbery of the nation’s wealth. [It is money] the American taxpayers will never see again.”\textsuperscript{56} Most Republicans opposed it in Congress.\textsuperscript{57}

\textsuperscript{54} Katada 1998; Bechtel, Hainmueller and Margalit 2012, 2014.

\textsuperscript{55} Bechtel, Hainmueller, and Margalit 2012.

\textsuperscript{56} https://www.history.com/this-day-in-history/clinton-authorizes-loan-to-mexico

\textsuperscript{57} de Long, de Long, and Robinson 1996.
Of course, these bailout decisions often take place out of the public eye 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 the bailout. The incentive to politicize these issues should be most likely before elections. Opposition parties can 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 elections, when electoral accountability is the greatest. 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 election outcome.58

_Hypothesis 3:_ Domestic political constraints decrease the likelihood of a bilateral bailout, _ceteris paribus._

**Research Design**

Our theory implies that the 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 bail out countries that experience financial crises between 1975 and 2010. The unit of analysis is the crisis country-potential creditor country dyad in the year of a financial crisis. For example, Thailand and Germany during the Asian

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58 Schneider and Slantchev 2018.
Financial crisis in 1997 constitute one such dyad. All G-7 countries are included in our analysis as creditor countries, so that Thailand is also matched in dyads with the remaining six G-7 countries as potential creditors in 1997. Only those countries that experience a financial crisis are included in our sample in the year that their crisis began. That is, our data is not time series data (i.e., Thailand is not in our dataset in 1996 or 1998), but dyadic, measuring the relationship between a crisis country and a potential creditor in the year of the financial crisis.

*Variable Descriptions*

Our dependent variable, *Bilateral Bailout*, is coded as 1 if a given creditor country provided a bilateral bailout to a given crisis country in the year of or following the financial crisis, and 0 otherwise.\(^{59}\)

Turning to the explanatory variables, a creditor country should be more likely to bail out a crisis country when it is financially or economically exposed to that country (Hypothesis 1).\(^{60}\) *Financial Exposure* is the logged amount of crisis country debt held by creditor country banks in millions of constant U.S. dollars. Data are from BIS. *Trade Exposure* is the logged amount of a creditor country’s sum of exports to and imports from the crisis country.\(^{61}\) Data are from the OECD.

Unsurprisingly, our measures of economic exposure are highly correlated with each other; the correlation coefficient in our sample is 0.81. Including both simultaneously in any model would introduce multicollinearity and our coefficient estimates of both *Trade Exposure* and *Financial Exposure*...\(^{61}\)

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\(^{59}\) We describe the coding process in greater detail above.

\(^{60}\) Since the decision to provide bailouts is generally taken in a very short period of time, we measure all independent variables for the year in which the bailout was granted.

\(^{61}\) Using trade as a share of the creditor country’s total GDP does not significantly change the results.
Exposure would be biased. In our main model and our robustness checks we rely on Trade Exposure as our main indicator of economic exposure (mainly because Trade Exposure has immediate spillover effects and fewer missing data). In addition, we use principal components analysis (PCA) to combine the two variables into a proxy for economic exposure while retaining the variation in all of the original variables (Jolliffe, 2002). Appendix A lists the factor loadings for the PCA. 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 94 percent of the variance in Financial Exposure and Trade Exposure. Our main model and sensitivity analyses are robust regardless of whether we use Financial Exposure, Trade Exposure or Economic Exposure.

According to Hypothesis 2, a creditor country should be more likely to bail out a crisis country when it is strategically important. There are different ways to measure international political exposure. We rely on our theoretical model, the qualitative evidence from historical bailouts, and the foreign aid literature that has studied the strategic political decisions of aid donors. While the literature includes a large number of potential political determinants, we focus on three distinct measures. Our first measure is a dummy variable equal to one in any year that a dyad is involved in a defense pact (Alliance). Countries that hold strategic or geopolitical importance to 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 Alliances dataset. Second, potential creditor countries are more likely to bail out crisis countries

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62 See, for example, Alesina and Dollar (2000) and Bermeo (2017). While we include the most widely used political strategic interest variables, we exclude the political determinants of foreign aid that relate exclusively to developing countries, such as colonial history, population, and foreign aid flows.
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 U.S.-led liberal order. Countries with similar political ideologies should 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 so that higher values indicate greater preference similarity. As each of these variables measures a different aspect of international political exposure and none is highly correlated with each other, we include them all individually in our main model.

According to Hypothesis 3, a country should be less likely to bail out a crisis country when it faces greater domestic political 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 financial crisis (Election Timing). Data on elections are from the Database of Political Institutions.63 Creditor countries should also be less likely to bail out crisis countries when they are constrained by domestic veto players. To account for political constraints, we use Henisz’ index of political constraints.64 The index ranges from 0 to 1 and measures the number of veto

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63 Beck, Keefer, and Clarke 2010.

64 Henisz 2012.
players and their alignment across branches of government as opposed to a simple count of veto players (*Veto Players*).

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 bail out another country. We measure the economic well-being of the creditor country with 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 U.S. dollars. All countries in our data set are experiencing a financial crisis, but 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 U.S. dollars. Data are from the World Bank. Second, we add the crisis country’s current account as a percentage of GDP (*Current Account (Crisis)*). Data are from the World Bank. Geographic proximity between the creditor and crisis countries might also affect financial rescues. We include a variable that measures the logged distance (in miles) between the creditor and crisis country (*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* in millions of constant US$. Finally,

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65 We include additional economic and financial indicators in the robustness checks (see Appendix C.3).

66 We add one to all IMF loans prior to taking the log in order to not lose observations where there was no IMF loan.
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.

In order to make comparisons across all of our determinants of bilateral bailouts, we standardize all of our continuous control variables 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.

**Model Specification**

Since the creditor country’s choice to initiate a bailout is a dichotomous choice, we begin by estimating the following equation using logistic regression:

\[
\text{Bilateral Bailout}_{ijt} = \beta_1 \text{Economic Exposure}_{ijt} + \beta_2 \text{Political Exposure}_{ijt} + \beta_3 \text{Domestic Constraints}_{it} + \beta_4 \text{Controls}_{ijt} + \varepsilon_{ijt}
\]

where the dependent variable *Bilateral Bailout*\(_{ijt}\) is equal to 1 if creditor country \(i\) bails out crisis country \(j\) in year \(t\), and 0 otherwise. *Economic Exposure*\(_{ijt}\), *Political Exposure*\(_{ijt}\), and *Domestic Constraints*\(_{it}\) are our main explanatory variables. *Controls*\(_{ijt}\) represents a vector of control variables that are expected to impact the probability of a bilateral bailout, and \(\varepsilon_{ijt}\) is the error term.\(^68\)

\(^67\) Standardizing our continuous variables to half a standard deviation makes comparisons with dichotomous variables easier without needing to standardize dichotomous variables and allows us to discuss changes in terms of movements of half of a standard deviation rather than the larger movement of a full standard deviation.

\(^68\) We do not include time fixed effects in our model because of the nature of the dataset. This is not a typical time-series cross-sectional analysis and thus we are not concerned with the possibility of temporal dependence. While
Initially we estimate equation (1) using a logit model, but there are a number of issues with this specification. Perhaps the most notable challenge is the amount of missing data on some of our variables of interest, especially *Financial Exposure*. These data are not missing completely at random: the crisis countries with missing data tend to be poorer and have weaker democratic institutions. Our coefficient estimates would likely be both inefficient and biased if we utilized listwise deletion for missing data. We therefore estimate our primary model using multiple imputation, which has emerged as one of the primary methods for dealing with missing data. We attempt to replace missing values in our main variables of interest and control variables using multivariate imputation by chained equations (MICE). This allows us to use logistic regression to impute our dichotomous variables (such as *Democracy*) and ordinary least squares to impute our continuous variables (such as *Trade Exposure*). In our main regressions and robustness checks, we replace missing values with five sets of simulated values. We then estimate a model on each dataset, adjusting the parameter estimates for missing-data uncertainty. Imputation tests show that the imputed data track the original data well and no outliers emerge from the imputation process.

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69 To implement multiple imputation, we rely on the *mi* suite of commands in Stata. See Appendix D for a list of variables along with their number and proportion of missing values.

70 Our results are robust to using only 1 set of imputed values or 10 sets of imputed values.

71 Imputation tests available from the authors.
Additionally, the IMF’s decision to bail out a crisis country is likely endogenous to a creditor’s decision to bail out the same country. That is, it is possible that the IMF bailout affects the decision to provide a bilateral bailout, but also that a bilateral bailout might be associated with the amount of the IMF loan. To deal with this possible endogeneity (which could affect our coefficient estimates), we use a control function approach to instrument for the possible endogeneity of the IMF loan.\textsuperscript{72} 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 and 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 as well as all of the control variables in our model. In the second stage, we use the residuals from the first stage as a substitute for the IMF loan amount in the second stage.\textsuperscript{73}

Finally, we worry that a creditor government’s decision to give a bailout may not be independent from the decision of other creditors. In other words, when creditor country $i_1$ decides whether or not to bail out crisis country $j$, this decision may depend on whether or not creditor country $i_2$ also decides to provide a bailout. This decision can work in either direction. If country $i_2$ gives a bailout, country $i_1$ may decide that enough has already been done and there is no need for additional funding. But country $i_2$’s decision to bail out a crisis country could also indicate a lower risk for creditor country $i_1$. Since the decisions of individual creditor governments appear

\textsuperscript{72} Lewbel et al 2012.

\textsuperscript{73} Control function estimation can be implemented in Stata using the ivprobit command. We do this as a robustness check (the results track our main results and are available from the authors) but carry out the two-stage estimation manually (which simply mirrors a two-stage logistic regression) as the ivprobit model does not allow us to make some of the other important corrections to our dataset.
dependent on the spatial relationship between creditor countries (countries that are closer together have greater degree of exchange in commerce, people, and ideas), we use the distance between potential creditor and crisis countries to model the possible interdependence amongst creditor countries. We augment equation (1) with a spatial lag, applying a row-standardized inverse distance matrix based on whether or not other potential creditor countries gave bilateral bailouts, weighted by the (inverse) distance between the capitals of the potential creditor and crisis country.\textsuperscript{74}

Based on the possibility of these econometric issues, we estimate the following equation:

\[ \text{Bilateral Bailout}_{ijt} = \beta_1 \text{Economic Exposure}_{ijt} + \beta_2 \text{Political Exposure}_{ijt} \]
\[ + \beta_3 \text{Domestic Constraints}_{ijt} + \beta_4 \text{Controls}_{ijt} + \beta_5 \text{IMF Loan}_{ijt} + \gamma Wy + \epsilon_{ijt} \]

Where \text{IMF Loan} is the instrumented value from stage 1, \textit{Wy} is a spatial lag with \textit{W} being the row-standardized inverse distance matrix, and \gamma the coefficient estimate of the lag.

\textbf{EMPIRICAL FINDINGS}

\textsuperscript{74} We recognize that equation (2) would be biased if our spatial lag was endogenous, but we have reason to believe that this is not the case, or at the very least, does not affect our variables of interest. Plümper and Neumayer (2010) show that for dyadic data, endogeneity is an issue when a sender (creditor country) can also be a receiver (crisis country). In our case, crisis countries never act as creditor countries; thus, endogeneity is not likely to be a problem. Further, in Appendix C.1 we estimate our main model excluding the spatial lag and find that there is only a minor change to the coefficient estimates of our political and economic variables of interest. Even though we may be overestimating the effect of the spatial lag on the dependent variable, the estimates of our variables of interest are likely unbiased by its inclusion (Franzese and Hays 2007).
Table 1 reports the main results of our analysis. Model 1 uses *Trade Exposure* as our proxy for economic exposure, Model 2 substitutes *Trade Exposure* with *Financial Exposure*, and Model 3 uses PCA to combine *Trade Exposure* and *Financial Exposure* into a proxy for economic exposure. All other variables remain the same. All models are presented with 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.

[Table 1 about here]

Turning to the substantive effects, economic and political exposure is positively associated with the probability of a bilateral bailout, while the effects of domestic political constraints are mixed. Supporting Hypothesis 1 (economic exposure), a half of a standard deviation increase in a creditor country’s economic exposure is associated with between a one and a four percentage point increase in the probability of a bailout (depending on how we measure economic exposure), for an otherwise average country pair. Whereas economic exposure of G-7 countries only conditionally affect IMF lending decisions (i.e., when G-7 countries have homogenous levels of exposure), our results indicate that strategic economic factors affect bilateral bailouts directly and unconditionally.

We also find support for Hypothesis 2 (international political exposure). Creditor countries that are in a defense alliance with a crisis country are nearly two percentage point more likely to offer a bailout. The association between preference similarity, democracy, and the probability of a bailout are less precise, but still positive. A half a standard deviation increase in *Preference Similarity* increases the probability of a bailout by one percentage point. Similarly, being a

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75 Copelovitch 2010.
democracy is positively associated with the probability of a bailout, but our estimates for these measures of international political exposure fail to reach statistical significance.\textsuperscript{76} As we will note in our sensitivity analysis below, the results for international political exposure are the weakest. The associations gain significance in some specifications and lose significance in others, but they always remain positive.

In support of Hypothesis 3 (domestic political constraints), if a creditor government faces an election in the year of the financial crisis, the likelihood that it will offer a bailout decreases by nearly one percentage point. The effect of \textit{Veto Players} is not significant.

Overall, economic and political strategic considerations play an important role in addition to the narrower economic considerations that have been attributed to bailout decisions. We also find interesting differences between economics and politics. The effects of economic exposure on the probability of a bilateral bailout are larger and more robust than the effects of some of our measures of political exposure or domestic political constraints. Even though political exposure and domestic political constraints matter, they likely play a smaller role than economic exposure in a creditor government’s decision-making calculus. Additionally, some of our measures of political exposure and domestic constraints do not enter significantly into our models. It could be that democracy is not an important (or a less important) piece of potential creditors’ decisions over bailouts. Similarly, veto players may not play as large a role as we hypothesized in a creditor country’s decisions over bailouts. We nevertheless retain both of these in our estimations for theoretical reasons.

\textsuperscript{76} It is important to note that Democracy and Preference Similarity are somewhat highly correlated with each other and with the income level of the crisis country. This may have an effect on their coefficient estimates in the model.
Our spatial weight plays an important role in our analysis. This indicates that other creditors’ decisions to give a bilateral bailout influence the decision of an individual creditor to give a bailout.

Not surprisingly, whether or not the IMF bails out the crisis country is positively associated with a bilateral bailout. The larger the IMF loan, the greater the likelihood of a bailout. A few domestic economic criteria also play an important role in the decision to bail out a country in financial distress. The level of unemployment in the creditor country is negatively associated with the probability of a bailout, indicating that the less well off the creditor country economically, the lower the probability that it will bail out other countries. This may offer further insights into potential domestic political constraints. When countries are not doing well economically, the government may be more concerned with public opposition to costly bailouts. The income level of the crisis country also enters negatively and significantly into the main model. Wealthier countries are less likely to receive bailouts, all else equal. Because income per capita of the crisis country is highly correlated with democracy, this may offer some insight into our insignificant finding for democracy.

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. Creditor GDP Growth and Per Capita GDP as well as Distance negatively affect the probability of a bailout, but none enters significantly into the model. The larger a crisis country’s current account as a percentage of GDP the greater the probability of a bailout. Finally, the IMF’s liquidity ratio is expectedly negatively associated with the likelihood of a bailout, but IMF liquidity enters most specifications insignificantly.
SENSITIVITY ANALYSIS

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

In Appendix C.1, we make a few changes to our econometric specification. In Model 1, we estimate equation (2) without the spatial lag. As we note in our discussion, there is little difference in our coefficient estimates with or without the inclusion of the spatial lag. The main difference in the results is that the coefficient estimate for *Alliance* becomes less precise, while *Democracy* becomes more so. The differences are not that great and not overly concerning. However, without the spatial weight, we may be overestimating the effect of *Democracy* and underestimating the effect of *Alliance*. In Model 2, we use listwise deletion of missing observations. In doing this, we lose more than half of our observations. Nevertheless, our results remain robust. In Model 3, we estimate equation (2) using 10 imputations. Our results are robust to this change. In Model 4, we include a time trend. As we note above, we are not concerned with the possibility of temporal dependence because this is not a typical time-series cross-sectional analysis. Because there are a number of years where only one country experiences a financial crisis, we are unable to include year fixed effects in the analysis. The inclusion of a time trend does not affect our main results.

In Appendix C.2, we include additional control variables and remove potential outliers from the 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 crises in 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 (non-mutually exclusive) dummy variables for whether the crisis country is experiencing a currency crisis, balance of payments crisis, 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. Finally, 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 main results.

In Appendix C.3, we include macroeconomic crisis country variables as identified in the IMF literature as key macroeconomic determinants of IMF bailouts. 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. These variables are also 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.

In sum, the analysis provides support for our argument 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 that governments balance various, often contradicting interests when deciding whether to bail out 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

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77 Bird and Rowlands 2003; Copelovitch 2010.
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.

CONCLUSION

In this article, we analyzed the determinants of bilateral bailouts. We argued that creditor governments have to balance different domestic and international pressures when deciding over bilateral bailouts. 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. However, 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 G-7 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. Finally, domestic politics play an important role in bilateral lending decisions. Domestic politics, particularly before elections, likely constrains the ability of governments to offer bailouts, even if a bailout would be expedient strategically.

With these results, our paper provides a first step toward a theory of the political economy of bilateral bailouts. While economic analyses have largely focused on non-strategic considerations, our results provide more general support for the existing case studies that find that economic
exposure matters. Further, we show that political considerations play a role for creditor governments in bailing out other countries.

The collection of a unique data set on bilateral bailouts provides opportunities to scrutinize the causes and consequences of bilateral bailouts as well as to explore bailouts in the context of other strategies for financial rescues. First, the paper highlights that it is important to understand the conditions under which governments choose particular strategies—i.e., currency swaps versus bilateral bailouts. Our analysis offers some initial insight for such a theory. Whereas bilateral bailouts are public in the creditor countries—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. Second, 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. Future analysis can use the existing findings to better scrutinize the negotiation dynamics between these various actors, and thereby contribute to a better understanding of international cooperation during financial crises.
REFERENCES


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