Institutional Eclipse:
How Chinese Loans Substitute for IMF Assistance

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Abstract

What does the return of great power rivalry mean for the IMF? Previous research on this question has concluded that the institution is likely to be remarkably stable in the face of a shifting balance of power: rival states still have a shared interest in global public goods, and network effects insulate the Fund from potential challengers. However, a wide range of outcomes exists between perfect continuity and total collapse. I argue that as China finds itself denied the privilege of arranging IMF programs for client states, it will extend its own loans, shrinking the scope of the IMF's influence. Using a novel identification strategy based on China's varying willingness to lend, I find that Chinese loans to developing countries have helped borrowers reduce their burden of IMF conditionality by one-third, and enabled other borrowers to avoid IMF programs altogether. The results shed light on the classic question of how international order responds to shifts in the balance of power: unable to alter existing regimes, rising powers instead roll back the edges in ways that suit their interests.

1 Introduction

What does the return of great power rivalry between the United States and China mean for the IMF? This question touches on several classic concerns in the study of international relations, including great power conflict and how states create lasting patterns of cooperation, but the dynamics between a rising power and an entrenched institution remain poorly understood. The reason for the lack of answers is straightforward: the period in which multilateral institutions have played a major role in world politics has overlapped with a period of economic and military predominance by the United States. The Soviet Union remained outside the West's leading economic institutions, and only with the rise of China as a rival leading state has it become important to understand how a powerful government might seek to revise an entrenched institutional order through measures short of war.

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To date, most research on this topic has focused on China's efforts to found competing organizations, such as the Asian Infrastructure Investment Bank. This is an important strategy for achieving lasting influence, both within the new institutions and by applying competitive pressure to Western-led ones, but it faces important limits. Certain IOs, such as the International Monetary Fund (IMF), benefit from network effects whereby their authority grows as more countries join and use them. Establishing rival institutions to this sort of IO is much more difficult, as Japan discovered when its proposal for an Asian Monetary Fund was scuttled in the face of overwhelming American opposition.[1] A rich body of theory and evidence thus predicts that China will struggle to exert influence over the IMF, due to its weakness at the time of the institution's founding.

Contrary to this consensus, I argue that China can alter this institutional order by issuing bilateral loans that reduce the need for an IMF program. This process, which I term "institutional eclipse," does not transform the IMF from within, but can weaken or reduce the scope of its influence. The potential for Chinese loans to weaken the IMF's bargaining position in negotiations with borrowers was noted as early as 2004, and has drawn increased attention as China has joined bailout negotiations with the IMF in countries such as Pakistan. However, no general theory of this behavior has been developed that permits connections to similar actions by France, the United States, and Saudi Arabia. Schneider and Tobin (2020) provide an important explanation of when G7 countries provide such "bilateral bailouts," but so far their effect on IMF programs themselves has only been described qualitatively. Measuring the scope of the phenomenon is challenging, because it requires identifying IMF programs that did not occur.

This article addresses these theoretical and empirical gaps by propounding a theory of institutional eclipse and validating it with mixed-method evidence. The core empirical contribution uses an instrumental variables strategy based on year-over-year changes in China's total lending activity to affirm that Chinese loans cause some countries to forego IMF programs, and others to negotiate for a one-third reduction in binding conditions on their IMF loans. Taken together, these contributions reveal that the IMF is less insulated from competitive pressures than commonly imagined. This mechanism is likely to be important to the study of the relationship between material power and institutional order (Keohane 1984; Ikenberry 2001; Lipscy 2017). As a benefit provided by a

[1] An heir to the Asian Monetary Fund, the Chiang Mai Initiative currency-swap arrangement, began operations in 2010. However, I argue later that this organization is not an effective tool for China to challenge the IMF, especially in Africa or Latin America.

powerful state to a weaker one, this interaction can also be interpreted as a form of international hierarchy (Lake 2009). With regards to the IMF specifically, the results expand on a body of research into the politicization of international economic institutions, which has traditionally focused on the United States and its allies, and their influence within these organizations (see Vreeland (2019) for a review). This article emphasizes the important role long played by outside deals and explains why China has emerged as an implicit rival to the IMF: countries that do not benefit from Western favoritism at the Fund can improve their bargaining position by turning to China instead.

The article begins by reviewing current understandings of the sources of influence within international institutions and develops a theory of how a state can overcome a lack of institutional power by using its own resources to compete with the institution on a case-by-case basis. After illustrating China's inability to politicize the IMF from within, I present several qualitative accounts of wealthy states protecting clients from the Fund in support of the theory.

I then turn to econometric tools to estimate the effect of Chinese loans on participation in IMF programs and associated conditionality. Using a novel instrumental variables strategy, I I find evidence that Chinese loans are effective in helping borrowers negotiate IMF arrangements with fewer binding conditions, or even avoid borrowing from the IMF altogether. A final empirical section draws on observational evidence to add context to the core results, namely that China makes large loans to countries undergoing macroeconomic difficulties, and that these bailouts are only made when they benefit China's interests. Finally, a discussion section recapitulates the argument and reviews its implications.

2 Economic Power, Institutional Power, and Order

The relationship between material power and international order has always numbered among the core concerns of the study of international relations. When "order" is defined as peace, both a balanced distribution of power and its concentration in the hands of a hegemon have been suggested as the arrangements most conducive to an absence of war. Yet when the concept is extended to economic arrangements — such as free trade — scholarly opinion has traditionally favored a single dominant power. Only a hegemon, it was argued, could overcome the collective action problems involved in accepting the costs of an open economy along with its benefits, while also rendering moot any concerns about economic dependency on a military rival (Kindleberger 1973, Krasner 1976, Gowa and Mansfield 1993).

Yet while a hegemon is still commonly thought to be indispensable to the creation of cooperative economic institutions, once established, these institutions can outlive their founders' preeminence. This is because the services they provide are useful to member states, who continue to invest in them even after the founding hegemon loses its ability to induce cooperation (Keohane 1984). In this way, the state that dominated the founding of the institution can transmute a transient advantage in material power into lasting institutional power (Ikenberry 2001).

This pattern of stable institutional order punctuated by great-power wars raises an important question when applied to the case of contemporary China. The institutions that have shaped the world economy since World War II, including the World Bank and International Monetary Fund (IMF), have long reflected the interests of the United States and its allies. With hegemonic war seemingly foreclosed by the destructive power of nuclear weapons, how will China acquire institutional influence commensurate with its economic might?

One strategy that has attracted considerable attention has been for China to set up its own institutions that could compete with Western-led incumbents (Morse and Keohane 2014). The Asian Infrastructure Investment Bank and the Belt and Road Forum have both been described as rivals to the World Bank. There is some evidence that these efforts have been successful: countries that enjoy fewer advantages in the Bretton Woods institutions have demonstrated higher levels of support for these Chinese-led organizations (Broz, Zhang, and Wang 2020, Pratt 2021).

Lipscy (2015) anticipated China's success in the development finance regime. Because development finance has no barriers to entry other than acquiring capital, establishing a competing institution is simple, which often leads to accommodating changes in existing IOs such as the World Bank. Other issue areas, however, are characterized by network effects and are far more insulated from institutional challengers. Emergency sovereign lending, which is dominated by the IMF, is one such example. The IMF's legitimacy as a lender of last resort that can review sensitive economic information and prescribe policy reforms depends on the number of countries that join and make use of the institution. Similarly, the IMF's status as the most-senior lender of the sovereign debt regime, entitled to repayment before any other creditor, is based on a self-fulfilling prophecy: governments prioritize repaying the entity that they rely on most for emergency assistance. These network effects make establishing a rival to the IMF far more difficult.

Some evidence has suggested that regional financial arrangements (RFAs) can improve members' bargaining power vis-à-vis the IMF (Clark 2020). By pooling financial resources, members create an alternative source of emergency lending. However, this is a far cry from true competition with the IMF. RFAs such as the Chiang Mai Initiative can reduce members' need to rely on the Fund's emergency resources, but do not displace its central role and are limited to a single region. Furthermore, China does not occupy a clear leadership role in either the Chiang Mai Initiative or the BRICS Contingent Reserve Arrangement in the same way that it does within the AIIB and Belt and Road Forum. The Chiang Mai Initiative's inaction in the aftermath of the COVID-19 pandemic has also led to doubts about the arrangement's utility.[2]

Does this mean that China will be less effective in influencing the global emergency lending regime than it has been in reshaping development finance? I submit that a focus on institutions has obscured a more direct means of Chinese influence: bilateral lending. By acting as a lender of last resort to troubled governments, China does not replicate the IMF's role as a clearinghouse for information and expertise, but it is able to push back the borders of the Fund's influence. When China's interests conflict with those of the IMF, it is able to use its own resources to achieve its desired outcome. The need to rely on its own resources places important limits on this strategy: China cannot compete with the IMF everywhere. But when the stakes are high enough, it can work outside the institution to secure outcomes denied to it within.

Outside options are, of course, a workhorse explanatory variable in many kinds of rational choice theories of international relations. However, their application to the case of a rising power confronting an entrenched institutional order, and bilateral deals cut outside of an institution more generally, have gone under-theorized. No agreed-upon term exists for interactions of this class, despite an abundance of examples, such as France's sheltering of West African countries from the IMF during the late 1980s and mid-1990s (Stasavage 2003). The widely-used but loosely-defined term "sphere of influence" has some purchase: I argue that states can shrink institutions' sphere of influence by providing the same service as the institution, usually to weaker countries understood to be in the more powerful country's own sphere of influence. To capture the sense of one sphere

[2] Olivia Negus, "The Chiang Mai Initiative Multilateralization (CMIM): If Not Now, then When?" *Center for Strategic and International Studies* New Perspectives on Asia: September 1, 2020.

giving way to another, I refer to this type of interaction as an institutional “eclipse” — the influence of an institution such as the IMF can, for a time, be eclipsed by that of a powerful state. I also use the terms “patron” and “client” as synonyms for the more powerful and weaker state. An IO is eclipsed when a patron state blocks the institution’s influence over a client state. The effect is narrower in scope and less enduring than that arising from institutional power, but it is available to many more countries. This feature makes the strategy particularly appealing to rising powers, which are richly endowed with material resources but lack institutional power.

This concept refines several previous statements about the interplay between power and cooperation. First, institutional eclipse strikes a middle path between options that have been presented as binaries. What I have been calling institutional power is closely related to what Hirschman (1970) termed “voice,” which when denied to members of an organization, can prompt them to exit. Similarly, Krasner (1991) contrasts issue areas in an all-or-nothing fashion, in which international cooperation occurs or does not. Institutional eclipse makes a virtue of its limited scope — a single country at a time — to act unilaterally when the benefits are greatest, while remaining inside the institution normally. In this way, states can retain the functional benefits that inspire cooperation in the first place, while ensuring that the distribution of these benefits is not excessively far from their preferences. Second, most accounts of outside options to IOs have focused on the dominant state, which is presumed to have the most attractive outside options and thus be the key player for determining the depth of cooperation (e.g. Voeten (2001), Stone 2011). By contrast, institutional eclipse emphasizes the outside options available to a wider variety of states.

Yet while available to more countries, important scope conditions limit when institutional eclipse will be a useful strategy. Most significantly, few IOs provide material benefits which can be substituted by support from a patron; most IOs instead traffic in intangible information. Other than the IMF, which provides emergency lending, the most relevant institution is the United Nations Security Council, which can provide collective security. In the UNSC, eclipse is actually formalized as the veto power held by the five permanent members. In the conclusion, I reflect further on how this insight should inform contemporary debates about abolishing the veto power within the Security Council.

Finally, a strategy of institutional eclipse is most appealing to a patron state with sufficient material power to compete with an IO, but insufficient influence within the IO to ensure its preferred policy. For this reason, both weak states and dominant states are less likely to utilize this strategy. However, it will be attractive to rising powers such as China. In the next section, I describe China's lack of influence within the IMF, before exploring specific instances when the Fund's influence has been eclipsed.

3 China's Lack of Institutional Power

Great powers commonly use international organizations to reward client states. For instance, countries that side with the United States in the United Nations Security Council are rewarded with additional aid from UNICEF and are more likely to receive generous IMF programs (Kuziemko and Werker 2006, Vreeland and Dreher 2014). Although many developing countries seek to avoid IMF programs with heavy conditionality, low-interest loans with light conditionality can be an attractive proposition to many countries. A robust finding in the study of politicization of the IMF is that the United States rewards countries for votes in the UN with IMF programs (Thacker 1999). Countries that vote with Japan, meanwhile, can expect extra loans from the Asian Development Bank (Lim and Vreeland 2014).

The appeal of such behavior is obvious: it enables the patron state to socialize the costs of the reward across the institution's membership in exchange for a private benefit. The ability to conjure loans that would not otherwise occur is a striking example of the positive, productive power that leading states enjoy within these institutions. The need to avoid alienating other members places some limits on this strategy, but the empirical record reflects a widespread pattern of institutions responding to the selfish political interests of leading states (Vreeland 2019). The precise mechanisms by which leading states exert this control vary, but are generally a mix of formal and informal power allocated at the time of the institution's founding. In the IMF, the United States enjoys a de facto veto over lending decisions, but also informal deference from other members, as well as the opportunities for influence that come from hosting the institution in its capital (Stone 2011).

As a result, China's influence over the IMF and other institutions has not grown at a rate commensurate with its economic might. Although successive rounds of reform have increased China's financial stake and voting power in the Fund, it is unable to use the institution to reward

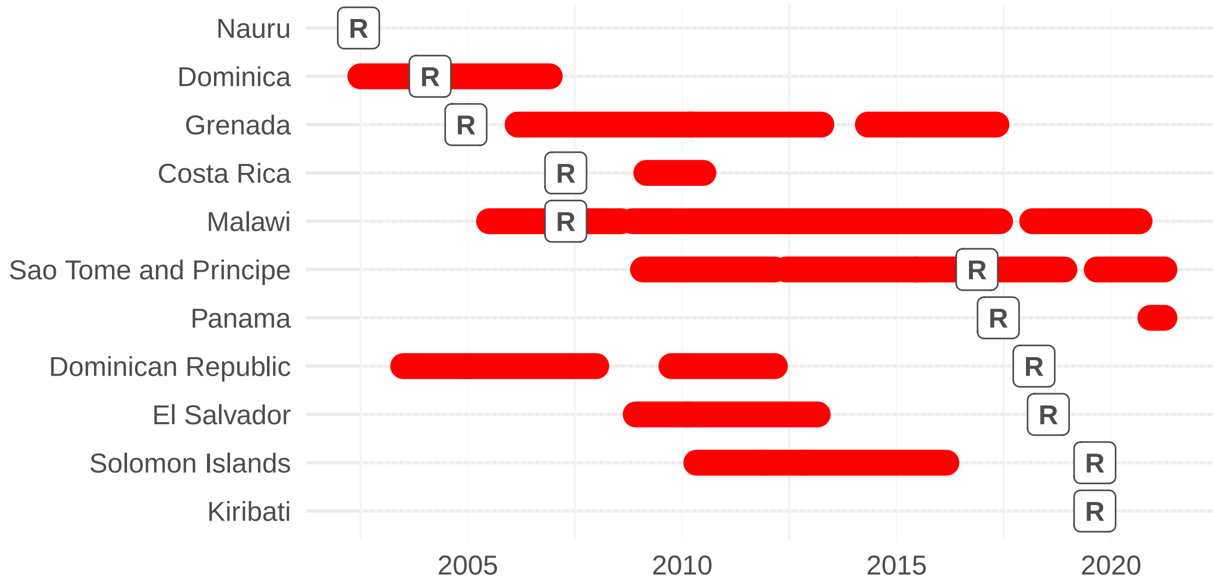


Figure 1: PRC Recognition (R) and IMF programs (bars)

clients in the way that the United States has.

A brief illustration of China's inability to use the IMF this way comes from its battle with Taiwan for diplomatic recognition. For the government based in Beijing, no foreign policy issue is of greater importance; not only does it refuse to establish diplomatic relations with any country that recognizes Taiwan, but it has routinely offered various forms of financial assistance to countries that switch their recognition from Taipei to Beijing. Favorable IMF programs would be an ideal additional inducement, since they are valued by borrowers, and do not directly draw on China's resources. Doing so, however, requires influence over the the Executive Board of the kind enjoyed by the United States.

Since the year 2000, a total of 13 states have switched from recognizing Taipei to recognizing Beijing as the legitimate government of China. None, however, have been rewarded with an IMF program, as shown in Figure 1. Admittedly, not every country provides a perfect test; Vanuatu only recognized Taiwan for a period of one week and Niue is not a member of the IMF and these countries are thus excluded from the figure. Dominca, Malawi, and Sao Tome and Principe were participating in IMF programs that had begun well before they switched recognition. Malawi began another IMF program twelve months after recognizing China (and three months after its last program concluded), but new IMF programs are routine for Malawi.

The clearest tests come in the form of the five most recent cases, which occurred after China had grown into an important player in development finance. Most of these countries had needed to borrow from the IMF in the past, or in the case of Panama, three and a half years later, but none received an IMF program around the time they began recognizing China.

These observations are few in number, but highly informative. They can be described as most-likely cases or high-Bayes factor observations: if China were able to reward these countries with IMF programs, it almost certainly would. Given the absence of this behavior, it can be inferred that China lacks the ability to do so. This is consistent with other knowledge about the slow-changing nature of institutions in general, and the operation of the IMF in particular. Yet while China has limited influence within the Fund, it is far from powerless. In the next section, I examine an alternative avenue of influence: eclipsing the IMF.

4 Institutional Eclipse in the IMF

Under normal circumstances, the IMF serves as the global lender of last resort: when governments in need of hard currency are unable to borrow elsewhere, they can turn to the Fund for emergency assistance. The IMF will lend to the world's most troubled borrowers, but in return extracts promises of policy reform designed to address the cause of the borrower's economic distress. These conditions are the most well-known and controversial face of the IMF, subject to criticism that the short-term harm done by fiscal consolidation outweighs their questionable impact on long-term development. When a country seeks an IMF loan, its finance ministry negotiates with Fund staff over the size of the loan and which policy conditions will be attached. As a general rule, borrowers seek large loans with few conditions, while the IMF prefers the reverse.[3] If the two sides reach an agreement, a Letter of Intent is forwarded to the Executive Board, where twenty-four directors representing various countries discuss and vote on the proposed program. Once implemented, the Executive Board also conducts periodic reviews, evaluating whether progress on policy reform merits disbursement of the next tranche of funds.

As the primary object of contest between borrowers and the lender of last resort, the terms of IMF programs are the defining outcome of the global emergency lending regime, and the ability

[3] An important exception is governments that want to implement politically unpopular reforms and seek to shift blame for these reforms onto the IMF. See Vreeland (1999).

to shape them the defining measure of influence. Dating back to the design of the IMF at the 1944 Bretton Woods conference, the United States has enjoyed a preponderance of influence within the organization. In addition to political influence on the Executive Board, it exercises ideological influence through the institution's personnel, many of whom receive economics degrees from U.S. universities. At the peak of American power after the end of the Cold War, the degree of agreement and cooperation between the IMF, its sister institution the World Bank, and the United States Treasury Department inspired the idea of a "Washington Consensus," whereby these three Washington, DC-based institutions worked in concert to apply US-preferred policy prescriptions to developing countries. At the same time, the United States could lighten policy conditionality for borrowers in exchange for geopolitical favors, as it did for Egypt after it helped legitimize the US-led Gulf War in the Arab world (Momani 2004). The ability to design conditionality for some countries and lighten it for others reflected the United States' productive, institutional power.

By contrast, institutional eclipse is a form of negative, blocking power. It occurs when a bilateral lender makes a loan to a troubled government with the intent of blunting or blocking the IMF's influence. With access to additional capital, the client's bargaining power is improved, and it can negotiate for fewer conditions, or even avoid turning to the IMF altogether. Unlike institutional power, the power to eclipse is much more broadly distributed: any government with enough hard currency can extend a financial rescue package to a client country. At the same time, it is hampered by two limitations: it operates on a case-by-case basis, rather than shaping global standards of macroeconomic governance, and it demands a significant outlay of material resources, rather than drawing on an institution's pool of resources. As a result, instances of institutional eclipse should be commonplace but transient: patrons protect clients from an IO when necessary, but do not change the institution's behavior more generally.

Indeed, the history of the IMF is replete with cases of borrowers seeking the protection of powerful governments. Egypt, for example, began its 2016 Extended Fund Facility program only after a collapse of relations with Saudi Arabia deprived it of a financial lifeline.[4] Three decades previously, it had managed to avoid implementing IMF reforms by relying on American largesse instead: in addition to using its institutional power to reduce the the number of conditions attached

[4] Nour Youssef and Diaa Hadid, "Egypt Floats Currency, Appeasing I.M.F. at Risk of Enraging Poor," *New York Times* November 3, 2016.

to its 1987 and 1991 IMF agreements, the United States also provided direct balance of payments support, which enabled Egypt to shirk some of its reform obligations (Momani 2005). Only once the US began tying further debt relief to IMF program completion in the mid 1990s did Egypt finally begin to cooperate with its IMF program requirements.

France is another example of a country that is influential within the IMF, but also used bilateral finance to support several client states in West Africa that were unwilling to reform their economies. Although the IMF had declared the CFA franc in need of devaluation as early as 1986, the French government helped finance these countries' current account deficits in exchange for access to and influence over their leaders (Stasavage 2003). This support was most visible when it disappeared: a reevaluation of France's diplomatic priorities led to a sudden termination of bilateral support in 1994, forcing many CFA franc-using countries to begin IMF programs to adapt to the shock.

Yet while many countries have eclipsed the IMF on occasion, none have attracted as much attention as China. The earliest and most well-known case occurred in Angola in 2004. Following a quarter-century of civil war that had ended only two years before, the country's infrastructure lay in ruins and the government sought loans of foreign currency to jump-start reconstruction. It had recently begun several borrowing arrangements with the IMF, but repeatedly failed to implement reforms to the satisfaction of the Fund, which stopped disbursing money. In 2004, Angola participated in another round of talks with the Fund, and announced that they expected to agree to a new arrangement sometime in the spring.[5] However, the expected program never materialized, and the Angolan government instead negotiated oil-backed loans with China Export-Import Bank and several Western commercial banks (Brautigam 2009).

The money from China Exim Bank's loan never left China: revenue from market-price oil sales to China were deposited in escrow with Exim Bank, before being drawn down by Chinese companies contracted to construct infrastructure in Angola (Corkin 2013). In this respect, Angola does not fit the typical portrait of a balance of payments crisis. The presence of Western commercial banks also proves that China was not acting as a true lender of "last resort." As Brautigam (2009) has persuasively argued, this particular loan did not merit some of the sensationalist claims made about it. However, because the need for foreign assistance with reconstruction was the main impetus for

[5] "Angola: Minister Kussumua calls for British support for reconstruction," *ReliefWeb*, March 21, 2004. https://reliefweb.int/report/angola/angola-minister-kussumua-calls-british-support-reconstruction

approaching the Fund, and because China's loan enabled the government to meet this goal without beginning a new program and committing to economic reforms, it seems clear that Chinese lending substituted for the IMF.

Today, China is frequently mentioned as an alternative to the IMF. The leader of Hezbollah expressed hope that China, rather than the IMF, could help Lebanon recover from economic difficulties that reached crisis levels after the August 2020 Beirut explosion.[6] So far, Chinese assistance has not been forthcoming in Lebanon, but the statement fulfills a crucial prediction of the theory of institutional eclipse: borrowers explicitly recognize China as a substitute for the IMF. Other countries have been more successful: Sri Lanka secured a $500 million loan and a $1.5 billion swap line with China that enabled the government to avoid borrowing from the IMF for years before a deepening crisis forced the resignation of President Gotabaya Rajapaksa, and the new government agreed to an Extended Fund Facility.[7] [8]

Why has China begun behaving as an international lender of last resort? In short, I argue that China's lending activity is best understood as a form of institutional eclipse, in which it provides emergency lending at more favorable terms than the IMF in exchange for various forms of diplomatic cooperation. The only difference between China's actions today and France's decision to shelter its former colonies circa 1990 is China's greater lending capacity and geopolitical ambitions. Lending to countries across the developing world has assisted China's efforts to export construction services, import natural resources, and secure important votes in international fora, such as Cambodia's decision to block the Association of Southeast Asian Nations (ASEAN) from issuing a joint statement rejecting China's territorial claims in the South China Sea.[9]

I test my argument that Chinese loans substitute for IMF assistance in four ways. First, exogenous increases in Chinese lending should result in a reduced probability of countries participating in an IMF program. Second, among countries that do participate in an IMF program, Chinese lending should help them negotiate for more favorable terms, with fewer binding conditions. To validate these causally identified results, I also check whether borrowing tends to occur as coun-

[6] Alison Tahmizian Meuse, "Hezbollah head prefers China to IMF for Lebanon bailout," *Asia Times*, June 17, 2020 `https://asiatimes.com/2020/06/hezbollah-head-prefers-china-to-imf-for-lebanon-bailout/`

[7] Marwaan Macan-Markar, "Sri Lanka turns to China rather than IMF to avoid default," *Nikkei Asia*, October 12, 2020.

[8] "Sri Lanka signs three-year $1.5 billion currency swap deal with China," *Associated Press*, March 23, 2021.

[9] Manuel Mogato, Michael Martina, Ben Blanchard, "ASEAN deadlocked on South China Sea, Cambodia blocks statement," *Reuters* July 25, 2016.

tries encounter macroeconomic difficulties. Finally, to confirm that China's interests determine the availability of assistance, I test how effect sizes vary across countries that differ in their strategic appeal to China.

5 Identifying IMF Programs that Never Occurred

The core empirical contribution of the article is to provide an estimate of the effect of Chinese lending on developing countries' probability of borrowing from the IMF and burden of conditionality. These effects have remained unclear despite considerable academic and political interest because numerous factors frustrate attempts at inference: allies of the United States, for example, may be dissuaded from borrowing from China, while simultaneously benefiting from American influence inside the IMF. To circumvent this problem, I outline an instrumental variables strategy, which can provide an estimate close to the true value for an important subset of developing countries.

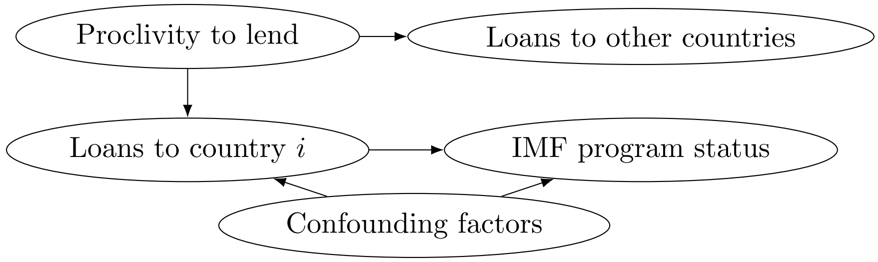
The strategy is motivated by the fact that China's rise as a lender has been driven by domestic factors, including the growth of its economy, sizeable foreign exchange reserves, and its government's desire to play a more active role in world politics. Although each individual loan is subject to various forms of confounding, the overall growth in Chinese lending is exogenous. Thus, the loans a country receives each year from China can be broken into two parts: an exogenous portion explained by the overall growth in Chinese lending, and an endogenous portion explained by the country's idiosyncratic relationship with China.[10]

These two portions can be separated using the tool of ordinary least squares, which breaks the variation in an outcome variable into a fitted value predicted by the regressor, and residual variation between the fitted and measured value. In this case, the exogenous regressor is the sum of Chinese loans to all *other* countries in a given year. The intuition is that loans to other countries $\neg i$ in year t is a good proxy of China's overall willingness and ability to loan in that year, but otherwise exogenous to loans made to country i. A causal diagram is provided in Figure 2.

Simulations and analytic results confirm that this method of using aggregate loans to serve as proxy for an instrument that affects specific loans can succeed (see the appendix for full details).

[10]This instrument is inspired by Dube and Naidu (2015), who use US military spending in regions other than Latin America as an instrument for US military aid to Colombia, reasoning that swings in the US military's global budget exogenously affect the amount of money available to give to Colombia.

Figure 2: A causal diagram of a single time period



However, unlike a traditional instrumental variable, it requires that errors be mean zero in each time period (though they can still take different values for each country-year, a form of confounding that would frustrate a two-way fixed effects strategy). This is because the proxying strategy requires that year-over-year changes in aggregate lending be attributable to changes in China's willingness to lend. For the same reason, time period fixed effects cannot be included without absorbing the identifying variation. Obviously, other time-varying factors are at play, but they are well-understood and can be controlled for. To control for the demand for financing, I include each country's lagged economic growth rate and current account balance. To control for other sources of credit, I include the US federal funds rate, which is the prime interest rate of the entire global financial system: low rates cause capital to flow to the developing world in pursuit of higher returns, and rate increases reverse these flows. I also include an indicator for the most significant time-related shock during the period studied: the global financial crisis of 2008-2009.

The full setup uses a linear probability model for its ease of interpretation and implementation in a two-stage-least-squares approach.[11] The full model is:

$$\widehat{Loans}_{it} = \alpha_i + \beta_1 GlobalLending_{\neg i,t} + \boldsymbol{\beta Controls_{it}} + \epsilon_{it} \tag{1}$$

$$\widehat{IMF}_{it} = \alpha_i + \beta_1 \widehat{Loans}_{it} + \boldsymbol{\beta Controls_{it}} + \epsilon_{it} \tag{2}$$

Loans denotes loans from China as a percentage of GDP, *GlobalLending* is the logged sum of Chinese loans to all other countries in that year, a_i is a country fixed effect, and IMF is a

[11]The presence of a binary dependent variable might suggest the use of probit or logit regression. Yet while 2SLS strategies are compatible with these techniques in the second stage, doing so requires stronger assumptions about functional form and the distribution of errors (Angrist and Pischke 2009, p. 197). An "agnostic" approach to regression by contrast, prefers a first-order approximation of an easily interpretable conditional expectation function over this potentially more precise but more fallible method.

binary variable that takes the value 1 if a country begins a new IMF program in that year and 0 otherwise. I use robust standard errors, clustered by country. All data and analysis code will be available online on the Harvard Dataverse.

In addition to controlling for time-varying confounders, the model must also satisfy the standard assumptions of an instrumental variables approach. Most prominent is the motivating insight, which alleges that China's aggregate lending fluctuates for domestic reasons, which are exogenous to developing countries' relationships with the IMF. This assumption draws strength from the fact that "almost all of China's overseas lending and investment is official," guided and conducted by state-affiliated institutions (Horn et al 2019). Trends in China's financial relations with the outside world, from the wave of SOE-led investment in the 2000s, to the sharp restrictions on outward investment by private companies that began in 2016, have always been rooted in central government decisions. Sovereign lending in particular has been most powerfully shaped by three key decisions. The first came in 2006, a time of fractured political power in China, when the transformation of China Development Bank from an almost entirely domestic lender into a peer of the World Bank was set in motion by its chairman, Chen Yuan.[12] The second was Xi Jinping's Belt and Road Initiative (BRI), which prompted a second blossoming of Chinese lending, lasting until the Chinese government decided to retrench in 2017, due to slowed economic growth within China. Although there is less direct evidence of this third decision, it is notable that outside observers again attributed the reversal to internal factors, rather than demand shocks.[13] Thus, it is likely a safe assumption that these high-level decisions made in Beijing shifted the amount of money available to lend to developing countries.

Another frequent concern is known as the exclusion restriction: if the instrument affects the outcome through multiple channels, it is impossible to know how much influence runs through the channel of interest, which in this case is Chinese loans. Fortunately for the inferential strategy, there are few substitutes for hard currency during a balance of payments crisis. The instrument — China's willingness to lend — is unlikely to affect a country's ability to evade the IMF through any channel other than loans themselves. In other words, China's willingness to lend is of no help

[12] Andrew Yeh, "CDB backs China push to invest overseas," *Financial Times*, December 5, 2006.

[13] Carmen Reinhart, "Does Anyone Even Know How Much China Has Lent to Poorer Countries?," *Barron's*, November 2, 2018.

to a country seeking to stave off an IMF program if the country does not ultimately receive a loan.

Three remaining assumptions are less commonly questioned, but no less important. The first is that the instrument actually have a strong effect on treatment status, which I validate by checking that the first-stage F-statistic is greater than 10. Secondly, there must be no "spillover" of loans or their effects across countries. Although some historical crises have given rise to the hypothesis of financial "contagion," this phenomenon is most relevant for countries that play a central coordinating role in the global financial system (Oatley et al 2013). Since no country in the sample plays such a role, spillover concerns are minimal. Put plainly, it seems unlikely that a Chinese loan to Kenya would have much influence on Tanzania's relationship with the IMF. Finally, this approach assumes that no country becomes *less* likely to borrow from China when China becomes *more* willing to lend. This assumption is rarely challenged, but it provides a reminder that instrumental variables return what is known as a Complier Average Causal Effect. The CACE applies to countries whose pattern of borrowing "complies" with the general pattern of lending set out by the instrument, and does not apply to "always takers" who might receive loans from China even in lean times, or "never takers" that do not borrow from China.

5.1 Data

Getting reliable data on Chinese lending has long been a primary obstacle to research into its effects and causes. Until very recently, only two datasets were available, neither of them indisputably authoritative: one maintained by the China-Africa Research Initiative (CARI) at Johns Hopkins University, and the other by the AidData team at the College of William and Mary.

Fortunately, two new datasets are enabling researchers to ask new questions. The first is Sebastian Horn, Carmen Reinhart, and Cristoph Trebesch's dataset (HRT) on countries' stocks of debt from China. This dataset draws on both CARI and AidData, as well as dozens of other sources. Whereas CARI and AidData report new loans made by China, HRT measures countries' net credit position. When a flow measure is constructed from these stock data, negative values are possible. This is an improved measure for estimating the effect of Chinese lending: rolling over old debt is more correctly seen as continuing the status quo rather than an expansion of credit. Second, the World Bank's Debtor Reporting System (DRS) receives information directly from governments about their borrowing activity. These data are not public, but I was able to procure data from years 2008-2015. The data cannot be shared in granular form, but they are invaluable for validating the other data sources.

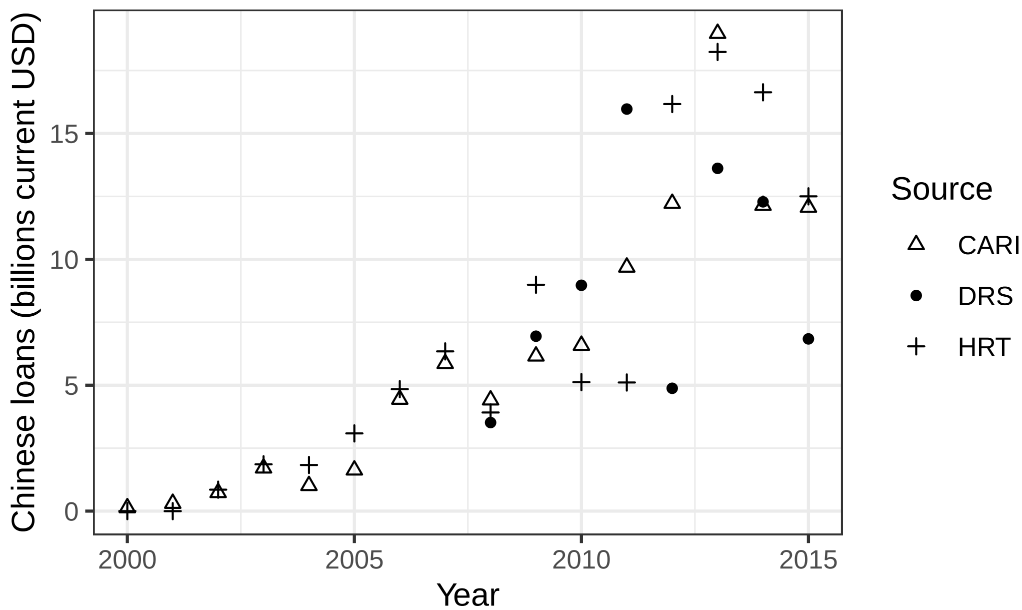


Figure 3: Comparing sources by year, aggregated across countries in common.
AidData excluded in order to enhance readability.

Figure 3 displays the data from each source by year across the 55 African countries that they share in common. Looking at total Chinese lending over time, the datasets agree in most years, but not in 2011 or 2012. No dataset consistently offers the highest or lowest estimate. The World Bank's data usually returns a lower total than HRT, but an IMF report sheds light on the reasons why: the Debtor Reporting System captures loans only as they are disbursed, and does not count loans made to borrowing-country state-owned enterprises.[14] For the purposes of evaluating Chinese loans' ability to compete with IMF lending, it makes sense to rely on HRT's accounting, because in balance-of-payments crises, the announcement of a rescue package can have effects before money actually starts flowing. Loans to SOEs, even if not guaranteed by the government, are also still useful in substituting for IMF loans due to the fungibility of money. With these factors in mind, HRT seems to track the World Bank's numbers. I used Horn, Reinhart, and Trebesch's data in my main analysis for these reasons, as well as its broad geographic and temporal scope. The data cover 104 countries that borrowed from China at least once, between 2000 and 2017 (a full list is

[14]International Monetary Fund, *The Evolution of Public Debt Vulnerabilities in Lower Income Economies,* February 2020.

Table 1: Results: Participation

	Model 1	Model 2	Model 3	Model 4
Chinese loans	-15.31^{**}	-9.29^{**}		-4.03
	(5.74)	(3.30)		(2.37)
Chinese loans (lagged)			-9.61^{*}	
			(3.82)	
Country fixed effects	✓	✓	✓	✓
Lagged growth	✓	✓	✓	
US prime rate	✓	✓	✓	
Lagged current account	✓		✓	
2008-09 indicator	✓	✓	✓	
Num. obs.	1113	1560	1115	1679
(Clusters)	(79)	(104)	(79)	(104)
First stage F-statistic	24.8	19.1	31.8	31.4

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

available in the Appendix.)

6 Results

In the previous section, I argued that the quantity of borrowing from China for some countries is shifted by exogenous booms and busts in Chinese lending. This argument, which was rooted in qualitative observations, is borne out by data: the amount of money a country receives from China (expressed as a share of GDP) is strongly predicted by the (logged) value of Chinese loans going to all other countries in that year, with an F-statistic well above the accepted threshold of 10.

This exogenous variation in lending provides an opportunity to answer the question: does Chinese lending compete with the IMF? Estimated effects unanimously support the hypothesis that Chinese loans *do* enable some countries to avoid turning to the IMF for help. The full specification in column (3) of Table 1 estimates that a one-percent-of-GDP loan from China reduces a country's probability of beginning a new IMF program by ten percentage points. Since only ten percent of all country-years in the dataset include a new program, this is a significant effect in practical terms.

Because data on covariates were not available for all country-years, columns (2) and (4) report specifications with fewer controls and additional observations. The estimated effect size is smaller, likely due to omitted variable bias: a healthy current account makes countries less likely to borrow from China or to approach the IMF. Like traditional IV methods, this estimation strategy can safely ignore omitted variable bias that affects individual country-year observations, but because of the indirect way it measures China's willingness to lend, it cannot handle bias that affects the entire sample in a given year. Since capital flows into and out of developing countries are correlated, model (3) is likely more reliable than models (1) and (2). Nevertheless, even the minimalist model (1) returns a negative effect that translates into a one-third reduction in relative risk for a typical country in the sample.[15]

Model (3) estimates the effect of a similar loan made one year previously. Lagging the explanatory variable in this fashion should help address lingering concerns about reverse causality — i.e. that countries beginning a new IMF program are pressured to avoid borrowing from China. The estimated effect remains large, negative, and statistically significant.

There are limits to how much can be learned from these data. Estimated effects are imprecise, and only reflect an average across many different countries. Nevertheless, these estimates make a significant contribution to the study of China's impact on emergency lending and global governance by providing rigorous evidence that Chinese loans have helped governments avoid beginning new IMF programs, temporarily eclipsing the Fund's efforts to prescribe macroeconomic reforms.

6.1 Conditionality

Even though IMF programs exhibit clear variation in the severity of their conditionality, measurement of this feature is difficult because each IMF program is tailored to a country's particular economic problems. Researchers have made do by counting the number of conditions, but this is plagued by the issue that some conditions – such as publishing a budget – are much easier to implement than others, such as curtailing food subsidies to key constituencies. Stone (2008) pioneered an approach to measuring the scope of conditionality across different issue areas, but measuring intensity has remained difficult. I make use of Kentikelenis, Stubbs, and King (2016)'s dataset, which improves on a simple count by distinguishing between "hard" and "soft" conditions, and measure the severity of a program's conditionality by the count of hard conditions.

Estimating the effects of Chinese loans on conditionality faces an additional obstacle: the outcome is missing for any country not currently participating in an IMF program. Furthermore, it

[15] Because the sample amalgamates "compliers" with "always-takers" that might be unaffected by the identifying variation, this relative risk statement is not strictly causal, but it should reassure readers that the CACE (which is causal) is substantively large.

is reasonable to expect that borrowers' propensity to turn to China is correlated with the intensity of reforms demanded by the IMF. This form of missingness — correlated with the level of the outcome variable — poses an intractable problem for estimation.

However, these data still provide an opportunity to probe the hypothesis that Chinese loans will help borrowers negotiate agreements with lighter conditionality. First, the existing data provide a baseline estimate. Missing observations can than be imputed into the dataset one by one, in order of likelihood that an IMF program was averted by a Chinese loan. Although there is no way of knowing how many imputations are necessary to give an approximately unbiased estimate, repeated estimates can reveal how fragile the naïve result is.

To determine which observations should be imputed, I constructed a model of IMF program participation, which used the most important determinants as regressors: GDP growth, an indicator for election years, and an indicator for temporary UN Security Council membership, as well as state and year fixed effects. Of the two hundred most-surprising country-years without a program (those with the largest negative residuals), sixty-six had received a loan from China larger than 0.1% of GDP.

For each of these observations, I imputed the number of hard conditions as the average number of such conditions in all IMF programs from that year. In other words, for country-years that appeared ripe for an IMF program and received significant Chinese lending, I assumed that such a program would have had an average number of hard conditions, given the year. The average provides a justifiable estimate for the unknown quantity, as well as a compromise between competing intuitions: these countries likely faced higher-than-average demands from the IMF, but with Chinese assistance, they were able to forego an IMF program altogether, reflecting a lower-than-average reservation price among borrowers.

A two-stage least-squares model was then fit twice, with the effect estimate recorded each time: once with the observed data, and then once more after the imputed observations were added to the dataset. The results are displayed in Table 2. Using observed data, a one-percent-of-GDP loan from China was estimated to result in seven fewer conditions for an IMF program negotiated in that year. (The median number of observed conditions was twenty-six). Imputing additional observations increased this estimate to over eight. Transforming the outcome data by taking the square root of the number of conditions did not materially change the results either: for the median

Table 2: Results: Count of hard conditions

Data	Observed	Imputed	Observed	Imputed
Outcome	count	count	$\sqrt{count}$	$\sqrt{count}$
Chinese loans	-6.10^{**}	-7.87^{***}	-0.49^{*}	-0.78^{***}
	(2.30)	(2.14)	(0.21)	(0.21)
Country fixed effects	✓	✓	✓	✓
Lagged growth	✓	✓	✓	✓
US prime rate	✓	✓	✓	✓
2008-09 indicator	✓	✓	✓	✓
Num. obs.	428	492	428	492
(Clusters)	(68)	(68)	(68)	(68)
First stage F-statistic	11.7	19.8	11.7	19.8

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

program, a one-percent-of-GDP loan is estimated to result in five to six fewer conditions.

These results conform with the those for IMF program participation: Chinese loans seem to improve borrowers' negotiating position, enabling them to forego an IMF program, or if they do begin one, to do so with fewer attached conditions. However, even more uncertainty should be attached to these estimates: imputation is an imperfect solution to the problem of programs that fail to occur, and the measure of hard conditionality is only available until 2014.

The increase in estimated effect magnitude after imputing additional observations is a consequence of the fact that — stratified by year but prior to further covariate adjustment — Chinese borrowers had a higher-than-average number of conditions. Adding in observations with an average number of conditions given the year thus strengthened the post-adjustment relationship between Chinese loans and a fewer number of conditions.

These cross-cutting patterns — countries that borrow from China tend to face tougher conditionality, but the effect of borrowing is to lighten conditionality — explain why China has emerged as an implicit rival to the IMF: a class of countries, characterized by illiberal economies and weak ties with the United States, faces challenging conditions from the IMF in exchange for financial assistance. Yet by borrowing from China, these countries can improve their bargaining position and negotiate for lighter conditionality. If Vreeland (2019)'s account of institutional "corruption" explains how American allies jockey for favorable treatment in the IMF, institutional eclipse explains how affiliates of China seek the same end via different means.

6.2 Macroeconomic Difficulties among Borrowers

IV methods promise rigorous answers to causal questions, but do not tell the whole story. Here, I draw on observational data to supplement my argument that Chinese loans can serve as bailouts. If Chinese loans are truly substituting for IMF assistance, they should be made to countries that are experiencing troubled economic conditions. To confirm this, I collected all 259 instances in which a country borrowed more than one percent of its GDP from China in a given year. For each case, I calculated the average current account balance and GDP growth rate of borrowers in the five years before and after receiving the loan, and plotted these averages in Figure 4. 81 countries appear at least once in this list of large loans, while some appear more often because they repeatedly make large loans from China. In the most extreme case, Laos contributes eleven observations, each centered on a year in which it borrowed more than one percent of GDP from China.

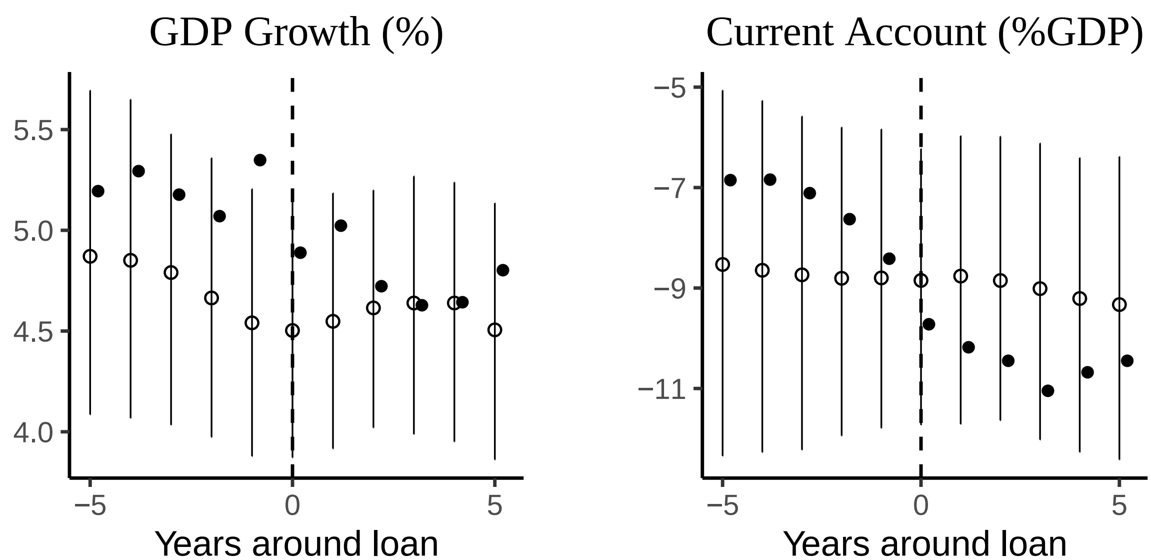


Figure 4: Filled circles indicate that a large Chinese loan was made in year 0, while the open circles reflect bootstrap estimates.

Interpreting these patterns is difficult without a counterfactual, so I repeated the procedure one thousand times with country-years chosen at random from the dataset. These bootstrap time series appear as hollow circles; the time series for the borrowers appear as filled dots. Compared to their peers, heavy borrowers are going through hard times: current account balances are increasingly negative and growth is falling. Precisely in the year that the loan is made, growth takes a sharp fall and current account balances cross over from being above average to below average. By lending into a downturn, China appears to be acting as a lender of last resort for this group of borrowers.

6.3 China's Interests Determine Availability of Bailouts

Second, institutional eclipse should only occur when it suits the interests of the interposing patron state. Research into the determinants of China's lending identifies three principal concerns: profit, access to natural resources, and geopolitical favors (Gallagher, Irwin, and Koleski 2012, Dreher et al. 2018). Of these, natural resources offer the possibility of a principled division between countries that appeal to China's national interest and those that do not.

The attraction of natural resources reflects both an official interest in securing access to essential economic inputs, as well as a willingness to accept payment in-kind. Of course, countries endowed with exportable natural resources may already enjoy a superior bargaining position when negotiating with the IMF, as illustrated by Chad's ability to borrow 10% of GDP from the Swiss commodity giant Glencore, which aroused the ire of the Fund.[16] Yet the incredible expansion of Chinese loans has undoubtedly expanded the supply of bailout money to these governments. This logic generates a difference-in-differences prediction: the expansion of Chinese lending has reduced participation in IMF programs to a greater extent in resource-exporting countries than in countries that export few natural resources.

To test this prediction, I coded each country in the data set as a "major" or "minor" natural resource exporter based on UNCTAD data, with the dividing line defined as averaging $1.5 billion in exports of metal ores, coal, and petroleum. I then fit the IV model of IMF program participation separately for each group of countries. As expected, the effect was much stronger among major resource exporters. The reduced number of observations available to each model enlarged their standard errors, meaning that neither estimate was statistically significant, but the gross mismatch in effect size strongly suggests that the significant results presented earlier are driven by major resource exports.

These results illustrate that institutional eclipse, while providing benefits to the client state, occurs at the pleasure of the patron state. China does not substitute for the IMF everywhere, but only where doing so benefits its national interest. If China's material power continues to grow, the IMF may still privilege Western interests, but find its influence increasingly circumscribed.

[16] Javier Blas, "Glencore arranges $1bn oil loan for Chad," *Financial Times* June 16, 2014.

Table 3: Heterogeneous Effects by Resource Exports

Outcome	Resource-Rich Participation	Others Participation	Resource-Rich Conditions	Others Conditions
Chinese loans	-16.16	-6.88^{*}	-19.23^{*}	-7.32^{***}
	(9.77)	(3.25)	(7.81)	(2.05)
Country fixed effects	✓	✓	✓	✓
Lagged growth	✓	✓	✓	✓
US prime rate	✓	✓	✓	✓
2008-09 indicator	✓	✓	✓	✓
Num. obs.	624	936	543	814
(Clusters)	(42)	(62)	(42)	(61)
First stage F-statistic	6.3	28.5	7.8	29.9

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

7 Conclusion

Interest in Chinese competition with the IMF marks only the most recent time that observers have recognized that deep-pocketed governments can protect client states from the institution's harsh medicine. However, each of these accounts has focused on the particulars of a single case: France and Côte d'Ivoire, the United States and Egypt, China and Angola. Consequently, the general nature of this type of interaction has gone underappreciated. Research on the politicization of international economic institutions has focused on intra-institutional machinations, overlooking the role played by bilateral diplomacy to ensure that these organizations' activities do not harm the interests of powerful states.

This theory of institutional eclipse contributes to the study of international organizations by identifying the capabilities and limits of a state's efforts to compete with an IO. As a tool of geopolitics, institutional eclipse does not rely on inherited advantages, making it available to more countries, especially rising powers whose material advantages far outstrip their institutional power. However, it can only play a blocking role and demands continued investment from the patron state. The limited scope of an eclipsing strategy (over both time and space) also makes it a much less effective tool for pushing for institutional reform than setting up a rival organization. This has several implications for a world shaped by Sino-American competition: first, the IMF may continue to privilege Western interests, both in differential treatment of borrowers and in the ideological slant of its recommendations. Some features of the original Washington Consensus may have fallen out of favor, but the IMF will likely continue to promote prevailing Washington economic orthodoxy rather than ideas emanating from Beijing.

Second, the Fund will likely find that its ability to push reforms on reluctant governments is diminished, as many small economies play China and the United States off one another in search of financial assistance. These countries will enjoy a greater degree of autonomy in designing their economies. Reactions to this trend will vary: those who believe that the IMF's prescriptions for economic reform represent the surest route to stability and prosperity might express alarm that these countries are slipping into another cycle of debt and default, while critics of the IMF are more likely to cheer China's lending as a source of "policy space" for governments to choose their own development strategy.

However, as the impermanent nature of institutional eclipse and historical experience suggest, client states might find themselves in dire straits if a patron decides to withdraw its support. So far, China has not nakedly abandoned a former client, but it has declined to provide additional loans to the troubled governments of Zimbabwe and Venezuela. Developing economies thus cannot fully escape the influence of more powerful states. These cases point to an alternative trajectory that Chinese influence on the emergency lending regime could take: if China were to lose its appetite for lending to the developing world at large, whether due to a domestic economic crisis or excessive defaults among borrowers, the IMF's bargaining power would be swiftly restored.

What about institutions other than the IMF? Can they also be eclipsed by powerful states? There seems to be no reason why this should not be the case, but very few IOs meet the scope condition of providing essential material support to governments while making political demands. Perhaps the best parallel is the United Nations Security Council, which functions as a global collective security pact, but whose purview can be eclipsed through a vetoing process (Voeten 2001). In this case, the power to eclipse is formally institutionalized, but it is possible to conceive of a hypothetical country outside of the five veto-wielding members with sufficient military strength to protect a client state from a UN-backed intervention. In this case, the UN's sphere of influence would be shrunk further. Lipscy (2017) argues that the veto mechanism explains why the UN has endured as a leading global forum; similarly, perhaps the ability to eclipse the IMF when convenient explains why great powers have continued to support a powerful IMF. Whereas traditional accounts emphasize that the benefits of a global lender of last resort outweigh the costs for members, the ability to substitute for the IMF when necessary suggests that powerful states have not always had to pay the steepest geopolitical costs.

Understanding the veto mechanism as a form of institutional eclipse also has consequences for the contemporary debate over whether to abolish the veto, which has been decried as "colonial."[17] If China or other countries are denied a formal veto, they will likely turn to the informal mechanism of eclipse, using their own resources to provide security to countries targeted by the Security Council — as China did for North Korea in 1950, when its veto power was still in the hands of the government based in Taipei.

Finally, in addition to the insights generated by the theory, the article makes a major empirical contribution by measuring the effect of Chinese lending on IMF program participation. Not only have these loans prevented some IMF programs from happening, but they have helped countries push for fewer hard conditions when they do borrow from the IMF. Qualitative accounts of China's role in developing country negotiations with the IMF have proven invaluable in understanding this process, but are unable to provide an aggregate, synoptic view. This article provides such a perspective, complementing earlier work while also giving a fuller account of how a lack of institutional power motivates China's use of this strategy.

[17] Hannah Ryder, Anna Baisch and Ovigwe Eguegu, "Decolonizing the United Nations Means Abolishing the Permanent Five," *Foreign Policy* September 17, 2020.

References

Angrist, Joshua, and Jorn-Steffen Pischke. 2009. *Mostly Harmless Econometrics.* Princeton, NJ: Princeton University Press.

Brautigam, Deborah. 2009. *The Dragon's Gift: The Real Story of China in Africa.* Oxford University Press.

Broz, J. Lawrence, Zhiwen Zhang, and Gaoyang Wang. 2020. "Explaining Foreign Support for China's Global Economic Leadership." *International Organization* 74(3): 417–452. Publisher: Cambridge University Press.

Bunte, Jonas. 2019. *Raise the Debt: How Developing Countries Choose Their Creditors.* Oxford University Press.

Clark, Richard. 2021. "Bargain Down or Shop Around? Outside Options and IMF Conditionality." *Working Paper* .

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

Corkin, Lucy. 2013. *Uncovering African Agency: Angola's Mangement of China's Credit Lines.* Burlington, VT: Ashgate.

Dreher, Axel, Andreas Fuchs, Brad Parks, Austin M. Strange, and Michael J. Tierney. 2018. "Apples and Dragon Fruits: The Determinants of Aid and Other Forms of State Financing from China to Africa." *International Studies Quarterly* 62(1): 182–194.

Dreher, Axel, Andreas Fuchs, Bradley Parks, Austin M. Strange, and Michael J. Tierney. 2017. "Aid, China, and Growth: Evidence from a New Global Development Finance Dataset." *AidData Working Paper* 46.

Dube, Oeindrila, and Suresh Naidu. 2015. "Bases, Bullets, and Ballots: The Effect of US Military Aid on Political Conflict in Colombia." *The Journal of Politics* 77(1): 249–267.

Gallagher, Kevin P., Amos Irwin, and Katherine Koleski. 2012. "The New Banks in Town: Chinese Finance in Latin America." Inter-American Dialogue.

Gallagher, Kevin P., and Yuan Tian. 2017. "Regulating capital flows in emerging markets: The IMF and the global financial crisis." *Review of Development Finance* 7(2): 95–106.

Gowa, Joanne, and Edward D. Mansfield. 1993. "Power Politics and International Trade." *American Political Science Review* 87(2): 408–420. Publisher: Cambridge University Press.

Hernandez, Diego. 2017. "Are "New" Donors Challenging World Bank Conditionality?" *World Development* 96: 529–549.

Horn, Sebastian, Carmen M Reinhart, and Christoph Trebesch. 2019. "China's Overseas Lending." Working Paper 26050 National Bureau of Economic Research. `http://www.nber.org/papers/w26050`

Ikenberry, G. John. 2001. *After Victory: Institutions, Strategic Restraint, and the Rebuilding of Order After Major Wars.* Princeton, NJ: Princeton University Press.

Kentikelenis, Alexander E., Thomas H. Stubbs, and Lawrence P. King. 2016. "IMF conditionality and development policy space, 1985–2014." *Review of International Political Economy* 23(4): 543–582.

Keohane, Robert O. 1984. *After Hegemony: Cooperation and Discord in the World Political Economy.* Princeton, NJ: Princeton University Press.

Kern, Andreas, and Bernhard Reinsberg. 2021. "The Political Economy of Chinese Debt and IMF Conditionality." *Available at SSRN 3951586* .

Kindleberger, Charles. 1973. *The world in depression, 1929-1939.* Berkeley, California: University of California Press.

Krasner, Stephen D. 1976. "State Power and the Structure of International Trade." *World Politics* 28(3): 317–347. Publisher: Cambridge University Press.

Kuziemko, Ilyana, and Eric Werker. 2006. "How Much Is a Seat on the Security Council Worth? Foreign Aid and Bribery at the United Nations." *Journal of Political Economy* 114(5): 905–930.

Lake, David A. 2009. *Hierarchy in International Relations.* Cornell University Press.

Lipscy, Phillip Y. 2015. “Explaining Institutional Change: Policy Areas, Outside Options, and the Bretton Woods Institutions.” *American Journal of Political Science* 59(2): 341–356. _eprint: https://onlinelibrary.wiley.com/doi/pdf/10.1111/ajps.12130.

Lipscy, Phillip Y. 2017. *Renegotiating the World Order: Institutional Change in International Relations*. Cambridge University Press.

McDowell, Daniel. 2019. “The (Ineffective) Financial Statecraft of China’s Bilateral Swap Agreements.” *Development and Change* 50(1): 122–143.

Momani, Bessma. 2004. “American Politicization of the International Monetary Fund.” *Review of International Political Economy* 11(5): 880–904.

Momani, Bessma. 2005. *IMF-Egyptian Debt Negotiations*. Cairo: American University in Cairo Press.

Morse, Julia C, and Robert O Keohane. 2014. “Contested multilateralism.” *The Review of international organizations* 9(4): 385–412.

Oatley, Thomas, W. Kindred Winecoff, Andrew Pennock, and Sarah Bauerle Danzman. 2013. “The Political Economy of Global Finacne: A Network Model.” *Perspectives on Politics* 11(1): 133–153.

Pratt, Tyler. 2021. “Angling for Influence: Institutional Proliferation in Development Banking.” *International Studies Quarterly* 65(1): 95–108.

Schneider, Christina J, and Jennifer L Tobin. 2020. “The political economy of bilateral bailouts.” *International Organization* 74(1): 1–29.

Stasavage, David. 2003. *The Political Economy of a Common Currency — The CFA Franc Zone since 1945*. Ashgate: Aldershot.

Stone, Randall W. 2011. *Controlling Institutions: International Organizations and the Global Economy*. Cambridge University Press.

Thacker, Strom C. 1999. “The High Politics of IMF Lending.” *World Politics* 52(1): 38–75.

Voeten, Erik. 2001. “Outside options and the logic of Security Council action.” *American Political Science Review* 95(4): 845–858.

Vreeland, James. 1999. "The IMF: Lender of Last Resort or Scapegoat?" Midwest Political Science Association Annual Meeting.

Vreeland, James Raymond. 2003. "Why Do Governments and the IMF Enter into Agreements? Statistically Selected Cases." *International Political Science Review* 24(3): 321–343.

Vreeland, James Raymond. 2019. "Corrupting International Organizations." *Annual Review of Political Science* 22(1): 205–222.

Vreeland, James Raymond, and Axel Dreher. 2014. *The Political Economy of the United Nations Security Council: Money and Influence*. Cambridge University Press.

Woods, Ngaire. 2014. *The Globalizers: The IMF, the World Bank, and Their Borrowers*. Cornell University Press.

Zeitz, Alexandra O. 2019. *The Financial Statecraft of Debtors: The Political Economy of External Finance in Africa*. Doctoral Dissertation, University of Oxford.

A List of Countries

Country Name	Major Resource Exporter?
Albania	
Algeria	✓
Angola	✓
Argentina	✓
Armenia	
Bahamas, The	
Bangladesh	
Belarus	✓
Benin	
Bolivia	✓
Bosnia and Herzegovina	
Botswana	
Brazil	✓
Bulgaria	✓
Burkina Faso	
Burundi	
Cabo Verde	
Cambodia	
Cameroon	
Central African Republic	
Chad	✓
Chile	✓
Colombia	✓
Comoros	
Congo, Dem. Rep.	✓
Congo, Rep.	✓
Costa Rica	
Cote d'Ivoire	✓
Djibouti	
Dominica	
Ecuador	✓
Egypt, Arab Rep.	✓
Equatorial Guinea	✓
Eritrea	
Ethiopia	
Fiji	
Gabon	✓
Ghana	

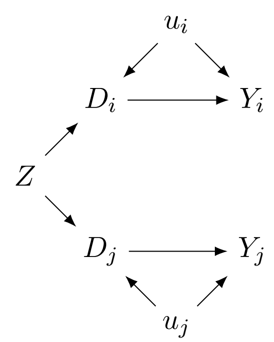
Country Name	Major Resource Exporter?
Guinea	
Guyana	
India	✓
Indonesia	✓
Iran, Islamic Rep.	✓
Jamaica	
Jordan	
Kazakhstan	✓
Kenya	
Kyrgyz Republic	
Lao PDR	✓
Lebanon	
Lesotho	
Liberia	
Macedonia, FYR	
Madagascar	
Malawi	
Malaysia	✓
Maldives	
Mali	
Mauritania	
Mauritius	
Mexico	✓
Mongolia	✓
Montenegro	
Morocco	
Mozambique	
Myanmar	✓
Namibia	
Nepal	
Niger	
Nigeria	✓
Oman	✓
Pakistan	
Papua New Guinea	
Peru	✓
Philippines	✓
Romania	

Country Name	Major Resource Exporter?
Russian Federation	✓
Rwanda	
Samoa	
Senegal	
Serbia	
Seychelles	
Sierra Leone	
South Africa	✓
South Sudan	✓
Sri Lanka	
Sudan	
Suriname	
Tajikistan	
Tanzania	
Togo	
Tonga	
Turkey	✓
Turkmenistan	✓
Uganda	
Ukraine	✓
Uruguay	
Uzbekistan	✓
Vanuatu	
Venezuela	✓
Vietnam	✓
Yemen	✓
Zambia	
Zimbabwe	

B Consistency of the Instrument

The paper makes use of a somewhat unusual instrumental variables strategy, which assumes that an unobserved instrument affects every unit equally and changes over time. These year-over-year changes provide identifying variation, and can be proxied by changes in treatment for other units. A causal diagram for a single period is given in Figure 6, where Z denotes China's unobserved willingness to lend, D a country's new borrowing from China, Y an indicator for if the country begins a new IMF program, and u unobserved confounding.

Figure 5: A causal diagram of a single time period



Because Z is unobserved, this strategy requires that the hidden instrument be the *only* unobserved cause each unit has in common. Other time-varying confounders that affect every unit are manageable, but only if they are observed and controlled for. Period fixed effects cannot be used to address this concern, because the time fixed effect *is* the spatial instrument — unexplained change over time in average treatment levels is assumed to be driven by Z, and so ΔZ is estimated by these over-time changes. To be sure, situations without unobserved time-varying confounding are rare, but the approach is no different from any other instrumental variables strategy, which always requires selection on observables for the instrument. In the paper, several control variables are included to help justify the assumption that aggregate changes to Chinese lending are overwhelmingly attributable to domestic Chinese decision-making.

Proof that the instrument is consistent

Given the system of equations:

$$D_{it} = \alpha_i + \beta_1 Z_t + u_{it}$$

$$Y_{it} = \beta_i + \beta_2 D_{it} + \epsilon_{it}$$

Define γ_{it} to be the change in the sum of treatment variables for all units $\neg i$ from time $t-1$ to time t:

$$\gamma_{it} = \sum^{\neg i} D_{i,t} - \sum^{\neg i} D_{i,t-1}$$

If $E[u_{it}|\alpha_i, Z_t] = 0$, then $\frac{\gamma_{it}}{n-1}$ is a consistent estimator for $Z_t - Z_{t-1}$.

Proof.

$$\gamma_{it} = \sum^{\neg i} D_{i,t} - \sum^{\neg i} D_{i,t-1}$$

$$\gamma_{it} = (\sum^{\neg i} \alpha_i - \sum^{\neg i} \alpha_i) + (n-1)(Z_t - Z_{t-1}) + (\sum^{\neg i} u_{it} - \sum^{\neg i} u_{i,t-1})$$

$$E[\gamma_{it}] = (n-1)E[Z_t - Z_{t-1}] + E[\sum^{\neg i} u_{it}] - E[\sum^{\neg i} u_{i,t-1}]$$

$$\frac{E[\gamma_{it}]}{n-1} = E[Z_t - Z_{t-1}]$$

□

The final equality follows from the assumption that errors are mean zero within each time period.

We can then use γ_i as a proxy for the unobserved instrument in a conventional IV setup, where the second equality follows from the fact that Z_{ij} does not vary within regions, and so $Z_{ij} = E[Z_{ij}]$.

$$\frac{Cov(\gamma_i, Y_i)}{Cov(\gamma_i, D_i)} = \frac{\beta_1 Cov(E[Z_{ij}], Y_i)}{\beta_1 Cov(E[Z_{ij}], D_i)} = \frac{Cov(Z_{ij}, Y_i)}{Cov(Z_{ij}, D_i)} = \beta_2$$

C Reduced Form Estimates

Table 4: Reduced form estimates: Participation

	Model 1	Model 2	Model 3	Model 4
Instrument	-0.03^{***}	-0.02^{**}		-0.01
	(0.01)	(0.01)		(0.01)
Instrument (lagged)			-0.02^{**}	
			(0.01)	
Country fixed effects	✓	✓	✓	✓
Lagged growth	-0.00	-0.00	-0.00	
	(0.00)	(0.00)	(0.00)	
US prime rate	-0.01^{**}	-0.01^{**}	-0.01^{*}	
	(0.00)	(0.00)	(0.01)	
Lagged current account	-0.00^{*}		-0.00^{*}	
	(0.00)		(0.00)	
2008-09 indicator	0.14^{***}	0.09^{**}	0.12^{***}	
	(0.03)	(0.03)	(0.03)	
Num. obs.	1115	1563	1115	1705
(Clusters)	(79)	(104)	(79)	(105)

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

Table 5: Reduced form estimates: Count of hard conditions

Data	Observed	Imputed	Observed	Imputed
Outcome	count	count	$\sqrt{count}$	$\sqrt{count}$
Instrument	-3.16^{***}	-3.63^{***}	-0.49^{***}	-0.36^{***}
	(0.55)	(0.69)	(0.09)	(0.07)
Country fixed effects	✓	✓	✓	✓
Lagged growth	-0.02	-0.09	-0.00	-0.01
	(0.08)	(0.13)	(0.01)	(0.01)
US prime rate	-0.63^{*}	0.10	-0.11^{*}	0.01
	(0.29)	(0.45)	(0.05)	(0.05)
2008-09 indicator	0.82	0.86	0.24	0.17
	(0.74)	(1.70)	(0.13)	(0.21)
Num. obs.	1358	492	1358	492
(Clusters)	(103)	(68)	(103)	(68)

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

Table 6: Statistical models