Does FDI From the Belt and Road Initiative Affect the Voting Behavior of Recipient Countries at The United Nations?

Nicholas Williams

University of Colorado Boulder

Department of Economics

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Defense Committee:

Murat Iyigun, Economics (Thesis Advisor)

Terra McKinnish, Economics

John O'Loughlin, Geography

Abstract   Using panel data for 168 countries over the period 1991 – 2020, this paper empirically analyzes the influence of Chinese Belt and Road Initiative FDI on voting patterns in the UN General Assembly. I obtain evidence of a positive correlation between Belt and Road (BRI) investment and voting coincidence with China when the vote is marked as a human rights resolution. Additionally, I obtain evidence of a significant negative relationship between increased BRI investment and voting coincidence with both the United States and G7 countries at the General Assembly, and particularly a strong negative correlation with the G7 on human rights votes. I obtain evidence of a significant negative correlation between BRI investment and voting coincidence with China with regard to general votes.

1 Introduction

Since the fall of the Soviet Union, the United States has been the unquestioned leader of the world order. The United States is the richest, most powerful country in the world and enjoys a global network of economic and political alliances that reaches every corner of the globe. Due to this influence, the United States has had an unparalleled ability to lead the direction of dialogue at the foremost forum for global affairs: the United Nations.

However, in the last few decades, the increased international presence of China has become an ever more prominent ideological alternative to the hegemony of the United States. Not only does the nation have immense financial and military power, but China has also been rapidly expanding its international influence over the last two decades.

In particular, the Belt and Road Initiative (BRI) serves as the cornerstone of China's 21st century plan for economic and political expansion on the world stage. This massive project, which is on pace to surpass $2 Trillion in investments by 2030, consists of a plethora of infrastructure investments in both developing and developed countries around the world intended to increase the efficiency and capability of international trade (Scissors, 2022). If the Belt and Road Initiative is causing member countries to prioritize diplomatic relations with China, this may provide China with increased influence at the UN General Assembly at the expense of the United States and other Western countries.

1.1 The United Nations General Assembly

Since the inception of the United Nations, the UN General Assembly (UNGA) has served as the primary global forum for all governments to interact with one another and discuss their priorities

and perspectives. Resolutions big and small are brought to the table for discussion, and all that garner majority support are passed. This process represents the primary policy-making procedure of the United Nations. While the United Nations Security Council can pass binding resolutions, General Assembly resolutions are non-binding agreements, meaning that no country can be taken to international court for violation of the agreements (Schwebel, 1979).

Because of this, one could understandably question the importance of such agreements. Yet even though UNGA agreements are non-binding, they still serve an integral role in shaping the landscape of international politics. The UNGA is the only forum in the world where every recognized state is offered an equal vote. Thus, for the vast majority of states which are not members of the UN Security Council, the UNGA represents the primary stage to voice their opinions and values. Resolutions from the UNGA serve as temperature checks that measure how the international community stands on contested issues of all sorts. Resolutions, non-binding or not, become a form of precedent that the behavior of all states is judged against.

For this reason, major powers put substantial weight on the direction that discourse and resolutions taken at the Assembly. In fact, since the Reagan Administration, it has been official United States policy to consider voting behavior at the General Assembly when considering aid disbursements to developing countries (Dreher, Nunnenkamp, and Thiele, 2008). In other words, the United States engages in overt, publicized vote coercion to increase the perceived global unity behind important US agenda items.

A more specific example of vote-buying was reported following the 1995 session of the General Assembly. At the time, there was a prominent resolution critical of China's human rights record which was likely to be passed by the General Assembly. To stifle the vote, "Chinese officials

visited Mali, Guinea, Senegal, Gabon, Cameroon, Côte d'Ivoire, and Egypt. All these countries voted with China 'no-action' on the motion" (Piccone, 2018). It was widely believed that much like the United States, China offered the countries substantial financial incentives if they sided with China on the vote.

A similar example of vote coercion was reported in the wake of Russia's recent invasion of Ukraine. A resolution was brought before both the Security Council and the General Assembly publicly condemning Russia for its war-like acts against a sovereign nation (Nichols, 2022). Russia's actions were condemned by the vast majority of countries around the world. Yet despite the nearly global consensus, numerous countries with close political ties to Russia decided to abstain from casting a vote. Some of the most important are China, India, South Africa, and Cuba. It is clear that the rationale behind abstaining from this particular vote has everything to do with those states' relation to Russia and very little to do with the context behind the action. Whether it is concerning politics or economics, vote records are seen as extremely important in the diplomatic resume of that country. Thus, vote records at the United Nations can be utilized as one of the most accurate proxies for measuring the allegiances of countries around the world.

1.2 China and the Belt and Road Initiative

In 2013 during a diplomatic trip to Indonesia, China's President Xi Jinping announced his grand plan for a connected Asia that would improve the economic capabilities of countries throughout the eastern hemisphere for the 21st century. It was initially called the "One Belt, One Road Initiative" and consisted of "a vast network of railways, energy pipelines, highways, and streamlined border crossings, both westward—through the mountainous former Soviet republics—and southward, to Pakistan, India, and the rest of Southeast Asia." (Chatzky and McBride, 2020). While massive in scope, the One Belt, One Road Initiative was quite defined.

However, in the years following the announcement, countries across the world approached China with requests for infrastructure projects of their own. Thus, the One Belt, One Road Initiative was rebranded as the Belt and Road Initiative and shifted to a global vision that now consists of active projects on all six inhabited continents (Damuri, Perkasa, Atje, and Hirawan, 2019).
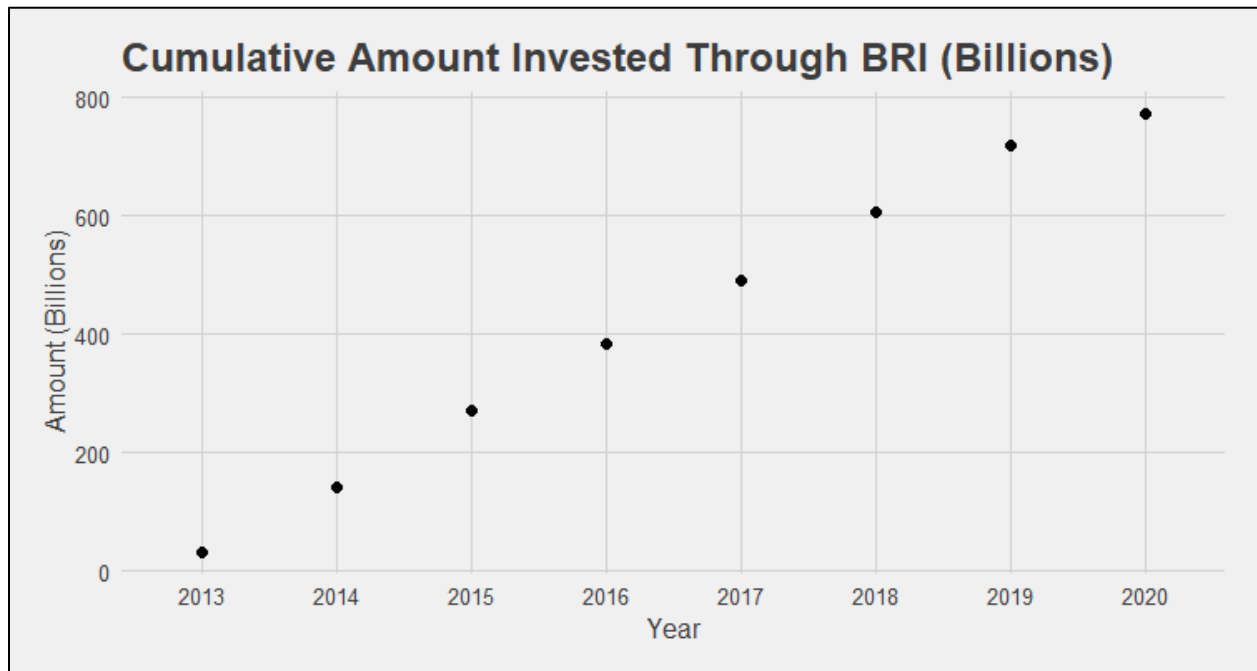
This goal requires massive financial cash flows as well as substantial political connections between China and any member countries. Countries around the world have signed agreements with China because of the massive economic boon it represents to their economies. While The IMF and World Bank have been partaking in FDI development projects for decades, the high interest rates and stranglehold that the Washington Consensus places on recipient countries has left a sour taste in the mouth of developing countries for any future projects. China's BRI represents a new player who appears much more cooperative in comparison. As of March of 2021, 139 countries had signed official BRI agreements, and 104 had broken ground on BRI projects (Sacks, 2021). If the rapid global demand to join BRI is any indication, China is quickly

positioning itself as a legitimate financial alternative to not only the United States but the institution of the United Nations as a whole.

It is only a logical conclusion that, given increased connections between BRI member states and China, BRI countries may show an increased inclination towards agreement with the Chinese position on international issues. According to Flint and Zhu (2019), "the economic and political processes and goals of the BRI are inseparable from one another". In other words, although BRI is labeled primarily as an economic trade development project, there are undeniable political ramifications that occur simultaneously. The Belt and Road Initiative will increase China's political connections with a multitude of countries around the globe to an extent that has not been seen since the Marshall Plan.

This sets the stage for the question I attempt to answer in this econometric analysis paper: Does Chinese Belt and Road FDI investment change the voting behavior of recipient countries at the UNGA? Furthermore, are there specific topics that are more prone to BRI influence than others? If BRI is indeed tightening ties between China and recipient countries, we can expect to see that reflected in the voting behavior of those countries at the UNGA. Regardless of whether those countries have historically been allied with US and western allies or not, any movement towards the support of China would likely serve to undermine United States' ability to assert their will on the world stage.

2 Literature Review

For decades, political economists have studied the effect of incentivized voting behavior at the United Nations General Assembly. Most of this research, however, has focused only on the effect of US foreign aid on recipient countries. Dreher, Nunnenkamp, and Thiele (2008) neatly summarize the overall conclusions of the data in the paper, "Does US aid buy UN votes?". This paper explored the role of general budget support aid (as opposed to project aid, which is more clearly tied to specific objectives). Their analysis found that general budget support from the United States was strongly correlated with higher levels of voting coincidence of recipient countries. Additionally, the report did not find similar significance when replicating the analysis with the other G7 countries (a coalition of seven wealthy, democratic states). Their analysis reveals three truths about the politicking behind vote behavior of countries at the United Nations General Assembly. First, major powers like the United States place substantial importance on the voting behavior of smaller countries on contested votes at the UNGA. Second, while the United States seems uniquely interested in the voting behavior of countries, other developed, but less globally dominant, countries among the G7 do not seem to "buy" votes of smaller countries in the same way. Third, developing countries are willing to barter their vote compliance to more powerful countries in exchange for aid and financial donations.

There is also a growing body of research that focuses on the influence of other major powers. Khan (2020) explores a case study of Bangladesh's voting behavior at the United Nations. This paper analyzes the voting patterns of Bangladesh against the priorities of its two powerful regional neighbors: India and China. Khan's analysis concludes that for the most part, small countries have a difficult time standing their ground on issues when faced with pressure from more powerful countries. While Bangladesh stayed true to its objectives when it could, pressure

from both China and India frequently swayed Bangladesh's votes away from its stated objectives.

This conclusion is supported by the analysis of Schwebel (1979), who explores the legal ramifications of the UNGA's non-binding resolutions. He states that "states will vote a given way not because they consider that their votes are evidence of a practice accepted as law, but because it is politically unpopular to vote otherwise". This sentiment indicates that states view votes at the UNGA more as expressions of support than any legally binding declaration. Less powerful states will frequently vote against their stated objectives if it is seen as the wiser political move.

Yet despite the acknowledged ulterior motives behind vote behavior, non-binding UN resolutions still play an important part in establishing expectations that governments are judged against. Schwebel (1979) goes on to state that even though countries cast their votes due primarily to political factors, resolutions still serve as the rulebook that nations are expected to abide by. Thus, powerful countries can effectively write the rules of engagement for international statecraft simply by being the most important ally to the most countries.

China's rise in international influence has largely occurred in the last two decades. In that time, China has grown substantially in both economic and international political clout. Feltman (2020) and Piccone (2018) both explore how China's influence on the United Nations has grown in the past decade. While the country has historically operated under the mantra of "hide and bide", essentially meaning the country would prefer to take a back seat to avoid the scrutiny of the spotlight, there was a substantial shift in approach since the appointment of Xi Jinping as president in 2012 (Piccone, 2018). Since his first address to the UN in 2015, President Xi has

shown that China is much more willing to assert its influence over the proceedings of the United Nations and international politics. For instance, Following President Trump's withdrawal from the Paris climate agreement and Trans-Pacific Trade Partnership, President Xi responded by stating China is, "taking a driver's seat" on international issues.

China has placed particular interest in the interpretation of sovereignty and human rights issues at the UN (Piccone, 2018). Beijing believes strongly in the right for a nation's government to have a near-total say over the manner of its governance within its sovereign borders. This is in stark ideological contrast to the philosophy of many western countries, namely the United States, which believes that the rights of individuals supersede the rights of governments. The two ideologies have frequently reached a boiling point in recent years on several issues, specifically China's treatment of Uyghurs and the independence of Hong Kong and Taiwan. While western countries have steadily worked to increase the significance of human rights issues at the UN, China's rising influence may substantially reduce the UN's ability to intervene on such issues.

3 Data

For my econometric analysis, I primarily rely on two datasets. The first is a database of all votes cast at the UN General Assembly throughout its history, which is published by Erik Voeten and publicly available on the Harvard Dataverse. UN voting data is very closely curated and perfectly recorded throughout the history of the United Nations. Not only does this data record every country's vote cast for every resolution in history, but it also includes dummy variables to indicate the topic of the resolution and whether it is considered an 'important' vote.

For the explanatory variable, I rely on the most complete and reliable dataset of Chinese FDI I could find. This is a list curated by Derek Scissors of the American Enterprise Institute that

details every foreign investment that any Chinese entity has made since 2003. This includes

foreign investments from the Chinese government, state-owned enterprises, and private

companies. Important variables that I consider are the recipient country, the amount invested,

and whether it has been labeled as a BRI project.

In addition to these two datasets, I also include data from two other sources to build a more

holistic picture of each country from a socioeconomic perspective. This includes historical GDP

and population data from Penn World Tables, as well as civil and political rights information

from Freedom House.

I have chosen to analyze voting trends over the timeframe of 1991 to 2020. I chose to begin

observations in 1991 because this is the first year that a reunified Germany participated in the

United Nations. The fall of the Soviet Union is widely regarded as the most focal turning point in

the last 50 years of geopolitical history (Ackermann, 2009). 2020 is the last year of voting

information that is included in Voeten's UN vote dataset. Although BRI only began in 2013, I set

the beginning date of observations substantially prior to this to establish a pre-treatment baseline

for every country.

While the UN database contains voting records for 192 countries in the timeframe, missing data

from the Penn World Tables and Freedom House datasets means that there is only complete data

for 168 countries. Most of the missing countries are very small or island nations, such as Monaco

and Samoa. Some notable countries that are missing from my final analysis include Cuba,

Afghanistan, Papua New Guinea, and Yemen.

Ultimately, I merge these datasets to create a single dataset with observations at the country,

session, topic levels. For each session since 1991, the dataset contains observations for every

country and each of two topic signifiers. This allows me to run a panel regression model with vectors for country fixed effects, year fixed effects, and topic interaction terms.

Dependent variable: Vote Coincidence

The dependent variable in my regression is the calculated variable Vote Coincidence. This value measures how frequently a country votes the same way as another country for a specific session and topic. I measure the vote coincidence between each country and three different parties: China, the United States, and the G7 average. The G7 is a coalition of many of the wealthiest democratic countries in the world, consisting of the US, Canada, the United Kingdom, France, Germany, Italy, and Japan. The G7 average is calculated by averaging the votes cast by each of the seven G7 countries for each resolution. I have decided to utilize this average as a measure of the "liberal world order" on each UN resolution. This method is common in UN voting analysis and a similar strategy is used by papers like Dreher, Nunnenkamp, and Thiele (2008).

As is common in UN voting analysis, Yes votes are given a value of 1, No votes given a 0, and abstentions given a 0.5. Any other reason for not casting a vote, such as absences, is also given a value of 0.5. Any country that did not cast a vote for more than 20% of resolutions in a given session was removed from the dataset for that session. For the G7 average, the value is the average of the votes cast by each of its members. For instance, if five members voted yes while two abstained on a given resolution, the G7 average for that resolution would be 6/7, or 0.86. Ensuring that abstentions are properly reflected as a middle ground between agreement and disagreement is imperative in voting analysis because UN member countries commonly utilize vote abstentions to toe the line on hotly contested resolutions. For instance, in the recent UN resolution to condemn Russia's invasion of Ukraine, many of Russia's closest allies, such as

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Average Vote Coincidence with China, US, and G7
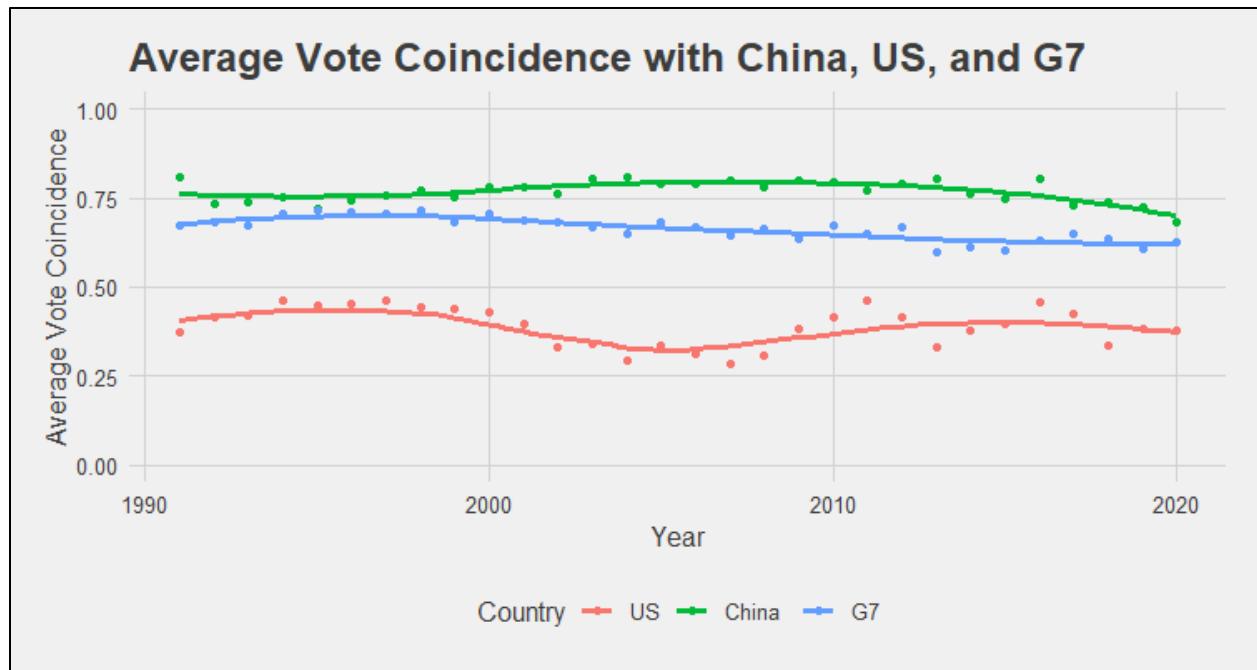
China and Pakistan, decided to abstain from casting a vote. This is because casting a vote either way would cause substantial diplomatic pressures from either Russia or the West. If one simply measures whether two countries voted the same or differently, China's abstention from the resolution would be seen as identical to the United States' support of the vote.

I then calculate the difference between each country's vote and each of the three comparison groups for every vote before summing the absolute value of all the differences and dividing by the number of votes cast in that session. This ultimately results in a decimal value where 0 represents complete disagreement and 1 represents complete agreement.

I also measure vote coincidence for two different topics: human rights votes and all other votes. While Voeten's UN vote dataset contains six topic indicators, stratifying analysis of all topics would inevitably cause multi-counting of votes and therefore bias. To avoid this problem, I decided to highlight human rights votes as a topic of interest. This is because China has made it a point to push its view on human rights extensively at the UN. According to Piccone (2018), China is seeking to inspire a "worldview with Chinese characteristics" at the UN and around its

sphere of influence. Myriad human rights topics, such as China's Uyghur population and the sovereignty of Taiwan and Hong Kong, all frequently arise at the UN as human rights resolutions. If involvement in BRI is causing recipient countries to vote more in line with China, there may be a particularly prominent result seen when observing human rights votes.

Independent variable: BRI/GDP and Other/GDP

The primary independent variable in my regression is a measure of cumulative BRI investment in a country in terms of the current GDP of that country. As a shorthand, this variable will be referred to as BRI/GDP. This variable is dependent on year and country variables. Additionally, I will refer to the total amount of non-BRI Chinese investment in a country as Other/GDP. This value does not include BRI investment.

BRI/GDP effectively represents the relative influence of BRI investment on a particular country. This is an important controlling measure to differentiate the effects of investment on recipient countries of varying sizes. For instance, a $100 Million investment in Italy (which is a BRI member) would have a completely different level of influence than a $100 Million investment in Sri Lanka.

Other/GDP has a much different profile than BRI/GDP. Other investment (also referred to as non-BRI investment) represents any investment made by the Chinese government, a state-owned entity, or independent Chinese investors that is not marked as a BRI project. The United States is the largest recipient of non-BRI Chinese investment in the world by a considerable amount. The next highest recipients are the United Kingdom, Australia, and Switzerland. However, none of those four recipients of non-BRI Chinese investment have received a penny in BRI investment. This is because BRI investment is much more politically motivated than non-BRI investment.
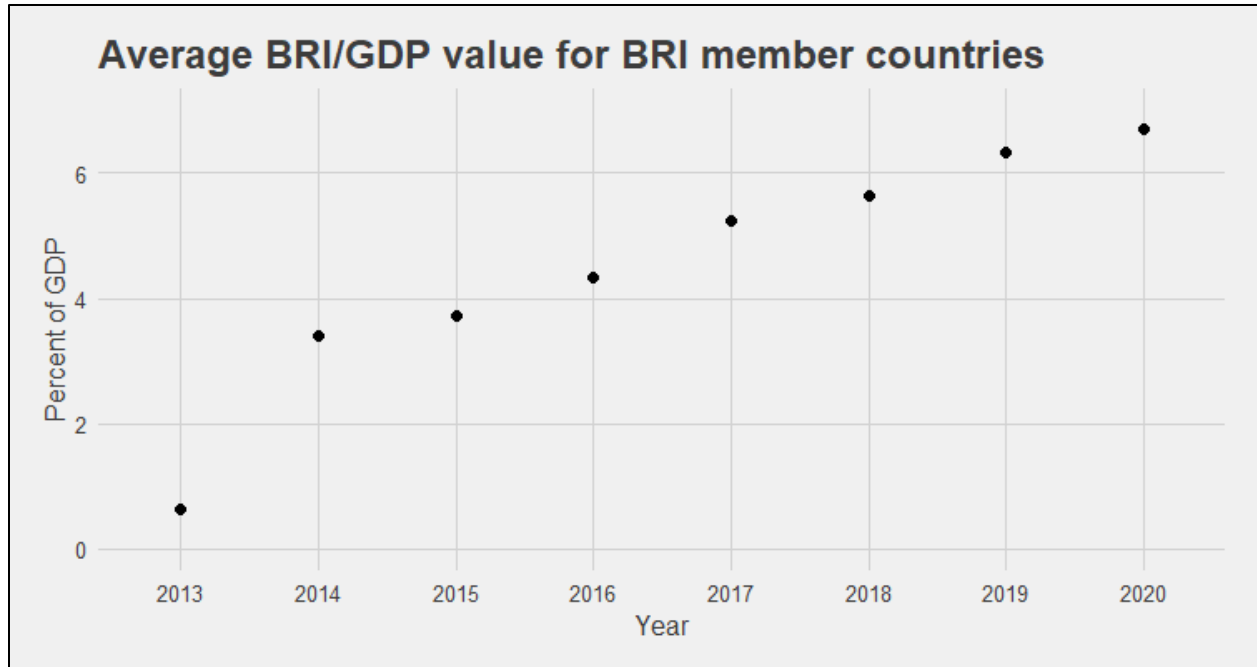
Non-BRI investment can be characterized as being "strictly business". Non-BRI investment is also primarily directed toward private enterprises.

BRI investment, on the other hand, is much more politically motivated. While non-BRI investment can be a deal between two private entities, BRI investment is strictly comprised of deals between the Chinese national government and the government of the recipient country. Thus, only countries that are willing to be seen doing business with the Chinese government are likely to embark on BRI projects. This generally eliminates most European or western countries from BRI membership. Additionally, countries that would like to increase their political connections to China would seek out BRI projects beyond what would otherwise be expected.

Table 1 Top 10 recipients of cumulative BRI investment (2013 – 2020)

Country	BRI Investment	BRI/GDP
1. Pakistan	$51,240,000,000	4.7%
2. Indonesia	$39,380,000,000	1.3%
3. Singapore	$37,200,000,000	7.8%
4. Russia	$35,480,000,000	0.9%
5. Malaysia	$30,310,000,000	3.7%
6. UAE	$28,530,000,000	4.4%
7. Nigeria	$26,480,000,000	2.6%
8. Bangladesh	$25,260,000,000	3.3%
9. Saudi Arabia	$25,280,000,000	1.4%
10. Italy	$23,780,000,000	1.0%

Table 2 Top 10 recipients of cumulative non-BRI investment (2003 – 2020)

Country	Non-BRI Investment	Other/GDP
1. United States	$132,730,000,000	0.6%
2. United Kingdom	$79,110,000,000	2.6%
3. Australia	$55,160,000,000	4.0%
4. Switzerland	$53,040,000,000	8.2%
5. Germany	$42,940,000,000	1.0%
6. Brazil	$39,770,000,000	1.3%
7. France	$23,670,000,000	0.8%
8. Canada	$18,780,000,000	1.0%
9. India	$18,390,000,000	0.2%
10. Finland	$15,670,000,000	6.3%

4 Methodology

To determine the effect of BRI investment on vote coincidence, I run a panel regression with

country and session fixed effects, as well as an interaction term between topic and BRI

investment. The fixed effects panel regression model serves to emulate the basic concepts seen in

difference-in-differences regression analysis. Namely, how a change in underlying

characteristics of an entity affects the dependent variable in present and future time frames. Fixed effects regression allows for one crucial capacity that is not viable in difference-in-differences analysis: varied treatment dates. While BRI was first announced in 2013, it has grown in breadth and scale every year since then. New countries and projects are being added to the BRI umbrella every year. Thus, a differences-in-differences analysis with the treatment date at 2013 would not make sense because most BRI members had not yet joined the project at that time.

Fixed effects are imperative to properly distill the effects of BRI investment from the effect of unobserved variables in the data. For instance, countries that become BRI members may have tended to vote in line with China before they became members at all. In addition, there may be changes in vote coincidence year-to-year that have nothing to do with BRI investment. Without fixed effects, these unobserved variables would muddy the analyzed outcomes and misrepresent the desired effect.

Without fixed effects, the calculated coefficient on BRI/GDP can be interpreted as a measure of how BRI members vote compared to non-BRI members. When fixed effects are introduced, the meaning BRI/GDP coefficient takes on a completely different meaning. Instead of comparing BRI members against non-BRI members, the coefficient now compares BRI members against themselves. In other words, how can we expect the voting behavior of the average country to change following an increase in BRI investment?

I also include an interaction term between the human rights topic dummy and BRI/GDP. This allows for separate levels of vote influence based on the content of the resolution. If human

Table 3: Summary Statistics

Variable	Notation	Source	Obs	Mean	Std. Dev	Min	Max
Dependent Variable							
Coincidence: CH	Y_1	Voeten (2021)	10,032	0.768	0.170	0.042	1.0
Coincidence: US	Y_2	Voeten (2021)	10,032	0.390	0.179	0.0	1.0
Coincidence: G7	Y_3	Voeten (2021)	10,032	0.664	0.157	0.181	0.960
Investment Data							
BRI/GDP cumulative	X_{1a}	Scissors (2022), PWT (2022)	5,016	0.007	0.045	0	1.187
Other/GDP cumulative	X_{1b}	Scissors (2022), PWT (2022)	5,016	0.002	0.040	0	1.187
BRI/GDP current	X_{1c}	Scissors (2022), PWT (2022)	5,016	0.001	0.018	0	1.187
Indicators							
Topic	X_2	Voeten (2021)	10,032	-	-	-	-
Country	μ	Voeten (2021)	10,032	-	-	-	-
Session	ν	Voeten (2021)	10,032	-	-	-	-
Socioeconomic Data							
Log (GDP pc)	X_2	PWT (2022)	5,016	9.034	1.228	5.500	12.02
Av Rights	X_3	Freedom House (2022)	5,016	3.459	1.943	1	7

rights issues are of prominent importance to China, this result will manifest itself in a positive

coefficient on the interaction term.

I replicate this analysis for the vote coincidence between each country and China, the US, and

the G7 average. This allows me to measure not only how BRI investment affects voting patterns

with respect to China but also voting patterns with respect to the United States and the G7. Even

if BRI investment causes countries to move towards China, it does not necessarily mean they will move substantially away from the preferred position of the US or the G7 average and vice versa. However, if countries are instead actively shifting their allegiances and priorities away from the US and G7, this will be reflected in a substantial decrease in the voting coincidence toward US and G7.

Ultimately, the regression equation for my primary analysis is visualized as follows where i indicates country dependence, j indicates session dependence, and k indicates topic dependence

$$Y_{(ijk)} = \beta_0 + \beta_1 X_{1\,(ij)} X_{2\,(k)} + \mu_{(i)} + v_{(j)} + \beta_3 X_{3\,(ij)} + \beta_4 X_{4\,(ij)} + \varepsilon$$

5 Results

I will build up to my final regression in three steps. This is meant to further explain the details of the regression and add insight to the final regression.

In Table 3, I include only the variables BRI/GDP and Other/GDP with respect to vote coincidence. There are no controlling or fixed effect variables, meaning the results are strongly affected by omitted variable bias. The output table is a combination of six separate regressions with vote coincidence with China, US, and G7 serving as three separate dependent variables. BRI/GDP and Other/GDP serve as two separate independent variables.

Table 4: Regressing Vote Coincidence with BRI and Other investments

	Dependent Variable: Effect of BRI/GDP and Other/GDP on voting coincidence					
	Vote Coincidence with China		Vote Coincidence with US		Vote Coincidence with G7	
	(1)	(2)	(3)	(4)	(5)	(6)
BRI/GDP	0.155***		-0.325***		-0.423***	
	(0.037)		(0.039)		(0.034)	
Other/GDP		-0.118***		0.037		-0.058
		(0.042)		(0.044)		(0.039)
Observations	10,032	10,032	10,032	10,032	10,032	10,032
R^2	0.002	0.001	0.007	0.0001	0.015	0.0002
Adjusted R^2	0.002	0.001	0.007	-0.00003	0.015	0.0001
Residual Std. Error	0.170	0.170	0.179	0.179	0.156	0.157
F Statistic	17.302 ***	7.855 ***	68.384 ***	0.686	152.735 ***	2.262
Significance levels				$^*p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$		

The most notable results are the significant coefficients on all three BRI/GDP variables. BRI/GDP is significant and positive with respect to China, while it is significant and negative with respect to both the US and the G7. In the simplest terms, this indicates that countries that receive more BRI investment vote more in line with China and less in line with the US and the G7 compared to countries that do not receive BRI investment.

Specifically, the results in Table 4 suggest that countries that have received 100% of their annual GDP in cumulative BRI investment vote 15.5 percentage points more closely with China, 32.5 percentage points less closely with the US, and 42.3 percentage points less closely with the G7 than those that have received no BRI investment.

It should be noted that while these values appear very large, the average BRI investment in terms of the GDP of the recipient country, visualized in Figure 3, is 6.7% as of 2020. This means that for the average BRI member country, the expected differences in vote coincidence are 1.0, -2.2, and -2.8 percentage points for China, the US, and the G7 respectively.

Comparatively, the coefficients for Other/GDP are insignificant with respect to the US and the G7. The coefficient for Other/GDP with respect to China is even significant and negative, indicating that countries that have received more non-BRI investment vote less in line with China than those that have received less.

These results are in line with the preexisting logic on the varying roles that Chinese BRI and non-BRI investment play. While BRI investment shows a clear positive correlation with vote coincidence, non-BRI investment shows none of that. This is almost certainly because non-BRI Chinese investment has much more to do with business than any political motives.

It should be noted that the R^2 values in all the regressions are quite small. The Other/GDP coefficients explain next to none of the variation in the data. This shows that even though calculated coefficients might appear substantial, BRI and non-BRI investment from China is not a substantial indicator of voting behavior on its own. The largest R^2 value and coefficient value with the greatest magnitude is on the BRI/GDP regression determining vote coincidence with respect to the G7. This indicates that the countries which participate in BRI the most are usually those that are furthest ideologically from the G7. This appears like a viable conclusion given the list of countries that appear in Table 1.

Table 5: Including Country and Session Fixed effects

	DV: Effect of BRI/GDP and Other/GDP on voting coincidence					
	Vote Coincidence with China		Vote Coincidence with US		Vote Coincidence with G7	
	(1)	(2)	(3)	(4)	(5)	(6)
BRI/GDP	0.033		-0.074***		-0.086***	
	(0.027)		(0.025)		(0.023)	
Other/GDP		0.032		-0.050*		-0.001
		(0.030)		(0.028)		(0.025)
Observations	10,032	10,032	10,032	10,032	10,032	10,032
Number of Countries	168	168	168	168	168	168
Number of Sessions	30	30	30	30	30	30
R^2	0.603	0.603	0.701	0.701	0.682	0.681
Adjusted R^2	0.595	0.595	0.695	0.695	0.675	0.675
Residual Std. Error	0.108	0.108	0.099	0.099	0.089	0.089
F Statistic	75.871***	75.876***	117.165***	117.074***	106.839***	106.612***
Significance levels					$^*p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$	

In Table 5, I include country and session fixed effects. In a panel regression, fixed effects represent the average of individual subgroups within the data. This means that each of the 168 countries and 30 sessions are subsequently allowed its own intercept. Thus, the coefficients of any other variables only attempt to explain the variation of differences within groups, rather than the innate differences between groups that are captured by fixed effects. This serves to extract the constant properties of unique subcategories of the data to isolate the effects of the variables of interest more accurately. Thus, the variables of interest predict the change in the average country rather than simply the difference between countries that participate in BRI and countries that do not.

While the logic behind country fixed effects is clear, the logic behind session fixed effects is somewhat less so. In short, there may be underlying time-variant trends that cause differences in vote coincidence from session to session. As depicted in Figure 2, the overall vote coincidence for China has decreased noticeably since around 2012, which is very close to the year BRI was unveiled. While one could presume that this indicates that BRI has reduced vote coincidence with China, I believe it is merely a byproduct of a common factor. Since President Xi's appointment, China has made a point to become more vocal and take more of a leadership role on the world stage. This includes assuming more self-serving positions on contested resolutions. Thus, China's overall vote coincidence will inevitably drop as they continue to act more as an individual than pursuing a majority agreement. For comparison, the United States has by far the lowest average vote coincidence of any country at the UN. What is more important than the overall vote coincidence is which countries remain closer to China compared to all other countries at the UN.

When country and session fixed effects are introduced, the magnitude of the BRI/GDP coefficients is reduced substantially in all cases. The significance of BRI/GDP with respect to China has dropped out entirely. This implies that with the level of detail in this model, there is no evidence that China utilizes BRI involvement to coerce countries to vote with them. There are, however, still significant negative effects seen with respect to the US and the G7. This implies that while BRI investment may not cause recipient countries to trend toward the priorities of China, it is correlated with recipient countries trending away from the priorities of the West. In Table 5, I include a topic indicator to differentiate human rights resolutions. I also include an interaction term between BRI/GDP and Other/GDP with the human rights topic indicator. In

addition, I include GDP per capita and average rights data to give a more holistic picture of how socioeconomic factors affect voting behavior.

Average rights data is provided by Freedom House and measured on a one to seven scale. This is the average of the political and civil liberties scores for each country in each year of the dataset. One is considered as free as possible, meaning citizens all have rights to vote, speech, and assembly. Seven represents the most authoritarian countries where citizens have few to no rights. The coefficient on this variable is significant and positive with respect to China, while it is significant and negative with respect to both the US and the G7. This indicates that as countries become freer, they tend to vote less in line with China and more in line with the US and the G7 than they did before. This comes as no surprise.

The log (GDPpc) variable indicates how countries voting behavior changes as they become wealthier. Logging the variable allows for more accurate analysis due to the exponential nature of the variable. This is insignificant with respect to China, the US, and the G7.

Table 5: Including topic interaction term and socioeconomic controls

	Dependent Variable: Effect of BRI/GDP and Other/GDP on voting coincidence					
	Vote Coincidence with China		Vote Coincidence with US		Vote Coincidence with G7	
	(1)	(2)	(3)	(4)	(5)	(6)
BRI/GDP	-0.094*** (0.033)		-0.109*** (0.032)		0.032 (0.025)	
Other/GDP		-0.011 (0.036)		-0.068* (0.035)		-0.001 (0.027)
Human Rights Votes	-0.098*** (0.002)	-0.096*** (0.002)	-0.063*** (0.002)	-0.062*** (0.002)	-0.100*** (0.001)	-0.102*** (0.001)
Log (GDPpc)	-0.02 (0.004)	-0.03 (0.004)	-0.001 (0.004)	0.002 (0.004)	-0.003 (0.003)	0.0003 (0.003)
Av Rights	0.006*** (0.002)	0.006*** (0.002)	-0.009*** (0.002)	-0.009*** (0.002)	-0.012*** (0.001)	-0.012*** (0.001)
BRI/GDP: Human Rights Votes	0.240*** (0.042)		0.079* (0.041)		-0.230*** (0.032)	
Other/GDP: Human Rights Votes		0.082* (0.048)		0.038 (0.047)		0.008 (0.036)
Observations	10,032	10,032	10,032	10,032	10,032	10,032
R^2	0.684	0.683	0.732	0.732	0.790	0.788
Adjusted R^2	0.678	0.677	0.727	0.727	0.785	0.784
Residual Std. Error	0.096	0.097	0.094	0.094	0.073	0.073
F Statistic	106.035***	105.582***	133.764***	133.622***	183.502***	181.849***
Significance levels						$p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

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As stated earlier, the human rights topic indicator is designed to give a general idea of votes which might be of unique importance to China. Interestingly, it appears that the average country votes less in line with each China, the US, and the G7 when it comes to human rights resolutions. This may indicate that China is more in line with Western democracies than the average country, although further exploration would be necessary to reach definite conclusions. The effect is most substantial with respect to the G7, likely because the G7 are some of the staunchest supporters of human rights in the world. On average, countries vote 10 percentage points less in line with the G7 on human rights resolutions compared to other resolutions.

With these controlling factors fully included in the model, we can observe the most interesting result of all: BRI investment has a substantial positive effect on vote coincidence with China on human rights votes. The effective coefficient for this effect is calculated by summing the coefficients for general votes with the interaction term. This means that the proper interpretation for the effect of BRI investment on voting coincidence for human rights votes is 0.146 with respect to China, and -0.198 with respect to the G7. These are both significant.

There is ample evidence to suggest that BRI investment is affecting recipient countries' voting behavior on human rights votes. Specifically, for the average BRI member country that has received 6.7% of their annual GDP in BRI investment, they are predicted to vote 1.0 percentage points closer to China than they would be predicted to otherwise and 1.3 percentage points further from the G7. Assuming that the G7 usually defends human rights, this indicates that countries that join BRI become significantly less worried about defending human rights issues than they were before.

Despite the significant results with respect to human rights votes, the same is not reflected in general votes. BRI investment is negatively correlated with vote coincidence with China on non-human rights votes. This indicates that while BRI investment has an effect on human rights votes, the influence of China is not universal to all votes. BRI investment is also significantly negatively correlated with respect to the US and not significant with respect to the G7. The interaction between non-BRI investment and human rights votes is largely negligible, save for a somewhat significant positive correlation with respect to China.

6 Robustness

6.1 Outliers

One may suspect these results are primarily caused by outliers. If a handful of countries have received substantially more BRI investment compared to their GDP than the rest, the voting habits of those few countries would have an outsized effect on the calculated coefficients. To control for this, I run two separate regressions with outlier cutoffs at 0.5 and 0.2. This removes the largest outliers that occupy the upper portions of the regression.

The effect on the calculated regressions is substantial. Most notably, the coefficients on the variables that include BRI/GDP have all increased in magnitude tremendously. The net effective coefficient for BRI/GDP and human rights topic indicator with respect to China increased to 0.279 and 0.388 for the 0.5 and 0.2 cutoff regressions each. The same effect is observed with respect to the G7. The net effective coefficient for BRI/GDP and human rights topic indicator with respect to the G7 increased to 0.420 and 0.602 for 0.5 and 0.2 cutoff regressions each.

Table 6: Removing observations with BRI/GDP above 0.5

	Dependent Variable: Effect of BRI/GDP and Other/GDP on voting coincidence					
	Vote Coincidence with China		Vote Coincidence with US		Vote Coincidence with G7	
	(1)	(2)	(3)	(4)	(5)	(6)
BRI/GDP	-0.257***		-0.268***		0.118**	
	(0.062)		(0.061)		(0.047)	
Other/GDP		-0.011		-0.068*		-0.002
		(0.036)		(0.035)		(0.027)
Human Rights Votes	-0.099***	-0.096***	-0.063***	-0.062***	-0.099***	-0.101***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)
Log (GDPpc)	-0.001	-0.001	-0.0001	-0.0002	-0.002	-0.003
	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)
Av Rights	0.006***	0.006***	-0.009***	-0.009***	-0.012***	-0.012***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)
BRI/GDP: Human Rights Votes	0.536***		0.231***		-0.538***	
	(0.079)		(0.077)		(0.060)	
Other/GDP: Human Rights Votes		0.083*		0.039		0.007
		(0.048)		(0.047)		(0.036)
Observations	10,010	10,010	10,010	10,010	10,010	10,010
R^2	0.685	0.684	0.732	0.732	0.790	0.788
Adjusted R^2	0.679	0.677	0.727	0.726	0.786	0.784
Residual Std. Error	0.096	0.097	0.094	0.094	0.073	0.073
F Statistic	106.159***	105.503***	133.535***	133.249***	183.553***	181.245***
Significance levels					$^*p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$	

This indicates that not only does the observed effect from the previous regression remain, but the outliers were also reducing the perceived effect of BRI investment. This is likely because BRI investment exhibits diminishing returns. Thus, a regression attempting to fit a linear approximation to a curved relationship would inevitably underestimate the effect for smaller x values. It also indicates that the effect of BRI investment with respect to human rights votes might be more powerful than predicted previously.

All variables that do not include BRI/GDP are unchanged or only marginally changed.

Table 7: Removing observations with BRI/GDP above 0.2

	Dependent Variable: Effect of BRI/GDP and Other/GDP on voting coincidence					
	Vote Coincidence with China		Vote Coincidence with US		Vote Coincidence with G7	
	(1)	(2)	(3)	(4)	(5)	(6)
BRI/GDP	-0.314***		-0.510***		0.092	
	(0.085)		(0.083)		(0.064)	
Other/GDP		-0.011		-0.068*		-0.002
		(0.036)		(0.035)		(0.027)
Human Rights Votes	-0.099***	-0.097***	-0.064***	-0.062***	-0.098***	-0.101***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)
Log (GDPpc)	-0.001	-0.001	-0.0002	-0.0001	-0.003	-0.003
	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)
Av Rights	0.006***	0.006***	-0.009***	-0.009***	-0.012***	-0.012***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)
BRI/GDP: Human Rights Votes	0.702***		0.493***		-0.694***	
	(0.107)		(0.104)		(0.081)	
Other/GDP: Human Rights Votes		0.083*		0.038		0.007
		(0.048)		(0.047)		(0.036)
Observations	9,978	9,978	9,978	9,978	9,978	9,978
R^2	0.685	0.684	0.733	0.732	0.790	0.788
Adjusted R^2	0.679	0.678	0.727	0.726	0.785	0.783
Residual Std. Error	0.096	0.097	0.094	0.094	0.073	0.073
F Statistic	106.972***	105.360***	133.434***	133.784***	182.646***	180.299***
Significance levels					$^*p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$	

6.2 *Lagged and Lead Independent Variables*

One may suspect that the political ramifications of BRI investment may happen in a different

timeframe from the investment itself. It is wholly reasonable that BRI projects likely take years

of planning and negotiating between the two governments before a project breaks ground. For

this reason, shifts in voting behavior may be more accurately predicted by investment that takes

place in a future timeframe. It is just as reasonable that the effect of BRI investment may take

years to manifest itself into political priorities. Existing alliances and treaties may take precedent

for a country until a few years have passed and China asserts itself as a more important ally.

To estimate the effect of varying timeframes, I included lagged and lead BRI investment data for

up to three years. As opposed to prior regressions, where BRI/GDP represents the cumulative

Table 8: Including 3 Year Lag and Lead variables

	DV: Effect of BRI/GDP on voting coincidence		
	Coincidence with China	Coincidence with US	Coincidence with G7
	(1)	(2)	(3)
BRI/GDP $_{(t-3)}$	-0.176**	-0.085	-0.049
	(0.080)	(0.076)	(0.060)
BRI/GDP $_{(t-2)}$	-0.073	0.118	0.095
	(0.078)	(0.074)	(0.059)
BRI/GDP $_{(t-1)}$	-0.209***	0.001	0.001
	(0.077)	(0.073)	(0.058)
BRI/GDP $_{(t-0)}$	-0.052	-0.098	0.008
	(0.077)	(0.073)	(0.058)
BRI/GDP $_{(t+1)}$	-0.073	-0.068	0.041
	(0.076)	(0.072)	(0.057)
BRI/GDP $_{(t+2)}$	-0.137*	0.084	0.116**
	(0.075)	(0.072)	(0.057)
BRI/GDP $_{(t+3)}$	-0.108	0.133*	0.152***
	(0.075)	(0.071)	(0.056)
Human Rights Votes	-0.089***	-0.084***	-0.106***
	(0.002)	(0.002)	(0.002)
BRI/GDP $_{(t-3)}$: Human Rights	0.281**	0.149	0.070
	(0.111)	(0.106)	(0.084)
BRI/GDP $_{(t-2)}$: Human Rights	0.102	-0.240**	-0.228***
	(0.108)	(0.103)	(0.082)
BRI/GDP $_{(t-1)}$: Human Rights	0.255**	-0.025	-0.102
	(0.107)	(0.102)	(0.081)
BRI/GDP $_{(t-0)}$: Human Rights	0.212**	0.003	-0.200**
	(0.106)	(0.101)	(0.080)
BRI/GDP $_{(t+1)}$: Human Rights	0.285***	-0.052	-0.250***
	(0.105)	(0.100)	(0.079)
BRI/GDP $_{(t+2)}$: Human Rights	0.260**	-0.218**	-0.271***
	(0.104)	(0.099)	(0.079)
BRI/GDP $_{(t+3)}$: Human Rights	0.231**	-0.355***	-0.373***
	(0.104)	(0.099)	(0.078)
Observations	8,016	8,016	8,016
R^2	0.679	0.754	0.796
Adjusted R^2	0.670	0.747	0.791
Residual Std. Error	0.095	0.090	0.072
Significance levels			*p < 0.1; **p < 0.05; ***p < 0.01

investment to date, in Table 8, each time-dependent variable represents only the BRI investment for that year. I also remove non-BRI investment data and other coefficients from the regression output table to ensure the results are as easy to understand as possible.

The most important conclusion from the data is that the effect of BRI investment on voting behavior generally persists not only for the years following investment but also for up to three years prior to investment. This suggests that BRI does not represent a flash-in-the-pan type deal where investment ensures compliance for a single UN session but is more indicative of a persistent trend of cooperation over time.

The effective coefficients on the three lead timeframes with respect to China are all significant and positive at the 5% level, with the lead timeframe one year in the future being significant at the 1% level. Additionally, the effective coefficients for lead timeframes with respect to the G7 are all negative and significant at the 1% level. Coefficients on lagged variables for non-human rights votes are calculated as significant and negative with respect to China. This is a peculiar result and would have to be explored in more detail to be understood more fully.

It should be noted that incorporating lagged and lead variables reduces the effective scope of the data substantially. Since the regression requires data from 3 years into the future, this means that all votes from 2020, 2019, and 2018 are unable to be analyzed. This means that only five years of vote records are analyzed in the regression since the start of BRI. While there is still a significant effect, an elongated frame of reference is necessary to more accurately understand the effects of lagged and lead investment.

7 Conclusion

I investigated the hypothesis that FDI from the Chinese Belt and Road Initiative is affecting the voting behavior of recipient countries at the UN General Assembly. Additionally, I investigated whether any such effect might have more pronounced effects on certain topics, specifically human rights votes. This is a subject that has been given very little attention in econometric analysis despite the tremendous scale of BRI. In the eight years observed in the analysis since the unveiling of BRI, China has invested nearly $800 Billion into over 130 countries around the world through the project. Yet despite this massive geopolitical undertaking, there has yet to be a single published paper that I can find empirically exploring the effects of BRI on voting behavior at the UN General Assembly.

I utilize both BRI investment data and non-BRI Chinese investment data to assess the relative impact of both forms of investment on voting behavior. Not only do I analyze BRI and non-BRI investment on recipient countries' voting behavior with regard to China, but also the voting behavior with regard to the G7 and the United States.

When accounting for the size of the recipient country's economy, the results provide strong evidence that BRI has a substantial effect on the voting behavior of recipient countries. Specifically, the results suggest that BRI investment has a substantial positive effect on the recipient country's tendency to vote in line with China on human rights votes and a negative effect on their tendency to vote in line with both the G7 and the United States on human rights votes. Non-BRI investment generally is not correlated with a significant change in the voting behavior of recipient countries.

While the results and implications from this paper's analysis might seem unsettling to an American audience, it is much less obvious what should be done about it. One thing is clear: China's international economic and political influence is growing every single year. If current trends continue, total BRI investment may easily surpass $2 Trillion worldwide by 2030. Additionally, the average BRI/GDP value for recipient countries will likely rise to 10% by 2030.

The geopolitical ramifications of such investment are nearly impossible to predict. However, these results indicate that if nothing else, China's ability to influence how countries vote on human rights issues at the UN will only continue to increase. This means that we may see a persistent decrease in the UN's ability to actively call out and intervene on human rights issues around the world.

There is little to no recourse that the United States could pursue to stymie the ambitions of BRI. On paper, BRI projects are nothing more than an agreement between two governments to engage in mutually beneficial development projects. The United States, IMF, and World Bank engage in similar projects every day. Yet despite this, the global impact of BRI represents the most significant threat to US hegemony since the Soviet Union. China's wealth, foresight, and ability to strengthen diplomatic ties are setting it apart from the United States over the past decade. While the US has become increasingly unpredictable and reclusive towards the global community, China has stepped ever more into the spotlight. While the US has effectively shunned its role as global leader, China is taking up the reigns.

A global order with ever-increasing loyalty to China is the only foreseeable future if current trends continue. If the United States wants to sustain its position as global hegemon, it must back that up with leadership and investment on a global scale. The United States' "Pivot to Asia" is a

decent start. But it may be a day late and a dollar short. It also is difficult to see it as anything more than a reactionary defensive maneuver in response to China's Belt and Road Initiative. In contrast, China's messaging surrounding BRI has been solely focused on "deepening global partnerships for peace, growth, reform, and civilization" (Lishen, 2017). To many countries around the world, the last 50 years of American global leadership have left them dissatisfied and seeking new opportunities. The Belt and Road Initiative's invigorating promise for a greater future may be too much for any American-led reaction to refute.

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