The Soft Power Influence of Chinese Debt on Human Rights Recommendations

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1 Section I: Introduction

Chinese debt, particularly to the developing world, has exploded in the last 20 years, both in absolute terms and as a percentage of debtor-country GDP (A.1). The emergence of the Chinese state as a major official bilateral lender represents a change in the distribution of capabilities among states (Keohane and Nye, 1973). Realist international relations theory indicates this shift in capabilities should lead to an increase in the ability of the Chinese government to impose its will on other states, albeit imperfectly through political bargaining. In this case, the form of relevant political bargaining is economic statecraft. Defined as the instrumental use of economic capabilities for national strategic gain, states employ economic statecraft to pursue broader foreign policy objectives (Baldwin, 1985).

Much of the early political rhetoric on Chinese debt to developing countries assumed China issued debt with the express purpose of using it as a political tool. This Theory’s of “debt trap diplomacy” was ubiquitous for several years from roughly 2014-2019 (Lahiri, 2018; Seibt, 2021; Abi-Habib, 2018). Proponents of the theory pointed to illustrative cases such as the Hambanithota port repossess in Sri Lanka Gopaldas (2018) or the first overseas Chinese military base opening in debt-saddled Djibouti. Opponents to the narrative argued that this narrative was a ”myth”, and China’s debt served a financial purpose (Brautigam and Rithmire, 2021; Singh, 2021). The academic literature indicates we should expect reality to be somewhere in between: any economic activity undertaken by governments is likely to have both financial and political motivations (Meernik, Krueger and Poe, 1998; Custer, 2018), and states will attempt to translate a balance of power advantage into policy success (albeit imperfectly) (Keohane and Nye, 1973; Morgan, 2019; Macikenaite, 2020). One policy area in which China has previously sought to deploy soft power to change outcomes in its favor is in the area of human rights, particular in multilateral fora such as the UN.
While previous studies have looked at Chinese aid and trade as both sanction and incentive to try and change other countries’ behavior, to date no study has examined whether there is a link between overall debt levels to China and a country’s position on China’s human rights record.

This paper contributes to the literature by exploring this idea in a systematic, large-n empirical analysis. I combine two existing datasets in a novel way to look at how different levels of debt to China might alter countries’ comments on China’s human rights record. In three cycles (2009, 2013, 2018) of the UN’s Universal Periodic Review (UPR) of China, 149 countries made recommendations to China on human rights. I analyze whether countries’ debt levels to China are associated with a different number or type of comments. First, I use text sentiment analysis to gauge the negative/positive balance of the recommendations for each country in two consecutive reviews. I then look at the relationship between debt levels to China and the number or kind of recommendations a country makes in the UPR.

I find that higher debt levels to China (as a percent of GDP) are associated with a country making fewer recommendations on China’s human rights record in the Universal Periodic Review, even when controlling for the human rights record and GDP per capita of the recommending country. A 5.9% increase in the level of debt to China as percent of GDP is associated with a country making one fewer recommendation in the Universal Periodic Review, all else being equal. While the sentiment of UPR recommendations to China shifted positively over the three cycles, it was a recommending country’s own human rights record, rather than it’s debt level to China, which was negatively correlated with the sentiment of recommendations in the UPR.

2 Section II: Chinese Economic Statecraft and Effects on Human Rights

2.1 Background on Chinese Debt

Up until recently, the opaque nature of China’s quasi-official outwards capital flows meant they were poorly studied and understood, while consequences of China’s overseas trading and Official Development Assistance (ODA) had been researched in more detail (Davis, Fuchs and Johnson, 2019;Autor, Dorn and Hanson, 2016; Dreher et al., 2017). In contrast to Chinese trade flows, China’s overseas lending is overwhelmingly state-sponsored, and has not followed the same push-pull factors of other sovereign debt flows (Horn, Reinhart and Trebesch, 2019). Research by Dreher et al. (2017) has shown how blurry the lines are in China’s case between ODA and other official flows (OOF), whether concessional or non-concessional. Much of China’s lending is collateralized, and
enjoys a high level of seniority compared to other debt Gelpen et al. (2021). It has instead followed Chinese resource needs, with a great deal of it flowing to poor, resource-rich countries, particularly in Africa (Figure A.6). A number of the heaviest borrowers took advantage of the Highly Indebted Poor Countries (HIPC) program in the 2000s, and are becoming re-leveraged largely through Chinese debt.

![Figure 1: Highlighted countries were part of HIPC](image)

### 2.2 Rhetoric on Implications of Chinese Debt

Rhetoric about the geopolitical implications of this debt tracked the same meteoric rise as the debt levels themselves (Brautigam, 2020). On the one side were observers viewing PRC lending practices as purely mercenary "debt trap diplomacy" (Lahiri, 2018). Incidents such as a Chinese debt-to-equity deal for the floundering Hambanthota port in Sri Lanka (Seibt, 2021; Abi-Habib, 2018), or the establishment of China’s first overseas military base in debt-saddled Djibouti fed the narrative that the People’s Republic primarily lent in order to parlay debt into political leverage. Skeptics of this viewpoint increasingly pointed out that China’s willingness to restructure debt when it made economic sense showed that market returns were still a primary driver of the PRC’s overseas lending (Brautigam and Rithmire, 2021; Singh, 2021). They also point out that such repossessions have been rare (Kratz, Feng and Wright, 2019). And although the
lion’s share of Chinese lending is quasi-official, the terms of most of 85% of the loans were non-concessional (Horn, Reinhart and Trebesch, 2019). Having profit as a primary motivation enervates the narrative of “debt trap diplomacy,” but it does not mean either that the flows of investment are purely seeking yield or that China balks at using economic levers for political purposes. Indeed, given the extensive literature on the manifold motivations for official development aid by traditional donors (Meernik, Krueger and Poe, 1998), we should be surprised if government-managed lending did not follow foreign policy priorities to some degree. Due to the quasi-governmental nature of much of China’s lending, we can expect even its non-concessional lending to play a partial policy role.

2.3 International Relations Theory and Economic Soft Power

Conceptually, the emergence of the Chinese state as a major official lender is a change in the distribution of capabilities among states, and thus the structure of interactions between these states (Keohane and Nye, 1973). However, a power advantage does not necessarily or automatically translate into successful imposition of the will of the more powerful country on the less powerful ones. Keohane and Nye note “Political bargaining is usually a means of translating potential into effects, and a lot is often lost in the translation.” Thus countries engage in Economic Statecraft, which Baldwin described as the instrumental use of economic capabilities to pursue national strategic objectives, which themselves could be economic or broader foreign policy objectives.

Following Baldwin’s framework, recent work has focused on how China engages in both positive and negative economic statecraft, using both proverbial carrots (FDI, trade, market access, lending) and sticks (sanctions, denying or rescinding market access, guarantee calls on debt) (Morgan, 2019; Urdinez et al., 2016; Macikenaite, 2020). But heavy use of negative economic statecraft tools can be costly due to interdependence (Kwon, 2020). Thus the preference is for using economic statecraft in a positive way, and perhaps the threat of removal of a positive economic incentive to create an atmosphere of voluntary compliance.

Chinese use of economic statecraft has changed in kind and degree in recent years. China has both used the same economic tools (trade sanctions, for example) more intensively, and has begin using new tools like the possibility of debt rescheduling (Macikenaite, 2020). Notably, China has also turned to multilateralism, particularly within the UN system, to advance economic and political goals (CSIS, 2021). In one study from AIDDATA, Custer (2018) found that Chinese ODA was generally more responsible that the rhetoric would have us believe: it generally went to poorer countries and did not seem to go disproportionately to authoritarian or corrupt regimes. However, the author also found “there is an important exception where China’s aid giving appears to follow the prevailing narrative of quid pro quo – buying votes. If African countries
voted with China in the UN General Assembly an extra 10% of the time, they would get an 86% bump in official development assistance on average.” Dreher et al. (2016) similarly found that China provided less Overseas Development Assistance (ODA) to countries recognizing Taiwan and which countermanded Chinese positions in UNGA. They did not find the same effect for non-official flows. Horn, Reinhart and Trebesch (2019) contends that Chinese official lending is not comparable to the lending activities of traditional creditor countries due to unique qualities such as higher collateralization and the quasi-official nature of most of the lending. This reinforces the theory that there could be a relationship, albeit a weaker one, between non-ODA and behavior in UN bodies, even if not specifically votes in UNGA.

2.4 Chinese Soft Power and Human Rights Criticisms

One specific policy area in which China has flexed soft power in the past is in proscribing criticism of its human rights record. Whether opposing engagement with the Dalai Lama or retaliating against Sweden for the awarding of the Nobel Peace Price to Liu Xiabo (Sverdrup-Thygeson, 2015), the Chinese state has shown itself willing to deploy economic statecraft to tamp down criticism of its record. For example, the term the “Dalai Lama effect” was coined during the Hu Jintao era to describe Chinese trade retaliation against countries hosting the Tibetan spiritual figure for official visits—an effect which Fuchs and Klann (2013) found empirically.

More specifically for our purposes, human Rights organizations have noted links between debt levels to China—especially through the Belt and Road Initiative (BRI)—and statements on China’s human rights. Analysis has focused on qualitative statements. For example, Richardson (2020); Watch (2019) pointed to Pakistan’s quiescence on mistreatment of Muslims in Xinjiang. A paper from the Brookings Institute Piccone (2018) looked at China’s increasingly assertive efforts to block criticism of its human rights record in UN bodies. It concluded that economic links, including debt, through the BRI likely played a role.

Several previous studies looking at the links between economic relations and behavior at the UN have relied on a voting similarity score in the UN General Assembly (UNGA) (Dreher, Nunnenkamp and Thiele, 2008; Kilby, 2009; Dreher and Fuchs, 2015). These studies all found correlations between foreign aid and voting patterns. Bloc voting has plagued votes in the UNGA since the organization’s inception (Lijphart, 1963; Ball, 1951). While it is unreasonable to expect apolitical voting on sensitive issues, using a different measure which reflects bilateral rather than voting bloc preferences would provide a better proxy for political influence.
2.4.1 The Universal Periodic Review (UPR)

A UN reform of human rights mechanisms in the early 2000’s led to the founding of the Human Rights Council, and with it the Universal Periodic Review (UPR) process. The framers of the process envisioned a rigorous peer-review, with states taking turns in the hotseat as the country under review (CuR). In the three UPR cycles (2009, 2013, 2018), 149 countries have made a total of 809 recommendations on China’s human rights record. Comments in the UPR are as likely to reflect political preferences as they are to reflect the status of human rights in the country under review (CuR) (Cowan and Billaud, 2015; Carraro, 2019; Terman and Voeten, 2018). While usually perceived as a negative, it is precisely this politicization which makes UPR recommendations a useful political signal in this case.

There is a question whether UPR comments reflect bilateral or multi-lateral (voting bloc) dynamics. McMahon (2010) shows major regional trends in types and number of recommendations made, but concludes that it is somewhat less susceptible to bloc voting than UNGA, particularly for the GRULAC group. Africa, and Asia tend to make “softer” recommendations to one another and to Group of Latin America and the Caribbean (GRULAC), and “harder” recommendations to Eastern European Group (EEG) and Western European and Others Group (WEOG). Africa and Asia in general have a lower participation in the UPR mechanism as measured by quantity of recommendations. The authors proposed a number of possible explanations for this trend, including cultural biases and/or political freedom, but there is no consensus explanation for the regional voting patterns in the UPR.

There is a bidirectionality in the UPR mechanism not present in UNGA votes. Specifically, once a recommendation is made, the CuR either accepts or notes (rejects) each recommendation. Thus there are political signals flowing from the recommender to the CuR and vice versa. Although there is an acceptance bias in the UPR – to date, 74.3% of all recommendations have been accepted by the SuR. Smith (2011) specifically examined the first UPR of China in 2009. The author noted inconsistencies in acceptance or rejection of comments. For example, in the first UPR, China rejected two recommendations from the Netherlands related to standing of special rapporteurs, while accepting similarly worded recommendations from Sudan, Latvia, and New Zealand. This could simply be an oversight, but also could indicate a difference in other aspects of the relationship between the recommending state and the SuR. This points to an inherent information asymmetry between the SuR and the recommending country: only the SuR can be certain which recommendations it will accept or reject.

Since there exists an inherent information asymmetry between the SuR and the recommending state regarding what the SuR will or will not accept, the recommending state may be more likely to refrain from commenting at all rather than run the risk of having its recommendation rejected. Terman and Voeten note
that states are more lenient in the UPR towards their strategic partners, but that when they make recommendations, the SUR is more likely to accept them. In the case of China and increasing debt, however, the strategic relationship is asymmetrical. This leads to a second hypothesis. Because of both this inherent power imbalance and the preference for positive economic statecraft tools and voluntary compliance, I theorize that Chinese soft power as exemplified through debt will be associated with self-censorship on the part of borrower countries, either in tone or in quantity of recommendations made. This leads to two hypotheses of what an empirical investigation of recommendations to China in the UPR might reveal:

\[ H01: \text{a)} \text{ As China’s soft power as quantified through overseas lending increases, the average sentiment of overall recommendations will trend more positive. b)} \text{ Countries with higher debt to China will make more positive comments.} \]

\[ H02: \text{Countries with higher debt levels to China will offer on average fewer recommendations in the UPR of China.} \]

3 Section III: Data and Text Analysis

3.1 Data on Chinese Debt

Until recently, China’s international lending was poorly understood. It was opaque, with around 50% of it not being reported through the traditional International Financial Institution (IFI) channels, such as the IMF, World Bank, or OECD. Horn, Reinhart and Trebesch (2019) compiled a consensus database\(^1\) of Chinese capital outflows. The dataset includes information on 5000 loans and grants (1974 loans and 2947 grants) totaling $520 billion to 152 countries from 1947-2017.

Below is a list of the variables included in the data:

- A Country
- B Country code
- C ISO code (three digit)
- D year
- E Debt to China in USD
- F GDP in billions of USD

\(^1\)The authors note “Consensus” refers to the approach adopted, which attempts to reconcile what multiple sources record about the same bilateral lending transaction.
G Debt to China as a proportion of GDP

More information on their methodology and access to a .xlsx file can be found here. Excellent work on Chinese development assistance has also been done by William and Mary’s AIDDATA (Dreher et al., 2017), which was incorporated into Horn, Reinhart and Trebesch (2019)’s work.

3.2 UPR Data

The qualitative data on UPR recommendations for China came from the Geneva-based nongovernmental organization (NGO) Info. The API allows users to export a .csv formatted document with information on all recommendations from the three UPR cycles. I exported all recommendations made during the three reviews of China: 809 recommendations in total from 149 countries. Below is a list of the variables included in the data and an example of each.

Category:

A Session Number (Cycle 3)
B State under Review – SuR (China)
C Regional Group of the SuR (Asia)
D State making Recommendation (Bangladesh)
E Regional Group of the State making Recommendation (Asia, OIC (Organisation of the Islamic Cooperation)—Commonwealth)
F Recommendation (Continue to promote participation, integration and the sharing of development benefits
G people in vulnerable situations).
H Action Level (2 - Continuing action)
I SuR Response to Recommendation (Supported)
J Issue(s) addressed (Right to development—Other)

To reshape the dataframe, I created variables for each country’s supported and noted recommendations in each of the three cycles. Supported comments were coded as positive (+) and noted comments as negative (-). Their difference of them to generate an overall “support score” of recommendations for each recommending country in each cycle, retaining a column indicating total recommendations. This database is clean and flexible, allowing for many forms
of analysis. It is possible to aggregate it, alternately grouping by country, regional group, response of the CuR, and/or UPR cycle. By then summarizing number of recommendations in these various categories, I facilitated the use of quantitative analysis. The characterization of recommendations by issue(s) addressed allowed for interesting ancillary analysis on Chinese patterns of approving/rejecting recommendations.

4 Section IV: Analysis, Results and Discussion

4.1 Text Analysis

Using text of all recommendations made about China from the three UPR cycles, I conducted multiple levels of text sentiment analysis: word, sentence, and association. First, I converted the text into linguistic tokens, first for words and then for sentences. I then used lemmatization to improve matching on stems and root words. For example, run, running, and ran, would all be changed to the lemma ”to run.” After performing an anti-join for ”stop words” (filler words without sentiment meaning, such as common articles), I merged the document with the Bing ² sentiment dictionary to assign a positive or negative emotional value to each token.

By then graphing the results from the three cycles, I was able to see that the balance of positive to negative sentiment shifted towards positivity in each successive review. Keep in mind that the number of comments increased overall over time, so the balance of the comments is what is interesting here. While there are more negative than positive word associations in each cycle (which is what we would expect in statements recommending improvements on human rights), the amount of positive comments increase dramatically over the course of the three cycles. This is unlikely to be associated with an improvement in China’s human rights record over the same period, as evidence by Freedom House ratings for China being the same (”not free”) for the entire period of the UPR. To see whether the positive sentiment shift for China could be the result of an overall shift towards positive sentiment in recommendations over the course of the three reviews, I ran the equivalent data for the United States’ two reviews (Figure: A.7) and for the UAE (Figure: A.9). Over the three cycles, recommendations to these two countries showed stable negative sentiment and sentiment shifting heavily negative, respectively.

To account for greater context of the words, I then changed the level of tokenization to the level of the sentence. By conducting dependency parsing to identify which words were associated with one another and accounting for so-called ”va-

²For more information on the most popular text sentiment dictionaries (including Bing), read more here
Figure 2: China 2009

Figure 3: China 2013

Figure 4: China 2018
ience shifters”, I assigned a sentiment score to each individual recommendation. There were three primary types of valence shifters I took into account in scoring using the SentimentR package:

A A negator flips the sign of a polarized word (e.g., “I do *not* like it.”).

B An amplifier (intensifier) increases the impact of a polarized word (e.g., “I *really* like it.”).

C A de-amplifier (downtoner) reduces the impact of a polarized word (e.g., “I *hardly* like it.”).

Scores ranged from -1 (the most negative sentiment) to +1.35 (the most positive sentiment). To see an example of the negative and positive language, the three most negative recommendations all relate to the death penalty (ex. "Abolish the death penalty"). The comments rated as positive had much more varied language, but often addressed norms or cooperation (ex. "Continue to forge a new type of international relations featuring mutual respect, fairness, justice and win-win cooperation, and build a community with a shared future for human beings"). This method appears to sometimes misclassify statements which a human reviewer might consider more positive or negative than the score assigned. This seemed especially true with positive statements. For example, one of the most positively score sentences read, "Review laws and practices in particular with regard to ensuring protection of the freedom of religion, movement, protection of the culture and language of national minorities, including Tibetans and Uyghurs." A reviewer with knowledge of international human rights topics would likely recognize this as a rather strong recommendation due to its mention of Uighurs and language calling for freedom of religion, mobility, etc. Still, while missing some nuance, these sentence sentiment scores reflect similar trends to the word scores, indicating they are capturing something similar on average.

To show this, I grouped the results by cycle and took the average sentiment score for each cycle. The results from this deeper analysis reinforced the word-level result. Namely, overall sentiment became more positive in country recommendations to China in each successive cycle.

While compelling, all of this does not necessarily mean that "negative" comments were also associated with stronger recommendations in the UPR. To investigate this, I used methods from network analysis to find which word associations were driving the recommendations scored as most negative. By using the existing dependency parsing, I linked the most negative modifiers to the terms they modified using vertices to gain a picture of why a given recommendation was particularly negative. I included both adjectival and combined modifiers. As an example, "death penalty" is a combined modifier, since it is a noun modifying another noun. "Extrajudicial killing" would be classified as
an adjectival modifier. This network analysis painted a surprisingly coherent picture of what kinds of word associations made for negative sentiment scores in the model. These negative scores are associated with robust language on human rights violations.

I analyzed which categories of recommendations were most likely to be rejected or accepted by China and depicted them in both a static (Figure A.5) and an interactive tree-graph. There are clear patterns of categories which China is more likely to accept or reject, and they overlap with the language that made for the most negative associations in the previous figure. Namely, recommendations in categories related to extrajudicial killings, the death penalty, and detentions appear near the top of recommendations which the PRC most often rejects. By linking all of this analysis, it becomes clear that over time, countries are making recommendations with less of the language that China is most likely to reject.

4.2 Regression Analysis

Building upon the findings from the text analysis, I sought to test H01 and H02 using regression analysis. A Hodrick-Prescott filter showed that the timing of the surge in Chinese lending compared to the establishment of the UPR
mechanism made a diff and diff model untenable. The trend was already too pronounced by 2009, with not enough later variation from the trend for a good comparison. An ordinary least squares model was thus a better choice. This method confers additional benefits, including ease of interpretation of both direction and magnitude of the coefficients. In order to determine whether the changing sentiment was correlated with debt levels by country over time, the first regression used the sentiment scores described in the previous subsection as the dependent variable. Using the sentiment of country recommendations from 2008, 2013 or in 2018 ($Y_{it}$), I ran a regression with the following specification:

$$Y_{it} = \alpha + \beta_1 \log \text{Chinadebt} + \beta_2 \text{GDPpercapita} + \beta_3 \text{freedomhouserating} + \gamma_t + \mu_{it}$$

$\beta_1$ is our variable of interest: the log of debt to GDP owed to China by a given country in a given year. Plotting boxplots of debt to GDP owed to China by year (figure A.2) revealed high positive skewness in the debt to China variable, making the natural log a helpful adjustment. We used the debt levels from t-1 years of the UPR reviews: 2008, 2012 and 2017. Using the lag year helps address the possibility of joint/reverse causality (i.e. negative comments in the UPR preceding a decrease in lending from China.

There are other factors which could be correlated with both debt to China and engagement in the UPR, such as a country’s own human rights record or
capacity for interventions at the UN. Capacity for engagement in international organizations such as the UN can be captured at least in part as a function of income. $\beta_2$ is GDP per capita for each country in a given year. For a country’s human rights record, $\beta_3$ is the country’s status from Freedom House, either ”Not Free”, ”Partially Free”, or ”Free” (House, N.d.), again for each country in a given year. $\gamma_t$ represents year fixed effects for the three iterations of the UPR in our sample. We run the same specification using number of recommendations as the dependent variable to test H02.

4.3 Results

The first regression using support score as the dependent variable shows no clear relationship between the support score (i.e. the balance of recommendations accepted or rejected by China) and the level of debt to GDP (Table 2). Interestingly, the freedom house score is strongly negatively correlated with the support score and significant at the 1% level. When the sentiment score from our NLP is used as the dependent variable instead, we see a similar result: the freedom house score is significant at the 1% or 5% level depending on if GDP/capita is included, but debt to China is not significant (Table 3). The $R^2$ of this model is extremely low, but it is nevertheless interesting that the Freedom House score is negatively correlated with sentiment of UPR recommendations as well as with whether China supported a given recommendation. Given 15 consecutive years of decline in freedom as measured by House, a portion of the improvement in the sentiment of recommendations can potentially be attributed to this overall trend. This result appears to indicate that there is no link between the sentiment of comments made by an individual country and the level of debt owed to China-we can reject H01.01. There is a significant negative relationship between the level of political freedom in the recommending country and both the sentiment of recommendations and how likely those recommendations are to be accepted by China.

From the sentiment analysis we know that the type of language and its sentiment changed significantly on average over each review of China. Given the small amount of variation explained by the Freedom House Score, this cannot be entirely explained by the relationship between political freedom in individual countries and the sentiment of recommendations. This points to a possible role for hypothesis H02, or the possibility that individual countries which might have offered substantial critiques in earlier iterations might make fewer recommendations, rather than making the same number of recommendations and changing the language. Rerunning the same model specification with the dependent variable as the total number of recommendations in the UPR tests hypothesis H02, that countries with higher debt levels would make fewer comments overall. The coefficient on log debt to GDP owed to China was significant at the 1% level by itself, and is robust at the 5% level when including controls for capacity and
political freedom of the recommender. A 5.9% increase in the level of debt to China as percent of GDP is associated with a country making one fewer recommendations in the Universal Periodic Review, all else equal. The F score of the model is also significant at the 1% level for all specifications, and an $R^2$ of .318 shows a high percentage of the variance in in the dependent variable is explained by the model.

Table 1: Total Comments

<table>
<thead>
<tr>
<th>Dependent variable: total comments</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>log(ChinaDebt/GDP + 1)</td>
<td>0.112</td>
<td>$-0.197^{***}$</td>
<td>$-0.199^*$</td>
<td>$-0.169^{**}$</td>
</tr>
<tr>
<td>(0.081)</td>
<td>(0.075)</td>
<td>(0.078)</td>
<td>(0.080)</td>
<td></td>
</tr>
<tr>
<td>year</td>
<td>0.213***</td>
<td>0.213***</td>
<td>0.211***</td>
<td>0.211***</td>
</tr>
<tr>
<td>(0.020)</td>
<td>(0.021)</td>
<td>(0.021)</td>
<td>(0.021)</td>
<td></td>
</tr>
<tr>
<td>fh_rating</td>
<td>$-0.006$</td>
<td>$-0.020$</td>
<td>$-0.020$</td>
<td>$-0.020$</td>
</tr>
<tr>
<td>(0.096)</td>
<td>(0.096)</td>
<td>(0.096)</td>
<td>(0.096)</td>
<td></td>
</tr>
<tr>
<td>GDP_per_capita</td>
<td></td>
<td>0.00003</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.00002)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>1.373***</td>
<td>$-426.636^{***}$</td>
<td>$-426.796^{***}$</td>
<td>$-422.893^{***}$</td>
</tr>
<tr>
<td>(0.130)</td>
<td>(41.059)</td>
<td>(41.222)</td>
<td>(41.512)</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>260</td>
<td>260</td>
<td>260</td>
<td>256</td>
</tr>
<tr>
<td>R^2</td>
<td>0.007</td>
<td>0.302</td>
<td>0.302</td>
<td>0.318</td>
</tr>
<tr>
<td>Adjusted R^2</td>
<td>0.003</td>
<td>0.297</td>
<td>0.294</td>
<td>0.307</td>
</tr>
<tr>
<td>Residual Std. Error</td>
<td>1.322 (df = 258)</td>
<td>1.111 (df = 257)</td>
<td>1.114 (df = 256)</td>
<td>1.163 (df = 255)</td>
</tr>
<tr>
<td>F Statistic</td>
<td>1.041 (df = 3; 256)</td>
<td>55.673*** (df = 3; 257)</td>
<td>36.973*** (df = 3; 256)</td>
<td>29.257*** (df = 3; 251)</td>
</tr>
</tbody>
</table>

Note: *p<0.1; **p<0.05; ***p<0.01

The sign changing from + to - when adding the year fixed effects is consistent with the Simpson’s paradox present in the data, which is more easily seen with a plot (Figure A.12). The overall correlation between debt to GDP owed to China and comments in the UPR is positive if you aggregate all three cycles. But since the cycles have exhibited a trend of increasing participation as measured by numbers of recommendations, this is misleading. Each individual UPR cycle has a clearly negative correlation between debt to China and total comments. Dividing recommending countries by region also largely shows a negative correlation within each region, with the exception of the Americas. Upon closer inspection, it appears that Canada is an outlier which changes the internal correlation for the Americas (Canada made a whopping 18 total recommendations, second only to Australia which made 22). This within-region correlation addresses the possibility that the overall correlation only reflects differences between regional voting blocs.

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Oceania was filtered out because only three countries made comments from the region.
4.4 Discussions

Combining the results of the regression on total comments with the text analysis paints a picture of increasing Chinese economic soft power translating into leverage in the UPR process. Not only are countries with higher debt to China systematically making fewer comments, but the tone of comments in general has become more positive over the three cycles of the UPR. Network analysis on the text showed that this shift reflected a decrease in highly critical language. As noted previously, debt is not the only, or even the main component of this soft power. However, it’s rapid increase constitutes a shift in the balance of capabilities among states, and it has become an increasingly popular tool—both positive and negative—of Chinese economic statecraft. While achieving an imperfect transfer from potential to result, China has been able to translate this soft power into a desired political outcome in the realm of the UPR. It is important to note that this correlation does not necessarily mean that increased debt leads directly to a change in number of UPR recommendations. Potential bidirectionality or omitted variables preclude causal inference. Additional research addressing the inherent endogeneity concerns related to which countries China is lending to can help address this issue. A fruitful avenue of future work would be investigating the relationship between UPR recommendations and debt using a form of quasi-experiment. The year 2016 was the high water mark for capital outflows from China. Amid concerns about high capital outflows and a weakening currency, the Chinese government introduced stricter capital controls in late 2016. While debt stocks overall only leveled off, 2017 marked a turning point. The most recent UPR took place in January of 2018, a year which saw a large decline in the rate of Chinese lending and investment overseas. But the review was arguably too early in the year to have incorporated any political results from the declining capital flows. This staunching of capital outflows could possibly be used as the exogenous shock around which to structure a diff and diff with future iterations of the UPR.

Further study should be dedicated to the sentiment analysis of diplomatic documents. Existing methods are useful, and network analysis showed the dictionaries captured some portion of sentiment in the text. But diplomatic parlance is often highly coded language. A simple example is the word “noted” being used in lieu of “rejected.” These types of nuances might be captured better by a specialized sentiment dictionary for political or diplomatic language. Such a dictionary does not currently exist (in English or any other language), and creating one would open up a great deal of additional research opportunities in international affairs.
Figure A.1: Upward Trend in Debt Levels since the Early 2000’s
### Table 2: OLS–Support Score with Controls

<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>support score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>log(ChinaDebt_GDP + 1)</td>
<td>0.235***</td>
<td>0.001</td>
<td>−0.103</td>
<td>−0.136</td>
</tr>
<tr>
<td></td>
<td>(0.084)</td>
<td>(0.084)</td>
<td>(0.085)</td>
<td>(0.089)</td>
</tr>
<tr>
<td>year</td>
<td>0.161***</td>
<td>0.168***</td>
<td>0.174***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.023)</td>
<td>(0.022)</td>
<td>(0.023)</td>
<td></td>
</tr>
<tr>
<td>fh_rating</td>
<td>−0.445***</td>
<td>−0.432***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.105)</td>
<td>(0.106)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP_percapita</td>
<td></td>
<td></td>
<td></td>
<td>−0.00002</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.00002)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.821***</td>
<td>−321.378***</td>
<td>−335.497***</td>
<td>−349.172***</td>
</tr>
<tr>
<td></td>
<td>(0.135)</td>
<td>(46.577)</td>
<td>(45.195)</td>
<td>(45.739)</td>
</tr>
</tbody>
</table>

Observations 260 260 260 256
R² 0.029 0.168 0.174 0.174
Adjusted R² 0.029 0.177 0.228 0.232
Residual Std. Error 1.371 (df = 258) 1.260 (df = 257) 1.221 (df = 256) 1.216 (df = 251)
F Statistic 7.776 (df = 1; 258) 28.849 (df = 2; 257) 26.436 (df = 3; 256) 20.238 (df = 4; 251)

Note: *p<0.1; **p<0.05; ***p<0.01

### Table 3: Sentiment

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<thead>
<tr>
<th>Dependent variable:</th>
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<th>(3)</th>
<th>(4)</th>
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<tbody>
<tr>
<td>sentiment comments</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>log(ChinaDebt_GDP + 1)</td>
<td>0.019</td>
<td>0.010</td>
<td>−0.002</td>
<td>−0.011</td>
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<tr>
<td></td>
<td>(0.018)</td>
<td>(0.019)</td>
<td>(0.019)</td>
<td>(0.020)</td>
</tr>
<tr>
<td>year</td>
<td>0.009</td>
<td>0.010</td>
<td>0.010</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.006)</td>
<td>(0.006)</td>
<td>(0.006)</td>
<td></td>
</tr>
<tr>
<td>fh_rating</td>
<td>−0.064***</td>
<td>−0.056**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.024)</td>
<td>(0.025)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP_percapita</td>
<td></td>
<td></td>
<td></td>
<td>−0.00000</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>(0.00000)</td>
</tr>
<tr>
<td>Constant</td>
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<td>−19.168</td>
<td>−19.558</td>
</tr>
<tr>
<td></td>
<td>(0.031)</td>
<td>(12.245)</td>
<td>(12.071)</td>
<td>(12.160)</td>
</tr>
</tbody>
</table>

Observations 176 176 176 173
R² 0.006 0.018 0.055 0.051
Adjusted R² 0.001 0.006 0.039 0.028
Residual Std. Error 0.244 (df = 174) 0.244 (df = 173) 0.240 (df = 172) 0.239 (df = 168)
F Statistic 1.129 (df = 1; 174) 1.564 (df = 2; 173) 3.364** (df = 3; 172) 2.238* (df = 4; 168)

Note: *p<0.1; **p<0.05; ***p<0.01
Figure A.2: Boxplots by year

Figure A.3: Plotting correlation to choose relevant controls
Figure A.4: AIDdata, organized by continent

Figure A.5: Categories China has noted (rejected) vs. supported
Figure A.6: Africa’s debt to China has increased more than any other continent.

Figure A.7: 2009 Sentiment Balance: USA

Figure A.8: 2013 Sentiment Balance: USA
Figure A.9: 2009 Sentiment Balance: UAE

Figure A.10: 2013 Sentiment Balance: UAE

Figure A.11: 2018 Sentiment Balance: UAE
Figure A.12: Disaggregating by Year of UPR Reveals Negative Correlations

Figure A.13: within-region correlation follows similar trend, with exception of the Americas
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