



# AIDDATA

A Research Lab at William & Mary

## WORKING PAPER 118

April 2022

---

IMF Programs, Chinese Lending, and the Political Economy of Leader Survival

**Andreas Kern**  
Georgetown University

**Bernhard Reinsberg**  
University of Glasgow

**Patrick E. Shea**  
University of Houston

Author ordering is alphabetical. Equal co-authorship is implied.

## **Abstract**

In times of global financial turmoil, the International Monetary Fund (IMF) often lends to distressed countries. Recently, a new lender-of-last-resort has emerged: China. How does the presence of both lenders affect leader survival? Our premise is that a significant portion of Chinese loans is linked to kickback schemes that directly benefit leaders and elites. IMF demands for greater transparency undermine the viability of such loan deals and ultimately threaten the political survival of leaders. Leaders face a trade-off between long-term political survival and short-term financial relief when enlisting the support of the Fund. We argue that especially corrupt governments undergo IMF programs to signal to citizens (and investors) that they act in a nation's best interest. Relying on a dataset of 122 countries between 1981 and 2015, we find that entering into an IMF program secures a government's tenure in office when it sits on a pile of Chinese debt. However, our findings indicate that the most corrupt governments among Chinese borrowers seem to leave office shortly after the onset of an IMF program. Intriguingly, it is these countries that also report larger deposits in offshore financial sinks.

## **Author Information**

### **Andreas Kern**

Georgetown University  
ak679@georgetown.edu

### **Bernhard Reinsberg**

University of Glasgow  
bernhard.reinsberg@glasgow.ac.uk

### **Patrick E. Shea**

University of Houston  
[pshea@uh.edu](mailto:pshea@uh.edu)

Author ordering is alphabetical. Equal co-authorship is implied. All errors remain ours.

The views expressed in AidData Working Papers are those of the authors and should not be attributed to AidData or funders of AidData's work, nor do they necessarily reflect the views of any of the many institutions or individuals acknowledged in the AidData Working Paper Series.

# 1 Introduction

As the COVID-19 pandemic rages through the global population, governments in emerging markets and developing countries are cracking under the pandemic's financial burden. The toxic mix of faltering revenues and skyrocketing expenditures are increasingly squeezing governments into financial distress. Without an agreement for debt relief in sight, governments are enlisting in record numbers onto the waitlist for financial relief with the IMF.<sup>1</sup> Whereas historically countries were borrowing from 'Western' lenders prior to running into financing difficulties, governments in developing countries are increasingly relying on non-traditional financiers and, in particular, China (Horn et al., 2020; Kaarevirta and Laakkonen, 2021; Gelpern et al., 2021). Despite delivering finance for a myriad of development and infrastructure projects, Chinese debt adds another layer of complexity to IMF program design (Kern and Reinsberg, 2021).

IMF bailouts are no free lunch. They come with significant strings attached. In exchange for financial relief, governments have to agree to an entire battery of austerity measures and spending cuts (for a survey, see Kentikelenis et al. (2016)). Labeled by critics as 'economic chemotherapy' (Smith, 1998, 7), IMF programs carry a reputation of being extremely unpopular, potentially threatening a government's survival in office. In response, extensive literature debates the question of whether governments have to trade off their political survival for short-term financial relief when enlisting on the client list of the IMF? Following a 'short-run pain, long-run gain' narrative (Kaminsky and Schmukler, 2008), the literature supports the notion that governments have great difficulties surviving the IMF's 'therapeutic' treatment (Bienen and Gersovitz, 1985; Williams, 2012; Dreher et al., 2012).<sup>2</sup> Nevertheless, to date it remains unclear whether governments that have substantial debt exposure toward China are faring better when turning to the IMF?

Built on the premise that project revenues keep loan schemes alive, governments seemed to have found the magic cure for all sorts of political ills.<sup>3</sup> Besides providing funding to boost pop-

---

<sup>1</sup>Although the recent global compact initiative was much anticipated, it followed without significant results the DSS initiative that was invoked at the outset of the COVID-19 pandemic (Stubbs et al., 2021; IMF, 2021).

<sup>2</sup>Whereas public spending cuts and market-liberalizing reforms diminish the ability of leaders to distribute rents to their followers (Reinsberg et al., 2019), gains from economic reform are uncertain (Bienen and Gersovitz, 1985).

<sup>3</sup>Whereas resource-rich countries such as Ecuador, Zambia, and Angola have put their nation's resource endowment as collateral for accessing Chinese loans, resource-poor nations have tried to benefit from project-based funding schemes to modernize their physical and digital infrastructure and in return pledged the revenue from these investments

ular support by implementing large-scale infrastructure projects and using freed-up fiscal space for popular public spending programs, Chinese funding allowed governments to tap a seemingly endless financial well (Broz et al., 2020; Gelpert et al., 2021; Dreher et al., 2021). As with most things in life, certain things are too good to be true. Chinese loans are no different unless the IMF joins the party. Once Chinese project revenues are falling short of loan payments and projects go financially underwater, governments need to find alternative sources of funding (Kern and Reinsberg, 2021). Although Beijing more often than not throws a financial lifeline to its creditors (Bon and Cheng, 2020; Acker et al., 2020), we argue that turning to the Fund provides several key political advantages over any other alternative on the table.

Besides delivering immediate financial relief, tapping the IMF allows governments to (ab-)use the Fund as a political ‘heat-absorber’ to calm public resentment while deflecting from its own misdealing (Vreeland, 2006). As the terms of Chinese loan contracts are subject to non-disclosure agreements, neither the true size of the contracts nor the repayment conditions are visible to the public eye (Horn et al., 2020; Gelpert et al., 2021; Dreher et al., 2021). This lack of transparency concerning Chinese loans has fueled substantial speculation about corruption and elite kickback systems surrounding these loans. Reviewing numerous country case studies, we believe that the most corrupt governments in the universe of Chinese borrowers take a cut from these loans and siphon these funds into offshore financial sinks. For these governments, approaching the IMF during times of financial distress enables them to involve a reputable independent third party that signals to citizens and investors its intentions to act in a nation’s best interest.<sup>4</sup> At the same time, the IMF does not have the mandate to threaten the viability of elite kickback schemes or seize elite wealth in offshore financial accounts (Kern et al., 2021). Despite these political advantages, the involvement of the Fund puts a leader at greater risk of being voted out (or removed) from the office which we expect to be most pronounced for corrupt governments. Against this backdrop, we hypothesize that the most corrupt governments among Chinese borrowers will leave office shortly

---

(Dollar, 2019; Brautigam et al., 2020; Horn et al., 2020).

<sup>4</sup>Insofar, the IMF works not only as a seal of approval for international investors but is also instrumental for calming citizens that a government is acting in their best interest. According to this logic, a criminal enterprise involves a reputable third party to certify a management’s ‘best’ intentions (Akerlof and Romer, 1993; Sharman, 2017b). In doing so, the third party unintentionally lends its own reputation as a cover. Similar mechanisms have been reported for financial looting schemes in the illicit finance literature (Sharman, 2017a).

after the arrival of the IMF.

Using a dataset of 122 developed countries in the time span between 1981 to 2015, we examine leaders' political survival as a function of Chinese debt and IMF programs using survival analysis and instrumental variable analysis. We find that Chinese debt can prolong leader tenure until leaders need to turn to the IMF. The IMF's transparency requirements and conditionality offset the political benefits of Chinese debt. We find this result to be most pronounced in corrupt regimes. Those leaders who are misusing Chinese loans for personal political benefits have the most to lose from IMF restrictions. These same leaders, however, are most likely to funnel fractions of these China loans through a web of shell companies to offshore bank deposits to insure leaders' livelihood post-tenure. For example, in the case of Zambia, President Lungu's administration called upon the IMF in December 2020 and peacefully handed over power in August 2021. Since entering office in August 2021, the incoming Hichilema administration has been fighting a steep uphill battle dealing with a pile of \$6.6 billion Chinese loans on top of the country's delinquent Eurobonds. Importantly, it cannot adequately allocate some \$3.2 billion of Chinese loans in the national budget to active projects that appear to have gone missing.<sup>5</sup> Meanwhile, retired President Lungu expectedly refused the "*government to build him a retirement home after leaving office as he had a number of houses.*"<sup>6</sup>

We contribute to several strands of the literature. First, our work closely maps onto more recent literature on sovereign debt and leader survival (DiGiuseppe and Shea, 2015, 2016). Debt is a useful fiscal resource for leaders, as it provides more ways to satisfy key constituents without the need to raise taxes in the short-run (DiGiuseppe and Shea, 2015). Yet, as debts mount, financial crises are more likely, which threaten leader survival (DiGiuseppe and Shea, 2016). Expanding on these findings, we focus on debt distress in the context of Chinese loans. Whereas existing work tries to decipher the precise mechanisms and structuring of Chinese loan contracts and their subsequent amount (Bluhm et al., 2018; Horn et al., 2020; Gelpert et al., 2021), we study the political implications of these loans once they turn sour. Complementing earlier work on the interaction between Chinese loans and IMF program design (Kern and Reinsberg, 2021), here we

---

<sup>5</sup>Zambian President Hichilema Inherits 'Empty Treasury.' BBC News, September 1, 2021.

<sup>6</sup>"Edgar Lungu begins life outside State House." Lusaka Times, August 26, 2021.

analyze the impact of IMF programs in the context of Chinese borrowers' survival in office. Insofar, our work is also related to a rich literature on strategic debt management (Alesina and Tabellini, 1990), moral hazard (Dreher, 2009; Aklin and Kern, 2019), and international bailouts (Schneider and Tobin, 2020).

Second, we contribute to a voluminous literature examining the 'politics of adjustment' in the context of IMF programs (Bienen and Gersovitz, 1985; Walton and Ragin, 1990; Nelson and Wallace, 2017; Haggard and Kaufman, 2018). Our work is closely related to the stream that links IMF programs to leader survival (Smith and Vreeland, 2004; Williams, 2012; Dreher et al., 2012; Casper, 2017).<sup>7</sup> For example, Smith and Vreeland (2004) show that leader survival under IMF programs depends on regime type and the motivation of the leader for joining these programs. Considering selection effects, Williams (2012) argues that autocratic leaders are more likely than democratic leaders to self-select into IMF programs to secure their survival.<sup>8</sup> Here, we argue that by providing its 'seal of approval', an IMF program *unintentionally* functions as a signal to citizens and investors that a government acts in their best interest. Our central mechanism is similar to the one proposed by Vreeland (2006), who argues that the IMF enhances a government's ability to deflect blame for painful adjustment programs.

Finally, our contribution is closely related to the rapidly emerging literature on China's international financial engagement (Brautigam et al., 2020; Horn et al., 2020; Zeitz, 2021; Gelpern et al., 2021; Qian et al., 2021).<sup>9</sup> In particular, our work is related to the policy debate on Chinese 'debt diplomacy' and a potential 'debt trap'. Besides complementing existing approaches that analyze Chinese lending through a geo-strategic lens (Singh, 2020; Rolland, 2020; Usman, 2021),

---

<sup>7</sup>For example, Dreher et al. (2012) examine how IFI programs affect the probability of major government crises. While the probability of a crisis increases, programs inherited from predecessor governments have no effect. This may indicate lower compliance with IMF program conditions agreed by predecessors, but it may also suggest that undergoing IFI programs signals to citizens that a leader is incompetent (especially when the economy is going well). Other studies look at more severe forms of political instability. For instance, Casper (2017) demonstrates that IMF programs, especially where they involve strict conditionality, increase the likelihood of coups d'état.

<sup>8</sup>Similar studies with a leader perspective exist in the aid literature (Yuichi Kono and Montinola, 2009; Wright, 2009; Licht, 2010). Foreign aid can bolster leaders by providing fungible monies that leaders can use to buy off opposition. This effect should be stronger where leaders are less domestically accountable for their use of funds, which is true for autocracies but not democracies (Licht, 2010).

<sup>9</sup>Our work also expands on the recent findings of McDowell and Steinberg (2017) and Gueorguiev et al. (2020) that analyze the role of the internationalization of the Renminbi and the rise of China as an international financier of the developing world.

we show that Beijing's expansion policy is not immune to leakage (Sharman, 2017b). Whereas Chinese lending allows governments to buy popular support (Hernandez, 2017; Zeitz, 2021; Broz et al., 2020; Cormier and Manger, 2021; Watkins, 2021), we demonstrate that for the most corrupt governments Chinese lending works as a vehicle to siphon funds into offshore financial sinks.<sup>10</sup> Thus, our findings underscore the under-appreciated importance of closing financial loopholes to contain greater socio-economic harm. After all, IMF conditionality is disproportionately levied on lower-income segments of society that have to absorb the brunt of adjustment programs. Insofar, our results lend support to proposals that call for an internationally coordinated strengthening of financial governance frameworks and greater transparency in international financial markets.

## 2 Theoretical Considerations

China has become a major player in development finance. In 2018, the Director of U.S. National Intelligence, Dan Coates estimated that "*China will spend about \$8 trillion in 68 different nations.*"<sup>11</sup> Even if these figures appear to be blown out of proportion, China has emerged as one of the most important lenders to the developing world. Since the outbreak of the COVID-19 pandemic, a record number of countries has submitted their applications for bailout funding to the IMF. An extensive literature documents how the strings attached to fresh capital from the IMF have the potential to undermine a government's chances to hold its political grip on a country (Vreeland, 2003; Dreher and Vaubel, 2004; Kentikelenis and Babb, 2019). Knowing about the political costs of IMF-prescribed adjustment programs, governments often try to put off their applications until the very last minute. For instance, Pakistani Prime Minister Imran Khan's administration openly opposed an IMF bailout fearing that it "*was not prepared to inflict pain on the Pakistani people.*"<sup>12</sup> This raises the question as to why borrowers of Chinese loans would risk substantial political backlash when turning to the IMF for bailout funding?

---

<sup>10</sup>For instance, Sevinc (2019) analyzes the relationship between Chinese aid and offshore finance but cannot detect the existence of such a mechanism. Here, we qualify her findings and show that it is only the most corrupt governments that are able to reroute direct Chinese loan transfers into these offshore financial sinks.

<sup>11</sup>"Worldwide Threats" — Hearing before the Committee on Armed Services United States Senate 115th Congress Second Session, March 6, 2018.

<sup>12</sup>"Pakistan to Accept \$6 Billion Bailout From IMF." The New York Times. May 12th, 2019.

Besides the direct benefit of unlocking much-needed financial relief, we argue that IMF programs provide more subtle political and economic benefits for borrowers of Chinese loans. As we argue, it is these political and economic benefits that drive governments to opt for an IMF program.

A key feature in Beijing's lending operations is its collateralized nature (Bandiera and Tsiropoulos, 2020; Zajontz, 2021; Brautigam et al., 2020). Whereas resource-rich countries such as Ecuador, Zambia, and Angola have secured Chinese financing by putting up their nation's resource endowment as collateral, resource-poor nations pledged the revenue stream from investments into physical and digital infrastructure projects (Dollar, 2019; Brautigam et al., 2020; Horn et al., 2020). To further back these loans, numerous governments issued government guarantees or used a portion of their central bank reserves to secure the financing of projects (Gelpern et al., 2021).<sup>13</sup> Despite leaving a minimal footprint on a government's fiscal accounts, the viability of these deals relies on a government's ability to mobilize sufficient revenue to service debt payments. However, when revenues are not sufficient to keep up with loan payments, the world turns upside down and kickstarts a vicious cycle of cascading debt. Although China seems to be a patient lender,<sup>14</sup> Beijing's loan concessions are often not sufficient to lift governments out of these dire financial straits—leaving few options other than turning to the IMF (Kratz et al., 2019; Acker et al., 2020; Kern and Reinsberg, 2021). For instance, Kern and Reinsberg (2021), analyzing IMF programs in the context of Chinese lending, find that Chinese borrowers have often run out of alternative financing options when knocking on the IMF's door.

While being able to attain much-needed financial relief, seeking bailout funding from the IMF allows a government to deflect blame for its policy measures. Given a seemingly endless list of complaints concerning a country's deals with Beijing, popular political resentment is particularly important in the context of Chinese lending (Balding, 2018; Wegenast et al., 2019; Zajontz, 2021). Besides a lack of producing tangible outcomes for a borrowing country's population, re-

---

<sup>13</sup>To illustrate this point, consider the case of Sierra Leone, where the government backed-up its Chinese loans with guarantees worth roughly 15% of the country's GDP (Gelpern et al., 2021).

<sup>14</sup>Trying to build its reputation as a global financial player, Beijing is often inclined to refinance or even reschedule existing debt positions, grant extensions on loan repayments, and to a lesser extent offer bailout funding (even for bankrupt nations) (McDowell, 2019; Kratz et al., 2019; Bon and Cheng, 2020). Also, in contrast to traditional lenders that frequently foreclose state-owned assets, only in one documented case, Hambantota port in Sri Lanka, has China ever 'arguably' foreclosed a borrowing country or attempted to seize control over collateral when a country could not service its outstanding debt (Kratz et al., 2019; Acker et al., 2020).



cent evidence indicates that local hires suffer from worrying working conditions, projects lead to irreversible environmental degradation, and result in social tensions due to local displacements (Balding, 2018; Isaksson and Kotsadam, 2018; Iacolla et al., 2021). Furthermore, the disappointing quality of infrastructure projects alongside an increasing number of Chinese immigrants in borrowing countries fuels political tensions. Considering anti-Chinese sentiments, governments have incentives to call upon the IMF and (ab-)use the Fund as a political ‘heat-absorber’ when entering into a phase of financial distress (Vreeland, 2006; Kern and Reinsberg, 2021). As Chinese lending is widely believed to “*foster corruption and bad local governance through the construction of political vanity projects and kickback schemes*”(Thornton, 2020, 2), tapping the IMF also allows governments to revive kickback schemes that benefit a selected group of elites in a borrowing country (Bluhm et al., 2018; Ofstad and Tjonneland, 2019). As the Fund does not have any direct handle on these kickbacks, we believe that the IMF has the potential to unintentionally shield governments against backlash from a ruling elite that operates in the shadows of an economy. Against this background, we formulate our first hypothesis:

*Hypothesis 1:* IMF programs have a positive effect on political survival in the short run.

This effect is more pronounced when a country has accumulated more Chinese debt.

As the terms of Chinese loan contracts are subject to non-disclosure agreements, these form a comfortable breeding ground for corruption, embezzlement, and illicit financial activity (Horn et al., 2020; Gelpert et al., 2021; Dreher et al., 2021). An illustrative case is the Congo, where “*\$1.163 billion in loans from China to Congo in exchange for minerals, a project dubbed Sicominex, had gone missing, with no evidence that the money had been disbursed for infrastructure projects.*”<sup>15</sup> Given that many Chinese projects are implemented using so-called special purpose vehicles (SPVs) that are sometimes registered in offshore financial sinks (Gelpert et al., 2021), funds can be siphoned into jurisdictions where neither the IMF nor a country’s legal enforcement has access to these funds.

From a political perspective, we believe that corrupt leaders have incentives to register these financial vehicles in offshore financial sinks to insure against the risk of being removed from office

---

<sup>15</sup>“Corruption Is Wasting Chinese Money in Africa.” Foreign Policy. September 13, 2018.

and shield their assets and wealth. We believe that the ICBC and China Eximbank loan to fund the upgrade of the port in Freetown potentially hints at the existence of such a mechanism. Although the loan amount of \$659 million was disbursed to a special purpose vehicle called the National Port Development Sierra Leone Ltd., this entity was owned by Sky Rock Management Ltd. that has been registered as a private entity in the British Virgin Islands (Gelpern et al., 2021). Intriguingly, the government of Sierra Leone guaranteed the payment of the loan. We believe that the case of Sierra Leone is not an exception. Importantly, with respect to these financing schemes, a government needs a credible third party that is able to independently verify the existence of these types of payment commitments during times of financial distress.<sup>16</sup> From a theoretical perspective, involving the IMF can unlock these types of guaranteed payments to a beneficiary in an offshore financial sink and also allows a government to signal its intentions to act in a nation's best interest. In our view, this signaling function is particularly important for corrupt governments because it provides a cover of legitimacy while it enables the shielding of funds. Despite the IMF's *unintentional* provision of this short-term relief, the Fund's actions may shine a light on previous corruption and lead to even more austere financial policies, putting a leader at risk of ouster.<sup>17</sup> We believe that the most corrupt governments in the universe of Chinese borrowers will not be able to sustain their grip on power and leave office shortly after the arrival of the IMF.

*Hypothesis II: IMF programs shorten leader survival among Chinese borrowers. This effect is most pronounced among corrupt governments.*

---

<sup>16</sup>Relying on the Fund, a government can even verify the existence of highly inflated debt and/or debt that potentially only existed on paper. We outline in greater detail the mechanisms of financial schemes in different country contexts in the appendix in Section A1).

<sup>17</sup>It is abundantly documented that corruption has the potential to undermine a government's ability to repay creditors and materialize in an increase in the likelihood that a country slips into financial distress (Keefer, 2007). This implies that corruption-ridden economies will enter with weaker macro-financial fundamentals and thus less fiscal breathing space, resulting in less bargaining power in negotiations with the IMF (Stone, 2008), and requiring more austere financial measures to restore the balance of payments. These tighter financial policies are likely to fuel further public resentment, increasing the chances that a government has to leave office.

### 3 Empirical Analysis

To test our propositions, we construct a dataset of 735 leaders from 122 developing countries from 1981 to 2015, with leader-year as the unit of observation. We focus on developing countries for several reasons. First, developed countries have more domestic fiscal resources to address debt crises. Thus, they do not necessarily need to turn to the IMF or China in times of financial turmoil. Consistent with this, high-income countries are not eligible for IMF structural adjustment loans. China's Belt and Road Initiative (BRI) projects are rarely observed in developed countries. In a high-profile exception, Italy signed a memorandum of understanding with China's BRI in 2019, but this never materialized into any loans or investment (Ghiretti, 2021).

Second, developed countries have better credit access in international capital markets. Higher incomes, establish credit histories, and representative institutions attract bond investors, allowing developed countries to increase debt without relying on international financial institutions or other countries.

Finally, even when global liquidity constraints limit sovereign borrowing, developed countries have alternative means to address debt crises. Most notably, liquidity swap lines from the U.S. Federal Reserve during the 2007-2009 financial crisis and the early months of COVID-19 helped maintain global economic stability (McDowell, 2019). These funds almost exclusively target developed countries, with Singapore and Brazil being the only two recipients that are not OECD members (Tooze, 2017). We exclude high-income countries such as Saudi Arabia, Qatar, and Singapore. As a result of this, we limit our sample to non-OECD countries.

#### 3.1 Data and Variables

Our main outcome variable is binary, capturing whether a leader has exited office in a given year. We focus on politically driven exits from office, excluding exits due to illness, death, and voluntary retirement. As is common practice in survival analysis, the sample includes spells of leaders as long as they are in office and—if they leave—until the year in which they leave office. We draw this information from the Archigos dataset (Goemans et al., 2009).<sup>18</sup>

---

<sup>18</sup>We draw on the latest Archigos version (4.1) with coverage up to 2015.

Our independent variables capture various forms of leader engagement with international lenders. In the case of IMF programs, we match such programs to specific leaders. Capturing a leader perspective allows for a richer measurement of various forms of leader engagement with the Fund. We first measure whether the leader has an ongoing IMF program. We also measure if the leader started a new IMF program in a given year, as well as whether the leader takes on an IMF program for the first time. Furthermore, we also compute the (logged) duration in years of an IMF program.

Finally, we distinguish between own programs and inherited programs—the former is initiated by the leader herself, and the latter takes over from the previous incumbent (Smith and Vreeland, 2004; Dreher et al., 2012; Williams, 2012). We create our own dataset of these various forms of program engagement based on information about the start date and end date of IMF agreements from the IMF Monitor Database (Kentikelenis et al., 2016).

In addition, we require data on Chinese loans. Specifically, we measure the stock of debt owed to the Chinese government in percent of total output (Horn et al., 2020). While estimates of Chinese loans differ due to their opaqueness, we believe Horn, Reinhart, and Trebesch (2020) offer the most comprehensive account given their ‘consensus’ method. To remove skewness, we take the natural logarithm of this variable.

We include control variables that may explain why countries receive IMF assistance or China loans and may explain leader survival as well. To identify these confounders, we rely on previous political economy research focused on leader survival to build a parsimonious model (DiGiuseppe and Shea, 2015; Williams, 2012; Casper, 2017; Dreher et al., 2012).

We begin with economic indicators that may predict whether states need external credit and the economic competence of leaders. For example, higher growth rates lessen the need for states to seek external financing, while leaders are generally rewarded for higher growth (Treisman, 2015). We also control for the log of GDP per capita, as IMF programs and Chinese lending tend to be more concentrated among low-income countries (Reinsberg et al., 2019; Gelpert et al., 2021). In addition, constituents should reward leaders when wealth levels increase (DiGiuseppe and Shea, 2015; Casper, 2017; Williams, 2012). Growth and wealth data are from the World Development

Indicators (WDI, 2020).

Next, we control for a country's debt burden. States with higher debt may be viewed as credit risks by private investors, prompting these states to turn to the IMF or China for financing. In addition, debt crises are a risk to leader survival (DiGiuseppe and Shea, 2015). Debt data are drawn from the IMF Global Debt database (Mbaye et al., 2018). We also control for natural resource rents. Leaders that receive fiscal resources from natural resources are better able to reward constituents (Morrison, 2009). In addition, these states are more attractive to private investors, decreasing the need to turn to the IMF or China. Since China's lending is predicated on natural resource extraction, it may provide more attractive lending terms to these states (Gelpern et al., 2021). Natural resource rent data is from the World Bank (WDI, 2020).

Finally, we consider the political characteristics of the state. We include a measure of regime type, given the different survival dynamics in democracies compared to autocracies (DiGiuseppe and Shea, 2015, 2016; Williams, 2012). We rely on the V-Dem polyarchy index, which measures the extent to which a country qualifies as electoral democracy (Coppedge et al., 2016).<sup>19</sup> Next, we include a measure of civil conflict, as this may dissuade all types of external financing while threatening the survival of leaders. We use PRIO's Armed Conflict Dataset (Gleditsch et al., 2002). An observation is coded as one if a state experiences an intrastate conflict in a given year, otherwise, an observation is coded as zero. The Armed Conflict Dataset defines intrastate conflict as violence (with at least 25 battle deaths) between a government and an organized rebel organization.

Finally, we control for corruption and test whether China loans have heterogeneous effects across corrupt regimes. More corrupt regimes are better able to use state resources for personal gain, allowing leaders to stay in power. In addition, more corrupt regimes may be hesitant to apply for IMF help given transparency requirements. Conversely, more corrupt regimes may be more attractive to Chinese lenders, as it allows kickback schemes and Chinese influence over project management. As a result, bribery is a better predictor of lending from Chinese banks than economic performance (Chen et al., 2013). Corruption data are taken from V-Dem (Coppedge

---

<sup>19</sup>Our results are robust to alternative democracy measures, such as the Polity index. We choose the V-Dem measure to minimize the loss of data.

et al., 2016).

### **3.2 Empirical Strategy**

Our key dependent variable is the duration of days before a leader exits office. Therefore, we opt for a survival analysis design. Specifically, we rely on Cox proportional hazard models, which allow us to estimate the determinants of the hazard rate of leader failure. In our context, ‘failure’ is defined as the exit of a leader from office for political reasons. Leaders are included in the sample as long as they are at risk of being removed from office but leave the sample in the event of losing office. Unlike other survival models, the Cox model makes no assumptions about the functional form of the hazard rate of leadership failure, though it relies on the assumption of proportional hazards (Box-Steffensmeier et al., 2004). We use appropriate diagnostic tests to validate this assumption, which we discuss in more detail below. Finally, we cluster standard errors at the country level given expectations that errors may be correlated within countries given norms and political expectations of leadership turnover.<sup>20</sup>

In an additional analysis, we also use linear regression analysis to model quasi-continuous outcome measures such as money deposits in foreign bank accounts. To keep our models as sparse as possible, we only examine within-country variation by adding country-fixed effects. To mitigate concerns about serial correlation, we include a lagged dependent variable and compute country-clustered robust standard errors.

### **3.3 Main Results**

We begin our analysis in Table 1 by revisiting the question of whether IMF programs affect leader survival, corroborating findings from previous work but for a longer time period. In Model 1, we find that having a program in a given leader-year decreases the hazard of leader exit by 24 per-

---

<sup>20</sup>Clustering at the leader would result in more, but smaller clusters, which increases the bias in the estimates of the standard errors. Clustering at the country level decreases bias but increases the variability of the estimates. There’s no formal test on which approach is preferred, but generally, the higher aggregate/less bias is preferred (Cameron and Miller, 2015).

cent.<sup>21</sup> Figure 1 plots the different survival functions in the left panel for leaders based on IMF participation, holding all other covariates constant. The coefficients of control variables are in line with expectations. In particular, democratic leaders have significantly shorter tenures compared to autocratic leaders. However, given that the controls are designed to block confounding pathways between IMF programs and leader tenure, we hesitate to interpret the effects of the controls (Keele et al., 2020).<sup>22</sup>

Table 1: Survival models: IMF programs, China debt, and leader survival

	(1)	(2)	(3)	(4)
Ongoing IMF Prog.	-0.274*	-0.207	-0.376*	-0.213*
	(0.097)	(0.137)	(0.137)	(0.102)
China Debt, log		-0.219*	-0.456*	-0.599*
		(0.092)	(0.125)	(0.096)
IMF prog. × China Debt			0.453*	0.541*
			(0.156)	(0.172)
Growth	-2.443*	-3.144*	-3.109*	-1.796*
	(0.489)	(0.723)	(0.715)	(0.457)
Polyarchy	1.203*	1.182*	1.199*	0.407*
	(0.293)	(0.375)	(0.376)	(0.206)
Log GDP per cap	-0.130*	-0.140	-0.150*	-0.078
	(0.057)	(0.074)	(0.073)	(0.041)
Resource Rents	-0.013	-0.007	-0.008	-0.003
	(0.008)	(0.009)	(0.009)	(0.003)
Civil Conflict	0.284*	0.067	0.049	0.006
	(0.106)	(0.190)	(0.192)	(0.095)
Debt/GDP, log	0.058	0.059	0.061	0.014
	(0.072)	(0.090)	(0.089)	(0.052)
LL	-3056.81	-1457.13	-1454.06	-3916.77
N	4035	2085	2085	2087
Cragg-Donald Wald F statistic				19.35*
F test of excluded instruments				
IMF Program				171.40*
log China Debt				94.03*
IMF prog. × China Debt				153.10*

\* $p < 0.05$ ; Standard errors clustered on countries reported in parentheses. Models 1 - 3 are Cox survival models; coefficients reported. Model 4 is a discrete duration IV probit model. First stages not shown.

<sup>21</sup> Consistent with Smith and Vreeland (2004) and Williams (2012) we find that this effect is conditional on institutional and timing effects. See the appendix for this analysis.

<sup>22</sup> Diagnostic tests suggests that democracy is violating the proportional hazard assumption. We address this potential problem through time-varying estimation, stratifying the data by democracies and non-democracies, shared frailty, and country-fixed effects. These variations did not change the main coefficient, or if they did, produced a larger effect size. We discuss these tests in more detail in the appendix and leave our original model specification here.

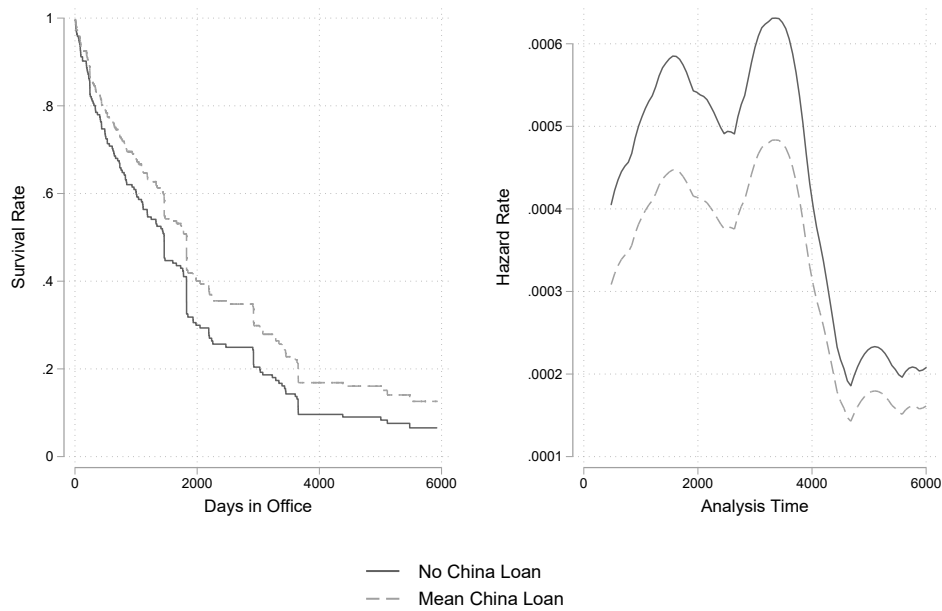


Figure 1: Leaders' survival as a function of IMF Programs and China Loans

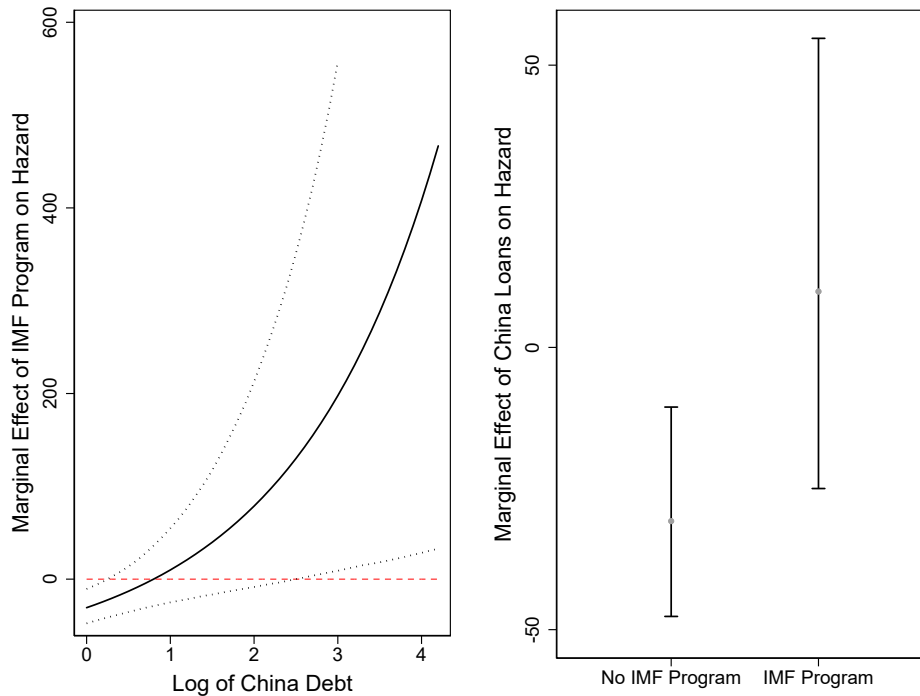
In Model 2, we add the log of China loans as a covariate. The effect of the IMF program remains negative but is smaller and no longer statistically different than zero. China loans reduce the hazard of leaving office by 20 percent and are statistically significant. We again plot the survival function in the right panel of Figure 1, showing the difference between countries with no China loans and countries with mean level lending.

Model 2 treats IMF programs and Chinese lending as additive effects, whereas we expect that these lenders-of-last resort interact with each other. To model these conditional effects, we multiply IMF programs and China loans and include this interactive term in Model 3. We find that IMF programs reduce leaders' survival hazards by 32 percent in the absence of China loans. A one-logged unit change in China's debt decreases the hazard by 37 percent when a country is not under an IMF program. When a country has both China loans and an IMF program, a leader's hazard of failure increases. To ease interpretation of this conditional effect, we graph the interaction in Figure 2.

We have two concerns about the validity of inferences from Model 3 in Table 1. First, interaction terms can be misleading because of a lack of common support or non-constant effects across the



Figure 2: Marginal Effects of IMF Programs and China Loans on Leader Survival



Note: Percent change in the hazard of winning coalition failure resulting from a change in IMF program (left panel) or a one logged unit change in China lending (right panel) conditional on the other regressor. In the left panel, the dotted lines represent the 95% confidence intervals around the simulated estimates (solid line), resulting from 10,000 draws of betas and the variance-covariance matrix. In the right panel, the capped lines represent 95% confidence intervals around the simulated estimates.

moderator. Using the diagnostics suggested by Hainmueller et al. (2019), we find no evidence of either problem in our data (see appendix for more discussion).

A greater concern for our inference is endogeneity. Leaders are strategic and survival motivated. Thus any agreed-upon IMF program or China loan will be scrutinized through the lens of whether it will help a leader or not. To address this problem we use an instrumental variable (IV) model. There are two issues with this strategy. First, Cox survival models are not conducive to instruments. Second, we need valid instruments for three endogenous regressors: IMF programs, Chinese loans, and their interaction.

On the first issue, we can treat our data as discrete duration panel data, where the dependent variable is the binary outcome of whether a leader leaves office or not in a given year instead of the duration of time until a leader leaves office. This data structure can be analyzed by standard

regression techniques or IV estimation. To account for temporal dependencies in the data, we include time trends, using the linear, squared, and cubic trends of time since a leader left office in a given country.<sup>23</sup> To ensure that our data can be transformed to discrete duration panel data, we estimate linear probability models and probit models and compare them to Models 1 - 3 in Table 1. We find similar results.

Next, we need valid instruments for the IV models. Two assumptions of a valid instrument are that (1) it has a strong association with the endogenous regressor and (2) the instrument is uncorrelated with the outcome model error term. The first assumption can be tested directly, while the second cannot.

We put forward three instruments for our three endogenous regressors. For the IMF program, we follow Lang's (2021) approach and use the interaction between a leader's history of IMF programs and the log of the liquidity ratio of the IMF in a given year. The interaction term is used as the exogenous prediction of whether a leader is in an IMF program in a given year, conditional on the baseline level of IMF program participation. The identification strategy follows the same logic as a difference-in-difference estimator. The intuition for this instrument is that in times of high IMF liquidity, the institution can assist more would-be borrowers, which comes to the benefit of countries that do not regularly borrow from the Fund. Conversely, 'always-takers' are relatively less sensitive to global changes in IMF liquidity. Importantly, controlling for baseline probabilities and IMF liquidity, whether or not a country is under an IMF program is no longer a function of the idiosyncratic country features (Lang, 2021; Stubbs et al., 2021).

To instrument for Chinese lending, we use a similar approach as above. We interact a leader's borrowing from China by the amount of Chinese reserves in the global market in a given year. We expect that more China reserves will prompt China to increase its lending portfolio, conditional on the baseline level to borrow from China in the first place. To instrument the interaction between IMF programs and China loans, we simply interact the two instruments.

To estimate the IV model, we have to estimate four separate equations. Three equations are needed for the three endogenous regressors and one equation is for the outcome with the

---

<sup>23</sup> See Beck et al. (1998), Box-Steffensmeier and Jones (2004), and Carter and Signorino (2010) for a discussion on the relationship between binary time-series cross-sectional data and duration data.

predicted regressors. Two of the equations have binary dependent variables, while two have continuous dependent variables. Given this complexity, we use a conditional mixed process estimator (Roodman, 2011), which can simultaneously estimate these four equations using maximum likelihood estimation. Model 4 presents the outcome stage of the IV model, and we provide more information on the first stage estimations in the appendix. We observe a similar conditional relationship between IMF programs and China loans on leadership survival as Model 3. Diagnostic tests suggest that the instruments are not weak. And while we cannot test the exclusion restriction of the instruments, we employ a number of falsification tests to rule out obvious connections between the instruments and the outcome equation in the appendix.

### **3.3.1 Scope conditions: leader corruption**

Our results so far point to a pattern where IMF programs increase the risk of leader failure when states borrow from China. Loans from Beijing provide leaders with more funds to reward important constituents or enrich themselves. To illustrate this point, we separate our sample into two: corrupt regimes and non-corrupt regimes. We use V-Dem's measure of executive corruption to ensure that we are capturing leaders' behavior, rather than just general corruption overall or local level corruption.<sup>24</sup> We then separate the sample by the median level of executive corruption in Table 2. Replicating the main results above concerning China loans, we find that more corrupt leaders benefit from China loans, allowing them to stay in office (Model 1). We observe such a relationship in a less corrupt regime, where the coefficient for China loans flips, is small and statistically insignificant (Model 2).

We observe a similar dichotomy for the interaction between IMF programs and China loans. Model 3 in Table 2 shows that more corrupt leaders increase their risk of ouster when borrowing from China and participating in IMF programs. IMF programs—with their transparency requirements—threaten to upend these processes. Therefore, the leaders most at risk from going to the IMF are those misusing China loans for political purposes. Model 4 shows no such conditional effect. Leaders that are not misappropriating Chinese loans should face no additional risk

---

<sup>24</sup>Our inferences are robust to alternative corruption measures. See replication files.

Table 2: Cox models: China loans, corruption, and leader survival

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ongoing IMF Prog.	-0.317 (0.177)	0.131 (0.190)	-0.586* (0.172)	0.087 (0.208)	-0.823* (0.247)	-0.473 (0.341)	<b>Yes</b>	<b>No</b>
China Debt, log	-0.268* (0.103)	0.059 (0.167)	-0.689* (0.180)	0.001 (0.231)	-0.727* (0.209)	-0.033 (0.268)	0.319 (0.255)	0.038 (0.298)
IMF prog. × China Debt			0.722* (0.219)	0.127 (0.241)				
Duration of IMF prog.					0.123 (0.073)	0.217 (0.125)		
Duration IMF × China Debt					0.176* (0.065)	0.042 (0.065)		
Executive Corruption							0.289 (0.663)	0.745 (0.530)
China Debt × Corruption							-0.425 (0.391)	-1.014* (0.453)
Polyarchy	1.521* (0.706)	2.247* (0.747)	1.560* (0.715)	2.253* (0.742)	1.549* (0.712)	2.233* (0.753)	1.268 (0.867)	1.517* (0.639)
Growth	-3.451* (1.054)	-2.194* (1.072)	-3.412* (1.044)	-2.231* (1.079)	-3.621* (1.070)	-2.398* (1.085)	-4.033* (0.921)	-2.716* (1.033)
GDP per cap, log	-0.104 (0.109)	0.022 (0.097)	-0.113 (0.109)	0.021 (0.097)	-0.104 (0.108)	0.044 (0.101)	0.152 (0.107)	-0.289* (0.111)
Resource Rents	-0.010 (0.010)	0.000 (0.011)	-0.011 (0.010)	-0.000 (0.011)	-0.011 (0.010)	-0.002 (0.012)	0.003 (0.011)	-0.014 (0.012)
Civil Conflict	0.254 (0.208)	-0.014 (0.244)	0.212 (0.207)	-0.018 (0.247)	0.247 (0.200)	-0.011 (0.248)	-0.153 (0.281)	0.084 (0.262)
Debt/GDP, log	0.117 (0.099)	0.004 (0.135)	0.123 (0.101)	0.004 (0.135)	0.120 (0.103)	-0.006 (0.140)	-0.108 (0.146)	0.058 (0.108)
Above Median Corruption	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>		
LL	-706.97	-532.95	-703.06	-532.85	-702.15	-531.18	-521.47	-718.75
N	1213	872	1213	872	1213	872	864	1221

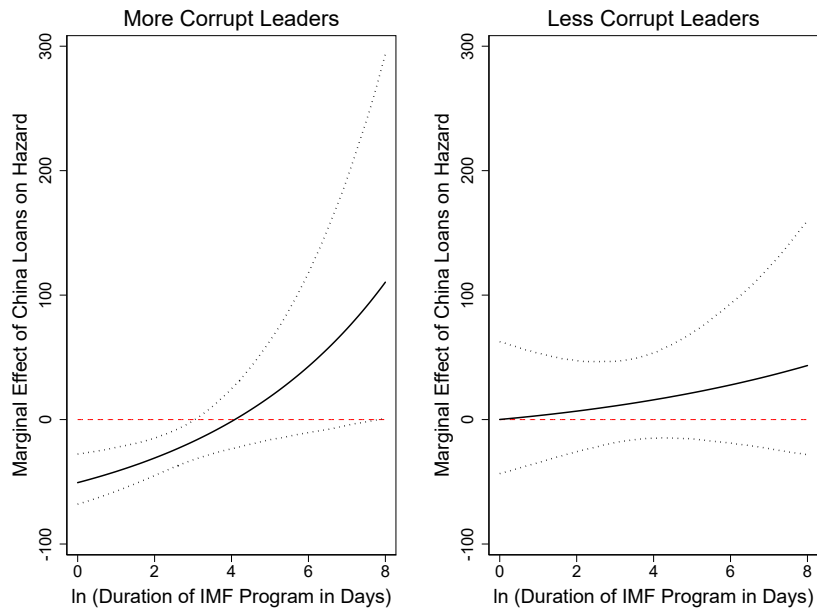
\* $p < 0.05$ ; Standard errors clustered on countries reported in parentheses. All models have been estimated relying on Cox survival models; coefficients reported.

from IMF's transparency requirements. The less corrupt leaders have less to hide and less to lose.

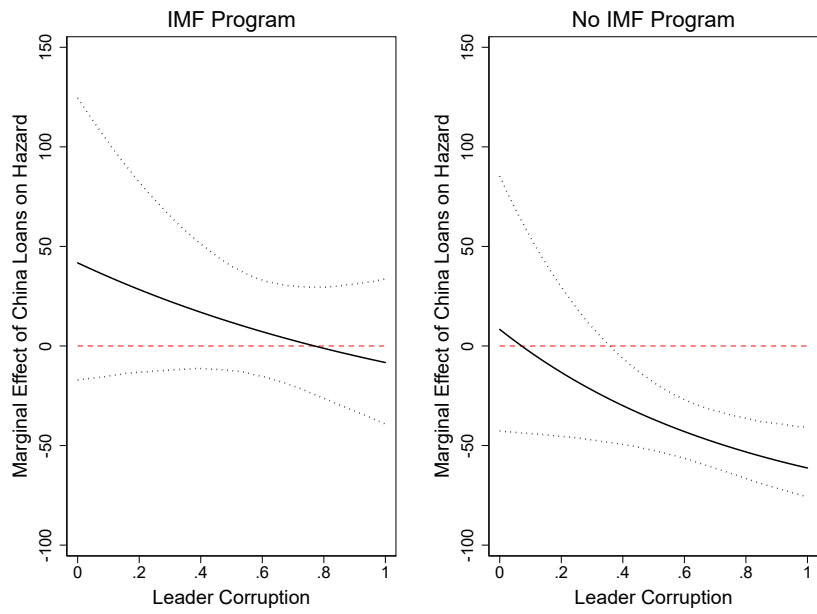
IMF programs are not immediate trouble for corrupt leaders. The IMF may provide political cover during a crisis or provide a corrupt leader more time to misappropriate funds before transparency standards are enforced. Therefore, we expect that IMF programs may provide short-term benefits to leaders, while their continued duration increases the risk for removal. Again, comparing the samples of corrupt and non-corrupt regimes, we observe that the interaction of China loans and the duration of an IMF program is positive for the more corrupt regimes in Model 5 in Table 2. The longer a country is under an IMF program, the fewer benefits a corrupt leader gains from China loans. No such interaction exists for less corrupt regimes (Model 6). To compare these condition effects, we graph them across corrupt and non-corrupt regimes in Figure 3a.

Does the IMF actually prevent corrupt leaders from misusing China loans? To test this expectation, we examine only states in an IMF program and find no conditional effect between Chinese

Figure 3: China loans, corruption, and leader survival



(a) Marginal effect of China Loans conditional in IMF program duration



(b) Marginal effect of China Loans conditional on corruption

debt and corruption (Table 2, Model 7). In Table 2, Model 8, we present the result for states without an IMF program. Here, we find a stronger (and statistically significant) relationship between corruption, Chinese loans, and leader survival. In sum, corrupt regimes can use Chinese debt to remain in power, but cannot do so under the watchful eye of the IMF. We compare the difference in marginal effects on the hazard rate in Figure 3b.

Therefore, corrupt leaders face a risk of calling in the IMF. While the IMF can provide short-term stability and political cover, the IMF may shine a light on previous corruption, putting a leader at risk of ouster. When corrupt leaders leave office, they not only lose power but also face consequences for their behavior. Many leaders accept exile in these cases, avoiding prison as a consequence. Corrupt leaders that accept China loans and IMF programs go into exile at a rate of 17 percent, while no non-corrupt leader has gone into exile under the same lending conditions.<sup>25</sup>

How do leaders offset the risk of calling in the IMF, thus increasing the likelihood of losing power and exile? We expect corrupt leaders make use of China's loans as a post-tenure insurance policy. Corruption is hard to observe, and both leaders and Chinese lenders have incentives to obfuscate the terms and processes surrounding Chinese loans. One observable consequence is an increase in bank deposits in offshore financial safe-havens. Corrupt leaders have incentives to build a financial "parachute" to provide financial resources in case of ouster and exile, without fear that this money can be seized or frozen by domestic or international actors. Safe havens provide leaders a way to store money until an emergency. Drawing on data on bank deposits from the Bank of International Settlements (BIS, 2020), we measure the deposits in safe-haven countries as a total deposit abroad.<sup>26</sup> We expect that more corrupt leaders will funnel China loans to safe havens.

Model 1 in Table 3 shows that Chinese debt, conditioned on corruption, increases the proportion of financial flows going to safe havens. Model 2 looks at the changes in bank deposits and includes the lagged value of safe-haven deposits. We observe a similar dynamic to Model 1: more China lending increases the change in safe haven deposits for more corrupt regimes. Models 3

---

<sup>25</sup>These rates are statistically different from each other. We use the Archigos leader data set to identify exiles. See the appendix for exile rates across loans and corrupt conditions.

<sup>26</sup>The list of safe havens includes Ireland, Luxembourg, Netherlands, United Kingdom, Hong Kong (SAR), and Switzerland (Andersen et al., 2020, 2017; Johannesen and Zucman, 2014, see also, ).

and 4 use Andersen et al.'s (2017) categorization of safe havens as the dependent variable, and we observe similar results.<sup>27</sup>

Table 3: Fixed Effects Regression: China loans, corruption, and offshore accounts

	(1)	(2)	(3)	(4)
China Debt, log	-0.088*	-0.027*	-0.029*	-0.024*
	(0.016)	(0.012)	(0.014)	(0.010)
Executive Corruption	-0.080	-0.043	0.006	0.028
	(0.042)	(0.031)	(0.036)	(0.026)
China Debt × Corruption	0.117*	0.039*	0.037*	0.027*
	(0.021)	(0.016)	(0.018)	(0.013)
Ongoing IMF Prog.	0.011	-0.005	-0.003	-0.010*
	(0.008)	(0.006)	(0.007)	(0.005)
Lagged DV		Yes		Yes
Controls	Yes	Yes	Yes	Yes
R2	0.79	0.21	0.71	0.19
N	1648	1648	1648	1648

\* $p < 0.05$ ; Standard errors clustered on countries reported in parentheses. Country fixed effects included. All variables lagged one year. Models 1 and 3 examine levels of safe have deposits. Models 2 and 4 examine changes in deposits. Models 1 and 2 uses Kern et al.'s (2021) categorization of safe haven. Models 3 and 4 use Andersen et al.'s (2017) categorization of safe haven. Control variables have been included in the estimation but are not reported here.

In sum, these results suggest that corrupt leaders are taking a cut from Chinese loans and storing them in offshore accounts for their post-tenure life. This system of finance is designed to hide the money trail, so we cannot definitely tie leaders to these accounts. The results, however, are consistent with reports of specific leaders' malfeasance. To illustrate this point, consider the case of Zambia. Defaulting on its international debt commitments in November 2020, the administration in Lusaka quickly approached the IMF for bailout funding and "*requested a debt treatment under the Common Framework agreed by the G20 and Paris Club members.*"<sup>28</sup> In line with our theoretical considerations, in August 2020, President Edgar Lungu peacefully yielded power to his successor Hakainde Hichilema while leaving the country drowning in debt. According to estimates of Brautigam and Wang (2021), the incoming Hichilema administration was taken by surprise that the actual Chinese debt burden was standing at \$6.6 billion whereas the Lungu administration admittedly reported Chinese loans to account for \$3.4 billion in its annual budget. Still, to date,

<sup>27</sup>These safe haven countries are Caymen Islands, Switzerland, Belgium, Singapore, Hong Kong, Bahamas, Luxembourg, Jersey, Bahrain, Austria, Guernsey, Isle of Mas, Panama, Macao, Netherlands Antilles, and Bermuda.

<sup>28</sup>"Zambia and IMF to Resume Virtual Discussions on Outstanding Issues Next Week." Lusaka Times. March 26, 2021.

information concerning the whereabouts of the difference —\$3.2 billion— is missing. According to estimates about the offshore financial exposure of the country, the country’s leading economist, Chibamba Kanyama, estimated that, in 2017, approximately “9000 Zambians held offshore accounts [...] the majority are serving in government.”<sup>29</sup> Although we do not possess any direct evidence—other than the prominent feature of President Hichilema in the Panama Papers<sup>30</sup>—we believe that a share of these funds was transferred overseas. And, indeed, numerous African leaders with close ties to Beijing are also the ultimate beneficiaries of offshore financial accounts which are hidden behind a web of corporate shells.<sup>31</sup> Thus, we believe that the Zambian case is not unique among borrowers of Chinese loans.

### 3.4 Additional Analysis

We carry out additional analysis to ensure that our results are robust to various model specifications and measurement choices. The results from these tests do not diverge from our main inferences, so we delegate them to the appendix. We briefly discuss them here.

First, examine potential heterogeneous effects across various regime types. Democracies and non-democracies implement different rules for leader removal, with democratic leaders usually having shorter tenures because the costs of leader removal are lower in democracies. To address this, we stratify the survival model by regime type, use shared frailty and country fixed effects to focus on within-unit variation, and split samples by regime. We also consider alternative variations of regime type, including presidential, parliamentary, proportional representation, and electoral autocracies. Our inferences remain the same.

Next, we consider the sensitivity of the survival models and the IV model to various model assumptions. For the survival models, we implement a variety of diagnostic tests to test the validity of the proportional hazard assumption. We find that regime type is the only variable that violates this assumption. The solutions to this violation produce no change to our inferences. We also examine the assumptions of the IV model. While we cannot test the exclusion restriction directly,

---

<sup>29</sup>“Over 9,000 Zambians Have Offshore Accounts-Chibamba Kanyama.” Lusaka Times, November 14, 2017.

<sup>30</sup>Paradise Papers Personal Feature: Haikande Sammy Hichilema

<sup>31</sup>“African Leaders and the Panama Papers.” Good Governance Africa, July 12, 2017.



we consider some falsification tests where violations to the exclusion restriction are most likely. For example, we examine the bias reduction that is attributed to covariate balance as a function of the instrumental variables' values. Generally, the covariates' means do not vary significantly across levels of the instruments and are never more imbalanced than comparative levels of the endogenous regressors.

Finally, as an alternate attempt to address endogeneity concerns, we use entropy balancing to pre-process our data before analysis (Hainmueller, 2012). This method produces a balance between the covariates across those leaders who received China loans and those that did not. The balancing methods not only focus on the mean but also on the variance and skewness of the covariates. The resulting dataset can reduce model dependence and increase the consistency of estimators (Hainmueller, 2012). We replicate our main analysis with the balanced data and again find similar results.

## **4 Conclusion**

At the time of writing, more than 100 countries are awaiting financial relief from the International Monetary Fund (IMF). Finding themselves in various stages of financial distress, governments around the globe are left with few options to bankroll their fight against the pandemic other than turning to the Fund. To get access to the IMF's bailout funding, painful budgetary cuts and structural adjustment measures are often required. Given the political repercussions of austerity measures, leaders often face a trade-off between long-term political survival and short-term financial relief when enlisting the support of the Fund. In contrast to earlier episodes of financial distress, solving this trade-off this time is different insofar that many countries—enlisting on the client list of the IMF—have heavily borrowed from Chinese lenders. Given the paucity of research on the role of Chinese loans in the context of IMF programs, it remains unclear what happens to a government's political fortunes once it turns to the IMF for bailout funding?

Built on the premise that project revenues keep loan schemes alive, Chinese loans have increasingly become popular among governments in developing and emerging market economies

(Broz et al., 2020; Gelpern et al., 2021; Dreher et al., 2021). However, once Chinese project revenues are falling short of loan payments and projects go financially underwater, governments need to find alternative sources of funding (Kern and Reinsberg, 2021). Although Chinese creditors often provide financial relief (Bon and Cheng, 2020; Acker et al., 2020), countries often run out of options to refinance loans. In these situations, they frequently turn to the IMF. Besides delivering immediate financial relief, tapping the IMF for bailout funding has several advantages. First, given popular resentment against Chinese project financing, it allows governments to (ab-)use the Fund as a political ‘heat-absorber’ to calm public resentment while deflecting from its own misdealing (Vreeland, 2006). Second, approaching the IMF enables a government to drag a reputable independent third party to the table that signals to citizens and investors a government’s intentions to act in a nation’s best interest. In the words of Papua New Guinea’s Treasurer, Ian Ling-Stuckey, “*working with the IMF will lift PNGs profile and credibility.*”<sup>32</sup> Finally, concentrating on domestic policy reform, the IMF does neither have a direct handle on elite kickback schemes nor their offshore accounts (Kern et al., 2021). These features of IMF programs become particularly important for corrupt governments that have managed to embezzle a portion of these Chinese loans and transfer these funds into offshore financial accounts. Relying on a dataset of 120 developing countries between 1981 and 2015, we find that entering into an IMF program secures a government’s tenure in office when it sits on a pile of Chinese debt. We show that while the most corrupt governments in the universe of Chinese borrowers seem to leave office shortly after the onset of an IMF program. At the same time, these countries also display greater amounts of deposits in offshore financial sinks. Despite a lack of clear-cut evidence, we believe that anticipating a greater risk of being removed from office when calling upon the IMF, corrupt leaders *ex-ante* reroute a fraction of Chinese loans to build a financial “parachute”.

Whereas fractions of Washington’s political establishment believe that throwing a lifeline to Chinese borrowers, the IMF serves as a willing enabler of Beijing’s rising influence in the developing world (Singh, 2020), we show that the most corrupt governments in the universe of Chinese loans leave office upon the arrival of the Fund. From this perspective, several policy implications arise.

---

<sup>32</sup>“Out with China and in with Canberra: PNGs new \$440m Loan.” Island Times, December 3, 2019.

First, the IMF's initiatives of enhancing budget transparency and greater global coordination of initiatives towards closing financial loopholes are of vital importance. Second, our findings indicate that Beijing's overriding of red flags in its lending relationship has the potential to enable corrupt governments to siphon a fraction of these Chinese loan commitments into offshore financial sinks. From a policy perspective, our results lend support to proposals that call for an internationally coordinated strengthening of financial governance frameworks and greater transparency in international financial markets.

## References

- Acker, K., Bräutigam, D., and Huang, Y. 2020. Debt relief with chinese characteristics. SAIS-CARI Working Paper No. 39.
- Akerlof, G. A. and Romer, P. M. 1993. Looting: The economic underworld of bankruptcy for profit. *Brookings Papers on Economic Activity*, 1993(2):1–73.
- Aklin, M. and Kern, A. 2019. Moral hazard and financial crises: Evidence from american troop deployments. *International Studies Quarterly*, 63(1):15–29.
- Alesina, A. and Tabellini, G. 1990. A positive theory of fiscal deficits and government debt. *The Review of Economic Studies*, 57(3):403–414.
- Andersen, J. J., Johannesen, N., Lassen, D. D., and Paltseva, E. 2017. Petro rents, political institutions, and hidden wealth: Evidence from offshore bank accounts. *Journal of the European Economic Association*.
- Andersen, J. J., Johannesen, N., and Rijkers, B. 2020. Elite capture of foreign aid: Evidence from offshore bank accounts.
- Balding, C. 2018. Why democracies are turning against belt and road. *Foreign Affairs*, 24.
- Bandiera, L. and Tsiropoulos, V. 2020. A framework to assess debt sustainability under the belt and road initiative. *Journal of Development Economics*, 146:102495.
- Beck, N., Katz, J. N., and Tucker, R. 1998. Taking time seriously: Time-series-cross-section analysis with a binary dependent variable. *American Journal of Political Science*, 42(4):1260–1288.
- Bienen, H. S. and Gersovitz, M. 1985. Economic stabilization, conditionality, and political stability. *International Organization*, 39(4):729–754.
- BIS 2020. Locational banking statistics. Bank of International Settlements Database.
- Bluhm, R., Dreher, A., Fuchs, A., Parks, B., Strange, A., and Tierney, M. J. 2018. Connective financing: Chinese infrastructure projects and the diffusion of economic activity in developing countries. AidData Working Paper No. 64.
- Bon, G. and Cheng, G. 2020. Chinas overseas sovereign debt relief actions: What insights do recent cases provide? *EconomiX Working Papers* No. 22.
- Box-Steffensmeier, J. M., Box-Steffensmeier, J. M., and Jones, B. S. 2004. *Event History Modeling: A Guide for Social Scientists*. Cambridge University Press.
- Box-Steffensmeier, J. M. and Jones, B. S. 2004. *Event history modeling: A guide for social scientists*. Cambridge University Press.

- Brautigam, D., Huang, Y., and Acker, K. 2020. Risky business: New data on chinese loans and africa's debt problem.
- Brautigam, D. and Wang, Y. 2021. Zambia's chinese debt in the pandemic era. CARI Briefing Paper 05/2021.
- Broz, J. L., Zhang, Z., and Wang, G. 2020. Explaining foreign support for china's global economic leadership. *International Organization*, 74(3):417–452.
- Cameron, A. C. and Miller, D. L. 2015. A practitioners guide to cluster-robust inference. *Journal of human resources*, 50(2):317–372.
- Carter, D. B. and Signorino, C. S. 2010. Back to the future: Modeling time dependence in binary data. *Political Analysis*, 18 (3):217–292.
- Casper, B. A. 2017. Imf programs and the risk of a coup d'état. *Journal of Conflict Resolution*, 61(5):964–996.
- Chen, Y., Liu, M., and Su, J. 2013. Greasing the wheels of bank lending: Evidence from private firms in china. *Journal of Banking & Finance*, 37(7):2533–2545.
- Coppedge, M., Lindberg, S., Skaaning, S.-E., and Teorell, J. 2016. Measuring high level democratic principles using the v-dem data. *International Political Science Review*, 37(5):580–593.
- Cormier, B. and Manger, M. S. 2021. Power, ideas, and world bank conditionality. *The Review of International Organizations*, pages 1–29.
- DiGiuseppe, M. and Shea, P. 2015. Sovereign credit and the fate of leaders: Reassessing the “democratic advantage”. *International Studies Quarterly*, 59(3):557–570.
- DiGiuseppe, M. and Shea, P. E. 2016. Borrowed time: Sovereign finance, regime type, and leader survival. *Economics & Politics*, 28(3):342–367.
- Dollar, D. 2019. Understanding china's belt and road infrastructure projects in africa. Brookings Institution Working Paper.
- Dreher, A. 2009. Imf conditionality: Theory and evidence. *Public Choice*, 141(1-2):233–267.
- Dreher, A., Fuchs, A., Parks, B., Strange, A., and Tierney, M. J. 2021. Aid, china, and growth: Evidence from a new global development finance dataset. *American Economic Journal: Economic Policy*, 13(2):135–74.
- Dreher, A., Gassebner, M., and Siemers, L.-H. 2012. Globalization, economic freedom, and human rights. *Journal of Conflict Resolution*, 56(3):516–546.
- Dreher, A. and Vaubel, R. 2004. Do imf and ibrd cause moral hazard and political business cycles? evidence from panel data. *Open Economies Review*, 15:5 – 22.
- Gelpern, A., Horn, S., Morris, S., Parks, B., and Trebesch, C. 2021. How china lends – a rare look into 100 debt contracts with foreign governments. PIIE Working Paper No. 21–7.
- Ghiretti, F. 2021. The belt and road in italy: 2 years later. *The Diplomat*, March 23.

- Gleditsch, N. P., Wallensteen, P., Eriksson, M., Sollenberg, M., and Strand, H. 2002. Armed conflict 1946-2001: A new dataset. *Journal of peace research*, 39(5):615–637.
- Goemans, H., Gleditsch, K. S., and Chiozza, G. 2009. Introducing archigos: A dataset of political leaders. *Journal of Peace Research*, 46(2):269–283.
- Gueorguiev, D., McDowell, D., and Steinberg, D. A. 2020. The impact of economic coercion on public opinion: The case of us–china currency relations. *Journal of Conflict Resolution*, 64(9):1555–1583.
- Haggard, S. and Kaufman, R. R. 2018. *The Politics of Economic Adjustment: International Constraints, Distributive Conflicts and the State*. Princeton University Press.
- Hainmueller, J. 2012. Entropy balancing for causal effects: A multivariate reweighting method to produce balanced samples in observational studies. *Political analysis*, 20(1):25–46.
- Hainmueller, J., Mummolo, J., and Xu, Y. 2019. How much should we trust estimates from multiplicative interaction models? simple tools to improve empirical practice. *Political Analysis*, 27(2):163–192.
- Hernandez, D. 2017. Are new donors challenging world bank conditionality? *World Development*, 96:529–549.
- Horn, S., Reinhart, C., and Trebesch, C. 2020. How much money does the world owe china? *Harvard Business Review*, 26.
- Iacoella, F., Martorano, B., Metzger, L., and Sanfilippo, M. 2021. Chinese official finance and political participation in africa. *European Economic Review*, 136:103741.
- IMF 2021. Strengthening the credibility of public finances. Fiscal Monitor, October 2021.
- Isaksson, A.-S. and Kotsadam, A. 2018. Racing to the bottom? chinese development projects and trade union involvement in africa. *World Development*, 106:284–298.
- Johannesen, N. and Zucman, G. 2014. The end of bank secrecy? an evaluation of the g20 tax haven crackdown. *American Economic Journal: Economic Policy*, 6(1):65–91.
- Kaarevirta, J. and Laakkonen, H. 2021. China as an international creditor. BOFIT Policy Brief No. 5.
- Kaminsky, G. L. and Schmukler, S. L. 2008. Short-run pain, long-run gain: Financial liberalization and stock market cycles. *Review of Finance*, 12(2):253–292.
- Keefer, P. 2007. Elections, special interests, and financial crisis. *International Organization*, 61(3):607–641.
- Keele, L., Stevenson, R. T., and Elwert, F. 2020. The causal interpretation of estimated associations in regression models. *Political Science Research and Methods*, 8(1):1–13.
- Kentikelenis, A. E. and Babb, S. 2019. The making of neoliberal globalization: Norm substitution and the politics of clandestine institutional change. *American Journal of Sociology*, 124(6):1720–1762.

- Kentikelenis, A. E., Stubbs, T. H., and King, L. P. 2016. Imf conditionality and development policy space, 1985–2014. *Review of International Political Economy*, 23(4):543–582.
- Kern, A., Nosrati, E., Reinsberg, B., and Sevinc, D. 2021. Offshore financial sinks and imf programs. working paper presented at PEIO 2021.
- Kern, A. and Reinsberg, B. 2021. The political economy of chinese debt and imf conditionality. SSRN Working Paper No. 3951586.
- Kratz, A., Feng, A., and Wright, L. 2019. New data on the debt trap question. Rhodium Group Note.
- Lang, V. 2021. The economics of the democratic deficit: The effect of imf programs on inequality. *The Review of International Organizations*, 16(3):599–623.
- Licht, A. A. 2010. Coming into money: The impact of foreign aid on leader survival. *Journal of Conflict Resolution*, 54(1):58–87.
- Mbaye, S., Badia, M. M. M., and Chae, K. 2018. *Global debt database: Methodology and sources*. International Monetary Fund.
- McDowell, D. 2019. Emergent international liquidity agreements: Central bank cooperation after the global financial crisis. *Journal of International Relations and Development*, 22(2):441–467.
- McDowell, D. and Steinberg, D. A. 2017. Systemic strengths, domestic deficiencies: The renminbis future as a reserve currency. *Journal of Contemporary China*, 26(108):801–819.
- Morrison, K. M. 2009. Oil, nontax revenue, and the redistributive foundations of regime stability. *International Organization*, 63 (Winter):107–138.
- Nelson, S. C. and Wallace, G. P. 2017. Are imf lending programs good or bad for democracy? *The Review of International Organizations*, 12(4):523–558.
- Ofstad, A. and Tjonneland, E. 2019. Zambias looming debt crisis is china to blame? CMI Insight No. 1.
- Qian, J., Vreeland, J. R., Wu, Z., and Zhao, J. 2021. Compete or complement? how the world bank responds to the establishment of the aiib. Working Paper presented at PEIO 2021.
- Reinsberg, B., Kentikelenis, A., Stubbs, T., and King, L. 2019. The world system and the hollowing out of state capacity: How structural adjustment programs affect bureaucratic quality in developing countries. *American Journal of Sociology*, 124(4):1222–1257.
- Rolland, N. 2020. An emerging china-centric order – chinas vision for a new world order in practice. NBR Special Report No. 87.
- Roodman, D. 2011. Fitting fully observed recursive mixed-process models with cmp. *Stata Journal*, 11(2):159–206.
- Schneider, C. and Tobin, J. 2020. The political economy of bilateral bailouts. *International Organization*, 74(1):1–29.

- Sevinc, D. 2019. Does chinese development aid lead to higher foreign deposits in offshore financial centers? McCourt School of Public Policy Master Thesis.
- Sharman, J. C. 2017a. *The Despot's Guide to Wealth Management: On the International Campaign Against Grand Corruption*. Cornell University Press.
- Sharman, J. C. 2017b. Illicit global wealth chains after the financial crisis: Micro-states and an unusual suspect. *Review of International Political Economy*, 24(1):30–55.
- Singh, A. 2020. The myth of 'debt-trap diplomacy and realities of chinese development finance. *Third World Quarterly*, 42(2):239–253.
- Smith, A. and Vreeland, J. R. 2004. The survival of political leaders and imf programs. In *Globalization and the Nation State*, pages 283–309. Routledge.
- Smith, D. A. 1998. Lessons of global neo-liberalism? the east asian economic crisis reconsidered. *Global Economic Review*, 27(4):45–63.
- Stone, R. W. 2008. The scope of imf conditionality. *International Organization*, 62(04):589–620.
- Stubbs, T., Kring, W., Laskaridis, C., Kentikelenis, A., and Gallagher, K. 2021. Whatever it takes? the global financial safety net, covid-19, and developing countries. *World Development*, 137:105171.
- Thornton, S. A. 2020. China in central asia: Is china winning the new great game? Brookings Institution Working Paper.
- Tooze, A. 2017. The secret history of the banking crisis. *Prospect Magazine*, July 14.
- Treisman, D. 2015. Income, democracy, and leader turnover. *American Journal of Political Science*, 59(4):927–942.
- Usman, Z. 2021. What do we know about chinese lending in africa? Carnegie Endowment for International Peace Article.
- Vreeland, J. R. 2003. Why do governments and the imf enter into agreements? statistically selected cases. *International Political Science Review*, 24(3):321–343.
- Vreeland, J. R. 2006. *The International Monetary Fund (IMF): Politics of Conditional Lending*. Routledge.
- Walton, J. and Ragin, C. 1990. Global and national sources of political protest: Third world responses to the debt crisis. *American Sociological Review*, pages 876–890.
- Watkins, M. 2021. Undermining conditionality? the effect of chinese development assistance on compliance with world bank project agreements. *The Review of International Organizations*, pages 1–24.
- WDI 2020. World development indicators 2020. Dataset.



- Wegenast, T., Krauser, M., Strüver, G., and Giesen, J. 2019. At africa's expense? disaggregating the employment effects of chinese mining operations in sub-saharan africa. *World Development*, 118:39–51.
- Williams, L. K. 2012. Pick your poison: Economic crises, international monetary fund loans and leader survival. *International Political Science Review*, 33(2):131–149.
- Wright, J. 2009. How foreign aid can foster democratization in authoritarian regimes. *American journal of political science*, 53(3):552–571.
- Yuichi Kono, D. and Montinola, G. R. 2009. Does foreign aid support autocrats, democrats, or both? *The Journal of Politics*, 71(2):704–718.
- Zajontz, T. 2021. Debt, distress, dispossession: Towards a critical political economy of africa's financial dependency. *Review of African Political Economy*, pages 1–11.
- Zeitz, A. O. 2021. Emulate or differentiate? china's development finance and traditional donor aid in developing countries. *The Review of International Organizations*, 16(2):265–292.