

# Supporting Information for

## The Impact of China's AIIB on the World Bank

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### Abstract

This document provides supporting information for our study of the effect of the Asian Infrastructure Investment Bank (AIIB) on World Bank lending. We estimate a reduction in the number of new World Bank infrastructure projects for the founding members of the AIIB after the establishment of this new international organization. Here we present a series of robustness tests of our main finding (Appendix A). We also present a placebo test addressing concerns of selection bias (Appendix B). Appendix C explores causal mechanisms, and suggests that the effect is driven by the AIIB founders, not by the World Bank. Appendix D tests for an important alternative explanation—the crowding out effect; we show that even accounting for replacement projects from the AIIB, the founders are cutting back on new World Bank infrastructure projects. Appendix E examines World Bank loan commitments on infrastructure, showing a similar though noisier pattern as with the number of projects. Appendices F and G present descriptive data and additional information for our data analysis. Appendix H presents details on our interview evidence.

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## A Robustness checks

In this section, we report the results of several robustness checks of our finding that AIIB founding members receive fewer infrastructure projects from the World Bank after the establishment of the AIIB in 2016.

### A.1 Triangulating with additional regression models

Following the recommendations of Pang et al. (2022, 286), we use different methods to triangulate our main finding: a negative effect of  $\text{AIIB Founder} \times \text{Post 2016}$  on World Bank infrastructure projects. We estimate a standard difference-in-differences regression. The result is reported in Column 1 of Table A.1.

We also analyze the data using negative binomial regression, Poisson regression, and fixed effects regression. We then apply the Gsynth method of Xu (2017). We report the results from these various models in Column 2 through Column 5 in Table A.1. The findings all indicate a negative and statistically significant effect of AIIB founding membership on new World Bank projects in infrastructure-intensive sectors.

In Figure A.1, we compare the results with the DM-LFM and the Gsynth method. Consistent with Pang et al. (2022, 284), the DM-LFM has better predictive performance, especially for the pre-treatment period (pre-2016).

Table A.1: Robustness Checks with Alternative Regression Models

	World Bank Infrastructure Projects				
	(1)	(2)	(3)	(4)	(5)
	DID	NB	Poisson	FE	Gsynth
AIIB Founder × Post-2016	-0.674*	-0.236*	-0.233*	-0.791**	-0.457**
	(0.408)	(0.121)	(0.121)	(0.367)	(0.218)
AIIB Founder	0.595**				
	(0.283)				
Post 2016	0.006				
	(0.112)				
GDP per capita (log)	0.049	0.331*	0.317*	1.231***	0.755***
	(0.197)	(0.186)	(0.181)	(0.326)	(0.214)
Population (log)	0.793***	2.095***	2.104***	2.474***	2.735***
	(0.168)	(0.391)	(0.391)	(0.524)	(0.391)
Election	-0.224**	-0.063	-0.063	-0.117*	-0.142**
	(0.112)	(0.042)	(0.042)	(0.066)	(0.064)
Foreign direct investment inflow (% GDP)	0.040***	0.009***	0.009***	0.016**	0.017***
	(0.011)	(0.003)	(0.003)	(0.007)	(0.006)
Debt service (% GNI)	-0.034*	0.011**	0.011**	0.006	0.015*
	(0.019)	(0.005)	(0.005)	(0.009)	(0.008)
ODA received (% GNI)	0.026*	-0.002	-0.002	0.008	0.000
	(0.015)	(0.004)	(0.004)	(0.007)	(0.005)
Polity	0.015	0.013	0.012	0.017	0.018*
	(0.026)	(0.008)	(0.008)	(0.012)	(0.011)
Temporary UNSC member	0.086	0.006	0.007	0.044	-0.060
	(0.282)	(0.064)	(0.062)	(0.154)	(0.122)
UNGA Voting (ideal point distance from US)	-0.472**	-0.096	-0.091	-0.348**	-0.238**
	(0.187)	(0.070)	(0.069)	(0.142)	(0.113)
Country fixed effects		Yes	Yes	Yes	Yes
Year fixed effects		Yes	Yes	Yes	Yes
Treated countries	26	26	26	26	26
Control countries	76	76	76	76	73
Observations	2619	2619	2619	2619	2606
Adjusted R <sup>2</sup>	0.318			0.593	
Unobserved factors					1

*Notes:* Dependent variable: the total annual number of new infrastructure projects approved by the World Bank. In columns 1 to 4, robust standard errors clustered at country level are reported in parentheses. Column 5 reports results from generalized synthetic control (Gsynth) method by Xu (2017). Units with less than 12 observations during the pre-treatment period are removed. Standard errors are based on parametric bootstraps (blocked at the country level) of 2,000 times.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Figure A.1: Comparison of DM-LFM and Gsynth

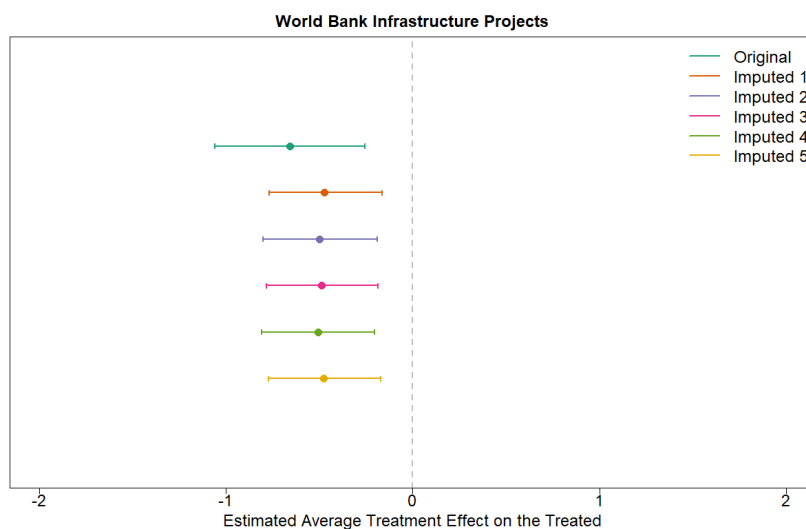


*Notes:* This figure shows the estimated average treatment effect of AIIB founding members on new World Bank infrastructure projects (top panel) and non-infrastructure projects (bottom panel), using DM-LFM by Pang et al. (2022) (left) and Gsynth by Xu (2017) (right). Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders).

## A.2 Missing data

We address potential bias due to the listwise deletion of missing values in covariates using Amelia II by Honaker and King (2010).<sup>1</sup> We produce five imputed datasets and analyze them using DM-LFM. With multiple imputation of missing values, the sample size is the same as the bivariate analysis presented in Column 1 of Table 1, with 4,340 observations, 155 countries, among which 31 are AIIB founding members. Our main results are robust to this approach — see Figure A.2.

Figure A.2: Multiple Imputation Results



*Notes:* This figure shows the estimated average treatment effect of AIIB founding members on new World Bank infrastructure projects, using DM-LFM by Pang et al. (2022). Number of observations: 4,340. The sample includes 155 countries (31 AIIB founders).

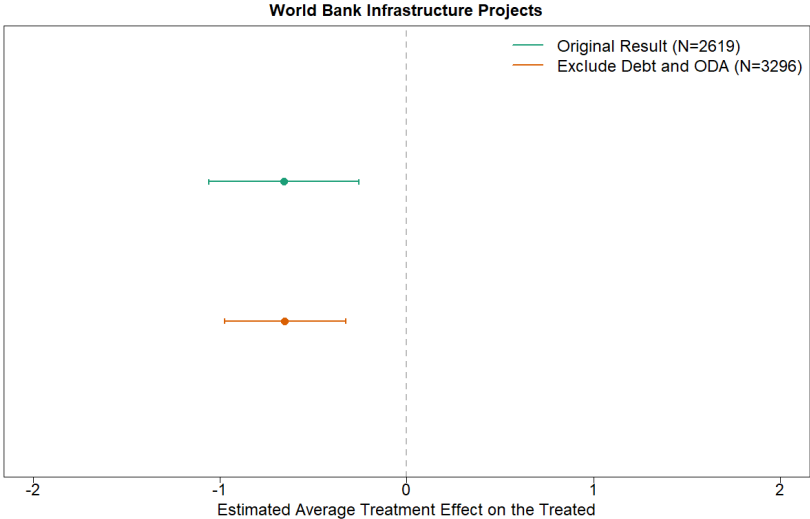
We further address missing data by excluding certain covariates from the analysis. First, we exclude Debt service (% GNI) and ODA (% GNI), as these two variables lead to the exclusion of four AIIB founding members in our sample.<sup>2</sup> The results, which are almost identical to our main results, are reported in Figure A.3.

1. See Figure F.3 in Appendix F for the distribution of missingness in the sample. On the question of missing data, see Lall (2016) and Hollyer et al. (2018).

2. As shown in Table F.1 in Appendix F, five AIIB founders that received at least one World Bank project are excluded from our main analysis due to missing values. Specifically, South Korea and Malaysia are excluded due to missing values in Debt service (% GNI), Russia due to missing values in ODA (% GNI), Poland due to missing values in both Debt service (% GNI) and ODA (% GNI), and Maldives due to missing values in Polity.

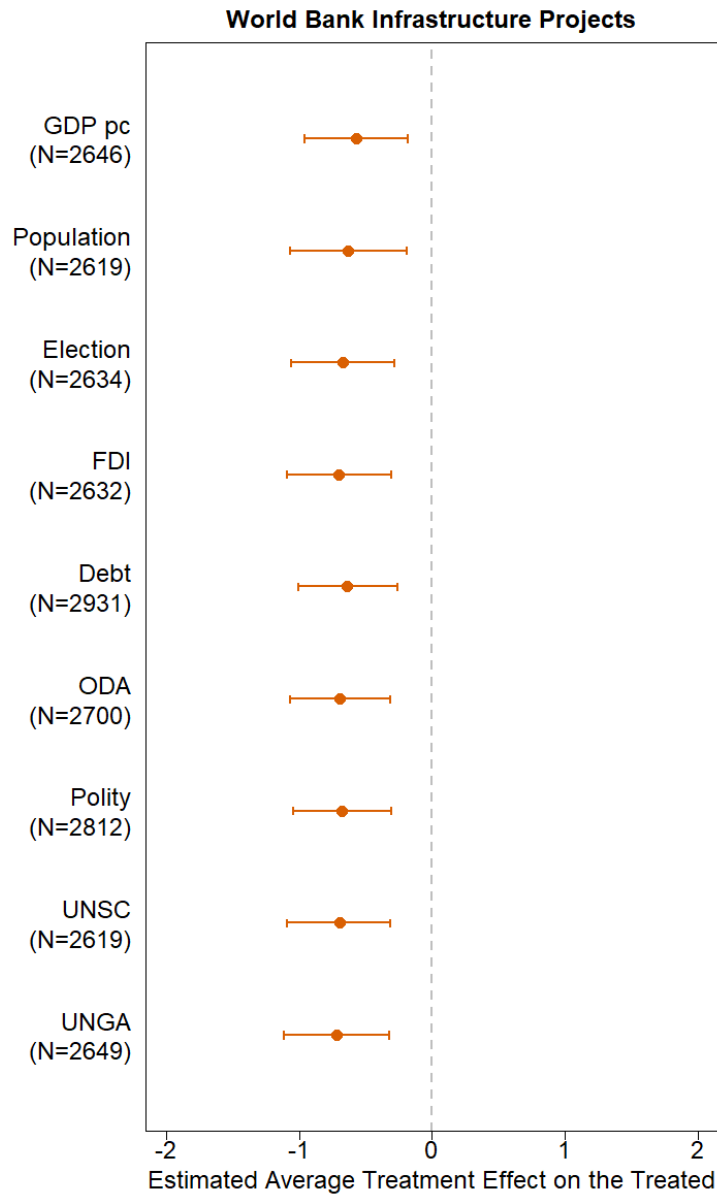
Finally, along these lines, Figure A.4 shows that the results are robust to the exclusion of *any* single control variable.

Figure A.3: Excluding Debt (% GNI) and ODA (% GNI) from Covariates



*Notes:* This figure shows the estimated average treatment effect of AIIB founding members on new World Bank infrastructure projects, using DM-LFM by Pang et al. (2022). Debt service (% GNI) and ODA (% GNI) are excluded from the analysis. Number of observations are shown in parentheses.

Figure A.4: Results Excluding One Covariate At a Time



*Notes:* This figure shows the estimated average treatment effect of AIIB founding members on new World Bank infrastructure projects, using DM-LFM by Pang et al. (2022). Each row in the figure represents the estimated ATT and corresponding 95% credible interval when one covariate is excluded. The number of observations is shown in parentheses.



## A.3 Excluding specific countries

### A.3.1 Outliers

To ensure that our findings are not driven by particular countries that are especially different from the other treated units, we remove different sets of potential outliers and re-aggregate the average treatment effects. The method of Pang et al. (2022, 284) allows researchers to estimate individual treatment effects for each treated unit. These estimates can be aggregated to produce the average treatment effect for specific groups of treated units.<sup>3</sup> We remove, respectively, the following:

(1) China, the leader and most important founder of the AIIB.

(2) Brazil and South Africa, two prospective founding members of the AIIB that had not formally joined the institution by the end of 2019 due to delays in domestic legislative approval. Brazil only joined the AIIB in November 2020, and South Africa still has not become a formal member despite having signaled its intention way back in April 2015. Note that they are listed as founding members in the *Articles of Agreement*, which is why we include them in the main analysis.

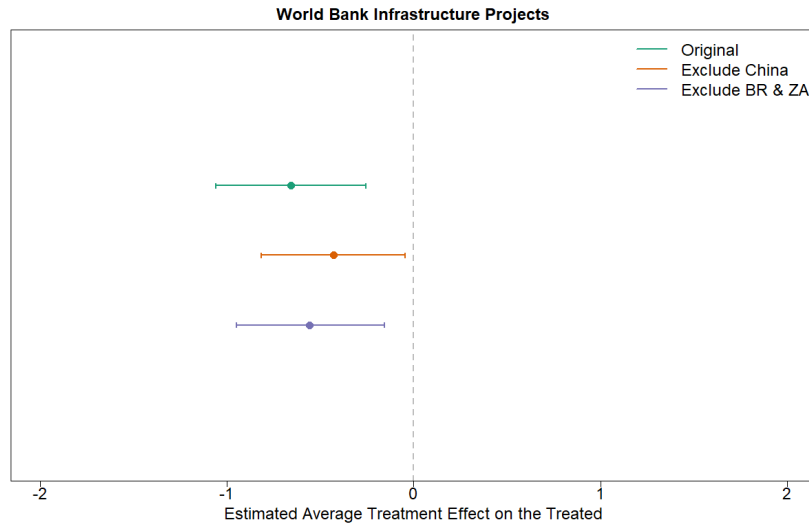
(3) Each AIIB founder (one at a time) to further examine whether the results are driven by any particular country.

The results for the first two sets of countries are presented in Figure A.5. They are understandably weaker, notably when we drop China; however, the estimates are qualitatively similar to the original results. The 95 percent credible intervals for the treatment coefficients (AIIB Founder  $\times$  Post 2016) across the models are precisely estimated as negative. In Figure A.6, we see that the results are also robust to the exclusion of any single AIIB founding member in our sample.

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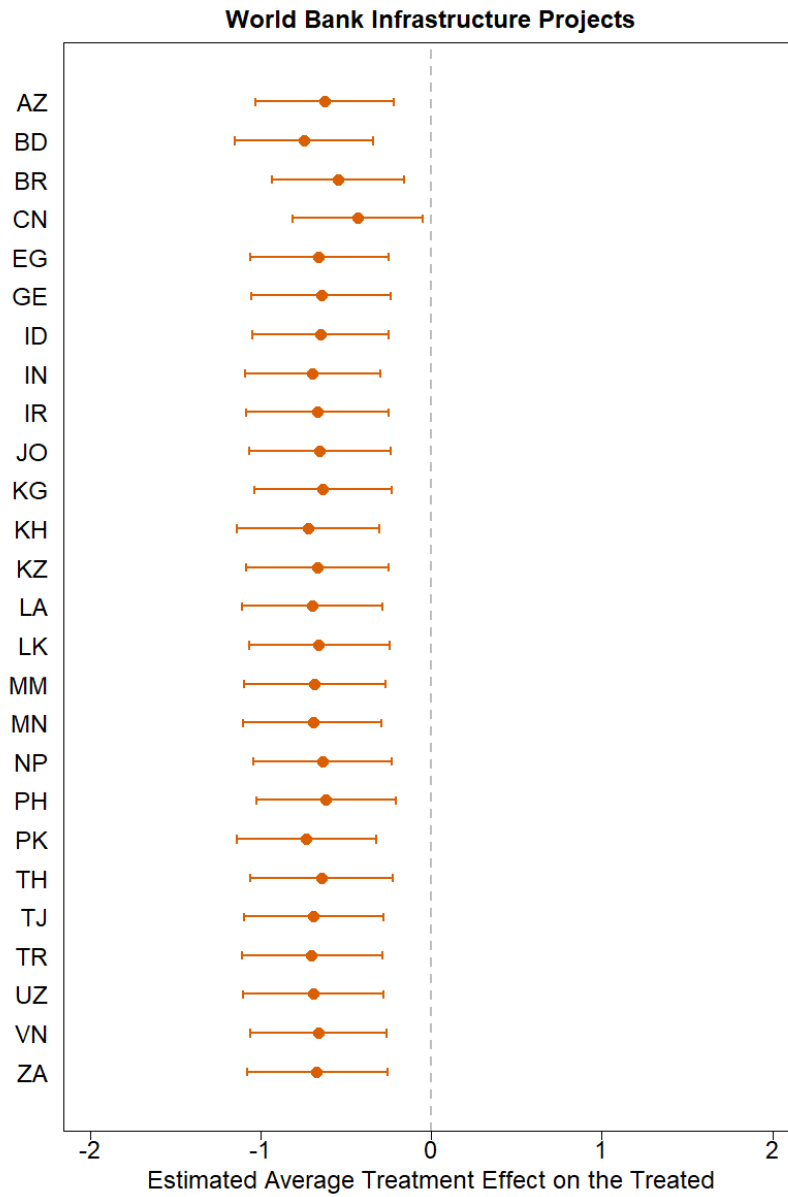
3. This procedure is implemented with the `effSummary()` command in the R package `bpcausal`. See <https://github.com/liulch/bpCausal>, last accessed October 12, 2021. See also Xu (2017, 72).

Figure A.5: Results Excluding Potential Outliers



*Notes:* This figure shows the estimated average treatment effect of AIIB founding members on new World Bank infrastructure projects, using DM-LFM by Pang et al. (2022). Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders). Estimates of the average treatment effect is aggregated while excluding the corresponding set of countries.

Figure A.6: Results Excluding One Country At a Time

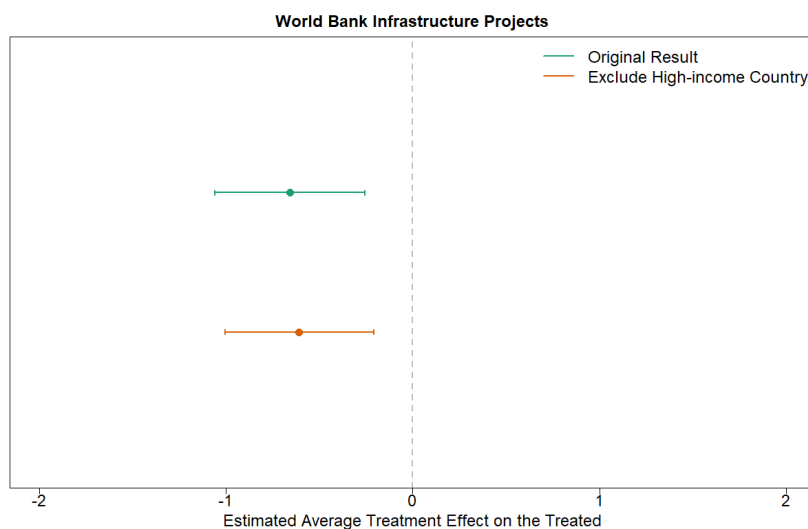


*Notes:* This figure shows the estimated average treatment effect of AIIB founding members on new World Bank infrastructure projects, using DM-LFM by Pang et al. (2022). Each row in the figure represents the estimated ATT and corresponding 95% credible interval when one treated unit (shown on the y-axis) is excluded. Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders). Estimates of the average treatment effect is aggregated while excluding the corresponding set of countries.

### A.3.2 High-income countries with projects during the sample period

In our fullest sample, we include countries that have received at least one World Bank project over the entire sample period (1992-2019). We also consider a sample that excludes all countries that are classified as high-income by the World Bank during any year of our sample period.<sup>4</sup> The results, reported in Figure A.7, are almost identical to our main results.<sup>5</sup>

Figure A.7: Exclude High-income Countries



*Notes:* This figure shows the estimated average treatment effect of AIIB founding members on new World Bank infrastructure projects, using DM-LFM by Pang et al. (2022).

Sample Criteria:

1. Original: Economies that have received at least one World Bank project during 1992 - 2019. Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders).
2. Exclude High-income Country: Exclude countries that have been classified as high-income by the World Bank for at least one year between 1992 - 2019. Number of observations: 2,567. The sample includes 100 countries (26 AIIB founders).

4. For World Bank classification of countries by income, see <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>, last accessed March 30, 2022.

5. All results based on specification where all control variables are included.

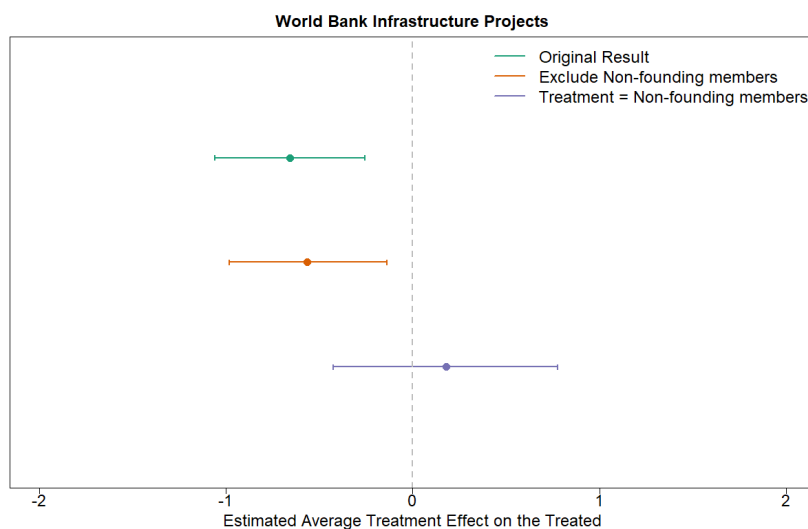
## A.4 Dynamics of the AIIB accession process

In our main analysis, we code the treatment,  $AIIB\_Founder \times Post\_2016$  equal to 1 for the years 2016-2019 if a country is a founding member of the AIIB, and 0 otherwise. After the establishment of the AIIB in 2016, twenty-two new countries joined the AIIB as a new group of non-founding members between 2017-2019, among which 10 countries participated in at least one World Bank project during our sample period.

In Figure A.8, we consider the dynamic information that is encoded in the AIIB accession process by comparing the effect of AIIB founders and other non-founding members on new World Bank infrastructure projects. We do not estimate a similar negative effect for the non-founding members of the AIIB (see the line labeled “Treatment=Non-founding members” in Figure A.8). AIIB founding members faced the explicit pressure of the United States — their audacity was necessary for the AIIB to come to fruition as a major developing bank. However, US opposition subsided after the AIIB was founded, and countries that joined the AIIB later did not face the same pressure as the founders did. Nor did they receive the same benefits for joining (see the AIIB *Articles of Agreement* Article 28 and Schedule B). We, therefore, expect a negative effect on World Bank projects only for the founders, not the countries that joined the AIIB later.

As a further extension, we return to the model specification in the main text and exclude the non-founding AIIB members from the sample. As Figure A.8 illustrates, excluding non-founding members from the sample leads to minimal changes in the estimation of the treatment effect reported in the main text (see the line labeled “Exclude Non-founding members”).

Figure A.8: Effects of AIIB Founders and Non-founding Members



*Notes:* This figure shows the estimated average treatment effect of AIIB membership on new World Bank infrastructure projects, using DM-LFM by Pang et al. (2022).

Sample:

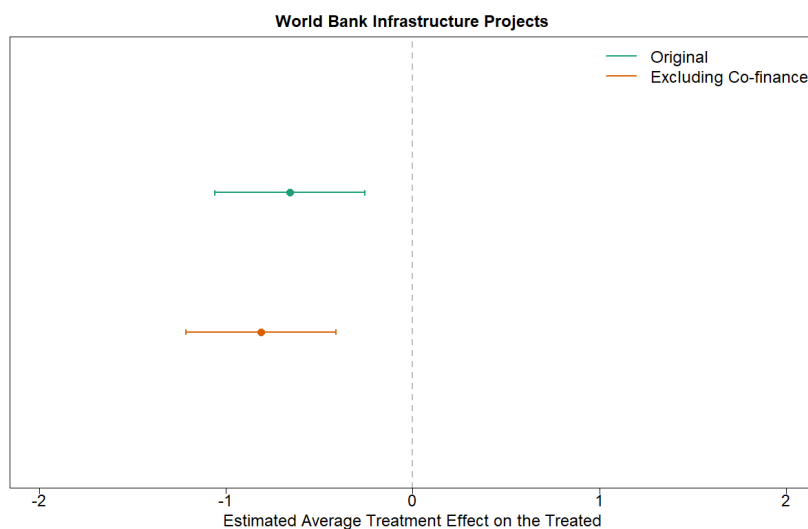
1. Original Result: Number of observations: 2,616. The sample includes 102 countries (26 AIIB founders).
2. Exclude Non-founding members: Exclude countries that have joined AIIB as non-founding members by the end of 2019. Number of observations: 2,397. The sample includes 92 countries (26 AIIB founders).
3. Treatment = Non-founding members: Exclude AIIB founding members. The treatment is a binary variable equals 1 if the economy has joined as a non-founding member of the AIIB. Number of observations: 1,935. The sample includes 76 countries (10 AIIB non-founding members).

## A.5 Excluding AIIB-World Bank co-financed projects

In our main analysis, we include all World Bank projects. Given that the World Bank and the AIIB have signed a co-financing framework agreement and co-financed several projects during our sample period, the inclusion of such co-financed projects bias against the negative effect, thus our results represent a conservative estimate of the effect.<sup>6</sup> If the AIIB founders are turning away from the World Bank and towards the AIIB because of a preference for the latter, their distaste for working with the World Bank may be mitigated if the AIIB is involved.

In Figure A.9, we report the result while World Bank projects that the AIIB have co-financed are removed. Not surprisingly, the results are robust to the exclusion of cofinanced projects.

Figure A.9: Excluding WB-AIIB Co-financed Projects



*Notes:* This figure shows the estimated average treatment effect of AIIB founding members on new World Bank infrastructure projects, using DM-LFM by Pang et al. (2022). World Bank projects that are co-financed with the AIIB are excluded. Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders).

6. On the co-financing framework agreement, see <https://www.worldbank.org/en/news/press-release/2016/04/13/world-bank-and-aiib-sign-first-co-financing-framework-agreement>, last accessed March 30, 2022. On the broader issue of co-financing, see Clark (2021).

## A.6 Reclassifying infrastructure projects

Recall that we expect an effect of AIIB founding membership only for World Bank infrastructure projects because the AIIB does not fund non-infrastructure projects during our sample period. We expect the AIIB founders to continue to rely on the World Bank for non-infrastructure needs. But coding World Bank projects as “infrastructure” can be done following different criteria because many projects cover different sectors.

In the main text, we code projects as infrastructure if at least 50 percent of the World Bank’s appraisal costs fall into one or more of the following categories: (1) Agriculture, (2) Energy & Extractives, (3) Info & Communication, (4) Transportation, (5) Water/Sanitation/Waste. Here, we use the following alternative approaches:

(1) We increase beyond 50 percent the threshold for appraisal costs to be in the above categories (using intervals of ten percent).

(2) We code projects as infrastructure only if the *largest* “major-sector” is one of the above listed (see Zeitz 2021, 271).

(3) We exclude projects whose largest major-sector is either Agriculture or Info & Communication – therefore only considering as infrastructure those projects that are primarily in Energy & Extractives, Transportation, or Water/Sanitation/Waste sectors.

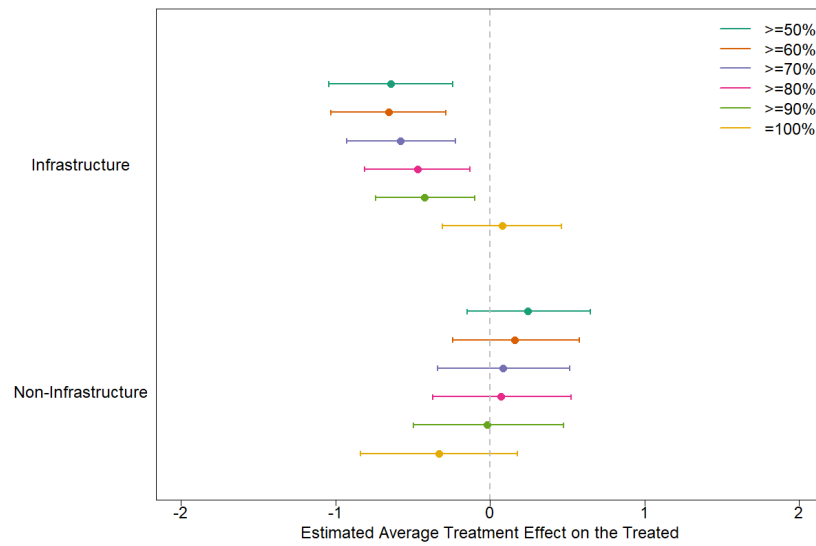
In Figure A.10, we present results when we increase beyond the 50 percent the threshold. We present results for infrastructure projects and non-infrastructure projects, using this approach. Our main finding holds at thresholds of 60, 70, 80, and 90 percent. When we require 100 percent of costs in the above categories, only 1,080 country years have projects – compared to 1,622 country years when we use our original coding – and the result does not hold.

Of course, reclassifying projects in this way shifts some of them into our “non-infrastructure” category. As Figure A.10 shows, we detect no effect for non-infrastructure projects, regardless of the percentage cutoff that we use. (We discuss non-infrastructure projects in more detail in Appendix C.2.)

In Figure A.11, we present results where infrastructure projects are coded based on the largest major-sector, as discussed above, and the results again hold.



Figure A.10: Results with Alternative Threshold of Infrastructure Projects



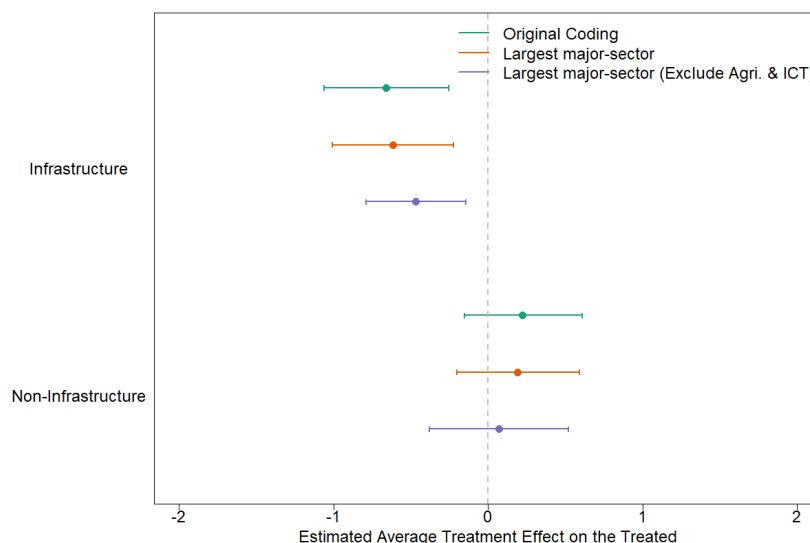
*Notes:* This figure shows the estimated average treatment effect of AIIB founding members on new World Bank infrastructure projects (top panel) and non-infrastructure projects (bottom panel), using DM-LFM by Pang et al. (2022).

Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders).

Coding schemes of infrastructure projects:

1. Original coding: Projects are coded as infrastructure projects if at least 50 percent of the World Bank's appraisal costs fall into one or more of the following sectors: (1) Agriculture, (2) Energy & Extractives, (3) Info & Communication, (4) Transportation, (5) Water/Sanitation/Waste, and as non-infrastructure projects otherwise.
2. Alternative threshold at 60%, 70%, 80%, and 90%, as well as 100% are showed separately.

Figure A.11: Results with Alternative Coding of Infrastructure Projects



*Notes:* This figure shows the estimated average treatment effect of AIIB founding members on new World Bank infrastructure projects (top panel) and non-infrastructure projects (bottom panel), using DM-LFM by Pang et al. (2022).

Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders).

Coding schemes of infrastructure projects:

1. Original coding: Projects are coded as infrastructure projects if at least 50 percent of the World Bank’s appraisal costs fall into one or more of the following sectors: (1) Agriculture, (2) Energy & Extractives, (3) Info & Communication, (4) Transportation, (5) Water/Sanitation/Waste, and as non-infrastructure projects otherwise.
2. Largest major-sector: Projects are coded as infrastructure projects if their largest major-sector is one of the followings: (1) Agriculture, (2) Energy & Extractives, (3) Info & Communication, (4) Transportation, (5) Water/Sanitation/Waste, and as non-infrastructure projects otherwise.
3. Exclude Agri. & ICT: Projects are coded as infrastructure projects if their largest major-sector is one of the followings: (1) Energy & Extractives, (2) Transportation, (3) Water/Sanitation/Waste, and as non-infrastructure projects otherwise.

“Major-sector” (or `mjsector`) is a World Bank term used in its Projects API (see <https://search.worldbank.org/api/v2/projects>, accessed September 15, 2021). Because projects can include multiple “major-sectors,” the field runs from `mjsector-1` to `mjsector-5`. Alternatively, the World Bank refers to these “major-sectors” as “Sector (Level 1)” in World Bank documents (see, for example, <https://pubdocs.worldbank.org/en/851671563291303937/Sector-and-Theme-remap-v2-crosswalk.pdf>, accessed September 15, 2021). The underlying variable we used for the largest major-sector is `mjsector-1` from the World Bank Project API, which is defined as the major-sector with the largest percentage share. We use the term “largest”, here, (instead of “first”) to avoid a certain confusion that can easily emerge from working with the Geocoded World Bank projects data from AidData, where project sectors are listed in their database in *alphabetical order* rather than percentage share order.

## **B The placebo test for a feedback effect (addressing selection bias)**

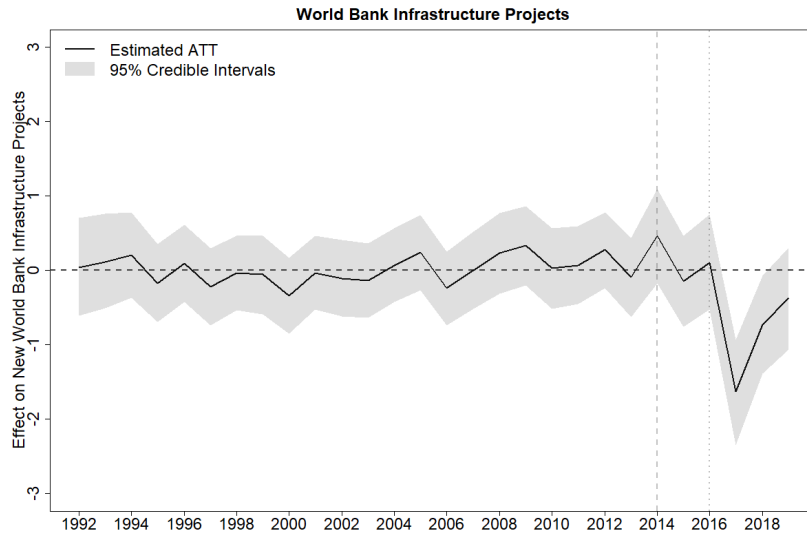
The DM-LFM addresses many potential sources of selection bias. However, bias is still possible with DM-LFM if there is a feedback effect, where becoming an AIIB founder and the 2016 establishment of the AIIB are determined by countries' previous borrowing from the World Bank.

To lend further credibility to our findings, we thus conduct a placebo test. Instead of using the appropriate year of 2016 as the onset of “treatment,” we use instead the year 2014, which was obviously *before* the establishment and formal operation of the AIIB. This approach sets up a placebo period of 2014-2016, and we expect weaker or null results for this period.

The results in Figure [B.1](#) confirm our expectation, the estimated effects during the placebo period of 2014 to 2016 are close to 0. And the estimated effects are negative only starting in 2016, the year of the founding of the AIIB.

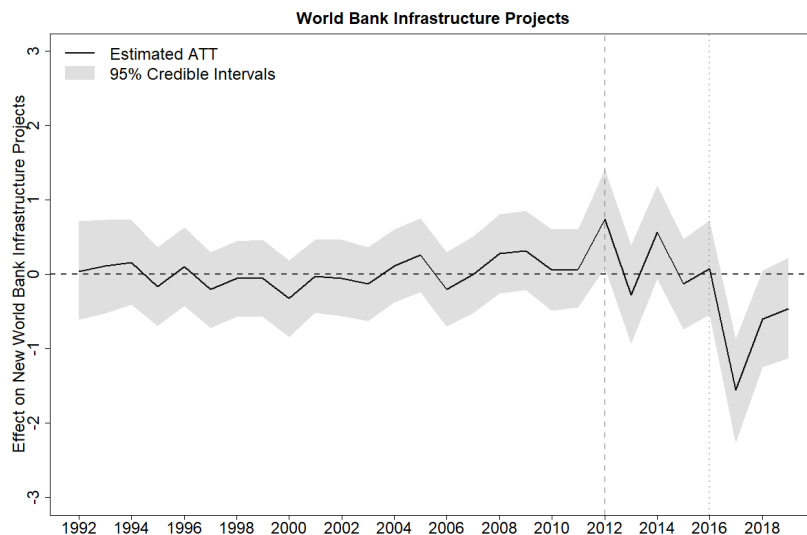
In Figures [B.2](#) and [B.3](#), we further use the years 2012 and 2010, respectively, as the onset of “treatment”, and the same pattern emerges: a sudden drop of of the estimated ATT only *after* 2016.

Figure B.1: Placebo Test Results: Treatment at 2014



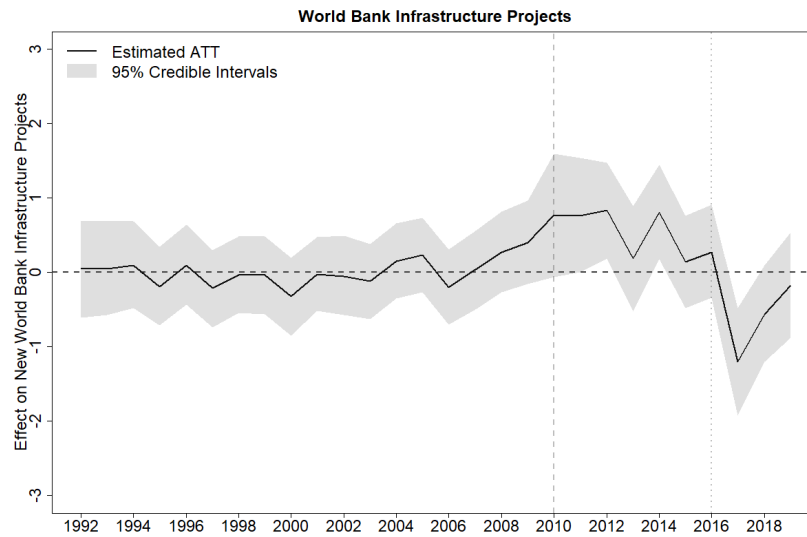
*Notes:* This figure shows the estimated average treatment effect of AIIB founding members on new World Bank infrastructure projects, using DM-LFM by Pang et al. (2022), where the 2014-2015 period (before establishment of the AIIB) is coded as a placebo “treated” period. Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders).

Figure B.2: Placebo Test Results: Treatment at 2012



*Notes:* This figure shows the estimated average treatment effect of AIIB founding members on new World Bank infrastructure projects, using DM-LFM by Pang et al. (2022), where the 2012-2015 period (before establishment of the AIIB) is coded as a placebo “treated” period. Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders).

Figure B.3: Placebo Test Results: Treatment at 2010



*Notes* This figure shows the estimated average treatment effect of AIIB founding members on new World Bank infrastructure projects, using DM-LFM by Pang et al. (2022), where the 2010-2015 period (before establishment of the AIIB) is coded as a placebo “treated” period. Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders).

## C Tests of supply-side causal mechanisms

In this section, we examine whether the World Bank is seeking to punish the AIIB founders at the behest of the Bank's largest shareholder, the United States, for going against its public opposition to countries joining the AIIB. To anticipate, we find no convincing evidence that the World Bank is punishing the AIIB founders.

We note (thanks to a suggestion from an anonymous reviewer) that the null effects that we report below could be the result of two countervailing forces. On the one hand, the United States might want to punish AIIB founders. On the other hand, the World Bank, as a bureaucratic actor, may seek to win back and keep its engagement with these countries. Thus, we encourage future research using alternative modeling approaches to further examine these strategic interactions.<sup>7</sup> As for the net outcome of any such countervailing forces, we find little evidence of a supply-side effect in our analyses below.

The new dependent variables that we consider in this appendix are:

1. US voting behavior on the World Bank executive board (Appendix C.1)
2. non-infrastructure World Bank projects (Appendix C.2)
3. levels of conditionality attached to World Bank development policy financing (DPF) projects.<sup>8</sup> (Appendix C.3)

We also revisit our original dependent variable to test whether AIIB founders that are politically proximate or important to the United States receive different treatment (Appendix C.4). Such results would also suggest a supply-side effect. Again, however, we find no convincing evidence of such an effect.

### C.1 US votes on World Bank projects

Is the United States less likely to vote for World Bank projects proposed by AIIB founding members? While there is some suggestive evidence of this, it is not robust, and our analysis below suggests that this is probably not the case.

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7. We thank another anonymous reviewer for suggesting such approaches. See, for example, Bas and Stone (2014), Carter and Stone (2015), Signorino (1999), and Signorino and Yilmaz (2003).

8. Not all World Bank projects have conditionality, hence our focus on DPF projects.

Data on US voting behavior on the World Bank executive board come from the US Treasury Department.<sup>9</sup> The complete dataset includes US votes on all World Bank executive board decisions, including new project approvals, amendments, restructuring, investigation reports, etc. Because our study focus on the effect of AIIB founding membership on *new* World Bank projects, we included in the sample only votes on new project proposals. Our data cover the 2004-2019 period.

We measure the US position on proposed World Bank projects with a binary indicator *Support*, that equals 1 if the US supports the project, and 0 otherwise. Across all votes in our sample, the United States has supported most of the projects (91.7 percent). A straight “No” vote is rare (1.4 percent), although the United States more often abstains (6.6 percent).<sup>10</sup> We focus on changes in rates of US abstention *or* objection on votes for projects for AIIB founding members after 2016.

The estimation results from a conditional logit model are presented in Table C.1. In column 1, we present results from a model that includes only AIIB founding member status and country and year fixed effects. In column 2, we include both country- and project-level covariates. The estimated coefficients for AIIB founding member status after 2016 are negative in both specifications. However, the coefficient is only statistically significant at conventional levels when no covariates are included (column 1). Results are weaker if we exclude China.<sup>11</sup>

So the evidence of punishment here is weak at best. Moreover, any lack of US support for World Bank projects proposed by AIIB founders appears to be a mere gesture, not a real punishment. US opposition to these projects lacks any substantial effect on actual project approval. Of the 564 proposals that did not receive US support, at least 558 (98.9 percent) were ultimately approved.<sup>12</sup>

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9. Vadlamannati and Li (2021) use these data to examine the US response to the AIIB. We thank Yuanxin Li for suggesting the dataset.

10. In 0.2 percent of the records, the US position is recorded as “N/A”.

11. Between 2004 and 2019, the United States only supported 87 out of 221 IBRD/IDA projects proposed by China (39.4 percent), compared to an overall average supporting rate of 91.7 percent.

12. Calculated by authors through a comprehensive comparison of voting records with various World Bank documents, including project list, board meeting minutes, news release, etc.

Table C.1: AIIB Founders and U.S. Votes on New World Bank Project Proposals (2004-2019)

	U.S. World Bank Loan Review Support Vote			
	(1)	(2)	(3)	(4)
AIIB Founder × Post-2016	-0.759*** (0.290)	-0.414 (0.366)	-0.585* (0.326)	-0.539 (0.406)
GDP per capita (log)		1.563** (0.693)		2.547*** (0.861)
Population (log)		6.298*** (2.120)		5.124** (2.246)
Election		-0.076 (0.180)		-0.073 (0.181)
Foreign direct investment inflow (%GDP)		0.005 (0.016)		0.004 (0.017)
Debt service (%GNI)		0.026 (0.045)		0.023 (0.042)
ODA received (%GNI)		0.024 (0.021)		0.030 (0.023)
Polity		0.173*** (0.040)		0.180*** (0.040)
Temporary UNSC member		-0.065 (0.298)		-0.128 (0.298)
UNGA Voting (ideal point distance from US)		-0.234 (0.399)		-0.210 (0.434)
Project amount (log)		-0.228*** (0.082)		-0.318*** (0.105)
Observations	3632	3336	3411	3115
Countries	73	61	72	60
AIIB Founders	20	20	19	19
Exclude China			Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes

*Notes:* Results from conditional logit regression. Robust standard errors clustered at country level reported in parentheses. Dependent variable: binary indicator that equals one if the United States supports a specific IBRD/IDA project. Country-year level covariates (except for AIIB Founder × Post 2016) lagged by one year.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .



## C.2 Non-infrastructure World Bank projects

If the United States were seeking to punish AIIB founders, we would expect a negative effect for non-infrastructure projects (as well as for infrastructure projects). But if the mechanism behind our main finding runs through the decision-making of developing AIIB founders, we would *not* expect an effect on non-infrastructure projects. The AIIB concentrated exclusively on infrastructure at its inception, so AIIB founders needed to continue working with the World Bank for their non-infrastructure development needs. Examining the data here, we do *not* estimate a drop in non-infrastructure projects for developing AIIB founders.

Figure C.1 plots the estimated effect of AIIB founding members on new World Bank non-infrastructure projects, using the DM-LFM. Unlike with infrastructure projects, we estimate no negative effect that is distinguishable from zero at the 95 percent level for non-infrastructure projects. In Table C.2, we report the estimated coefficients and 95 percent credible intervals for both the bivariate analysis and the specification that includes all covariates. Both analyses indicate that the effect of AIIB founding membership on non-infrastructure projects is indistinguishable from zero.

We also consider the effect of AIIB founding membership on World Bank *loan commitments* for non-infrastructure projects.<sup>13</sup> The results of our analysis, where we use total World Bank loan commitments for non-infrastructure (logged) as the dependent variable (measured at the country-year level), are presented in Figure C.2 and Table C.3.

Figure C.2 shows that the estimated effect on loan commitments is indistinguishable from zero following the establishment of the AIIB.<sup>14</sup> Table C.3 also shows that the estimated effect of `AIIB Founder x Post 2016` on loan commitments for non-infrastructure projects is indistinguishable from zero.

Finally, we consider whether AIIB founders receive larger loans per project in non-infrastructure sectors following the establishment of the AIIB. Table C.4 presents the result where the dependent variable is the average loan commitment per non-infrastructure

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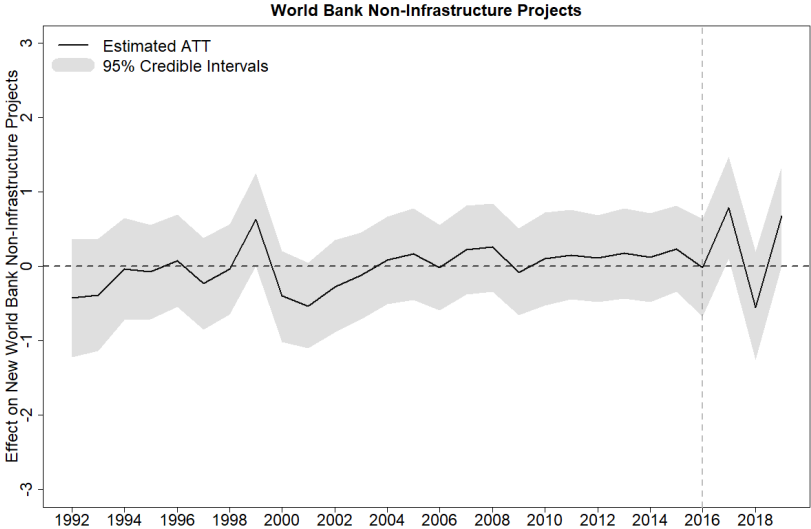
13. Data on the amount of World Bank loan commitments comes from the World Bank website. See <https://datacatalog.worldbank.org/dataset/world-bank-projects-operations>, accessed September 15, 2021.

14. Difficult to see, the 95 percent credible interval for the effect in 2019 includes zero. The point estimate for the effect in 2019 is 3.14, the lower bound for the 95 percent credible interval is -0.04, and the upper bound is 6.27.

project — calculated by total World Bank loan commitments divided by number of projects. Because the ratio is undefined where a country receives zero non-infrastructure project in a year, we use two different coding schemes: (a) we code the dependent variable for those observations as 0; (b) we drop those observations. The results are qualitatively the same with each approach. We do not find evidence showing the average size of non-infrastructure projects received by AIIB founders has changed after the establishment of the AIIB.

So, while we estimate a drop in AIIB founders’ *infrastructure* projects (the specialty of the AIIB), we find no similar drop in non-infrastructure projects, where the founders may still need the World Bank. This pair of results suggests that the United States is not punishing AIIB founders, and it implies that our finding on infrastructure projects may be driven more by demand than by supply.

Figure C.1: The AIIB Founder Effect on the Number of Non-Infrastructure Projects



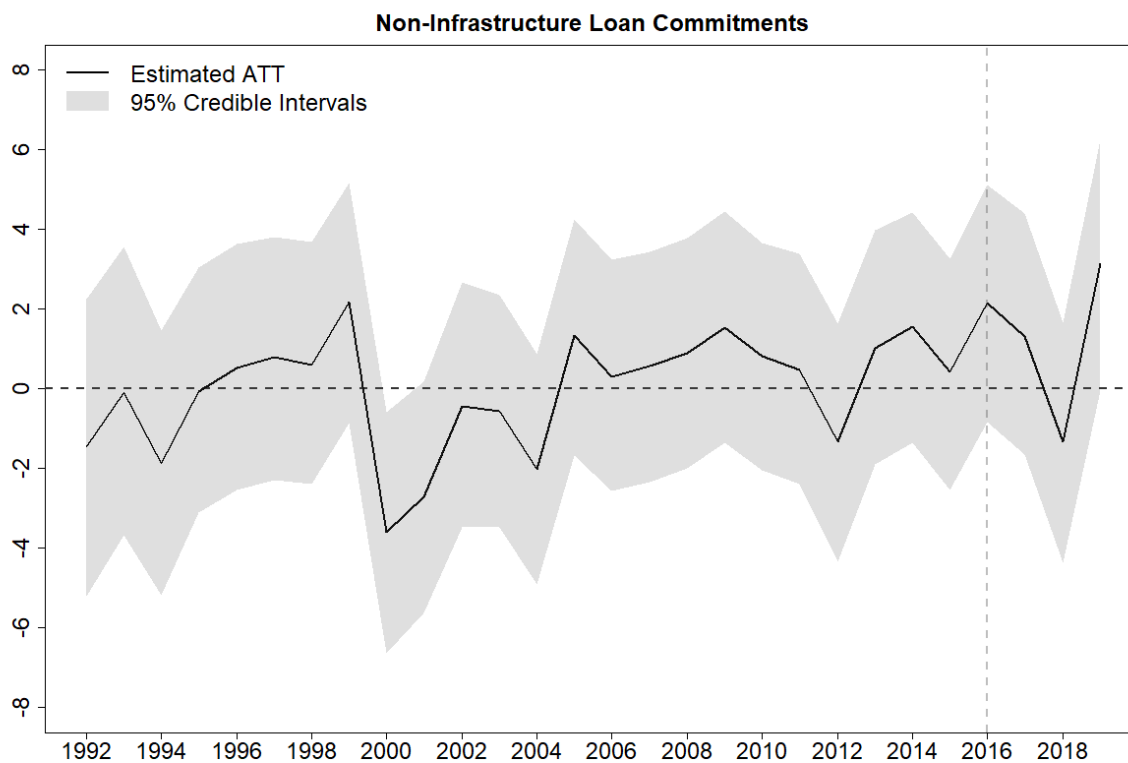
Notes: This figure shows the estimated average treatment effect of AIIB founding members on annual new World Bank non-infrastructure projects, using DM-LFM (Pang et al. 2022). Covariates included in the model: GDP per capita (logged), total population (logged), national executive or legislative election (indicator, lagged), FDI inflow (% GDP), total debt service (% GNI), ODA (% GNI), Polity score, temporary UNSC membership (indicator), and UNGA voting (ideal point distance from US). All covariates lagged one year. Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders).

Table C.2: The AIIB Founder Effect on the Number of Non-Infrastructure Projects

	World Bank Non-Infrastructure Projects	
	(1)	(2)
AIIB Founder × Post-2016	0.088 [-0.221, 0.401]	0.223 [-0.154, 0.611]
GDP per capita (log)		-0.103 [-0.275, 0.076]
Population (log)		0.848 [ 0.680, 1.022]
Election		-0.109 [-0.168, -0.050]
Foreign direct investment inflow (% GDP)		0.049 [-0.031, 0.136]
Debt service (% GNI)		0.009 [-0.085, 0.103]
ODA received (% GNI)		0.193 [ 0.081, 0.303]
Polity		0.208 [ 0.087, 0.326]
Temporary UNSC member		0.015 [-0.047, 0.075]
UNGA Voting (ideal point distance from US)		-0.134 [-0.245, -0.020]
Observations	4340	2619
Treated units	31	26
Control units	124	76

*Notes:* Results from DM-LFM showing estimated ATT and invariant component of covariate coefficients  $\beta_{it}$ , see Pang et al. (2022). Country-year observations for 1992-2019. 95% credible intervals in square brackets. Dependent variable: the total annual number of new non-infrastructure projects approved by the World Bank. Country-year level covariates (except for AIIB Founder × Post 2016) lagged by one year.

Figure C.2: The AIIB Founder Effect on World Bank Loan Commitments  
(Non-Infrastructure Projects)



Notes: This figure shows the estimated average treatment effect of AIIB founding members on the total World Bank loan commitments (IBRD and IDA financing, logged) for non-infrastructure projects, using DM-LFM by Pang et al. (2022). Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders).

Table C.3: The AIIB Founder Effect on World Bank Loan Commitments  
(Non-Infrastructure Projects)

	Non-Infrastructure Loan Commitments	
	(1)	(2)
AIIB Founder × Post-2016	0.268	1.322
	[-1.357, 1.862]	[-0.384, 3.059]
GDP per capita (log)		-0.948
		[-1.772, -0.116]
Population (log)		3.013
		[ 2.144, 3.870]
Election		-0.245
		[-0.540, 0.052]
Foreign direct investment inflow (% GDP)		0.235
		[-0.128, 0.625]
Debt service (% GNI)		0.257
		[-0.264, 0.832]
ODA received (% GNI)		0.703
		[ 0.165, 1.239]
Polity		1.103
		[ 0.474, 1.685]
Temporary UNSC member		0.159
		[-0.143, 0.470]
UNGA Voting (ideal point distance from US)		-1.072
		[-1.595, -0.559]
Observations	4340	2619
Treated units	31	26
Control units	124	76

*Notes:* Results from DM-LFM showing estimated ATT and invariant component of covariate coefficients  $\beta_{it}$ , see Pang et al. (2022). Country-year observations for 1992-2019. 95% credible intervals in square brackets. The dependent variable is the total World Bank loan commitments (IBRD and IDA financing, logged) for non-infrastructure projects. Country-year level covariates (except for AIIB Founder × Post 2016) lagged by one year.

Table C.4: The AIIB Founder Effect on Loan Commitment per Project  
(Non-Infrastructure Projects)

	Non-Infrastructure Loan Commitment per Project			
	(1)	(2)	(3)	(4)
AIIB Founder × Post-2016	0.301 [-1.246, 1.862]	1.271 [-0.385, 2.936]	0.570 [-0.575, 1.706]	0.387 [-0.696, 1.493]
GDP per capita (log)		-0.922 [-1.706, -0.149]		-0.314 [-0.683, 0.043]
Population (log)		2.699 [ 1.882, 3.523]		0.707 [ 0.379, 1.020]
Election		-0.215 [-0.500, 0.070]		0.126 [-0.062, 0.318]
Foreign direct investment inflow (% GDP)		0.220 [-0.134, 0.601]		-0.071 [-0.329, 0.173]
Debt service (% GNI)		0.261 [-0.229, 0.813]		0.073 [-0.180, 0.327]
ODA received (% GNI)		0.650 [ 0.138, 1.174]		0.034 [-0.248, 0.315]
Polity		1.038 [ 0.447, 1.597]		-0.066 [-0.340, 0.201]
Temporary UNSC member		0.152 [-0.137, 0.451]		0.179 [-0.020, 0.381]
UNGA Voting (ideal point distance from US)		-0.994 [-1.499, -0.501]		-0.252 [-0.542, 0.029]
Observations	4340	2619	2423	1881
Treated units	31	26	31	26
Control units	124	76	123	75

*Notes:* Results from DM-LFM showing estimated ATT and invariant component of covariate coefficients  $\beta_{it}$ , see Pang et al. (2022). Country-year observations for 1992-2019. 95% credible intervals in square brackets. The dependent variable is the average World Bank commitments per project (IBRD and IDA financing, logged) for non-infrastructure projects. In columns (1) and (2), the dependant variable for observations with no non-infrastructure projects is coded as 0. In columns (3) and (4), observations with no non-infrastructure projects are dropped. Country-year level covariates (except for AIIB Founder × Post 2016) lagged by one year.

### C.3 World Bank conditionality

If the World Bank staff and management perceive that the United States views AIIB founders unfavorably, they might impose more stringent conditionality on them (see Clark and Dolan 2021). As we document below, however, we find no convincing effect of AIIB founding membership on conditionality, which suggests that the World Bank is not punishing them.

Data on conditionality come from the World Bank Development Policy Actions Database, which includes all “prior actions” associated with World Bank development policy financing projects since 2005. Prior actions are policies required to be implemented before a World Bank project can commence. Following Clark and Dolan (2021, 41), we approximate the level of conditionality required through prior actions using (1) the number of prior actions required (`Prior Actions`) and (2) the number of policy areas covered (`Sectors`). In line with Clark and Dolan (2021, 40), analysis is at the project approval-year level.<sup>15</sup>

Table C.5 reports mixed results. In our bivariate analyses (columns 1 and 2), we estimate a positive coefficient for prior actions, but a negative coefficient for the number of policy sectors. The latter is actually statistically significant, and suggests that AIIB founders are not punished but rewarded, receiving *lighter* conditionality. However, the statistical significance does not hold in the specification including covariates (columns 3 and 4).

In Table C.5, we estimate the association between AIIB founding membership and World Bank conditionality, using data taken from the World Bank Development Policy Actions Database, which includes all “prior actions” associated with World Bank development policy financing projects since 2005. There, we include as control variables the same covariates as in our previous analyses in the main text. In Table C.6, we analyze the conditionality data used by Clark and Dolan (2021), and introduce into their specification our `AIIB Founder × Post 2016` variable. The results are similar: no statistically significant association between AIIB founding membership and World Bank conditionality.

We conclude that AIIB membership does not result in more stringent conditionality and take this as evidence against the supply-side mechanism.<sup>16</sup>

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15. Also following Clark and Dolan (2021, 41), we exclude all supplemental projects because they come without the delays associated with new projects. See Kersting and Kilby (2016).

16. We acknowledge, however, that measurement is tricky because World Bank conditions are relatively

Table C.5: Effect on World Bank Conditionality (2005-2019)

	Prior Actions (1)	Sectors (2)	Prior Actions (3)	Sectors (4)
AIB Founder × Post-2016	0.056 (0.056)	-0.204*** (0.073)	0.022 (0.061)	-0.116 (0.084)
GDP per capita (log)			0.199 (0.164)	-0.509** (0.234)
Population (log)			-0.047 (0.299)	-0.173 (0.398)
Election			-0.044* (0.027)	-0.058* (0.034)
Foreign direct investment inflow (% GDP)			0.002 (0.002)	0.002 (0.003)
Debt service (% GNI)			-0.002 (0.003)	-0.004 (0.004)
ODA received (% GNI)			0.003 (0.004)	-0.002 (0.005)
Polity			-0.0003 (0.007)	-0.009 (0.009)
Temporary UNSC member			-0.025 (0.040)	-0.034 (0.057)
UNGA Voting (ideal point distance from US)			0.007 (0.094)	-0.015 (0.108)
Project amount (log)			0.024* (0.012)	0.023 (0.016)
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Observations	835	835	695	695

*Notes:* Results from Negative Binomial regression. Robust standard errors clustered at country level reported in parentheses. Project-year level observations for 2005-2019. Dependent variable: the number of prior actions (columns 1 and 3) and the number of sectors that prior actions span (columns 2 and 4). Country-year level covariates (except for AIB Founder × Post 2016) lagged by one year.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .



## C.4 Test for changes in US manipulation of the World Bank

In this section, we offer a further test of a possible supply-side mechanism that might be driving our main results. We test whether the AIIB founder effect on the number of World Bank projects depends on importance to the United States. Specifically, we interact  $\text{AIIB Founder} \times \text{Post 2016}$  with measures of political proximity and importance to the United States.<sup>17</sup> If our main results change, this would be evidence of a supply-side effect, where the United States is exerting pressure to punish certain AIIB founders, but treating countries important to the United States differently.

First we use the UNGA Ideal Point distance measure. Second, we replace this measure with a “US friend” measure, calculated by comparing voting alignment with the US for all votes and for “important” votes as designated by the US State Department (Kilby 2009).<sup>18</sup> Third, we use an indicator variable of temporary UNSC membership. The DM-LFM does not support interacting the treatment with country-year level variables, thus we rely on the more conventional two-way fixed effects model here.

If the negative effect we previously estimated is due to US punishment of AIIB founders, we expect US responses to differ for countries with different levels of strategic importance or political alignment. As shown in Columns (3) to (5) of Table C.7, however, none of the interaction terms with  $\text{AIIB Founder} \times \text{Post 2016}$  are distinguishable from 0.

As one more related extension, we return to the DM-LFM used in the main text, using the US friend measure of Kilby (2009) instead of the UNGA Ideal Point distance measure. Figure C.3 shows the updated results, compared with our original results in Column (2) of Table 1. Using US friend instead of ideal point distance, we find an almost identical negative effect of AIIB founding membership on World Bank infrastructure projects.

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soft. See Clark and Dolan (2021, 47–48).

17. We thank an anonymous reviewer for suggesting this test.

18. For each vote, a country scores a 1 if it follows the US, a 0.5 if it abstains or is absent when the US votes (or vice versa), and a 0 if it opposes the US. The US friend measure is a binary variable that equals 1 if a country’s alignment with the US is higher for “important” votes than for all votes. For recent application using this measure, see, e.g., Malik and Stone (2018).

Table C.6: Effect on World Bank Conditionality (2005-2018)

	Prior Actions (1)	Categories (2)
AIIB Founder × Post-2016	-0.009 (0.054)	-0.132 (0.089)
UN voting (ideal pt dist from U.S.)	0.048** (0.020)	0.101*** (0.022)
World Bank board member	0.018 (0.064)	-0.025 (0.072)
EU president colony	0.119 (0.104)	-0.111 (0.129)
UNSC member	-0.024 (0.040)	0.011 (0.053)
U.S. aid	-0.009 (0.021)	0.019 (0.022)
Chinese aid	-0.018 (0.015)	-0.002 (0.017)
GDPPC	-0.023 (0.050)	-0.023 (0.048)
Debt service / GDP	-0.015 (0.017)	-0.036** (0.015)
Short-term debt / exports	-0.014 (0.021)	0.007 (0.021)
Inflation	-0.016 (0.015)	-0.014 (0.019)
Debt / GDP	-0.005 (0.029)	-0.037 (0.024)
FDI / GDP	-0.027 (0.020)	-0.030** (0.015)
Polity2	0.031 (0.030)	0.053 (0.036)
Openness	-0.006 (0.033)	-0.033 (0.037)
War	-0.030 (0.049)	0.027 (0.057)
Election year	0.065 (0.052)	-0.065 (0.062)
IMF program	-0.053 (0.032)	-0.010 (0.035)
Post-2012	-0.191*** (0.028)	0.004 (0.031)
Constant	2.483*** (0.233)	1.316*** (0.180)
Country fixed effects	Yes	Yes
Observations	766	766

*Notes:* Results using the replication dataset of Clark and Dolan (2021), following the model specification they present in Table 2 (page 44). We introduce into this model our variable AIIB Founder × Post 2016. All independent variables (excluding AIIB Founder × Post 2016) are lagged by 1 year. Missing variables are imputed by multiple imputation. Robust standard errors clustered at country level are reported in parentheses.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

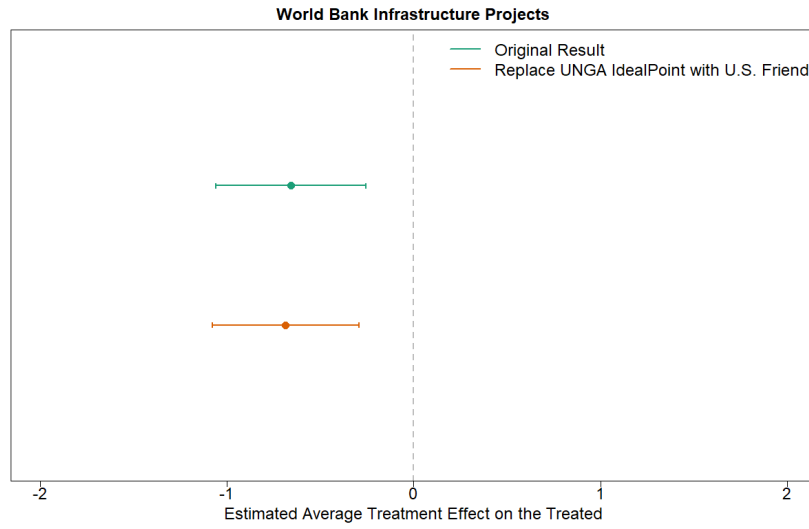
Table C.7: Interacting with UNGA Voting, U.S. Friend, and UNSC

	World Bank Infrastructure Projects				
	(1)	(2)	(3)	(4)	(5)
AIIB Founder × Post-2016	-0.791** (0.367)	-0.778** (0.368)	-1.449 (1.421)	-0.936 (0.688)	-0.768** (0.386)
Temporary UNSC member	0.044 (0.154)	0.048 (0.153)	0.042 (0.155)	0.047 (0.153)	0.055 (0.160)
UNGA Voting (ideal point distance from US)	-0.348** (0.142)		-0.353** (0.142)		
U.S. Friend		0.034 (0.091)		0.022 (0.099)	0.034 (0.091)
AIIB Founder × Post 2016 × UNGA Voting			0.202 (0.374)		
AIIB Founder × Post 2016 × U.S. Friend				0.232 (0.636)	
AIIB Founder × Post 2016 × UNSC					-0.190 (0.410)
GDP per capita (log)	1.231*** (0.326)	1.254*** (0.343)	1.232*** (0.326)	1.260*** (0.346)	1.252*** (0.343)
Population (log)	2.474*** (0.524)	2.656*** (0.516)	2.457*** (0.527)	2.657*** (0.518)	2.658*** (0.516)
Election	-0.117* (0.066)	-0.118* (0.066)	-0.117* (0.066)	-0.117* (0.066)	-0.118* (0.066)
Foreign direct investment inflow (% GDP)	0.016** (0.007)	0.016** (0.007)	0.016** (0.007)	0.016** (0.007)	0.015** (0.007)
Debt service (% GNI)	0.006 (0.009)	0.006 (0.009)	0.006 (0.009)	0.005 (0.009)	0.006 (0.009)
ODA received (% GNI)	0.008 (0.007)	0.008 (0.007)	0.008 (0.007)	0.009 (0.007)	0.008 (0.007)
Polity	0.017 (0.012)	0.021* (0.012)	0.017 (0.012)	0.021* (0.012)	0.021* (0.012)
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	2,619	2,618	2,619	2,618	2,618
Adjusted R <sup>2</sup>	0.593	0.591	0.593	0.591	0.591

Notes: Results from ordinary least squares regression. Robust standard errors clustered at country level reported in parentheses. Dependent variable: count of new World Bank infrastructure projects. Column (1) replicates the results of Table A.1, column (4). Column (2) replaces the UNGA ideal point distance measure with the U.S. Friend measure following Kilby (2009). In column (3) to column (5), we interact AIIB Founder × Post 2016 with UNGA voting, U.S. Friend, and UNSC, respectively. Country-year level covariates (except for AIIB Founder × Post 2016) lagged by one year.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Figure C.3: Replace UNGA Ideal Point Distance with U.S. Friend Measure



*Notes:* This figure shows the estimated average treatment effect of AIIB founding members on new World Bank infrastructure projects, using DM-LFM by Pang et al. (2022). UNGA ideal point distance measure is replaced with the U.S. friend measure following Kilby (2009). Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders).

## D The “crowding-out” effect

In this section, we consider perhaps the most important alternative explanation. Governments may be turning away from the World Bank simply because they have their infrastructure needs fulfilled by the AIIB. In other words, rather than a geopolitical story about leading the global economy, AIIB projects might simply be “crowding out” similar World Bank projects.

To examine this hypothesis, we employ two empirical strategies using data on approved AIIB projects.<sup>19</sup> First, we compare AIIB founders that have actually borrowed from the AIIB with those that have not (Appendix D.1). Second, we construct a new measure of total projects that combines the number of World Bank infrastructure projects with the number of AIIB projects for each country year in the sample (Appendix D.2).

To anticipate, the results suggest that the AIIB founders have indeed turned away from the World Bank – apparently taking a tangible loss in terms of number of World Bank projects. To be clear, we do not think that they are doing so irrationally or out of spite.<sup>20</sup> Instead, we suspect that their turning away from the World Bank represents a further signal to encourage World Bank reforms. This may enable governments to play off both institutions to maximize their development resources (see Clark 2021). In the meantime, they appear to genuinely prefer China’s institution and are willing to forgo the benefits of working with the World Bank to avoid costs (slow approval times and intrusive policy advice) for their infrastructure needs, as they look forward to working with the AIIB in the future.

### D.1 Comparing founders with and without AIIB projects

We reconsider the AIIB founder effect comparing (1) AIIB founders that have received at least one AIIB project by the end of 2019; and (2) AIIB founders with no AIIB projects by 2019.<sup>21</sup> If crowding-out is driving our findings, we would expect the negative effect to be

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19. The data come from the AIIB website: <https://www.aiib.org/en/projects/list/index.html>, accessed September 15, 2021. Table F.3 in Appendix F presents the list of approved projects by the AIIB through 2019.

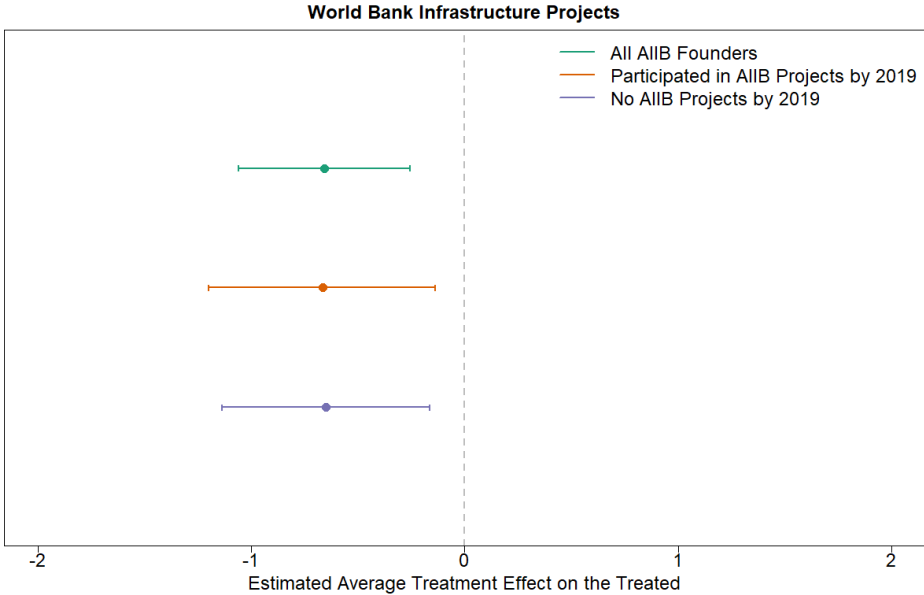
20. We acknowledge an anonymous reviewer for this point.

21. Developing AIIB founding members that have not participated in AIIB sovereign projects by 2019 are: Brazil, Cambodia, Iran, Jordan, Kazakhstan, Kyrgyzstan, Mongolia, Myanmar, South Africa, Thailand, and Vietnam.

more pronounced for AIIB founders *with* AIIB projects than for those *without* AIIB projects.

Instead, we find almost no difference across the groups. We present the re-aggregated results from this analysis in Figure D.1.<sup>22</sup> Whether or not an AIIB founder has actually received a project from the AIIB, the estimated effect is about the same. We take this result as additional suggestive evidence that the AIIB founder effect is driven by preferences over geopolitical leadership, not *just* financial need.

Figure D.1: Average Effects by AIIB Project Participation (2016-2019)



*Notes:* This figure shows the estimated average treatment effect of AIIB founding members on annual new World Bank infrastructure projects, using DM-LFM (Pang et al. 2022). Effects shown separately for AIIB founders that (1) have participated in at least one approved sovereign project from the AIIB between 2016 to 2019, (2) have not participated in any approved sovereign project. Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders).

## D.2 What if the World Bank had provided the AIIB projects?

For this counterfactual approach, we create a new dependent variable that combines, for each country-year in our sample, the total number of World Bank infrastructure projects with the total number of AIIB projects. We think of this new dependent variable as a coun-

22. Again, see Pang et al. (2022, 284) and Xu (2017, 72).

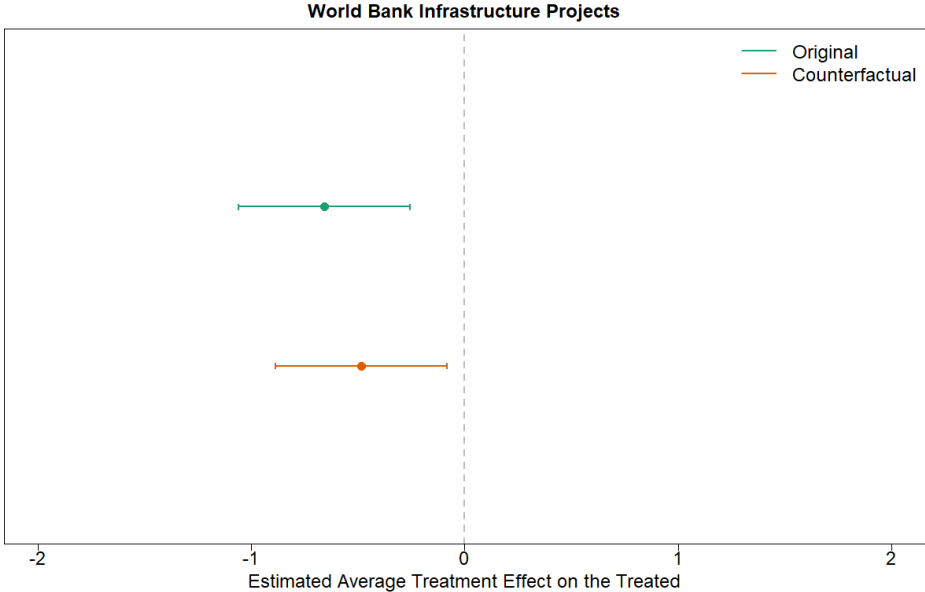
terfactual count of total projects that we might have observed from the World Bank if the AIIB had never been created — assuming that countries shifted to the AIIB simply as a substitute. We then test to see if there is a change in this measure of total projects after 2016.

If the crowding-out story is correct, we should see no effect. When the AIIB is founded in 2016, the new institution should simply take over part of the projects previously provided by the World Bank.

If, instead, geopolitics are in play, we expect a drop in projects after 2016 for the AIIB founders. Such a pattern would suggest that these countries are turning away from the World Bank for reasons beyond a new supply of finance. We indeed expect them to turn away from the World Bank in anticipation of working with the AIIB.

Figure D.2 shows the estimated effect from the original approach and the new counterfactual approach. When considering the combined projects together, the size of the AIIB founder effect is only slightly smaller, and the 95 percent credible interval does not include zero. In other words, allocating AIIB projects to the count of World Bank projects has negligible influence on the effect of AIIB founding membership.

Figure D.2: Counterfactual Analysis: Combining AIIB and World Bank Projects (2016-2019)



Notes: This figure shows the estimated average treatment effect of AIIB founding members on annual new World Bank infrastructure projects, using DM-LFM (Pang et al. 2022). Original results are shown in green line. Results from counterfactual analysis, where AIIB projects are “added back” to AIIB founders’ World Bank project count, are shown in orange line. Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders).



## **E World Bank loan commitments**

In this section, we consider World Bank loan commitments for infrastructure projects. First, we check whether the size of World Bank loan commitments *per project* for AIIB founders increases to make up for their fewer total World Bank projects. Then we consider the direct effect of AIIB founding membership on World Bank loan commitments.

### **E.1 The effect of AIIB founding membership on loans per project**

Perhaps, after the establishment of the AIIB in 2016, AIIB founders migrate to fewer, but larger World Bank infrastructure projects. Table [E.1](#) presents the result where the dependent variable is the average loan commitment per infrastructure project. Because the ratio is undefined where a country receives zero infrastructure project in a year, we use two different coding schemes: (a) we code the dependent variable for those observations as 0; (b) we drop those observations. The results are qualitatively the same with each approach. We do not find evidence showing that founders receive larger World Bank projects after establishing the AIIB. In fact, the estimated coefficient is actually negative.

Table E.1: The AIIB Founder Effect on Loan Commitment per Project  
(Infrastructure Projects)

	Infrastructure Loan Commitment per Project			
	(1)	(2)	(3)	(4)
AIIB Founder × Post-2016	-0.978 [-2.489, 0.535]	-0.879 [-2.662, 0.938]	-0.302 [-1.760, 1.151]	-0.318 [-1.810, 1.141]
GDP per capita (log)		-0.681 [-1.470, 0.089]		-0.144 [-0.693, 0.374]
Population (log)		3.263 [ 2.503, 4.036]		0.934 [ 0.364, 1.463]
Election		-0.002 [-0.300, 0.308]		-0.010 [-0.270, 0.249]
Foreign direct investment inflow (% GDP)		0.379 [-0.030, 0.782]		0.019 [-0.344, 0.358]
Debt service (% GNI)		0.036 [-0.413, 0.505]		0.204 [-0.165, 0.594]
ODA received (% GNI)		-0.117 [-0.637, 0.425]		-0.020 [-0.448, 0.395]
Polity		0.601 [ 0.028, 1.158]		-0.316 [-0.747, 0.095]
Temporary UNSC member		-0.068 [-0.389, 0.242]		-0.143 [-0.484, 0.170]
UNGA Voting (ideal point distance from US)		-0.726 [-1.256, -0.199]		0.084 [-0.323, 0.518]
Observations	4340	2619	2092	1622
Treated units	31	26	31	26
Control units	124	76	119	76

*Notes:* Results from DM-LFM showing estimated ATT and invariant component of covariate coefficients  $\beta_{it}$ , see Pang et al. (2022). Country-year observations for 1992-2019. 95% credible intervals in square brackets. The dependent variable is the average World Bank commitments per project (IBRD and IDA financing, logged) for infrastructure projects. In columns (1) and (2), the dependant variable for observations with no infrastructure projects is coded as 0. In columns (3) and (4), observations with no infrastructure projects are dropped. Country-year level covariates (except for AIIB Founder × Post 2016) lagged by one year.

## E.2 The effect of AIIB founding membership on loan commitments

Next, we consider the direct effect of AIIB founding membership on World Bank loan commitments for infrastructure projects.<sup>23</sup> The results of our analysis, where we use total World Bank loan commitments for infrastructure (logged) as the dependent variable (measured at the country-year level), are presented in Table E.2 and Figure E.1.

Table E.2: The AIIB Founder Effect on World Bank Loan Commitments (Infrastructure Projects)

	Infrastructure Loan Commitments	
	(1)	(2)
AIIB Founder × Post-2016	-1.181	-1.039
	[-2.758, 0.400]	[-2.915, 0.869]
GDP per capita (log)		-0.661
		[-1.494, 0.153]
Population (log)		3.610
		[ 2.804, 4.419]
Election		-0.021
		[-0.330, 0.301]
Foreign direct investment inflow (% GDP)		0.418
		[-0.012, 0.841]
Debt service (% GNI)		0.027
		[-0.445, 0.520]
ODA received (% GNI)		-0.104
		[-0.653, 0.465]
Polity		0.638
		[ 0.034, 1.229]
Temporary UNSC member		-0.069
		[-0.404, 0.252]
UNGA Voting (ideal point distance from US)		-0.781
		[-1.339, -0.241]
Observations	4340	2619
Treated units	31	26
Control units	124	76

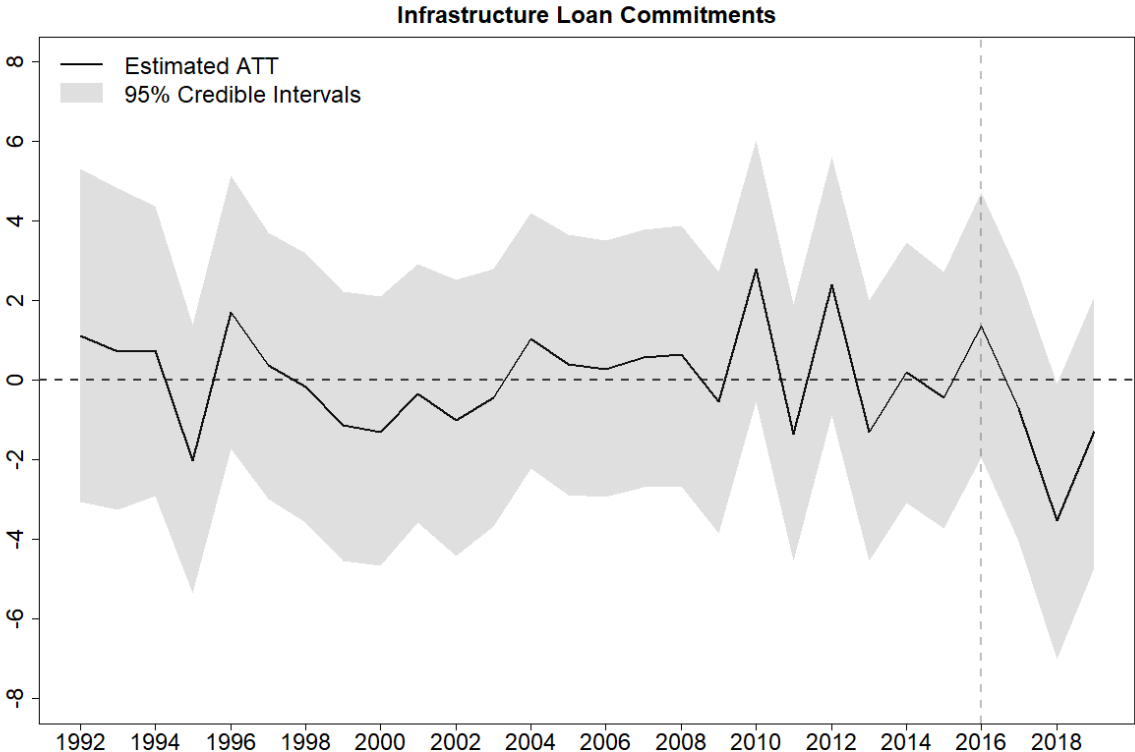
*Notes:* Results from DM-LFM showing estimated ATT and invariant component of covariate coefficients  $\beta_{it}$ , see Pang et al. (2022). Country-year observations for 1992-2019. 95% credible intervals in square brackets. The dependent variable is the total World Bank loan commitments (IBRD and IDA financing, logged) for infrastructure projects. Country-year level covariates (except for AIIB Founder × Post 2016) lagged by one year.

Table E.2 shows that the estimated coefficients of AIIB Founder × Post 2016 on total World Bank loan commitments are negative. However, the coefficients are not estimated precisely; the 95 percent credible intervals include zero. Still, a more complete presentation of the effect requires a picture.

23. Data on the amount of World Bank loan commitments comes from the World Bank website. See <https://datacatalog.worldbank.org/dataset/world-bank-projects-operations>, accessed September 15, 2021.

Figure E.1 presents the estimated ATT, along with the 95 percent credible interval, over the sample period of 1992 to 2019. The pattern for loan commitments is similar, though lagged, to the pattern for the number of projects shown in Figure 3. Initially positive in 2016, the estimated effect is negative in 2017 and 2018, and negative but attenuated in 2019 (see Figure E.1). In 2018, the 95 percent credible interval excludes zero.

Figure E.1: The AIIB Founder Effect on World Bank Loan Commitments (Infrastructure Projects)



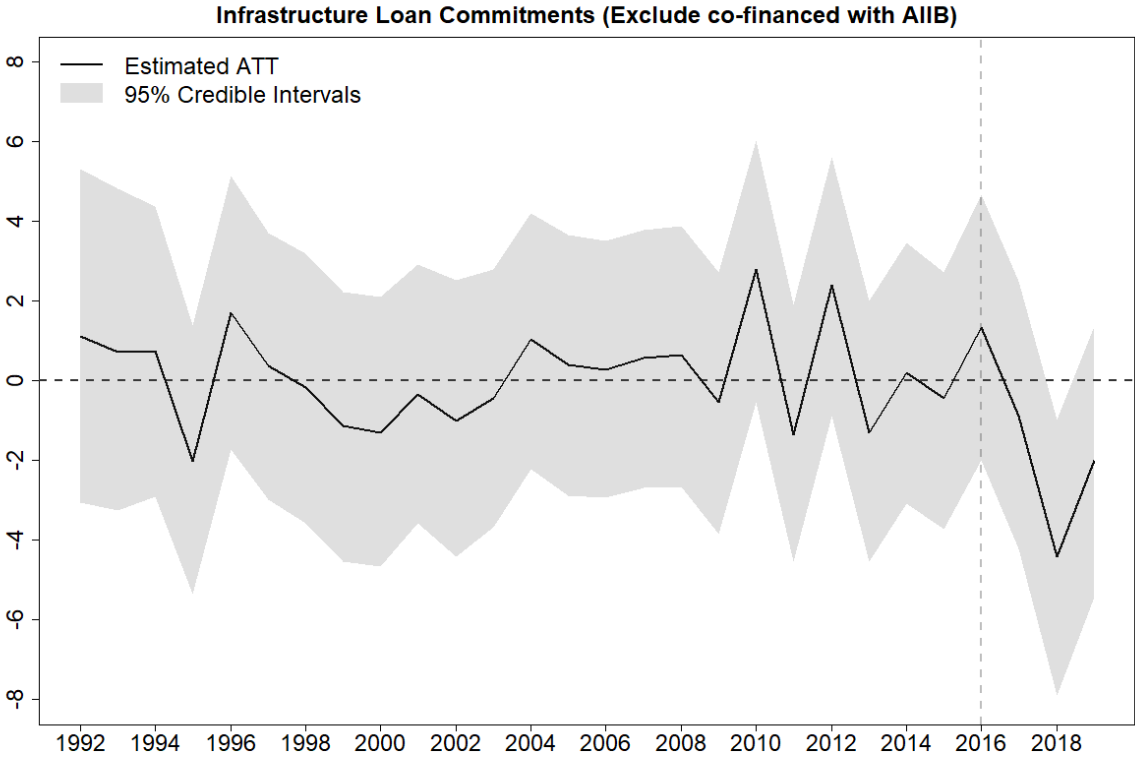
*Notes:* This figure shows the estimated average treatment effect of AIIB founding members on the total World Bank loan commitments (IBRD and IDA financing, logged) for infrastructure projects, using DM-LFM by Pang et al. (2022). Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders).

So the main difference between the results for the number of projects (Figure 3) and the loan commitment results (Figure E.1) is that the effect is less precisely estimated for loan commitments. The loan commitment results also appear to lag. The largest negative effect for the number of projects is in 2017, but the largest negative effect for loan commitments is in 2018.<sup>24</sup>

24. Difficult to see in Figure E.1, the 95 percent credible interval for the estimated negative effect in 2018

These results are stronger if we exclude from the World Bank loan commitments the funding for projects that were *co-financed* by the AIIB. Arguably, if the AIIB founders are turning away from the World Bank and towards the AIIB because of a preference for the latter, their distaste for working with the World Bank would be mitigated if the AIIB were involved.<sup>25</sup> Figure E.2 presents these results along with the 95 percent credible interval. Again, the AIIB-founder effect for 2018 is negative, and the 95 percent credible interval excludes zero.

Figure E.2: The AIIB Founder Effect on World Bank Loan Commitments (Infrastructure Projects. Exclude Co-financed with AIIB.)



Notes: This figure shows the estimated average treatment effect of AIIB founding members on the total World Bank loan commitments (IBRD and IDA financing, logged) for infrastructure projects, using DM-LFM by Pang et al. (2022). Projects that are co-financed with the AIIB are excluded. Number of observations: 2,619. The sample includes 102 countries (26 AIIB founders).

excludes zero. The point estimate for the effect in 2018 is -3.53, the lower bound of the 95 percent credible interval is -7.02, and the upper bound is -0.10.

25. We recall Clark (2021), who suggests that co-financing between the AIIB and the World Bank may diminish over time precisely because of the geopolitical tensions across the banks' respective leadership.

Still, it is clear that the negative effect that we estimate is more precise for the number of World Bank projects than it is for the size of World Bank loan commitments. We note that the different pattern between number of projects and amount of loans is consistent with results of the study of Dreher et al. (2009), who find that countries elected to the UN Security Council receive more World Bank projects, but not larger loans. Dreher et al. (2009) emphasizes the importance of technical expertise and seal of approval associated with World Bank projects.

Our interview with a World Bank senior specialist stationed in an AIIB founder country suggests that the difference in precision across projects and loan commitments may be due to two reasons. First, World Bank loan commitments represent a noisy measure of the interaction between recipient countries and World Bank staff, compared to the number of projects. Commitments are based on uncertain project cost estimates, and it stands to reason that we would estimate less precise effects with a less precise measure.<sup>26</sup>

Second, the number of projects actually represents a more meaningful measure of recipient governments' interaction with the World Bank.<sup>27</sup> Each additional project involves work with World Bank staff, and these interactions are lengthy, cumbersome, and politically intrusive. If we are correct that AIIB founders are turning away from the World Bank because of long-standing complaints about the institution – its conditionality and slow approval times, for example – we would indeed expect more action on the number of projects, which directly proxies for country-World Bank interaction, than on loan commitments.

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26. Interview A, Question 2.

27. Interview A, Question 2.

## F Data description

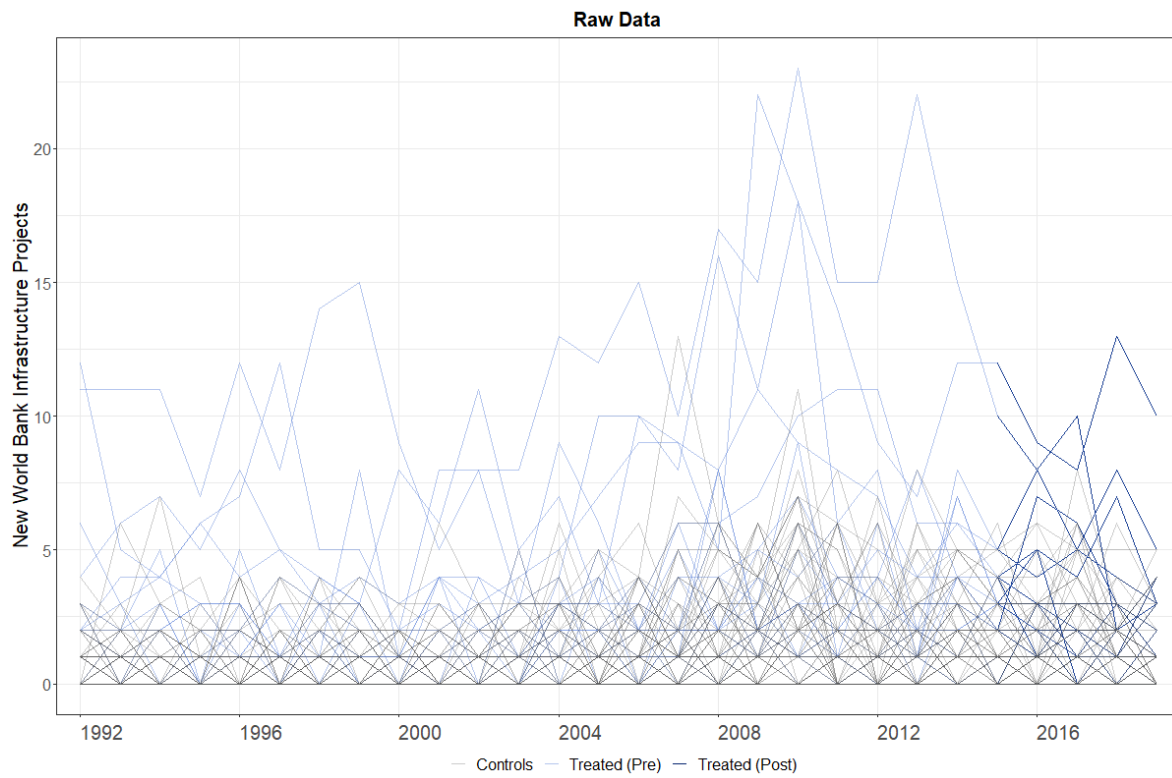
This section presents the raw data of our main independent variable (AIIB Founder  $\times$  Post 2016) and dependent variable (World Bank Project). Following the best practices suggested by Xu (2017) and Pang et al. (2022), we present the raw data for World Bank projects in Figures F.1 and F.2, Figure F.3 presents the pattern for missing and available data. Summary statistics are reported in Table F.2, and the list of AIIB sovereign projects during 2016 to 2019 is reported in Table F.3

Table F.1: List of AIIB Founding Members

Main Analysis	Bivariate/Imputation Only	No World Bank Projects in Sample Period
Azerbaijan	Malaysia	Australia
Bangladesh	Maldives	Austria
Brazil	Poland	Brunei
Cambodia	Russia	Denmark
China	South Korea	Finland
Egypt		France
Georgia		Germany
India		Iceland
Indonesia		Israel
Iran		Italy
Jordan		Kuwait
Kazakhstan		Luxembourg
Kyrgyzstan		Malta
Laos		Netherlands
Mongolia		New Zealand
Myanmar		Norway
Nepal		Oman
Pakistan		Portugal
Philippines		Qatar
South Africa		Saudi Arabia
Sri Lanka		Singapore
Tajikistan		Spain
Thailand		Sweden
Turkey		Switzerland
Uzbekistan		United Arab Emirates
Vietnam		United Kingdom

*Notes:* This table lists the 57 founding members of the AIIB. Countries listed in the first two columns received at least one World Bank project during our sample period (1992-2019). Countries in the first column are those included in the sample of World Bank project recipients where all covariates are included. Countries in the second column are those only included in the bivariate analysis and multiple imputation results due to missing data on covariates. Our results are robust across the samples. Countries in the third column are those not included in the analysis because they did not receive any World Bank projects from 1992 to 2019.

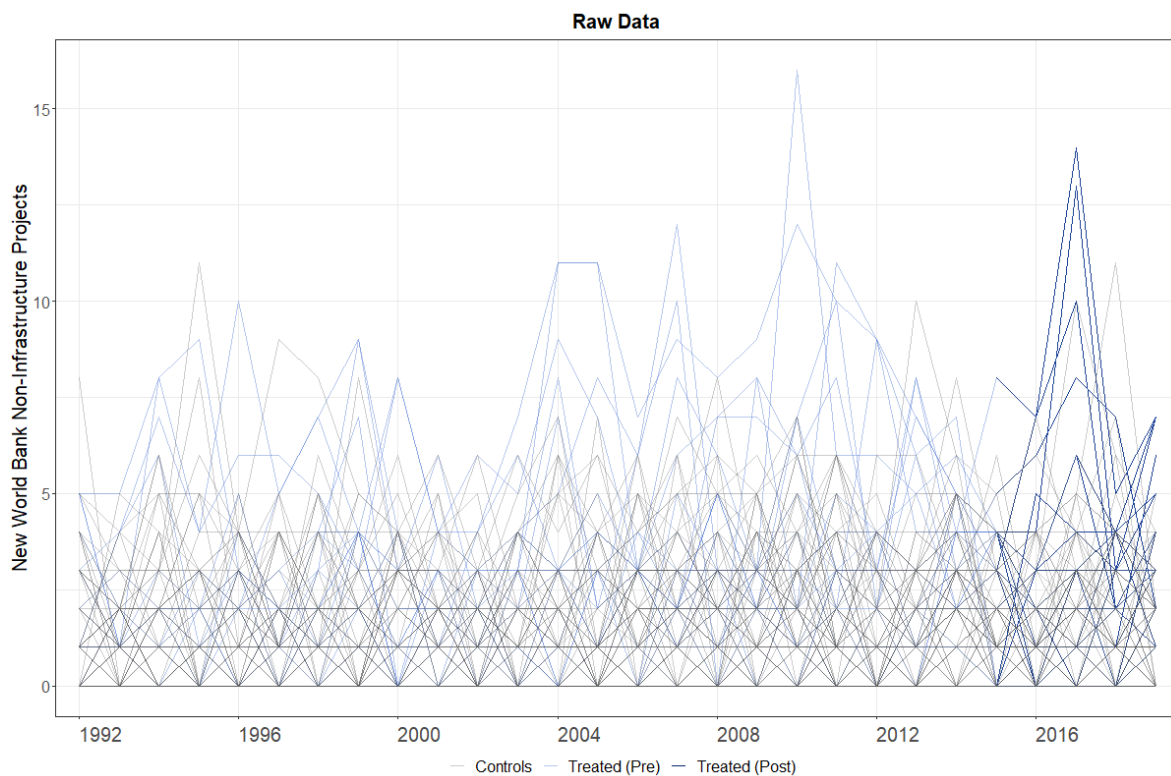
Figure F.1: Raw Data: New World Bank Infrastructure Projects



Notes: This plot shows trajectory of new World Bank infrastructure projects for countries in pre-treated years (light blue), in post-treated years (dark blue), and those in the control group (dark gray).

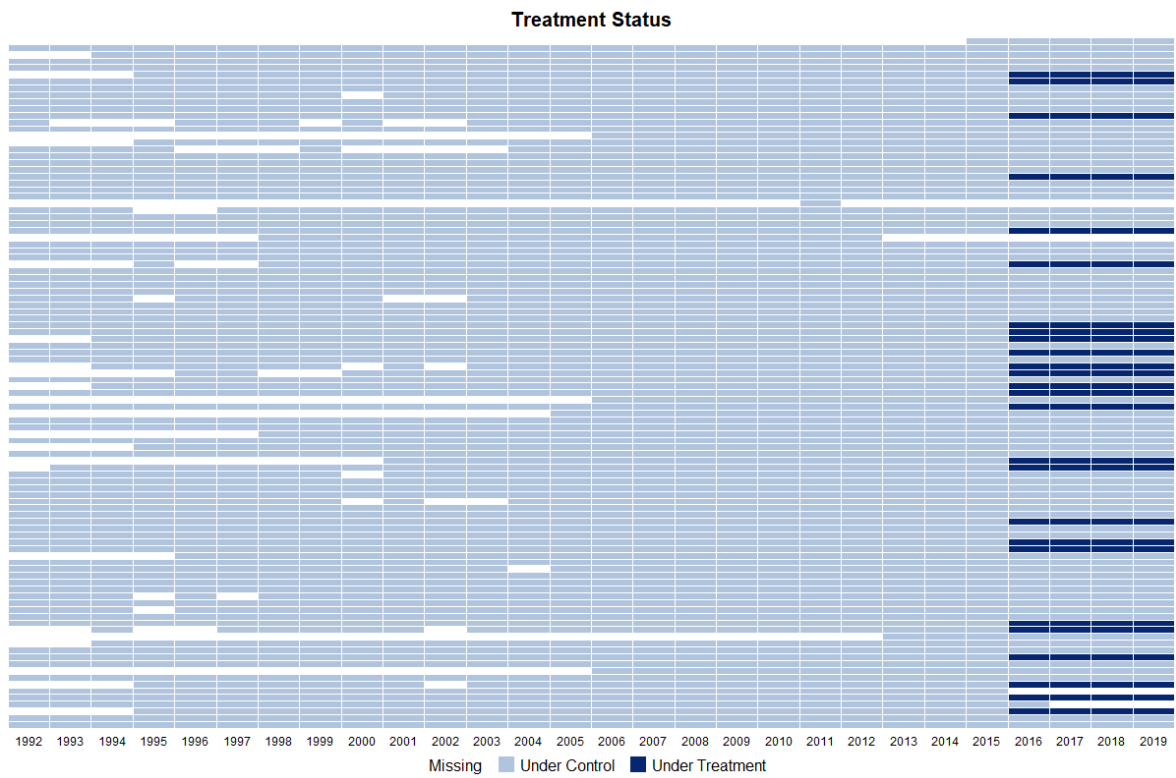


Figure F.2: Raw Data: New World Bank Non-Infrastructure Projects



Notes: This plot shows trajectory of new World Bank non-infrastructure projects for countries in pre-treated years (light blue), in post-treated years (dark blue), and those in the control group (dark gray).

Figure F.3: Treatment Status and Missingness



*Notes:* This plot shows the distribution of country-years that are in the treated group (dark blue), in the control group (light blue), and removed due to missing data in the specifications where covariates are included (white).

Table F.2: Summary Statistics

Statistic	N	Mean	St. Dev.	Min	Max
AIBF Founder × Post 2016	4,340	0.029	0.167	0	1
World Bank Infrastructure Project Count <sup>a</sup>	4,340	1.138	1.955	0	23
World Bank Infrastructure Project Count (b) <sup>b</sup>	4,340	1.115	1.905	0	22
World Bank Infrastructure Project Count (c) <sup>c</sup>	4,340	0.759	1.424	0	17
World Bank Non-Infrastructure Project Count	4,340	1.394	1.818	0	16
World Bank Non-Infrastructure Project Count (b)	4,340	1.418	1.851	0	15
World Bank Non-Infrastructure Project Count (c)	4,340	1.774	2.278	0	18
GDP per capita (log)	4,089	7.871	1.126	5.102	10.381
Population (log)	4,333	15.415	2.188	9.108	21.055
Election	3,787	0.270	0.444	0	1
FDI (% GDP)	3,998	4.046	6.749	-40.414	161.824
Debt service (% GNI)	3,108	4.463	5.217	0.007	73.283
ODA received (% GNI)	3,630	7.016	9.707	-2.313	94.946
Polity	3,568	2.807	5.999	-10.000	10.000
Temporary UNSC member	4,340	0.047	0.212	0	1
UNGA Voting (Ideal Point distance from US) <sup>d</sup>	4,055	3.055	0.736	0.044	5.256

*a.* Projects are coded as infrastructure projects if at least 50 percent of the World Bank's appraisal costs fall into one or more of the following sectors: (1) Agriculture, (2) Energy & Extractives, (3) Info & Communication, (4) Transportation, (5) Water/Sanitation/Waste, and as non-infrastructure projects otherwise.

*b.* Projects are coded as infrastructure projects if their largest major-sector is one of the followings: (1) Agriculture, (2) Energy & Extractives, (3) Info & Communication, (4) Transportation, (5) Water/Sanitation/Waste, and as non-infrastructure projects otherwise.

*c.* Projects are coded as infrastructure projects if their largest major-sector is one of the followings: (1) Energy & Extractives, (2) Transportation, (3) Water/Sanitation/Waste, and as non-infrastructure projects otherwise.

*d.* Country-year level covariates (except for AIBF Founder × Post 2016) lagged by one year.

Table F.3: List of AIIB Sovereign Projects Approved 2016-2019

Country/Region	Approval Date	Sector	Approved Funding
Bangladesh	2016-06-24	Energy	USD165 million
Indonesia	2016-06-24	Urban	USD216.5 million
Pakistan	2016-06-24	Transport	USD100 million
Tajikistan	2016-06-24	Transport	USD27.5 million
Pakistan	2016-09-27	Energy	USD300 million
Oman	2016-12-08	Transport	USD265 million
Azerbaijan	2016-12-21	Energy	USD600 million
Bangladesh	2017-03-22	Energy	USD60 million
Indonesia	2017-03-22	Water	USD125 million
Indonesia	2017-03-22	Urban	USD100 million
India	2017-05-02	Energy	USD160 million
Georgia	2017-06-15	Transport	USD114 million
Tajikistan	2017-06-15	Energy	USD60 million
India	2017-07-04	Transport	USD329 million
India	2017-09-27	Energy	USD100 million
Philippines	2017-09-27	Water	USD207.6 million
India	2017-12-08	Transport	USD335 million
India	2018-04-11	Transport	USD140 million
Indonesia	2018-06-24	Water	USD250 million
Turkey	2018-06-24	Energy	USD600 million
Egypt	2018-09-28	Water	USD300 million
India	2018-09-28	Transport	USD455 million
Turkey	2018-09-28	Financial Institution	USD200 million
India	2018-12-07	Water	USD400 million
Indonesia	2018-12-07	Urban	USD248.4 million
Bangladesh	2019-03-26	Energy	USD120 million
Lao PDR	2019-04-04	Transport	USD40 million
Sri Lanka	2019-04-04	Other	USD80 million
Sri Lanka	2019-04-04	Urban	USD200 million
Bangladesh	2019-07-11	Water	USD100 million
India	2019-09-26	Transport	USD500 million
Pakistan	2019-09-26	Water	USD40 million
Pakistan	2019-11-11	Transport	USD71.81 million
Turkey	2019-11-12	Financial Institution	USD200 million
China	2019-12-12	Energy	USD500 million
India	2019-12-12	Water	USD145 million
Nepal	2019-12-12	Energy	USD112.3 million
Russian Federation	2019-12-12	Transport	USD500 million
Turkey	2019-12-12	Urban	USD300 million
Uzbekistan	2019-12-12	Rural Infrastructure and Agriculture Development	USD82 million

*Notes:* This table shows a list of all sovereign projects approved by the AIIB between 2016 to 2019. Source: AIIB website. <https://www.aiib.org/en/projects/list/index.html>

Note that the two projects for Turkey in the financial institution sector are “TSKB Sustainable Energy and Infrastructure On-lending Facility” (000132) and “TKYB Renewable Energy and Energy Efficiency On-Lending Facility” (000141). Though classified as in the financial institution sector, both projects seek to provide long-term source of financing to support infrastructure development in Turkey.

## G Additional information on the results in the paper

For all of the results estimated with the DM-LFM, we estimate the parameters by sampling 15,000 draws (with 5,000 draws in the burn-in stage). We allow covariate coefficients to vary across units and time, and include up to 10 latent factors.<sup>28</sup> In this section, we report additional information for our main results in Figure 3.

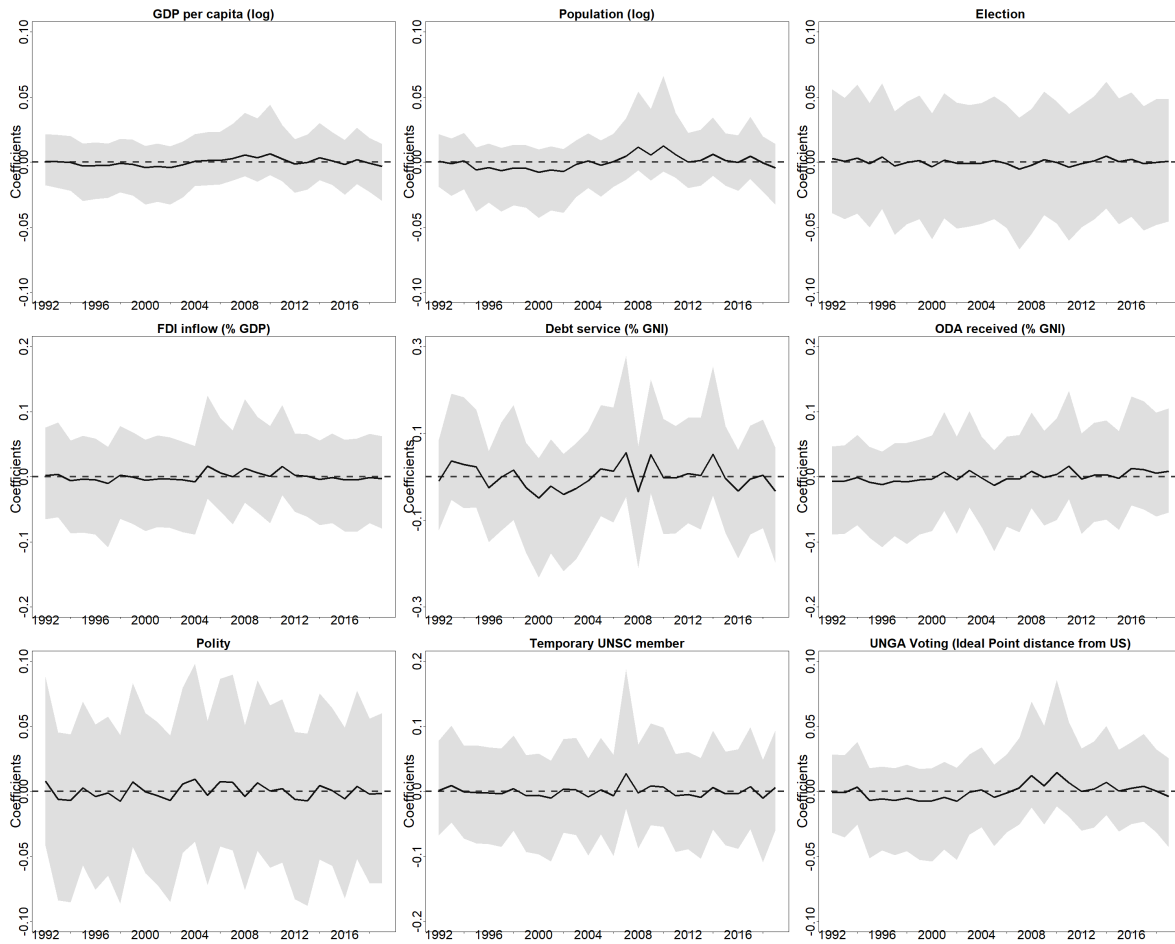
Figure G.1 reports the posterior distribution of the time-varying component of covariate coefficients, and none of them exhibits huge variation around the start of the treatment in 2016.

Figure G.2 shows the posterior distribution of  $\omega_\gamma$ , which captures the influence of the corresponding latent factors that approximate time-varying confounders. The figure suggests that at least 3 factors (with bimodal distribution) can explain significant proportions of the variation in the non-treatment outcome.

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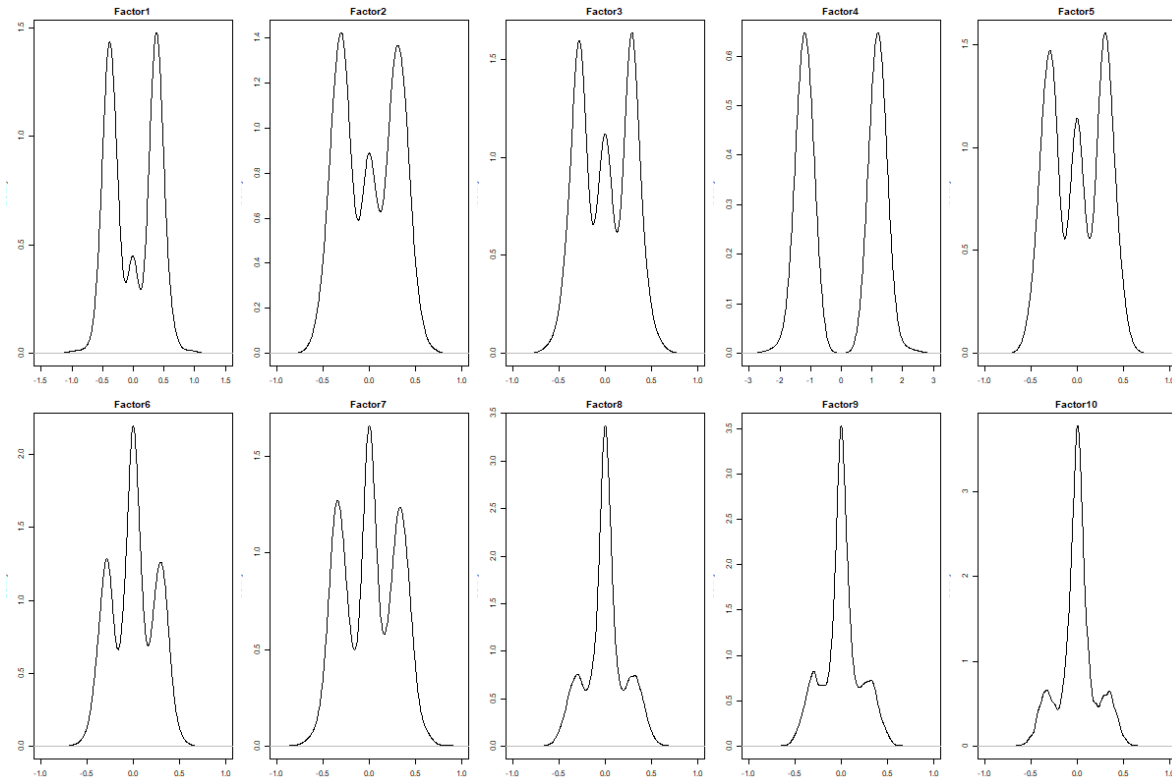
28. On details of implementing the DM-LFM, see Pang et al. (2022) and <https://github.com/liulch/bpCausal>.

Figure G.1: Posterior Distribution of Covariate Coefficients



*Notes:* This figure shows the posterior mean and 95% credible intervals of the time-varying component of covariate coefficients. Results correspond to Figure 3. See details in Pang et al. (2022).

Figure G.2: Posterior Distribution of Factor Influence



*Notes:* This figure shows the posterior distribution of  $\omega_\gamma$  for each of the 10 factors, which captures the influence of the corresponding factor. This figure suggests that at least 3 factors can explain significant proportions of the variation in the non-treatment outcome. Results correspond to Figure 3. See details in Pang et al. (2022).

## H Interviews

We interviewed specialists who work or have previously worked at the World Bank and the AIIB (see Table H.1).

For the World Bank, we interviewed two specialists. The first is a senior specialist stationed at a major World Bank in-country office. This country is one of the developing AIIB founding members. We found this specialist to be particularly knowledgeable because of the person's regular interaction with the AIIB-founder's government.

The second is a former World Bank specialist who worked at World Bank headquarters. We also interviewed a former specialist at the AIIB who worked at AIIB headquarters.

The interviews were conducted in Chinese via video call and translated by the authors. After drafting the notes from the interviews, the English version was sent back to the interviewees to make sure their original message was accurately recorded.

Table H.1: Interviews

<b>ID</b>	<b>Interviewee</b>	<b>Date</b>	<b>Mode of Contact</b>
Interview A	Senior specialist at a World Bank country office	April 12, 2022	Video Call
Interview B	Former specialist at World Bank headquarters	April 15, 2022	Video Call
Interview C	Former specialist at AIIB Headquarters	April 14, 2022	Video Call

Interviews were semi-structured and focused on the following questions:

1. How do you feel your client country will choose between the AIIB and World Bank for their projects, particularly after they join the AIIB as one of the founding members? Are there differences in the infrastructure projects between these two banks?
2. Our research found that founding countries received significantly fewer projects after joining the AIIB as founding members. Also, this effect is less significant for the total lending amount than in the number of the projects. What do you think might be the reason? Is it likely driven by the World Bank or the borrowing country's government?
- 3a. (World Bank) As a project officer, if you saw this declining trend, how did you respond to it? Do you think the trend will be reversed?



3b. (AIIB) As an AIIB project officer, do you think the World Bank will try to win back those clients if they see this declining trend? We noticed a rebound in our paper.

**Interview A: World Bank senior specialist stationed at  
an AIIB-founder country office**

Date: April 12th, 2022

Questions:

1. How do you feel your client country will choose between the AIIB and World Bank for their projects, particularly after they join the AIIB as one of the founding members? Are there differences in the infrastructure projects between these two banks?
2. Our research found that founding countries received significantly fewer projects after joining the AIIB as founding members. Also, this effect is less significant for the total lending amount than in the number of the projects. What do you think might be the reason? Is it likely driven by the World Bank or the borrowing country's government?
3. As a project officer, if you saw this declining trend, how did you respond to it? Do you think the trend will be reversed?

We use the following responses from the questions above in the paper:

- Footnote 35: we reference this interview as evidence that: “Developing countries have finite capacity to take on loans.” The subject had the following to say about the matter:
  - “Each country has a specific credit line for sovereign credit. They tend to diversify their borrowing portfolio.”
- Footnote 39: we reference this interview when we say: “At the AIIB, decision-making power is concentrated in emerging-market countries (Kim and Lee 2020), who prioritize streamlined project approval over cumbersome and intrusive processes.” The subject said the following on the matter:
  - “It is said it is easier to get funding from them [AIIB] than the World Bank. And they are also doing very basic infrastructure projects that require fewer skill sets and know-how. The review process of borrowing from the World Bank is too tedious.”

- Footnote 63: we quote this interview subject as follows: increasing political connections between the founder and China is indeed leading to “fewer projects with the World Bank, particularly in infrastructure projects”. We use this insight to suggest that AIIB founders have turned away from the US-led World Bank and towards the Chinese-led AIIB. The complete quote is as follows:
  - “The government will more likely choose the AIIB to finance their projects, mainly if their stakes in the AIIB are higher. Moreover, with the rise of a Chinese presence in the country, the president has many more regular meetings with the Chinese president. As one of the ways to make summit meetings bear fruits, more engagement through borrowing from the China-led AIIB is a convenient method. That will lead to fewer projects with the World Bank, particularly in infrastructure projects.”
- Footnote 65: we reference this interview as evidence that: “The AIIB concentrated exclusively on infrastructure at its inception, so even founders needed to continue working with the World Bank for their non-infrastructure development needs.” The subject said the following on the matter:
  - “The World Bank has a comparative advantage in technical assistance or the so-called soft sector. For example, right after the Covid-19 in 2020, the World Bank was the first invited by the Ministry of Finance to provide technical assistance to tackle the economic slump during the pandemic.”
- Footnote 70: we quote this interview subject as follows: Facing a declining trend of projects, the World Bank “did try to win back more projects.” When asked “As a project officer, if you saw this declining trend, how would you respond to it? Do you think the trend will be reversed?”, the subject had the following to say:
  - “In our regional office, we did try to win back more projects. For instance, our country director has changed recently. The new director has determined to engage more with the Ministry of Finance.”

- Footnote 74: we draw on this interview to suggest that: Commitments are based on uncertain project cost estimates, and it stands to reason that we would estimate less precise effects with a less precise measure.” The subject has the following to say on the matter:
  - “There is a huge variation in the [annual lending] amounts tied to World Bank projects because it is always based on multiple-year rolling, particularly for infrastructure projects. Therefore, the annual lending amount fluctuates a lot more than the number of projects. Given the nature of lending projects, particularly with the relatively predictable cost of the infrastructure projects, the number of projects is a more reasonable measurement than the total amount.”
- Footnote 74: we reference this interview as evidence that: the number of projects actually represents a more meaningful measure of recipient governments’ interaction with the World Bank. The subject said the following on the matter:
  - “Yes, it’s very likely that the decrease in the number of projects is more apparent than the amount. For World Bank staff, each project involves a relatively similar workload, procedures, and review of projects will be affected firstly, since there will also be fewer interactions between the government and World Bank regional office, thus affecting the possibilities of coming up with new projects or slowing down the projects in the pipeline. The same rule applies to the Ministry of Finance which is in charge of the administration of those projects. With additional options from AIIB, they have more incentive to cut the number of projects from the World Bank rather than the amount since the administrative costs are similar even though the project amounts are different.”

## **Interview B: Former World Bank specialist at World Bank headquarters**

Date: April 15th, 2022

Questions:

1. How do you feel your client country will choose between the AIIB and World Bank for their projects, particularly after they join the AIIB as one of the founding members? Are there differences in the infrastructure projects between these two banks?
2. Our research found that founding countries received significantly fewer projects after joining the AIIB as founding members. Also, this effect is less significant for the total lending amount than in the number of the projects. What do you think might be the reason? Is it likely driven by the World Bank or the borrowing country's government?
3. As a project officer, if you saw this declining trend, how did you respond to it? Do you think the trend will be reversed?

We use the following response from the questions above in the paper:

- Footnote 34: we reference this interview as evidence that: “under-represented states are actively seeking alternatives” The subject had the following to say about the matter:
  - “Many developing countries are under-represented in terms of their staff compared with capital and voting share at the World Bank. Even some of them are willing to provide more capital to the World Bank.”

## Interview C: Former AIIB specialist at AIIB headquarters

Date: April 14th, 2022

Questions:

1. How do you feel your client country will choose between the AIIB and World Bank for their projects, particularly after they join the AIIB as one of the founding members? Are there differences in the infrastructure projects between these two banks?
2. Our research found that founding countries received significantly fewer projects after joining the AIIB as founding members. Also, this effect is less significant for the total lending amount than in the number of the projects. What do you think might be the reason? Is it likely driven by the World Bank or the borrowing country's government?
3. As an AIIB project officer, do you think the World Bank will try to win back those clients if they see this declining trend? We noticed a rebound in our paper.

We use the following responses from the questions above in the paper:

- Footnote 65: we reference this interview as evidence that: “The AIIB concentrated exclusively on infrastructure at its inception, so even founders needed to continue working with the World Bank for their non-infrastructure development needs.” The subject said the following on the matter:
  - “I think the AIIB has comparative advantages in providing infrastructure projects. When we talk with government officials during project preparations, we tell them frankly that if they want to get technical assistance, they better go with the World Bank. We are very frank about this because we don't have the capability right now.”
- Footnote 70: we draw on this interview to suggest that: Facing a declining trend of projects, the World Bank “did try to win back more projects.” The subject had the following to say about the matter:

- “Within each MDB, there is competition among regional offices. I think this rule applies to the World Bank as well. For instance, if a declining trend is noticed by the World Bank lending towards Southeast Asian countries because they turn to AIIB, the pressure will be very high for them from other regional offices within the World Bank.”

## Appendix References

- Bas, Muhammet, and Randall Stone. 2014. "Adverse Selection and Growth Under IMF Programs." *Review of International Organizations* 9 (1): 1–28.
- Carter, David, and Randall Stone. 2015. "Democracy and Multilateralism: The Case of Vote Buying in the UN General Assembly." *International Organization* 69 (1): 1–33.
- Clark, Richard. 2021. "Pool or Duel? Cooperation and Competition Among International Organizations." *International Organization* 75 (4): 1133–1153.
- Clark, Richard, and Lindsay Dolan. 2021. "Pleasing the principal: US influence in World Bank policymaking." *American Journal of Political Science* 65 (1): 36–51.
- Dreher, Axel, Jan-Egbert Sturm, and James Vreeland. 2009. "Development Aid and International Politics: Does Membership on the UN Security Council Influence World Bank Decisions?" *Journal of Development Economics* 88 (1): 1–18.
- Hollyer, James R, B Peter Rosendorff, and James Raymond Vreeland. 2018. *Transparency, Democracy, and Autocracy: Economic Transparency and Political (In) Stability*. New York: Cambridge University Press.
- Honaker, James, and Gary King. 2010. "What to Do about Missing Values in Time-Series Cross-Section Data." *American Journal of Political Science* 54 (2): 561–581.
- Kersting, Erasmus, and Christopher Kilby. 2016. "With a Little Help From My Friends: Global Electioneering and World Bank Lending." *Journal of Development Economics* 121:153–165.
- Kilby, Christopher. 2009. "The Political Economy of Conditionality: An Empirical Analysis of World Bank Loan Disbursements." *Journal of Development Economics* 89 (1): 51–61.
- Lall, Ranjit. 2016. "How Multiple Imputation Makes a Difference." *Political Analysis* 24 (4): 414–433.
- Malik, Rabia, and Randall Stone. 2018. "Corporate Influence in World Bank Lending." *Journal of Politics* 80 (1): 103–118.
- Pang, Xun, Licheng Liu, and Yiqing Xu. 2022. "A Bayesian Alternative to Synthetic Control for Comparative Case Studies." *Political Analysis* 30 (2): 269–288.
- Signorino, Curtis. 1999. "Strategic Interaction and the Statistical Analysis of International Conflict." *American Political Science Review* 93 (2): 279–297.
- Signorino, Curtis, and Kuzey Yilmaz. 2003. "Strategic Misspecification in Regression Models." *American Journal of Political Science* 47 (3): 551–566.
- Vadlamannati, Krishna Chaitanya, and Yuanxin Li. 2021. "To Join or Not to Join? The US Response to China-led AIIB Initiative: An Empirical Investigation."



Xu, Yiqing. 2017. "Generalized Synthetic Control Method: Causal Inference with Interactive Fixed Effects Models." *Political Analysis* 25 (1): 57–76.

Zeitz, Alexandra. 2021. "Emulate or Differentiate?: Chinese Development Finance, Competition, and World Bank Infrastructure Funding." *Review of International Organizations* 16 (2): 265–292.