Chinese Development Lending & the Amplification Effect*

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Abstract:

Over the last few decades, China has emerged as a major player in foreign aid and development lending. While a large empirical literature exists on the effects of foreign aid upon recipient countries' political institutions, little has been written on this with respect to Chinese involvement in the developing world, which differs significantly from conventional lending activities by engaged in by multilateral institutions and OECD creditor governments. How much of what we know about the effects of foreign aid on political institutions applies to the Chinese case? This paper investigates the "amplification effect" hypothesis, that foreign aid amplifies recipients' existing set of political institutions, with respect to Chinese aid. Employing different estimators upon panel data for 104 countries between 2002 and 2017 that have been recipients of Chinese aid, the paper's findings support the amplification effect hypothesis as applied to Chinese aid: Of countries that have been recipients of Chinese aid, the average sampled democracy becomes more democratic in consequence, and the average sampled autocracy becomes more authoritarian. Various channels through which these effects take place are explored.

Keywords: China, Belt and Road Initiative, Development Planning and Policy, State-Owned Enterprises
JEL Codes: F15, L32, J53, O21

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I. Introduction

Over the span of only a few decades, China transformed from a nation comprised of hundreds of millions of peasants struggling to get by at subsistence level into the world's second largest economy. At the time of Mao's death in 1976, China's GDP per capita was $200; by 2010, it was more than $4,000, and today over $10,000. In this timespan, China's share of the global economy has risen from below 2 percent to just under 20 percent (IMF 2019). In what Steven Cheung has referred to as "the greatest program for economic reform in history" (Coase et al., 2012), China's economic transition from a communist system to a capitalist system "with Chinese characteristics" transformed a country making up one fifth of the world's population from one in which 66% of its citizens lived in extreme poverty in 1990 to less than 1% in 2015 (Roser et al., 2017). Foreign direct investment began flooding into China with Deng Xiaoping's "opening up" reforms, averaging about 2 billion USD per year in the 1980s (mostly from Hong Kong and Taiwan), and when the rest of the world caught in, this rapidly increasing to 40-60 billion USD per year in the 1990s. Mao Zedong's idealistic wish of the 1950s to "let one hundred flowers bloom and one hundred schools of thought contend" has come to fruition in China, at least as it pertains to the economic domain (Coase et al. 2012, p. 149).

As China's wealth has increased, it has become a major player in foreign aid and development lending, a domain previously occupied mostly by western and OECD governments.[1] While Chinese foreign aid and development lending is not a strictly new phenomenon, its efforts in this domain have stepped up dramatically as China has become rich. This is particularly so in conjunction with the Belt and Road Initiative (BRI), Beijing's transnational development strategy of

[1] Henceforth, Chinese lending in the developing world (which takes the form of direct loans) will be referred to as "Chinese aid". Similarly, Li (2017) refers to Chinese lending as "Chinese aid".

Chinese-financed infrastructure development unveiled by Xi Jinping in 2013.[2] The rapid growth of Chinese official lending and investment is nearly unprecedented in history, being comparable only to the rise of US postwar lending, and accordingly, has transformed the Chinese government into the world's largest official creditor (Horn et al. 2019, p. 6).[3] A growing literature exists on the nature of China's foreign aid and overseas lending, with a consistent feature of this literature being an emphasis upon the opaqueness of China's lending practices and standards, as well as the true extent and scope of lending that takes place.[4]

Whereas conventional foreign aid and overseas lending from bilateral and multilateral creditors to LIDCs (low income developing countries) is concessional (below market interest rates, or interest free, and containing grant elements) in nature, China's official loans are done at prevailing market interest rates, with terms of agreement including collateral clauses and high risk premia.[5] As such, Horn et al. (2019, p. 4) provide data suggesting that, given China's non-disclosure of its official lending to multilateral development bank (MDBs) and other international financial institutions, about 50% of China's overseas lending, amounting to over 200 billion USD, "...is 'hidden', in the sense that it is not picked up by official statistics of the IMF, World Bank or [the Bank of International Settlements]." Capturing the extent of this, Horn et al. (2019, p. 4) notes that of the 50 main recipients of Chinese aid, the average stock of debt owed to China has grown from 1% of debtor country GDP in 2005 to more than 15% in 2017, according to their lower bound estimates.

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[2] Mações (2018) refers to BRI as the "biggest geopolitical project of our time", and Elizabeth Economy (2017, 141) suggests BRI represents Beijing's efforts"...to remake the world economy and crown Beijing as the new center of capitalism and globalization." For more on BRI, see Hurley et al. (2018), Mações (2016, 2018), Gu et al. (2019), Frankopan (2019), and Laruelle (ed.) (2018).

[3] The designation, "*official*", here refers to the fact that almost all of China's overseas lending "is undertaken by the Chinese government, state-owned enterprises or the state-controlled central bank." In contrast, the largest overall creditor remains the United States. (Horn et al. 2019, p. 6)

[4] On Chinese foreign aid and lending, see Li (2017), Hurley et al. (2018), Dollar (2019), Gu et al. (2019). On the connections of Chinese aid to public diplomacy and soft power, see Custer et al. (2018, 2019).

[5] By contrast, the US government extends grants funds for military and economic cooperation, while official creditors in Europe often lend with maturities up to 30 years and almost no risk premia or collateral clauses (Horn et al. 2019, pp. 5, 16-17).

These developments provide an excellent opportunity to pursue the following question: To the extent that Chinese aid fundamentally differs in substance from the conventional aid disbursed from bilateral and multilateral creditors, how much of what we know about the effects of foreign aid and overseas lending on recipient countries' political institutions applies to the Chinese case? A large empirical literature exists examining the effects of conventional development aid upon political institutions. Dutta, Leeson and Williamson (2013) categorize the competing claims about foreign aid's effects on political institutions into two broad categories; the "optimistic view" and the "pessimistic" view. The "optimistic" hypothesis argues that aid has the power to turn autocracies into democracies. On the contrary, the "pessimistic" hypothesis underscores not only the inability of aid to promote democracy in recipient countries, but provides evidence that aid weakens democracy and solidifies predatory regimes' grips upon autocratic power, in the process incentivizing inefficient rent seeking behavior as opposed to productive economic activity.

This paper tests a third hypothesis, the "amplification effect", as put forth by Dutta et al. (2013). In their study of 124 developing countries between 1960 and 2009, they found, "foreign aid neither causes democracies to become more dictatorial nor causes dictatorships to become more democratic. It only amplifies recipients' existing political-institutional orientations. Aid makes dictatorships more dictatorial and democracies more democratic." Utilizing new data on Chinese overseas lending from Horn, Reinhart, and Trebesch (2019) that uncovered 200 billion USD of "hidden" Chinese aid, this paper tests the amplification effect hypothesis using panel data that covers 104 developing countries that have been recipients of Chinese aid between 2002 and 2017. My findings support the amplification effect hypothesis, as Chinese aid has the effect of making the average sampled democracy more democratic (as demonstrated by higher Polity scores of the average democracy) and the average sampled autocracy more autocratic (as demonstrated by deteriorating Polity scores of the average dictatorship).

The setup of the paper is as follows: Section II will contain a brief comparison of Chinese aid vs. conventional development aid, as well as an overview of competing aid hypotheses vis-a-vis the amplification effect. Section III will provide an overview of the data utilized as well as the empirical strategy employed. Section IV will outline the results of the analysis, as well as analyzing in particular the role of Chinese state-owned enterprises as a channel through which the amplification effect works. Central Asia will be utilized as a case study. Section V concludes.

II. Chinese versus conventional development aid

A. Chinese versus conventional development aid

While Chinese aid is not a new phenomenon, its efforts in this domain have dramatically increased as China has become a wealthier country.[6] The figures plainly show this, as the Chinese government holds upwards of five trillion USD of debt towards the rest of the world (roughly 6% of world GDP), compared to less than 500 billion in the early 2000s (roughly 1% of world GDP).[7] Accordingly, nearly 80% of the world's countries are now recipients of Chinese official finance, a figure rapidly approaching the near-full global coverage of US official lending. The footprint of official Chinese finance is particularly prevalent in LIDCs, where Chinese lending exceeds the total lending figures of multilateral creditors like the IMF and the World Bank. In developing and emerging markets, debtor governments owe an estimated 380 billion USD to China compared to an estimated 246 billion USD to 22 Paris Club member governments (Horn et al. 2019, pp. 11-13).[8]

[6] Surprisingly, China has been an active international lender, to varying degrees, since the inception of the People's Republic of China (PRC) in 1949. Even during times of extreme domestic hardship and famine in the 1950s and 1960s, China extended sizable bilateral loans and grants to selected communist allies. (Horn et al. 2019, p. 11)
[7] The bulk of this 5 trillion USD figure is comprised of portfolio debt, which refers mostly to sovereign bond purchases by China's central bank. (Horn et al. 2019, p. 15)
[8] Comprised of 22 nations, the Paris Club tracks sovereign borrowing from official bilateral creditors (i.e., other governments). Further, China does not report its official lending to the OECD's Creditor Reporting System, and only recently joined the list of countries reporting to the Bank for International Settlements (BIS), though in a highly incomplete manner (Horn et al. 2019, pp. 1-8).

With this, how much of what we know about the effects of foreign aid and overseas lending on recipient countries' political institutions applies to the Chinese case?

There are three primary ways in which Chinese aid differs from conventional development aid. First, a clear pattern exists by which the terms of Chinese aid are highly tailored to fit the risk profile of each recipient country. Advanced and higher income countries receive portfolio investments through sovereign bond purchases of the People's Bank of China, while developing countries receive direct loans.[9] While official creditors over the last few decades have typically lent to LIDCs at concessionary terms with long maturities at below-market interest rates, Chinese aid takes on nearly the opposite, lending at market rates with shorter maturities, risk premia, and collateral clauses to secure repayment in the event of default, often through commodity exports (Horn et al. 2019, p. 5).[10] As such, a great deal concern has been articulated regarding the debt sustainability of BRI projects in LIDCs, including references to Chinese lending policy as "predatory lending".[11]

Second, Chinese aid differs from conventional development aid to the extent that the vast majority of it is bilateral, as opposed to multilateral, in nature. Accordingly, more than 75% of Chinese official lending between 2000 and 2017 has been done by two Chinese state-owned banks, the Chinese Export-Import Bank and China Development Bank, which both are owned by and report to the Chinese State council, the chief administrative authority of the People's Republic of

[9] The analysis of this paper pertains only to direct loans (which I refer to as "Chinese aid"), thereby excluding official lending tailored to wealthier countries (i.e. portfolio debt, asset purchases, short term trade credits).
[10] Of the 22 nations comprising the Paris Club, 70% of loans to LIDCs are in the form of "Official Development Assistance", as defined to by the OECD, referring to the loans being concessional and containing a grant element of at least 25 percent. (Horn et al. 2019, p. 17)
[11] See Jaborov (2018). As noted by Hurley (2018), this most notably pertains to the Hambantota Port in Sri Lanka. After Sri Lanka expressed unwillingness to service an $8 billion Chinese loan at 6 percent interest on the port, the two countries agreed in July 2017 to a "debt-for-equity swap" accompanied by a 99-year lease for managing the port. Sri Lankan citizens have consistently clashed with police regarding this issue. Importantly, this is not characteristic of Chinese lending in general. The IMF estimates that China provided debt relief to 31 of the 36 highly indebted poor countries (HIPCs) it is creditor to, including 100% provided forgiveness for several countries including Burundi, Afghanistan, and Guinea. See Hurley (2018, pp. 29-32) for an extended list of Chinese debt relief actions.

China (PRC). Whereas in conventional development aid, debtors governments are often dealing with multilateral creditors like the IMF and the World Bank, in the case of Chinese aid these debtors are dealing, for all intents and purposes, directly with the Chinese state. These considerations are at the core of China's Belt and Road Initiative, which comprises at least 70 countries, most of which are LIDCs.

In their analysis of the debt implications of BRI, Hurley et al. (2018, pp. 21-22) suggests that debt sustainability of BRI recipient nations is a product of how relatively multilateral BRI is conducted, with enhanced lending transparency and concessionality being byproducts of a BRI is a "multilateral in character". That is, LIDC participants in BRI are more likely to successfully handle Chinese debt in a BRI that is multilateral in character with a high degree of Chinese government influence, as opposed to a BRI that is "overwhelmingly directed, financed, and operated by the Chinese government." The founding of the Asian Infrastructure Investment Bank (AIIB), launched by the Chinese government in 2014, and its subsequent adoption of existing MDB rules signaled a willingness on the part of the Chinese government to embrace international lending and development aid norms. In practice, Chinese aid via AIIB takes up a very small share of Chinese official finance. Hurley et al. (2018, pp. 21-22) estimate that AIIB accounts for about 2 billion USD of official Chinese finance, while Chinese official lending bilateral channels (in particular, the Chinese Export-Import Bank and China Development Bank) accounts for 30-40 billion USD.

Third, Chinese aid demonstrates a lending strategy that Horn et al. (2019, p. 8) refers to as a "closed circle" or "circular lending" strategy, and what Bräutigam (2009) calls the "Eximbank Cycle". Rather than disbursing funds to accounts controlled by debtor governments, which is typical of conventional development aid, China's state-owned banks instead disburse funds directly to the Chinese firm (most often, a state owned enterprise) contracted to complete infrastructure projects abroad by debtor governments. Data from the Reconnecting Asia Project, an open source database

tracking over 2,200 infrastructure projects across the Eurasian supercontinent, provides insight on the ubiquity of this strategy: Of all the contractors participating in Chinese-funded projects, about 89% are Chinese companies, while 7% are local companies from the country in which the project is taking place.[12] Thus, a great deal of Chinese official finance remains within its own financial system, hence, a "closed circle" (Horn et al. 2019, p. 8). While this method may reduce default risks as well as reduce the ability of recipient countries to misuse the money (a topic which will be returned to later), it also facilitates China to lend to increasingly risky debtors. Already described as highly opaque in general, these practices further blur the overall picture of Chinese official lending activity, contributing to what Horn et al. (2019, p. 18) refers to as a "potentially severe underreporting of external debt stocks", and while this is generally true of Chinese lending, its especially true of Chinese activity in LIDCs, which have received the bulk of Chinese aid via direct loans.

B. The "Amplification Effect": A third way

Having established that Chinese foreign aid differs significantly from conventional development aid, the central task of this paper is to investigate, given these differences, how the large inflows of Chinese finance, capital, and labor affect the political institutional orientation of recipient countries. Moreover, how much of what we know about the effects of conventional foreign aid on political institutions applies to the Chinese case? In framing the "amplification effect" hypothesis with respect to foreign aid, Dutta et al. (2013) juxtapose their hypothesis against two broadly competing claims, which they refer to as the "optimistic" and "pessimistic" hypotheses, regarding the effects of foreign aid on recipient countries' political institutions.

[12] See Hillman (2018, p. 4). Referencing the mix of contractors funded by the World Bank and Asian Development bank being much more evenly distributed, Hillman notes, "I think this finding, while not shocking to those of us who follow this, it does remind us that despite official rhetoric about the Belt and Road being open and global, it is, I think, first and foremost, a Chinese-centric effort."

The "optimistic" hypothesis, which argues that aid has the power to turn dictatorships into democracies, suggests that there are several channels through which targeted aid can facilitate movements within autocratic regimes to become more democratic.[13] For example, Birchler et al. (2016) find that aid from the World Bank and IMF has positive effects on democratization, if made conditional on increased participation and recipient accountability. Likewise, Ziaja (2020) argues that a country's democracy improves when it receives aid from more donor countries, as fragmented aid permits choice to the local actors involved in the democratization process.

One channel through which aid can enhance democracy is through targeted investment in the human capital of recipient countries, including primary, secondary, and tertiary education. Noting that education levels and democracy are highly correlated, Glaeser et al. (2007) argue that increased educational attainment raises the benefits of civic participation, and at the margin, increases popular support for democratic movements within dictatorships. Relatedly, Lipset (1960) argued that more educated people, at the margin, are more likely to resolve disputes through negotiation than through violence, and that increased literacy facilitates in spreading knowledge of an autocratic regime's wrongdoings.

Another channel through which aid is argued to facilitate democratic transition is through technical assistance to strengthen checks on executive power in developing countries. On this, Knack (2004) notes that successfully targeted foreign aid that, (a) supports electoral processes and strengthens judiciaries and legislatures, and (b) promotes civil society organizations like a free press, labor unions, and human rights groups, can diminish an executive's autocratic control of society (Carothers 1999). Here, the task of aid is to help democrats (as perceived by external supporters) within a recipient country in their struggle against nondemocrats through assistance including

[13] On the "optimistic" hypothesis, see Dunning (2004), Goldsmith (2001), Knack (2004), Glaeser et al. (2004, 2007), Carothers (1999; 2009), Scott and Steele (2011), Stokke (2013), Jones and Tarp (2016), Carnegie et al. (2017), and Ziaja (2020).

training, advice, moral support, or funding (Carothers 2009). On this, Blair (2004) cites evidence from two U.S. Agency for International Development (USAID) supported democracy programs, or civil society organizations (CSOs), in the Philippines and Indonesia, arguing that civil society made progress in both settings, with "marginal" elements having gained some voice in the Philippines as well as Indonesia.

The "pessimistic" hypothesis, which argues that aid "[has] power to make democracies into dictatorships" (Dutta et al. 2013, p. 210), likewise suggests several channels through which aid facilitates this unintended series of events.[14] One channel through which this can occur is through an important asymmetry, as famously pointed out by Peter Bauer (2000, pp. 48-49) created in countries that are recipients of aid. That is, while aid may take up a very small percentage of recipient countries' national income, and as such possessing a limited scope for improving economic conditions in the country, fungible aid disbursements can make up a large portion of the discretionary government spending of a recipient country, thereby enabling autocratic regimes to tighten their grips upon resource control and political power (Feyzioglu 1998; Bueno de Mesquita et al. 2009; Winters 2010).

These dynamics exist because, as Bauer (2000, p. 48) notes, "Unlike manna from heaven, which descends indiscriminately on the whole population, these subsidies go to governments…", and given this fact, inflows of aid lowers the relative cost of governments restricting the inflow of foreign commercial capital, a prime instrument of economic growth for LIDCs.[15] As such, aid flows may increase the returns to unproductive activities relative to productive ones, in the process creating a long term pattern of unpredictability for private entrepreneurs (Baumol 1990; Coyne et al.

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[14] On the "pessimistic" hypothesis, see for example Easterly (2003; 2007), Bueno de Mesquita et al. (2009); Djankov et al. (2008), Rajan et al. (2007), Kalyvitis et al. (2011), and Coyne (2013).
[15] On foreign direct investment, Bak & Moon (2016) argue that argue that FDI reduces the likelihood of political challenges from elites in society, as FDI enables authoritarian regimes to appease elite dissenters and buy off potential challengers.

2013). Relatedly, Ahmed (2012, p. 164) argues that "unearned foreign income can increase private government consumption in the form of patronage, which a government can use to ensure its political survival" (p. 164). On this, Bauer (2000, p. 48) concludes that aid "contributed significantly to the disastrous politicisation of life" in the developing world post WWII.

In contrast to the "optimistic" and "pessimistic" hypotheses, Dutta et al. (2013) suggest that both these views "ascribe too much power to aid's ability to influence recipients' political institutions", instead arguing in favor of what they call the amplification effect; that "aid does not alter recipient countries' institutional orientations. It amplifies their existing ones." This argument endorses, but takes one step further, the institutionally-stabilizing claims made by Morrison (2007, 2009), Kono and Montinola (2009), and Bueno de Mesquita and Smith (2010).[16] That is, rather than viewing aid in the aforementioned manner, as stabilizing both the institutions of democracies and autocracies, Dutta et al. (2013) investigate the extent to which foreign aid amplifies the existing set of political institutions within recipient countries, thereby "[making] democratic countries more democratic and dictatorial countries more dictatorial."

The intuitive appeal of this approach is that it does not view aid as existing in a vacuum. Rather, the effects of foreign aid on recipient countries' political institutions are contingent upon not the aid itself per se, but rather, each localities existing set of political institutions. As Dutta et al. (2013, p. 211) point out, democratic governments reflect a pattern of separation of powers, executive constraint, and a consistently applied rule of law. These checks, at the margin, provide

[16] On aid as institutionally stabilizing, Morrison (2009) found that an increase in nontax revenues (i.e. foreign aid) is associated with less taxation of elites in democracies, increased social spending in dictatorships, and increased regime stability for both democracies and dictatorships. In their examination of aid and political leader survivorship, Kono and Montinola (2009) find that aid improves political survival of leaders both in autocracies and democracies, observing a stronger effect in autocracies than democracies. In contrast, Bermeo (2016) argues that foreign aid, unlike oil revenues or remittances, is affected by donor preferences, and that democratic donors are less willing to give aid that props up dictators in the post-Cold War period. See also Nielsen and Nielson (2010), Wright (2009), and Kalyvitis et al. (2011).

some measure of confidence that aid dollars will be used in the manner agreed upon by recipient countries and MDBs or creditor governments. As such, aid flowing into recipient countries with democratic institutions may utilize the aid in the manners described above by Blair (2004) and (Knack 2004), resulting in improved democratic institutions. Thus, Dutta et al. (2013) predict "aid to contribute to stronger democracy, not dictatorship, in democratic recipient countries."

III. Data and Empirical Strategy

To investigate the effects of Chinese aid on recipients' political institutions, this paper utilizes panel data covering 104 countries from 2002-2017 that were recipients of Chinese aid.[17] Data for the key variables of interest come from two sources.[18] For estimates of debt stocks owed to China, I utilize data from Horn, Reinhart, and Trebesch (2019), which provides new estimates for 106 countries between 2000 and 2017, including estimates of debt stock owed to China in current USD, as well as estimated total external debt stock owed to China in percent of debtor GDP. Notably, this data only includes debt held in the form of direct loans by private and public entities within recipient countries to Chinese state-owned creditors.[19] Importantly, Horn et al. (2019, p. 10) note that their data represents a "conservative, lower bound" estimate of the true extent of China's overseas lending, and that they "do not fully capture the true extent of China's overseas lending."[20]

Because nearly all sampled countries receive Chinese aid *in addition to* official development aid, other foreign aid received must be controlled for. As such, net official development assistance

[17] See Appendix 1 for a list of the countries examined.
[18] See Appendix 2 for a list of all variables utilized and their sources.
[19] As noted earlier, Chinese official lending is highly tailored by the risk profile of the recipient country. Accordingly, this data only pertains to direct loans, which are almost exclusively the debt instrument chosen for LIDCs. As such, wealthier nations (who would be recipients of short-term trade debt, swap debt, and portfolio debt) are excluded from the Horn et al. (2019) dataset.
[20] On their conservative estimation strategy, "This is because, despite our best efforts to gather loan-level data from dozens of sources, we still capture only about 60 percent of total Chinese overseas loans. In total, our estimates for 106 developing and emerging countries amount to 400 billion USD to China at the end of 2017. This compares to 650 billion of outstanding loans reported in China's BoP statistics" (Horn et al. 2019, p. 10).

(ODA) consists of disbursements of loans and grants made on concessional terms made by members of the Development Assistance Committee (DAC) and MDBs. Importantly, this only refers to loans and grants made "to promote economic development and welfare in countries", excluding military assistance.

For estimates of how democratic or autocratic Chinese aid recipient countries' political institutions are, I utilize Polity IV Project (Marshall et al., 2014) data, which tracks political regime characteristics and transitions from 1800-2017 for 167 independent states. To capture this, a "POLITY" score ranging from -10 (full autocracy) to +10 (full democracy) is assessed in each given year. This is computed by subtracting the country's "AUTOC" score from its "DEMOC" score, which are themselves derived from considering various "authority characteristics" including the presence of institutions through which citizens can express political preferences, institutionalized constraints on the usage of executive power, and the guarantee of civil liberties to all citizens (Marshall et al. 2014). Following Dutta et al. (2013), I categorize as "democracies" countries with Polity scores in a given year greater than zero, while "autocracies" refers to countries with scores zero and below. To facilitate time series analysis, the Polity IV project created the "Polity 2" variable (which henceforth will be simply referred to as "Polity"), which applies a simple treatment to account for periods which lack a functioning government, including cases of foreign "interruption", cases of "interregnum", and cases of "transition".

Following Dutta et al. (2013), as well as previous research on countries' political institutions, this analysis accounts for a number of other variables as controls to isolate the effects of Chinese aid upon recipient countries' political institutions. To account for the likely persistence of the Polity score, my dependent variable, I lag the Polity score one period, thereby accounting for regressions-to-mean effects, as well as capturing higher scoring countries' limited opportunities to improve their Polity scores. Additional controls, following previous research, includes the (log) of GDP per capita,

three population measures including log population, population density, and percent of urban population. To account for political leaders controlling a countries' natural resources, thereby further consolidating their power and, as such, impacting a country's political institutions, total natural resource rents as a percentage of GDP is controlled for.[21] Data for the aforementioned controls are from the World Development Indicators (2019).

Controlling for regime stability and regime age, I again follow Dutta et al. (2013), utilizing data from the Database of Political Institutions (Cruz et al. 2018). For regime stability, I utilize the database's "Tensys" variable, which measures how long the country has been autocratic or democratic, and for regime age, I utilize the "Yrsoffc" variable, which measures how long the country's chief executive has been in power.[22] Table 1 reports summary statistics for all variables.

Of sampled countries, the average stock of Chinese aid received is approximately 4.3 percent of debtor GDP, with a standard deviation of 8.4 percent. The average Polity score is 2.85, with a standard deviation of 5.7 percent. Average GDP per capita is $3806, with an average growth rate of 2.7 percent. The empirical strategy employed here examines how recipient countries' existing set of political institutions (i.e. whether a country is an autocracy or democracy per their Polity score) interacts with received Chinese aid to affect the degree of democracy or autocracy in those countries. To distinguish Chinese aid received by democracies and autocracies, following Dutta et al. (2013) I construct an interaction term, "ChinaAid*Democracy dummy", which multiplies the stock of Chinese aid a recipient country receives with a dummy variable that measures whether the country is an autocracy or democracy, to predict the extent to which the degree of democracy or autocracy is affected (the dependent variable, "Polity").

[21] On natural resources and regime stability, see Morrison (2007, 2009), Djankov, Montalvo, and Reynal-Querol (2008), and Blodgett Bermeo (2016). On the resource curse more broadly, see Ross (1999, 2001).
[22] The 'Tensys" variable is a product of the component variable, "Executive Indices of Electoral Competitiveness". (Cruz et al. 2018)

IV. Results

A. OLS

Providing baseline results, I present an OLS model with a series of controls, two-way fixed effects and robust standard errors clustered by country, estimating the following equation:

$$\boldsymbol{Polity_{i,t}} = \beta_0 + \beta_1 ChinaAid * Democracy\ dummy_{i,t} + \beta_2 ChinaAid_{i,t} + \beta_3 ODA_{i,t} + \beta_4 Polity_{i,t-1} + \boldsymbol{X}_{i,t}\beta_5 + \gamma_i + \emptyset_t + \varepsilon_{i,t}$$

The key variables of interest, *ChinaAid*Democracy dummy* and *ChinaAid* estimate the effect of Chinese aid on the political institutions, as measured through the Polity score, of recipient countries. Specifically, $ChinaAid_{i,t}$ is the log of country i's estimated debt stock owed to China in the form of direct loans. I use an interaction term, *ChinaAid*Democracy dummy*, which captures the effect of Chinese aid as disbursed to "democracies" in period t by multiplying the debt stock held by China by a dummy variable (equal to 1 when Polity >0, and zero otherwise). The variable *ODA* is the log of country i's official development aid, measured as the log of official development aid extended to country i in period t. Importantly, this variable controls for the stock of non-Chinese aid flows to recipient countries by MDBs, including only grants and loans made on concessionary terms, and excluding military assistance. My dependent variable, $Polity_{i,t}$ measures the relative degree of democracy or autocracy in country i in period t. Due to the persistence of the dependent variable, $Polity_{i,t-1}$ measures country i's political institutions lagged one period. $\boldsymbol{X}_{i,t}$ is a mix of covariates that also affect the relative degree of autocracy or democracy. γ_i controls for country-specific effects, ϕ_t controls for period-specific effects, and while $\varepsilon_{i,t}$ is a random error terms.

The results of the model are consistent with the amplification effect hypothesis, that aid makes democracies more democratic and autocracies more autocratic. Interpreting this through the model's coefficients, the coefficient on the interaction term, *ChinaAid*Democracy dummy* is positive, while the coefficient on *ChinaAid* is negative. Table 2 presents the results of my OLS estimation.

Consistent with the findings of Dutta et al. (2013), the β_1 coefficient is larger in absolute value terms than the β_2 coefficient. Column 1 contains the most baseline specification, Column 2 adds additional controls, and Column 3 contains the full battery of covariate controls.

The results reflected in each column support the amplification effect hypothesis as applied to Chinese aid. *ChinaAid's* coefficient is negative and statistically significant in each case, meaning that autocracies become more autocratic with additional Chinese aid. Likewise, the coefficient on *ChinaAid*Democracy dummy* is positive, statistically significant, and larger in absolute value terms than *ChinaAid's* coefficient. A one standard deviation increase in Chinese aid to the average sampled democracy increased democracy (i.e. increased its Polity score) by approximately one-fourth of a standard deviation. Likewise, a one standard deviation increase in Chinese aid to the average sampled autocracy increased autocracy (i.e. decreased its Polity score) by one-fifth of a standard deviation. These results support the amplification effect hypothesis, that "foreign aid does not alter countries' institutional orientations. It amplifies their existing ones" (Dutta et al. 2013, p. 215).

B. GMM

While the OLS model with fixed effects provides baseline results, correlation between the lagged dependent variable and the error term contributes towards biased and inconsistent estimates. Additional endogeneity concerns exist in these estimates, as poorer and more autocratic regimes may attract more aid than relatively more well-off, more democratic countries. To address these concerns, I follow Dutta et al. (2013) and employ a generalized method of moments (GMM) estimator, which utilizes lagged regressors as instruments for the first-differenced endogenous variables[23]. The model takes the following form:

[23] On GMM estimators, see Roodman (2009). Roodman (2008) explains that GMM estimators are best suited for large country (or individual) panels with fewer time periods, when independent variables are not strictly exogenous,

$$\boldsymbol{Polity_{i,t} - Polity_{i,t-1}} = \alpha_0 + \alpha_1 \left[ChinaAid * Democracy\ dummy_{i,t} - ChinaAid * Democracy\ dummy_{i,t-1} \right] + \alpha_2 [ChinaAid_{i,t} - ChinaAid_{i,t-1}] + \alpha_3 [ODA_{i,t} - ODA_{i,t-1}] + \alpha_4 \left[Polity_{i,t-1} - Polity_{i,t-2} \right] + \alpha_5 \left[Polity_{i,t-2} - Polity_{i,t-3} \right] + \alpha_6 [\boldsymbol{X}_{i,t} - \boldsymbol{X}_{i,t-1}] + \varepsilon_{i,t} - \varepsilon_{i,t-1}$$

As displayed below in Table 3, the results of the GMM estimations of the amplification effect are present and statistically significant. Compared to the results featured in the Table 2, the coefficients on our variables of interest are statistically significant and demonstrate a larger effect, suggesting a downward bias in the OLS model. *ChinaAid's* coefficient is negative and statistically significant in each case. meaning that the average autocracy becomes more autocratic with additional Chinese aid. Likewise, the coefficient on *ChinaAid*Democracy dummy* is positive, statistically significant, and is again larger in absolute value terms than *ChinaAid's* coefficient. A one standard deviation increase in Chinese aid to the average sampled democracy increased democracy by nearly half a standard deviation. Likewise, a one standard deviation increase in Chinese aid to the average sampled autocracy increases autocracy by approximately one fourth of a standard deviation.

C. Implications

The results of both models as applied to Chinese aid are consistent with the amplification effect hypothesis. With that, a number of interesting questions emerge. To the extent that Chinese aid differs from conventional development aid in that it's (A) done in the form of direct loans at market rates with risk premia and collateral clauses, (B) done almost entirely in a bilateral manner through Chinese state-owned banks, and (C) conducted in a highly opaque manner via "closed circle" lending, why is there not *more* of an amplification effect observed, particularly in decreasing observed Polity scores?[24] That is, given the widely observed negative press, anti-China protests and

and when using a single, dynamic dependent variable that correlates well with lagged periods. For examples, see Djankov et al. (2008) and Acemoglu et al. (2008).

[24] By comparison, Dutta et al. (2013) found that that a one standard deviation increase in aid increases Polity scores (i.e., increased democracy) by nearly one standard deviation. For the average dictatorship in their sample,

general unrest by citizens and activist groups surrounding Chinese investment via BRI, ought not the amplification effect results be *at least* that of conventional foreign aid?

One hypothesis to account for a *smaller* amplification effect is the nature and mechanics of Chinese aid disbursements to LIDCs compared to conventional foreign aid disbursements. As discussed in detail above, Chinese state owned banks employ a "closed circle" lending strategy, whereby funds allocated for projects in recipient countries are disbursed directly to Chinese state-owned enterprises contracted to complete the projects, rather than to debtor governments to hire firms of their own choosing for the projects. To the extent that receiving fungible resources is a channel through which regimes misuse disbursed resources in conventional foreign aid dealings (Feyzioglu 1998; Bueno de Mesquita et al. 2009; Winters 2010), it's relatively harder for recipients of Chinese aid to misuse the funds, as the direct loans remain almost entirely the Chinese financial system. While this may to some degree serve as a check on debtor governments, direct financial flows are not the only channel through which graft can occur.[25] Furthermore, given that the "closed circle" lending strategy means funds are not actually transferred abroad, there may be a significant underestimation of the extent of the leverage exists in these creditor/debtor relationships (Horn et al. 2019, p. 8). Further research needs to be done to understand the extent to which Chinese aid is conducted in this "closed circle" manner, how much of it is disbursed to Chinese SOEs as opposed to private enterprises, and if closed circle lending is ubiquitous across regions, or otherwise.

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these results found that a one standard deviation increase in aid decreased Polity scores (i.e., increased dictatorship) by nearly one-third of a standard deviation.

[25] See Radio Free Europe/Radio Liberty's reporting this, including "Kazakhs Protest Chinese Money, Influence For Third Day" (September 2019) and "Kyrgyzstan and Longhai: Chasing the dragon"(October 2019), the latter of which covers the Kyrgyz government's dealings with a less-than-forthcoming Chinese SOE in the building of a 100 kilometer highway "prestige project". In Kazakhstan, an advocate for ethnic Kazakhs (who are among Muslim minorities in China) imprisoned in China's internment camps in Xinjiang was arrested, jailed, and upon release a few months later, banned from further such activism in Kazakhstan (Feng 2019). In Kyrgyzstan in August 2019, more than two dozen Chinese workers (of the state-owned Zhong Ji company) operating a mine were injured in a clash with around 300 local Kyrgyz villagers (Rickleton 2019).

In his recent book on BRI, Tom Miller (2019) recorded that "Chinese officials privately admit that they expect to lose up to 80 percent of their investment in Pakistan". If BRI is, in fact, not about "win-win" partnerships between China and LIDCs (as official state documents on BRI suggest) nor very concerned with producing projects of economic value, and instead about increasing soft power relationships and assuaging domestically powerful interest groups (i.e. SOEs) by providing them with external markets to deal with overcapacity (Maçães, 2018, pp. 16-20), the widespread existence of infrastructure boondoggles would make sense. The existing evidence on the extent to which this is the case in decidedly a mixed bag.

As noted, the literature on the debt implications of the Belt and Road Initiative is broadly consistent in its shared sense of concern for the financial health of recipient LIDCs. For example, Custer et al. (2019) suggest that recipient countries need to find ways to "protect their independence of action to prevent Beijing from translating its economic clout into political leverage" and "decrease their vulnerability to corruption and co-option through [financing responsibly]". Additionally, Hurley et al. (2018), in their analysis of 68 BRI borrowing countries, "conclude that eight countries are at particular risk of debt distress based on an identified pipeline of project lending associated with BRI", including the Maldives, Mongolia, Djibouti, Montenegro, Laos, Pakistan, Kyrgyzstan, and Tajikistan. Writing of "graft-prone" Central Asia's powerful individuals and interest groups, Toktomushev (2018, pp. 84-85) writes, "[They] are infamously experienced at capturing the state through corrupt and nefarious practices. As such, BRI runs the risk of becoming a new source of rent for Central Asia's kleptocratic elites."

As noted by the Pakistan case, there is likely plenty of anticipated, intentional "loss" built into BRI from an ROI perspective, though this does not equate to being a wash for China from a soft power perspective. Notably, China (since 2000) has a fairly extensive record of debt forgiveness (Hurley 2018). This is especially so in African countries, with amounts typically forgiven ranging

from tens of millions to hundreds of millions of USD. Debt forgiveness is rarely the case in other regions where BRI investment is taking place, with a notable exception being Pakistan, where the China-Pakistan Economic Corridor (CPEC) has been referred to as the "flagship project" of BRI.[26] At least in the African case, a track record exists whereby what is *ex ante* "official lending" from the Chinese becomes a "gift/grant" *ex post*. That said, the relative costs of these sort of dealings have recently increased for the Chinese, as many recipient countries have applied for debt relief with the emergence of the coronavirus global pandemic (Kynge et al. 2020).[27]

Counterintuitively, the amplification effect findings with respect to Chinese aid suggest that such aid received by the average sampled democracy helps to make their democracy *more* democratic (as demonstrated by higher Polity scores of the average democracy). This is an odd result, given that China under no pretenses is investing abroad to improve the democracy of LIDC recipients. That said, there are reasons for which this outcome exists. As Li (2017) point out, the Economic Strategy Institute points out an appeal of Chinese dealings the "sheer competence and speed with which China is able to negotiate and execute its development programs" relative to overly bureaucratized and dysfunctional conventional foreign aid alternatives. Comments made by Abdoulaye Wade (2008), the former President of Senegal, captures this quite well:

> I have found that a contract that would take five years to discuss, negotiate and sign with the World Bank takes three months when we have dealt with Chinese authorities. I am a firm believer in good governance and the rule of law. But when bureaucracy and senseless red tape impede our ability to act— and when poverty persists while international functionaries drag their feet— African leaders have an obligation to opt for swifter solutions. I achieved more in my one hour meeting with President Hu Jintao in an executive suite at my hotel in Berlin during the recent G8 meeting in Heiligendamm than I did during the entire, orchestrated meeting of world leaders at the summit.

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[26] On CPEC, Custer et al. (2019) note that Beijing has committed $60 billion to build the China-Pakistan Economic Corridor. The completion of CPEC involves the potential connection of Kashgar city (a free economic zone in Xinjiang) with Gwadar, a deep water port in Pakistan along the Arabian Sea that China utilizes for commercial and military purposes.

[27] Of the debt relief applications, a China Development Bank researcher recently said, "It is OK for 20 per cent of our portfolio to have problems... but we can't tolerate half of them going under" (Kynge et al. 2020).

Thus, the rapidity and opaqueness of the Chinese official lending disbursement process, while a matter of concern for western observers (Hurley 2018; Horn et al. 2019), may (if only by consequence) serve as a democracy-enhancing mechanism in localities where some democracy (as observed by Polity scores >0) already exist. If anything, this points to the relatively high costs of dealing with the conventional foreign aid apparatus as an underrated factor in existing analyses.

V. Conclusion

The findings of this analysis support the amplification effect hypothesis, as on average, Chinese aid tends to make democracies more democratic, and autocracies more autocratic (as measured through higher and lower Polity scores of the average democracy and autocracy, respectively). These findings follow the findings of Dutta et al. (2013), who argue that aid lacks the ability to make autocracies democracies or to make democracies autocracies, as the "optimistic" and "pessimistic" views they outline suggest. Rather, they take the aid-as-institutionally-stabilizing claims (i.e. aid ensures democratic countries remain democratic, and vice versa) advanced in previous research (Morrison 2007, 2009; Kono and Montinola 2009; Bueno de Mesquita and Smith 2010; and Nielsen and Nielson 2010) a step further, arguing that the effects of aid are not only institutionally contingent, but also that aid contributes to making *already* democratic countries *more* democratic and *already* autocratic countries *more* autocratic (Dutta et al. 2013).

Additionally, this paper has discussed three fundamental ways in which Chinese aid differs from conventional development aid, including its' being done (A) in the form of direct loans at market rates with risk premia and collateral clauses, (B) almost entirely in a bilateral manner through Chinese state-owned banks, and (C) through a "closed circle" lending strategy. Despite these differences, this analysis suggests that the effects of Chinese aid and conventional develop aid contribute to producing similar patterns upon the political institutions of recipient countries. While

this is the case, the amplification effect, while present in the Chinese case, may be partially mitigated via the "closed circle" lending strategy of direct loans employed by Chinese state-owned banks, as there is less opportunity for political connected individuals within debtor governments to misuse the disbursed funds. While this strategy may serve as a check upon the amount of graft that would otherwise exist, this picture is blurred due to the remarkably opaque nature of Chinese aid relative to conventional development aid.

Lastly, opportunities for further research opportunities to increase the robustness of these findings were discussed, including investigating the extent to which the "closed circle" lending strategy is employed, and whether this is regionally specific or ubiquitous throughout BRI. Further, to what extent does the amplification effect flow through Chinese state-owned enterprises vs. Chinese firms in general? As noted by Hillman (2018), nearly 90% of contracted firms to complete projects in LIDCs are Chinese companies, a great many of which are SOEs. This is one of the questions I intend to investigate during field research in Central Asia (originally planned for summer 2020, though now postponed until summer 2021). It will be critical to understand the share of these firms that are SOEs, as the incentives facing SOEs versus private firms differ dramatically due to the former being relatively more non-market facing compared to partially-subsidized Chinese private firms. Shedding light on this question will help us to understand channels through which the amplification effect is transmitted.

References

Acemoglu, D., Johnson, S., Robinson, J., & Yared, P. (2008). Income and Democracy. *American Economic Review*. 98: 808–842.

Ahmed, F. Z. (2012). The perils of unearned foreign income: Aid, remittances, and government survival. *American Political Science Review*, 106, 146-165.

Bak, D., & Moon, C. (2016). Foreign direct investment and authoritarian stability. *Comparative Political Studies*, *49*(14), 1998-2037.

Baumol, W. J. (1990). Entrepreneurship: Productive, Unproductive and Destructive. *Journal of Political Economy*, 98 (5): 893–921.

Bauer, Peter T. (2000). *From Subsistence to Exchange and Other Essays*. Princeton: Princeton University Press.

Bermeo, S. B. (2016). Aid is not oil: Donor utility, heterogeneous aid, and the aid democratization relationship. *International Organization*, *70*(1), 1-32.

Birchler, K., Limpach, S., & Michaelowa, K. (2016). Aid modalities matter: The impact of different World Bank and IMF programs on democratization in developing countries. *International Studies Quarterly*, *60*(3), 427-439.

Blair, H. (2004). Assessing civil society impact for democracy programmes: Using an advocacy scale in Indonesia and the Philippines. *Democratization*, 11:1, 77-103.

Bräutigam, D. (2009). *The Dragon's Gift*. Oxford: Oxford University Press.

Bräutigam, D., & Knack, S. (2004). Foreign Aid, Institutions and Governance in Sub-Saharan Africa." *Economic Development and Cultural Change*, 255-285.

Bueno de Mesquita, B., & Smith, A. (2009). Political Survival and Endogenous Institutional Change." *Comparative Political Studies*. 42: 167-197.

_____. (2010). Leader Survival, Revolutions and the Nature of Government Finance, American Journal of Political Science. 54: 936–950.

Carnegie, A., & Marinov, N. (2017). Foreign aid, human rights, and democracy promotion: Evidence from a natural experiment. *American Journal of Political Science*, *61*(3), 671-683.

Carothers, T. (1999). *Aiding Democracy Abroad: The Learning Curve*. Washington, D.C.: Carnegie Endowment for International Peace.

_____. (2009). Democracy assistance: political vs. developmental?. *Journal of Democracy* 20, no. 1, 15–19.

Coase, R.H., & Wang, N. (2012). How China Became Capitalist. Houndmills, Basingstoke, Hampshire : Palgrave Macmillan.

Coyne, C. J. (2013). *Doing bad by doing good: Why humanitarian action fails*. Stanford University Press.

Coyne, C. J., & Leeson, P. T. (2004). The plight of underdeveloped countries. *Cato J.*, *24*, 235.

Cruz, Cesi., Philip Keefer, and Carlos Scartascini. (2018). "Database of Political Institutions 2017." Washington, DC: Inter-American Development Bank Research Department.

Custer, S., Russell, B., DiLorenzo, M., Cheng, M., Ghose, S., Sims, J., Turner, J., and H. Desai. (2018). "Ties That Bind: Quantifying China's public diplomacy and its 'Good Neighbor' effect." Williamsburg, VA. AidData at William & Mary.

Custer, S., Sethi, T., Solis, J., Lin, J., Ghose, S., Gupta, A., Knight, R., and A. Baehr. (2019). Silk Road Diplomacy: Deconstructing Beijing's toolkit to influence South and Central Asia. Williamsburg, VA. AidData at William & Mary.

Djankov, S., Montalvo, J. G., and Reynal-Querol, M. (2008). "The Curse of Aid." *Journal of Economic Growth*. 13: 169–194.

Dollar, D. (2019). "Understanding China's Belt and Road Infrastructure Projects in Africa." Washington DC: Brookings Institution.

Dunning, T. (2004). Conditioning the Effects of Aid: Cold War Politics, Donor Credibility, and Democracy in Africa, International Organization. 58: 409–423

Dutta, N., Leeson, P. T., and Williamson, C. R. (2013). "The Amplification Effect: Foreign Aid's Impact on Political Institutions." Kyklos, 66(2), 208–228.

Easterly, W. (2003). "Can Foreign Aid Buy Growth?" Journal of Economic Perspectives, 17: 23–48.

_____ . (2007). The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done So Much Ill and So Little Good. New York: Penguin Books.

Economy, E. (2017). "History With Chinese Characteristics: How China's Imagined Past Shapes Its Present." Jan/Feb 2017, Foreign Affairs, Vol. 96(4), pp. 141-148.

_____ . (2018) The Third Revolution: Xi Jinping and the New Chinese State. Oxford: Oxford University Press.

Feng, E. (2019). "An Advocate For Kazakhs Persecuted In China Is Banned From Activism In Kazakhstan." *NPR News*, October 26, 2019.

Feyzioglu, T., Swaroop, V., & Zhu, M. (1998). A panel data analysis of the fungibility of foreign aid. *The World Bank Economic Review*, *12*(1), 29-58.

Frankopan, P. (2019). The New Silk Roads: The Present and Future of the World. London: Bloomsbury Publishing.

Glaeser, E. L., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2004). Do institutions cause growth?. *Journal of economic Growth*, *9*(3), 271-303.

Glaeser, E. L., Ponzetto, G. A., & Shleifer, A. (2007). Why does democracy need education?. *Journal of economic growth*, *12*(2), 77-99.

Goldsmith, A.A. (2001). Foreign Aid and Statehood in Africa, International Organization. 55: 123–148.

Gu, J., Corbett, H., and Leach, M. (2019). "Introduction: The Belt and Road Initiative and the Sustainable Development Goals: Opportunities and Challenges." Brighton, UK: Institute of Development Studies.

Hillman, J. (2018). "China's Belt and Road Initiative: Five Years Later." Statement Before the U.S.-China Economic and Security Review Commission.

Horn, S., Reinhart, C. M., & Trebesch, C. (2019). "China's overseas lending" (No. w26050). National Bureau of Economic Research.

Ibragimova, K. (2019). "Tajikistan Approves Chinese $360 Million Grant for Highways." *Eurasianet*, 30 Oct. 2019.

International Monetary Fund. (2019). "World Economic Outlook: Global Manufacturing Downturn, Rising Trade Barriers." Washington, DC, October.

Jaborov, S. (2018). "Chinese Loans in Central Asia: Development Assistance or 'Predatory Lending'?", in Marlene Laruelle (ed.), *China's Belt and Road Initiative and its Impact in Central Asia*. Washington, D.C.: The George Washington University, Central Asia Program, pp. 34-40.

Jones, S, and Tarp, F. (2016). "Does Foreign Aid Harm Political Institutions?" *Journal of Development Economics*, 118:266–81.

Kalyvitis, S., and I. Vlachaki. (2011). "When Does More Aid Imply Less Democracy." *European Journal of Political Economy*, 28 (1).

Kono, D.Y. and G.R. Montinola. (2009). "Does Foreign Aid Support Autocrats, Democrats, or Both?" Journal of Politics. 71: 704–718.

Knack, S. (2001). "Aid Dependence and the Quality of Governance: Cross-Country Empirical Tests." *Southern Economic Journal*, 68: 310–329.

_____ . (2004), "Does Foreign Aid Promote Democracy?" International Studies Quarterly, 48, 251-266.

Kynge, J., & Yu, S. (2020). "China faces wave of calls for debt relief on 'Belt and Road' projects." *Financial Times*, April 30th, 2020.

Lain, S. (2018). "The Potential and Pitfalls of Connectivity along the Silk Road Economic Belt," in Marlene Laruelle (ed.), *China's Belt and Road Initiative and its Impact in Central Asia.* Washington, D.C.: The George Washington University, Central Asia Program, pp. 1-10.

Lavoie, D. (1985 [2016]). *National economic planning: What is left?* Arlington, VA: Mercatus Center at George Mason University (Washington DC: Cato Institute, 1985)

Leeson, P. T. (2008). Escaping poverty: Foreign aid, private property, and economic development. *Journal of Private Enterprise*, *23*(2), 39-64.

Laruelle, M. (ed.) (2018) China's Belt and Road Initiative and Its Impact in Central Asia. *Central Asia Program*, George Washington University.

Li, X. (2017). Does conditionality still work? China's development assistance and democracy in Africa. *Chinese Political Science Review*, *2*(2), 201-220.

Lipset, S. M. (1960). Political Man: The Social Basis of Modern Politics. New York: Doubleday.

Maçães, B. (2016). *The Dawn of Eurasia: On The Trail Of A New World Order*. Penguin Random House.

_____. (2018). Belt and Road. Oxford, UK: Oxford University Press.

Marshall, M. G., Gurr, T. R., & Jaggers, K. (2014). Polity IV project: Political regime characteristics and transitions, 1800–2013. *Center for Systemic Peace*, *5*.

Miller, T. (2019). *China's Asian dream: Empire building along the new silk road.* Zed Books Ltd..

Morrison, K. M. (2007). Natural resources, aid, and democratization: A best-case scenario. *Public Choice*, *131*(3-4), 365-386.

_____. (2009). "Oil, Nontax Revenue, and the Redistributional Foundations of Regime Stability." International Organization. 63: 107–138.

Nielsen, R., & Nielson, D. (2010). Triage for democracy: selection effects in governance aid. *Department of Government, College of William & Mary*, *5*.

Olson, S., & Prestowitz, C. (2011). The evolving role of China in international institutions. Report prepared for The U.S.-China Economic and Security Review Commission, Washington, DC: The Economic Strategy Institute.

Radio Free Europe/Radio Liberty. (2019). "Kazakhs Protest Chinese Money, Influence For Third Day", September 4, 2019.

_____."Kyrgyzstan and Longhai: Chasing the dragon", October 2, 2019.

Rajan, R., & Subramanian, A. (2007). "Does aid affect governance?" *American Economic Review*, *97*(2), 322-327.

Rickleton, C. (2019). "China fires back over mining ruckus in Kyrgyzstan." *Eurasianet*, August 7, 2019.

Roodman, D. (2008). A Note on the Theme of Too Many Instruments. *Center for Global Development*, Working Paper No. 125.

_____. (2009). How to do xtabond2: An introduction to difference and system GMM in Stata. *The Stata Journal*, *9*(1), 86-136.

Roser, M., & Ortiz-Ospina, E. (2017, [2019]). "Global Extreme Poverty". Published online at OurWorldInData.org. Retrieved from: 'https://ourworldindata.org/extreme-poverty' [Online Resource]

Ross, M. L. (1999). "The political economy of the resource curse." *World politics*, *51*(2), 297-322.

_____. (2001). "Does Oil Hinder Democracy?" World Politics, 53 (3): 325-61.

Scott, J.M., and Steele, C.A. (2011). "Sponsoring Democracy: The United States and Democracy Aid to the Developing World, 1988–2001." International Studies Quarterly 55 (1): 47–69

Skarbek, D. B., & Leeson, P. T. (2009). What can aid do. *Cato J.*, *29*, 391.

Stokke, O. (2013). *Aid and political conditionality*. London: Routledge.

Tian, H. (2018). "China's Conditional Aid and Its Impact in Central Asia," in Marlene Laruelle (ed.), *China's Belt and Road Initiative and its Impact in Central Asia*. Washington, D.C.: The George Washington University, Central Asia Program, pp. 21-33.

Toktomushev, K. (2018). "One Belt, One Road: A New Source of Rent for Ruling Elites in Central Asia," in Marlene Laruelle (ed.), *China's Belt and Road Initiative and its Impact in Central Asia*. Washington, D.C.: The George Washington University, Central Asia Program, pp. 77-85.

Wade, A. (2008.) Time for the West to practice what it preaches. *Financial Times*.

Winters, M. S. (2010). Accountability, participation and foreign aid effectiveness. *International Studies Review*, *12*(2), 218-243.

Woods, Ngaire. (2008). Whose aid? Whose influence? China, emerging donors and the silent revolution in development assistance. *International Affairs*, 84 (6): 1205–1221.

World Bank (2019). "World development indicators." Washington, DC: World Bank.

Ziaja, S. (2020). More donors, more democracy. *The Journal of Politics*, *82*(2), 433-447.

Zou, Lei. (2018). The Political Economy of China's Belt and Road Initiative. World Scientific Publishing Company.

Table 1: Summary Statistics

Variables	Obs	Mean	Std. Dev.	Min	Max
ChinaAid*Democracy dummy	1667	10.279	9.84	0.00	24.344
ChinaAid	1667	15.428	8.21	0.00	24.344
ChinaAid/GDP	1667	4.324	8.42	0.00	113.028
Official Development Aid	1587	19.548	1.387	13.162	23.16
Polity	1532	2.845	5.724	-9.00	10.00
Polity_{t-1}	1435	2.824	5.727	-9.00	10.00
Democracy dummy	1667	.679	.467	0.00	1.00
Log GDP per capita	1667	7.628	1.166	4.718	10.369
Log GDP per capita_{t-1}	1562	7.61	1.169	4.718	10.358
GDP growth	1647	2.72	4.801	-47.591	32.997
Log population	1667	16.042	1.843	11.154	21.015
Urban population	1661	48.574	21.479	8.682	95.24
Population density	1638	112.178	190.241	1.573	1654.673
Regime age	1586	8.45	8.475	1.00	47.00
Regime stability	1585	15.319	10.638	1.00	69.00
Natural resource rents	1654	10.689	11.983	.001	65.35

Table 2: OLS Results

	Fixed Effects			Random Effects		
	(1)	(2)	(3)	(1)	(2)	(3)
ChinaAid*Democ. dummy	0.163***	0.165***	0.156***	0.0906***	0.0936***	0.0907***
	(0.0248)	(0.0251)	(0.0225)	(0.0178)	(0.0180)	(0.0162)
ChinaAid	-0.130***	-0.146***	-0.136***	-0.0671***	-0.0675***	-0.0635***
	(0.0264)	(0.0285)	(0.0268)	(0.0181)	(0.0189)	(0.0167)
ODA	0.105	0.0711	0.0599	0.0239	0.0488	0.00815
	(0.0894)	(0.0843)	(0.0790)	(0.0290)	(0.0437)	(0.0446)
Polity_{t-1}	0.560***	0.545***	0.550***	0.863***	0.858***	0.854***
	(0.0490)	(0.0487)	(0.0454)	(0.0298)	(0.0309)	(0.0294)
Log GDP per capita_{t-1}		0.333**	0.423**		-0.0540	-0.109*
		(0.162)	(0.168)		(0.0621)	(0.0646)
GDP growth		0.00325	0.00292		-0.00347	-0.00329
		(0.00877)	(0.00854)		(0.00748)	(0.00747)
Log population		1.075	1.960		-0.0510	-0.0356
		(0.803)	(1.202)		(0.0399)	(0.0409)
Urban population		-0.0312	-0.0371		0.00242	0.00408
		(0.0312)	(0.0348)		(0.00278)	(0.00277)
Regime stability			-0.0295**			0.00328
			(0.0136)			(0.00460)
Regime age			0.00302			-0.00380
			(0.00996)			(0.00831)
Population density			-0.00722			0.0000643
			(0.00475)			(0.000210)
Natural resource rents			-0.00383			0.00875**
			(0.00717)			(0.00417)
Constant	-0.372	-17.99	-31.53*	0.115	0.748	1.687*
	(1.784)	(11.54)	(17.78)	(0.666)	(0.829)	(0.921)
Observations	1,369	1,350	1,300	1,369	1,350	1,300
R-squared	0.668	0.674	0.685	0.626	0.627	0.668
Number of Countries	97	97	93	97	97	93

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1; All regressions in the left panel include country and period fixed effects, while the right panel employs random effects. The dependent variable is $\text{Polity}_{i,t}$. ChinaAid measures the log of country i's estimated debt stock owed to China in the form of direct loans. ChinaAid*Democracy dummy is an interaction variable that multiplies the debt stock of country i in period t by a dummy variable (equal to 1 when Polity >0, and zero otherwise). ODA controls for Official Development Aid, measured as the log of ODA to recipient countries, which includes grants and loans made on concessional terms, excluding military assistance.

Table 3: GMM Results

	GMM Results		
	(1)	(2)	(3)
ChinaAid*Democ. dummy	0.256***	0.257***	0.237***
	(0.0267)	(0.0269)	(0.0238)
ChinaAid	-0.202***	-0.202***	-0.186***
	(0.0331)	(0.0333)	(0.0318)
ODA	-0.0325	-0.0381	-0.0310
	(0.0386)	(0.0387)	(0.0370)
$Polity_{t-1}$	-0.0404	-0.0408	-0.0472
	(0.0347)	(0.0352)	(0.0388)
$Polity_{t-2}$	-0.0907**	-0.0916**	-0.0614*
	(0.0364)	(0.0365)	(0.0351)
Log GDP per $capita_{t-1}$		0.282	0.149
		(0.188)	(0.201)
GDP growth		0.00146	0.00287
		(0.00565)	(0.00599)
Log population		-4.590	-8.555
		(8.116)	(13.21)
Urban population		-0.109	-0.0592
		(0.117)	(0.119)
Regime stability			-0.0107
			(0.0152)
Regime age			-0.00808
			(0.00963)
Population density			0.0165
			(0.0219)
Natural resource rents			0.00196
			(0.00523)
Constant	0.0689***	0.181	0.225
	(0.0155)	(0.138)	(0.192)
Observations	1,170	1,152	1,110
R-squared	0.501	0.502	0.458
Number of Countries	94	94	90

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1; The dependent variable is $Polity_{i,t}$. ChinaAid measures the log of country i's estimated debt stock owed to China in the form of direct loans. ChinaAid*Democracy dummy is an interaction variable that multiplies the debt stock of country i in period t by a dummy variable (equal to 1 when Polity >0, and zero otherwise). ODA controls for Official Development Aid, measured as the log of ODA to recipient countries, which includes grants and loans made on concessional terms, excluding military assistance.

Appendix 1: Sample Countries

Albania	Chile	Iran	Morocco	South Sudan
Algeria	Colombia	Jamaica	Mozambique	Sri Lanka
Angola	Comoros	Jordan	Myanmar	Sudan
Argentina	Congo, Dem. Rep.	Kazakhstan	Namibia	Suriname
Armenia	Congo, Rep.	Kenya	Nepal	Tajikistan
Azerbaijan	Costa Rica	Kyrgyz Republic	Niger	Tanzania
Bahamas, The	Cote d'Ivoire	Laos	Nigeria	Togo
Bangladesh	Djibouti	Lebanon	Oman	Tonga
Belarus	Dominica	Lesotho	Pakistan	Turkey
Benin	Ecuador	Liberia	Papua New Guinea	Turkmenistan
Bolivia	Egypt	Macedonia, FYR	Peru	Uganda
Bosnia and Herzegovina	Equatorial Guinea	Madagascar	Philippines	Ukraine
Botswana	Eritrea	Malawi	Romania	Uruguay
Brazil	Ethiopia	Malaysia	Russia	Uzbekistan
Bulgaria	Fiji	Maldives	Rwanda	Vanuatu
Burkina Faso	Gabon	Mali	Samoa	Venezuela
Burundi	Ghana	Mauritania	Senegal	Vietnam
Cabo Verde	Guinea	Mauritius	Serbia	Yemen, Rep.
Cambodia	Guyana	Mexico	Seychelles	Zambia
Central African Republic	India	Mongolia	Sierra Leone	Zimbabwe
Chad	Indonesia	Montenegro	South Africa	

Appendix 2: Data Description

ChinaAid

The logarithm Estimated total external debt stock owed to China in current USD; this series includes debt by private and public entities to Chinese state-owned creditors. It includes only debt from direct loans, and excludes short-term trade debt, swap debt and portfolio debt. (Horn et al. 2019)

ChinaAid/GDP

Estimated total external debt stock owed to China in percent of debtor GDP; this series includes debt by private and public entities to Chinese state-owned creditors. It includes only debt

	from direct loans, and excludes short-term trade debt, swap debt and portfolio debt. (Horn et al. 2019)
Polity2	Specified simply as "Polity" in the paper, this variable is an index of political decentralization that ranges from -10 (total autocracy) to +10 (total democracy). The Polity IV Project refers to this variable as its "Polity 2" measure, which is a modified version of its standard Polity variable to facilitate use of the Polity measure in time series analyses. The index is computed by subtracting a country's autocracy score from its democracy score. Source: Polity IV Project (2019).
Official Development Aid	The logarithm of net official development assistance (ODA) consists of disbursements of loans made on concessional terms (net of repayments of principal) and grants by official agencies of the members of the Development Assistance Committee (DAC), by multilateral institutions, and by non-DAC countries to promote economic development and welfare in countries and territories in the DAC list of ODA recipients. It includes loans with a grant element of at least 25 percent (calculated at a rate of discount of 10 percent).
Log GDP per capita	Logarithm of gross domestic product per capita (PPP constant 2011 international dollars) Source: WDI (2019)
GDP growth	Average annual growth rate of GDP. Source: WDI (2019)
Log population	Logarithm of total population. Source: WDI (2019)
Population density	Midyear population divided by land area in square kilometers. Source: WDI (2019)
Urban population	Percentage of population living in urban areas. Source: WDI (2019)
Regime Age	Database of Political Institutions' variable "Yrsoffc," which measures how many years the chief executive has been in office. Source: Database of Political Institutions (2019)

Regime stability	Database of Political Institutions' variable "Tensys," which measures how long the country has been either autocratic or democratic. Source: Database of Political Institutions (2019).
Natural resource rents	Total natural resources rents as a percentage of GDP. Source: WDI (2019).