



# Does Belt and Road Initiative attract Cross-Border M&As from other countries?

Chaoqun Zhan<sup>1</sup> | Hanxi Wang<sup>2</sup> | Chenxue Hou<sup>3</sup>

<sup>1</sup>The Department of Accountancy, Economics and Finance, Hong Kong Baptist University, Kowloon Tong, Hong Kong

<sup>2</sup>Department of Economics, The Chinese University of Hong Kong, Shatin, Hong Kong

<sup>3</sup>Business School, University of Bristol, Bristol, UK

## Correspondence

Chenxue Hou, Business School, University of Bristol, Bristol, UK.  
Email: [chenxue.hou@bristol.ac.uk](mailto:chenxue.hou@bristol.ac.uk)

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## Abstract

This article examines how the Belt and Road Initiative (BRI) affects Cross-Border M&As (CMAs) inflows to countries along the Belt and Road routes (BRI countries) from non-BRI countries. We conduct a difference-in-differences estimation with a control group constructed through propensity score matching. We find that the BRI significantly reduces CMAs from non-BRI countries to BRI countries. The results are robust to various concerns and specifications. We uncover two important mechanisms driving the results: the increased CMAs within BRI countries and the potential debt risks. We also find heterogeneous effects across countries.

## KEYWORDS

Belt and Road Initiative, Cross-Border M&As, debt risk

## 1 | INTRODUCTION

China introduced the Belt and Road Initiative (BRI) in 2013, with the primary objective of rejuvenating the historic Eurasian trade routes that historically connected Asia, particularly China, to Europe (Wang & Miao, 2016). The BRI aims to promote extensive cooperation among countries along these routes and foster broader collaboration with the rest of the world. Notably, the BRI's success is evident in the increased trade flows observed within BRI countries (Baniya et al., 2020; Bird et al., 2020; Boffa, 2018; Ramasamy & Yeung, 2019; World Bank, 2019). Despite its achievements, one aspect that remains relatively unexplored in the existing literature is how the BRI facilitates attracting foreign investments into BRI countries. While prior research has primarily

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focused on investments from China (Chen et al., 2020; Cinar et al., 2016; Du & Zhang, 2018; Fuest et al., 2021; Yu et al., 2020), there is limited evidence concerning investments from non-BRI countries. This study seeks to bridge this gap by examining the BRI's impact on the inflow of cross-border mergers from non-BRI countries.

It is crucial to scrutinise Cross-Border M&As (CMAs) from non-BRI countries to BRI countries, for two reasons.<sup>1</sup> Figure 1 depicts the total count of CMAs to BRI countries from China and non-BRI countries during 2010–2017. Notably, CMAs from non-BRI countries far outweigh those originating from China. Specifically, CMAs from China account for merely 1.14% in count and 3.23% in value of the overall CMAs targeting BRI countries during 2010–2017. Furthermore, the trend of CMAs from non-BRI countries differs from that of CMAs from China, particularly following the introduction of the BRI in 2013. This suggests that their responses to the BRI policy may be substantially distinct. Thus, to gain a comprehensive understanding of the BRI policy's effect on CMAs to BRI countries, it is imperative to analyse the impact on CMAs from non-BRI countries.

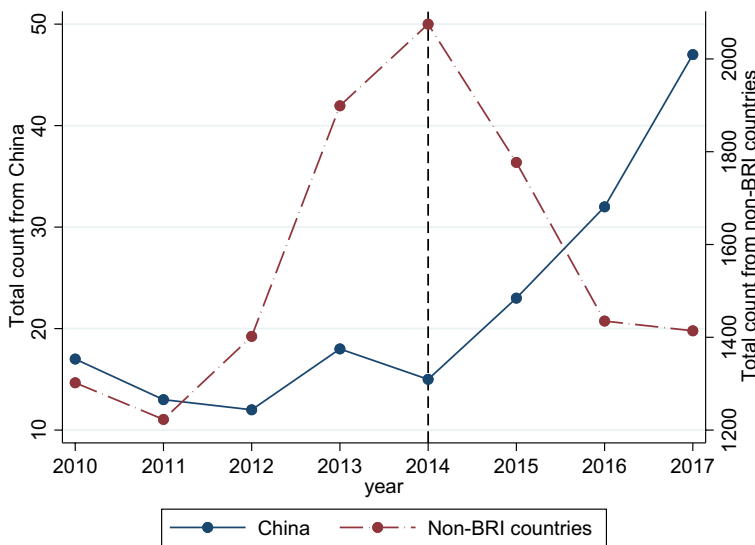
We use the difference-in-differences (DID) combined with propensity score matching (PSM) method to examine effects of the BRI policy in 2013 on CMAs from non-BRI to BRI countries. To ensure comparability, we first use PSM to select a group of non-BRI countries that closely resemble BRI countries, forming our control group. The BRI countries constitute the treatment group. By comparing the changes in CMAs from non-BRI countries to both groups before and after 2013, we can identify the causal effect of the BRI policy on attracting CMAs from non-BRI countries.

Employing data over 2010–2017, we find a significant and negative effect of the BRI policy on CMAs from non-BRI countries to BRI countries. After the BRI policy, non-BRI countries conduct significantly fewer CMAs to BRI countries compared to CMAs to their PSM counterparts. The finding is robust to various concerns and specifications. This negative effect is economically significant, resulting in an average 28.7% decline in CMAs from non-BRI countries to BRI countries.

We identify two key mechanisms contributing to this decline in CMAs. First, the increased connectivity within BRI countries, driven by infrastructure development, appears to benefit economic integration among BRI countries more than interactions with non-BRI countries. Consequently, there is an increase in CMAs within BRI countries, potentially displacing CMAs from non-BRI countries. Empirical results indicate a negative correlation between CMAs from non-BRI countries and the rise of CMAs within BRI countries, particularly for BRI countries receiving more CMAs from other BRI countries. Second, the massive infrastructure construction associated with the BRI policy may lead to a rapid escalation of public and corporate debt in the short term. This heightened debt risk can deter multinational corporations from making investments. Our findings confirm that BRI countries exhibit higher debt risks following the initiative, and the negative effect on CMAs is more pronounced in countries with higher initial debt risks.

Moreover, our research examines the heterogeneous effects of the BRI policy. CMAs primarily decrease in acquirer and target countries with higher income after the BRI policy. Additionally, the decline in CMAs from non-BRI countries is more pronounced in regions such as South Asia, Central Asia and East and Central Europe.

<sup>1</sup>For the whole article, we use BRI countries to denote BRI countries excluding China. As the literature has investigated CMAs from China to other BRI countries, we focus on CMAs from non-BRI countries to BRI countries excluding China.



**FIGURE 1** The total count of Cross-border M&As from China and non-Belt and Road Initiative countries, 2010–2017. [Colour figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]

This article contributes to three strands of the literature. First, it adds to the existing researches on the effects of BRI. Prior studies primarily focus on the BRI's positive impact on trade and welfare, especially in the long run (Baniya et al., 2020; Bird et al., 2020; Boffa, 2018; Chen & Lin, 2018; World Bank, 2019). In contrast, our empirical results identify a negative effect of BRI in attracting CMAs from non-BRI countries, at least in the short run. This novel insight emphasises the importance of considering potential risks and costs for the sustainability and success of the BRI.

Second, our research is also closely related to the literature on how BRI affects CMAs, which has predominantly centred on the CMAs from China. For example, Du and Zhang (2018), Zhang et al. (2021) find that CMAs rise significantly in the BRI countries in response to BRI. Yu et al. (2020) show that China's export potential to BRI countries has increased significantly after the initiative, especially in the exports of capital-intensive industries. Constantinescu and Ruta (2018) find that though the BRI countries have been accounting for a large share of Chinese construction investment before 2013, BRI still brought a new driven force to the ongoing trends in China's trade relations with these BRI countries. However, our study shifts the focus to CMAs from non-BRI countries and uncovers a contrary negative effect. This novel finding enriches our understanding of the overall impact of the BRI in attracting CMAs.

While there is one exception, Chen and Lin (2020), which investigates the effect of the BRI on CMAs from countries other than China, our article differs in several key aspects. First, while they examine the specific effect of increased connectivity induced by the BRI, such as the rise in direct flights, we analyse the overall impact of the BRI policy. Second, their study considers the effect on CMAs from all countries, while we specifically emphasise the impact on CMAs from non-BRI countries. Finally, they attribute the reduced transportation cost as the main mechanism, whereas we propose the increased CMAs within BRI countries and the potential debt risks as the main mechanisms behind the negative effect.

Third, our mechanism analysis also anchors the recent literature on debt risks in BRI countries. World Bank (2019) raises the concern of the rising public and corporate debt in BRI countries and indicates that it is essential to maintain debt sustainability and reduce debt vulnerability.



Bandiera and Tsiropoulos (2020) find that the large scale of infrastructure investment leads to increased debt vulnerabilities, especially for low-income BRI countries. We find that BRI countries with higher debt vulnerabilities tend to receive fewer CMAs from non-BRI acquirers. This finding validates concerns on the short-run debt risks faced by BRI countries, especially when the full growth impact of infrastructure construction is yet to be entirely realised.

The rest of the article is organised as follows. Section 2 describes the data and empirical strategy, including the DID method and PSM method. Section 3 reports the regression results and provides some robustness checks. Section 4 shows two possible mechanisms that lead to the decline in CMAs from non-BRI countries. Section 5 studies the heterogeneous effects. We conduct further discussion in Section 6 and conclude in Section 7.

## 2 | ECONOMETRIC SPECIFICATION AND DATA

### 2.1 | Empirical strategy

We conduct a difference-in-difference (DID) analysis to identify the impact of BRI policy on the CMAs from non-BRI countries to BRI countries. Our data cover the period 2010–2017, including the pre-BRI (2010–2013) and post-BRI periods (2014–2017). We examine the difference between the changes in CMAs from non-BRI acquirer countries to BRI target countries (the treatment group) and the corresponding changes in CMAs from non-BRI acquirer countries to non-BRI target countries (the control group).

We construct our econometric specification as follows,

$$\ln y_{ijt} = \beta_1 Post_t \times BRI\_Ta_j + \mathbf{X}'_{jt} \boldsymbol{\theta} + \lambda_{it} + \lambda_{ij} + \varepsilon_{ijt}, \quad (1)$$

where  $y_{ijt}$  is the log of one plus the total count of CMAs from non-BRI acquirer country  $i$  to target country  $j$  in year  $t$ , excluding deals with the transaction value lower than 1 million euro ( $Count\_1m_{ijt}$ ).<sup>2</sup> To conduct robustness tests, we also use two alternative measures. The first one is a broader measure ( $Count_{ijt}$ ), the total count of all CMAs from all non-BRI acquirer country  $i$  to target country  $j$  in year  $t$ . The second one is a narrower measure ( $Count\_1m\_fi_{ijt}$ ), which further excludes deals with financial buyers as the acquirer.<sup>3</sup>  $Post_t$  is a dummy variable indicating the years after 2013. It takes value 0 for years before 2014 and 1 for years from 2014 to 2017.  $BRI\_Ta_j$  is a dummy variable indicating that the target country  $j$  is a BRI country. The set of variables  $\mathbf{X}_{jt}$  are time-varying characteristics of the target country  $j$  to capture its demand potential and attractiveness for FDI inflows. Specifically, we include the natural logarithm of GDP to capture the commonly used gravity force in attracting CMAs. We control for the growth rate of GDP to measure the potential investment opportunities (Erel et al., 2012; Rossi & Volpin, 2004). The exchange rate also affects CMAs because acquirers can conduct CMAs at lower costs when the target country's currency depreciates (Di Giovanni, 2005; Erel et al., 2012). The natural logarithm of the exchange rate of the country's currency to US dollars is added. The average stock price helps capture the average asset prices and the financing

<sup>2</sup>Following Breinlich (2008) and Liu et al. (2019), we use the count instead of the total value of transactions. The distribution of transaction values is relatively dispersed. A deal with large transaction value could disturb the measure.

<sup>3</sup>We exclude deals conducted by financial buyers such as banks because they may have very different incentives when conducting CMAs.

conditions, and therefore is included as well. We also add the degree of openness, measured as the total trade volume to GDP, to our regression. Countries that are more open to trade are likely to be more open to CMAs. For the acquirer country, we include the acquirer-year fixed effect,  $\lambda_{it}$ , to control for all time-varying characteristics that could be correlated with CMA and the BRI.<sup>4</sup> In addition, we also include  $\lambda_{ij}$ , the acquirer-target country pair fixed effect, to control for the bilateral resistance between any country pair, such as the bilateral distance, common language, common legal origin and so on.  $\varepsilon_{ijt}$  is the robust standard error term. In general, our model is an augmented gravity model for capital flows.

CMAs have specific patterns across different types of countries. For example, CMAs are more likely to occur between developed countries. Therefore, CMAs targeting BRI countries such as Pakistan can be highly different from those targeting other non-BRI countries such as the United States. To make our control group comparable to BRI countries, we use the PSM method to select countries similar to BRI countries before the DID estimation to construct a counterfactual control group. Specifically, we use characteristics in the pre-BRI period (2010–2012) and take the average of each characteristic during these 3 years. These characteristics include the GDP, GDP growth, degrees of openness, exchange rates and the average stock price. Then, we calculate the propensity scores of each target country and choose the closest counterparts for each BRI country. In our baseline regression, we use the K-nearest neighbour matching method ( $K = 3$ ). We also use radius matching and kernel matching methods in the robustness checks.

## 2.2 | Data

Our empirical analysis combines three datasets. The first data source is Zephyr. This database provides transaction level data of CMAs deal, such as the acquirer country and target country, announced time, completion time and value of a transaction in both dollar and euro currencies for each deal. We use this data source to calculate the count of CMAs in country pairs every year from 2010 to 2017. We exclude CMAs involving tax havens such as the Virgin Islands and the Cayman Islands. Considering that our focus is the CMAs on BRI countries other than China, we exclude mainland China, Macao, Hong Kong and Taiwan from BRI countries.

The second data source is Penn World Table (PWT), which provides country-level performances information covering 182 countries from 1950 to 2017. We use this data source to construct control variables in each country, including stock prices, real GDP, import and export value, the price level of capital stock and exchange rate.

The third data source is the World Economic Outlook Database from the International Monetary Fund (IMF) and World Development Indicators (WDI) from the World Bank, from which we retrieve information on each country's debt-to-GDP ratios, external debt to GNI ratios and credit to private sector (share of GDP) every year for mechanism tests.

We merge the four databases above to construct our dataset at the country pair-year level. The data sample includes 44 BRI target countries (excluding Afghanistan) and 125 non-BRI countries from 2010 to 2017.<sup>5</sup>

<sup>4</sup>We are not able to do so for the target country as our key explanatory variable varies at target-year level.

<sup>5</sup>There were only 45 BRI countries by 2016, and the count increased to 65 by 2019. Since our data sample ends in 2017, we still use 45 BRI countries. See Table A1 of the Appendix for a detailed list of the BRI countries in our data sample. Data on Afghanistan are not available. Thus, the dataset only includes 44 BRI countries.

**TABLE 1** The propensity score matching balance test.

Variable	Before matching			After matching		
	Mean of treatment group	Mean of control group	Difference	Mean of treatment group	Mean of control group	Difference
$lngdp_{jt}$	12.382	10.758	1.624***	12.2	12.061	0.139
$gdpgrowth_{jt}$	0.099	0.059	0.040***	0.092	0.095	-0.003
$openness_{jt}$	0.614	0.691	-0.077	0.626	0.569	0.057
$lnstockprice_{jt}$	0.365	0.432	-0.067**	0.377	0.363	0.014
$lnexchange_{jt}$	3.503	3.051	0.452	3.451	3.315	0.136

\*\* $p < .05$ , \*\*\* $p < .01$ .

### 3 | EMPIRICAL RESULTS

#### 3.1 | PSM results

We apply the K-nearest neighbour matching method to select non-BRI countries that are most similar to BRI countries to form our control group. Specifically, for each BRI country, we choose three non-BRI countries ( $K=3$ ) with the closest propensity scores.<sup>6</sup> To test the reliability of the matching results, we conduct a balance test. Table 1 shows the mean values and their differences of covariates between the treatment and control groups before and after the matching. The differences in GDP, the growth of GDP and the openness between the treatment and control groups are significant before matching and become statistically insignificant after matching. The distributions of covariates in the PSM control group are similar to those in the treatment group (BRI countries). The two groups are more comparable after matching.

In addition, we also show that after matching, the two groups have comparable pre-trends in CMAs inflows. Figure 2 depicts the total count from non-BRI acquirer countries to BRI target countries (treatment group) and to counterfactual non-BRI target countries (control group) in the period 2010–2017. The CMAs trends are similar before 2014 between the two groups, suggesting parallel pre-trends. In addition, the trends diverge from 2014, with the BRI target countries receiving fewer CMAs than the control group. This divergence suggests a negative effect of BRI on CMAs from non-BRI countries.

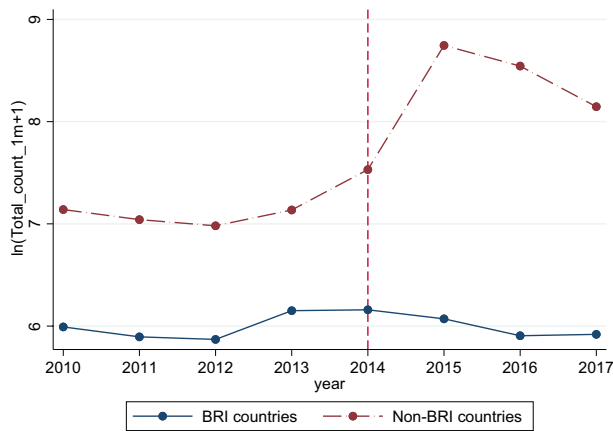
In sum, all the earlier evidence shows that the PSM is successful in selecting non-BRI countries that are similar to and have parallel pre-trends with BRI countries. Therefore, we use these matched non-BRI countries as our control group for the following DID estimation.

#### 3.2 | DID estimation results

Table 2 reports our DID regression results based on model (1). From column (1) to column (6), we add each control variable step by step. The results are consistent that estimated coefficients on

<sup>6</sup>Refer to Table A2 for a list of the matched countries.





**FIGURE 2** Comparison of Cross-border M&As inflows between two groups, 2010–2017. [Colour figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]

$Post_t \times BRI\_Ta_j$  stay significant and negative. After the BRI policy, non-BRI countries conduct significantly fewer CMAs to BRI countries than CMAs to their non-BRI counterparts. These results indicate that the BRI policy decreases the count of CMAs from non-BRI countries to BRI countries.

The negative effect is economically non-trivial. The mean of  $lny_{ijt}$  is 0.0307 for the BRI countries before the initiative, and we find that the initiate on average reduces 0.009 log points CMAs for BRI countries. Therefore, the policy has on average induced a 29% reduction in CMAs from other countries to BRI countries.<sup>7</sup>

### 3.3 | Robustness checks

This section examines the robustness of our empirical findings. First, we conduct a flexible estimation to formally test the parallel pre-trends. We further use alternative dependent variables, independent variables, model specifications and matching methods to test our results. Finally, we take other large-scale investment projects into consideration to check the robustness of our results.

#### 3.3.1 | Flexible estimation

In section 3.2, we estimate the difference between the treatment and control groups in their average differences in CMAs between the pre-BRI and post-BRI periods. Figure 2 provides raw evidence on the parallel pre-trends. We further use a more flexible model specification to explore whether the treatment and control groups have comparable trends before the BRI policy and whether the difference between the two groups increases after the BRI policy. Specifically, we replace the BRI policy dummy  $Post_t$  in model (1) with a vector of year dummies

<sup>7</sup>Since we use the  $\log(1 + \text{count})$ , the change is calculated as  $\frac{e^{0.009} - 1}{e^{0.0307} - 1} = 0.2900$ .

TABLE 2 Baseline results.

	(1)	(2)	(3)	(4)	(5)	(6)
$Post_t * BRI\_Ta_j$	-0.0093*** (0.0018)	-0.0095*** (0.0018)	-0.0090*** (0.0018)	-0.0088*** (0.0018)	-0.0089*** (0.0018)	-0.0090*** (0.0018)
$lngdp_{it}$		0.0080*** (0.0023)	0.0026 (0.0026)	0.0026 (0.0027)	0.0033 (0.0030)	-0.0079*** (0.0036)
$gdpgrowth_{it}$			0.0288*** (0.0053)	0.0287*** (0.0053)	0.0301*** (0.0053)	0.0357*** (0.0056)
$openness_{it}$				-0.0041 (0.0054)	-0.0050 (0.0055)	-0.0078 (0.0055)
$lnstockprice_{jt}$					0.0101 (0.0063)	-0.0070 (0.0068)
$lnexchange_{jt}$						-0.0145*** (0.0016)
FE	Country-pair, acquirer-year					
N	93,568	93,568	93,568	93,568	92,816	92,816

Note: Robust standard error in parenthesis.

\*\* $p < .05$ ; \*\*\* $p < .01$ .



year<sub>*t*</sub> indicating the years from 2010 to 2017 with the year 2010 as the omitted reference year, as follows:

$$\ln y_{ijt} = \sum_{t=2011}^{2017} \beta_t \text{year}_t \times \text{BRI\_Ta}_j + \mathbf{X}'_{jt} \theta + \lambda_{it} + \lambda_{ij} + \varepsilon_{ijt}, \quad (2)$$

Table 3 reports the results of the flexible estimation. Column (1) presents results without controls, while column (2) shows results with all controls. In both columns, the differences in CMAs across two groups are insignificant before the BRI policy as the estimated  $\hat{\beta}_t$  are insignificant and close to zero before 2014. The coefficients become significantly negative since 2015, indicating that BRI countries receive significantly fewer CMAs in the post-BRI period.

We also plot the estimated coefficients over year in Figure 3. Before 2014, the estimated coefficients are insignificant and close to zero. Then the coefficients are significantly negative after 2014. Therefore, we rule out the possibility of an ex-ante divergent trend of the treated group with that of the matched control group.

### 3.3.2 | Alternative dependent variables

To further examine the robustness of the results, we replace the dependent variable with two alternative variables. The first one is  $\ln \text{Count}_{ijt}$ , the natural logarithm of one plus the total count of all CMAs from non-BRI acquirer country *i* to target country *j* in year *t*. The second one is a narrower measure  $\ln \text{Count\_1m\_fi}_{ijt}$ , the natural logarithm of one plus the total count of CMAs when the value is greater than 1 million euro and the acquirer is not a financial buyer. Results are reported in columns (1) and (2) in Table 4. The estimated coefficients on  $\text{Post}_t \times \text{BRI\_Ta}_j$  remain significantly negative, indicating that our finding is robust to these alternative measures.

### 3.3.3 | Alternative independent variables

Some BRI countries are deeply involved in the initiative while others may not. This difference may induce heterogeneous responses from these countries after BRI policy. The optimal way to address this concern is to find an accurate measure of the intensity of BRI involvement. However, it is difficult to accurately measure the intensity at current stage. Since Chinese BRI investments might leverage other investments from BRI countries themselves and credits from international organisations such as Asia Development Bank as well, taking one step back, we assume that the variation in Chinese investments across BRI countries is positively correlated with and therefore can proxy for the intensity of BRI involvement. We find two alternative measures of Chinese investments: the count of overseas development projects from AidData; and the count of CMAs from China from Zephyr Dataset.

We first calculate the count of overseas development projects from China to country *j* in year *t*,  $\text{Invest}_{jt}$ , from AidData's Global Chinese Development Finance Dataset. It covers all types of financial and in-kind transfers from government and state-owned institutions in China.<sup>8</sup> Second,

<sup>8</sup>A caveat of this measure is that private investment programmes are not included.

TABLE 3 Parallel pre-trends.

	(1)	(2)
$BRI\_Ta_j \times year2011_t$	−0.0019 (0.0035)	−0.0037 (0.0035)
$BRI\_Ta_j \times year2012_t$	−0.0036 (0.0034)	−0.0043 (0.0035)
$BRI\_Ta_j \times year2013_t$	0.0062 (0.0035)	0.0057 (0.0036)
$BRI\_Ta_j \times year2014_t$	−0.0031 (0.0035)	−0.0031 (0.0035)
$BRI\_Ta_j \times year2015_t$	−0.0147*** (0.0037)	−0.0146*** (0.0037)
$BRI\_Ta_j \times year2016_t$	−0.0120*** (0.0036)	−0.0130*** (0.0037)
$BRI\_Ta_j \times year2017_t$	−0.0066* (0.0036)	−0.0073** (0.0036)
Controls	No	Yes
FE	Country-pair, acquirer-year	
N	93,568	92,816

Note: Controls include all covariates listed in Table 1. Robust standard error in parenthesis.

\* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$ .

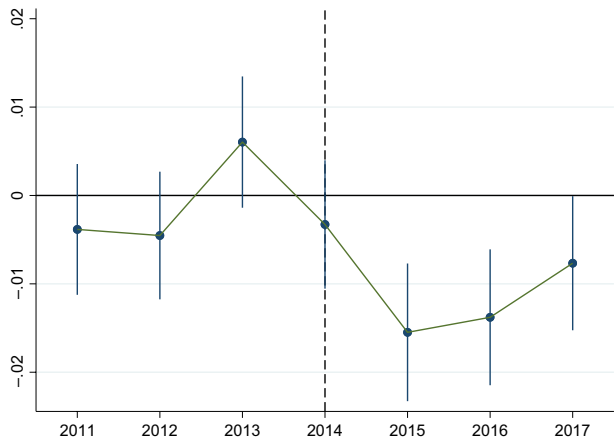


FIGURE 3 Parallel trend test. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com/doi/10.1111/1467-7017.12489)]

we calculate the count of CMAs from China,  $China\_CMA_{jt}$ , as an alternative measure for Chinese investment intensity.<sup>9</sup>

Using these two measures, we study whether the effect is more pronounced for countries that receive more Chinese investment based on the following specification.

$$\ln y_{ijt} = \beta_1 Intensity_{jt} \times BRI\_Ta_j \times Post_t + \beta_2 BRI\_Ta_j \times Post_t + \mathbf{X}'_{jt} \boldsymbol{\theta} + \lambda_{it} + \lambda_{ij} + \varepsilon_{ijt}, \quad (3)$$

where  $Intensity_{jt}$  is measured with  $Invest_{jt}$  and  $China\_CMA_{jt}$ , respectively. Note that other two term interactions  $Intensity_{jt} \times BRI\_Ta_j$  and  $Intensity_{jt} \times Post_t$ , and  $Invest\_count_{jt}$  are all included in  $\mathbf{X}_{jt}$  but not reported to save space. We expect  $\beta_1$  to be negative if BRI countries that receive more Chinese investment tend to have fewer CMAs from other countries after the initiative.

<sup>9</sup>However, it suffers the shortcoming that only investments through CMAs are included. Moreover, the number of CMAs from China only accounts for 1.15% of total CMAs targeting BRI countries during 2010–2017. Therefore, the measurement error in this case should be unnegligible.

Results are reported in Table 4, with column (3) for  $Invest_{jt}$  and column (4) for  $China\_CMA_{jt}$ . Evidently, the estimated coefficient on  $Intensity_{jt} \times BRI\_Ta_j \times Post_t$  is always significant and negative, indicating that BRI countries that receive more Chinese investment indeed tend to have fewer CMAs from other countries after the initiative. Given that  $Invest_{jt}$  on average varies from 0 to 3.5835 for BRI countries with a mean of 1.6165, the effect of the BRI initiate on CMAs from other countries therefore varies from  $-0.0135$  to  $0.0160$ , with the average effect of  $-0.0013$ . Analogously, the effect estimated using  $China\_CMA_{jt}$  varies from  $-0.1133$  to  $0$ , with a mean of  $-0.0089$ . These all provide not only evidence on the heterogeneous effect on different countries, but also demonstrate that the average effect is still negative.

### 3.3.4 | Alternative dependent variables and model specifications

Our baseline finding is obtained using the natural logarithm of one plus CMAs count as the dependent variable. We now check whether our results are robust directly using CMAs count as the dependent variable. We first use the fixed effect Poisson model to estimate the effects. Column (5) of Table 4 shows that the key estimate remains significantly negative.

Since many country pairs do not have bilateral CMA flows, the count variable includes many zeros. To avoid our results being driven by these zeros, we also use the Poisson pseudo-maximum likelihood (PPML) model, another commonly used count model, to estimate the effects. Silva and Tenreiro (2010) develop this method to identify and drop regressors that may cause the non-existence of the (pseudo) maximum likelihood estimates. This method is advantageous when the data have many zeros, which might cause a potential convergence problem. The result is reported in column (6) of Table 4, consistent with the fixed effect Poisson model result in column (5).

### 3.3.5 | Alternative matching methods

The estimation results earlier are based on the 3-nearest neighbour matching method. In column (7) of Table 4, we use the 1-nearest neighbour matching method to check the robustness. We further use the radius matching method and the kernel matching method to check the robustness. The estimates on  $Post_t \times BRI\_Ta_j$  remain negative and statistically significant in all regressions under different matching methods, consistent with our baseline results.

### 3.3.6 | Other contemporaneous projects

Another concern is that contemporaneous large-scale infrastructure projects unrelated with the BRI policy might confound our results. We find two contemporaneous large-scale infrastructure projects. The first is the 'Juncker Project' in EU which is mainly financed by the European Investment bank (€344 billion scale by the end of 2018, starting from 2015), covering all members of EU. The other one is Connecting Europe Facility (CEF), which has called for proposals, leading to decisions to fund 1386 actions receiving support under the 2014–2018.<sup>10</sup> Overall, the selected

<sup>10</sup>Connecting Europe Facility is a European Union fund established in 2014 for infrastructure investments, across the union in transport, energy, digital and telecommunication projects.

TABLE 4 Robustness checks.

Dependent variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	lnCount <sub>ijt</sub>	lnCount <sub>ijt</sub>	Chinese overseas investment	Chinese CMA	Poisson	PPML	1-Nearest neighbour	Excluding acquirer EU
$Post_t * BRI\_Ta_j$	-0.0059*** (0.0023)	-0.0089*** (0.0018)	0.0160*** (0.0054)	0.0018 (0.0016)	-0.764*** (0.157)	-0.658*** (0.0886)	-0.0050*** (0.0021)	-0.0051*** (0.0016)
$Invest_{jt} * Post_t * BRI\_Ta_j$			-0.0083*** (0.0024)					
$China\_CMA_{jt} * Post_t * BRI\_Ta_j$				-0.0429*** (0.0061)				
Controls	Yes							
FE	Country-pair, acquirer-year							
N	92,816	92,816	92,816	92,816	8624	8086	64,280	77,096

Note: Other interaction terms are included by not reported to save space. Controls include all covariates listed in Table 1. Robust standard error in parenthesis.  
\*\*  $p < .05$ ; \*\*\*  $p < .01$ .

CEF actions had received a total support of €30.5 billion.<sup>11</sup> To show that our baseline finding is not affected by these projects, which is mainly initiated by the EU countries, we delete M&As with acquirers located in the EU and re-run our baseline regression. The result in column (8) of Table 4 shows that our baseline result remains robust.

### 3.3.7 | Falsification test

In this section, we conduct falsification tests by randomly picking 44 countries as ‘BRI countries’, and one year among 2011–2016 as the ‘policy year’. For each ‘BRI country’, we apply the K-nearest neighbour matching method by choosing three ‘non-BRI countries’ ( $K=3$ ) with the closest propensity scores, and use these matched ‘non-BRI countries’ as our control group for the DID estimation. We randomise this ‘fake’ BRI assignment 500 times and plot the estimated coefficients of  $Post_t \times BRI\_Ta_j$  in Figure 4.

In Figure 4, the red horizontal line represents  $p$  value equalling to .05, while the red vertical line shows our baseline coefficient, which is  $-0.0090$ . The distribution of these estimates is centred around zero (mean value of 0.0001), with a standard deviation of 0.0046. Our true estimate (i.e.  $-0.0090$ ), however, lies below the fifth percentile of the 500 estimates.<sup>12</sup> Therefore, it is very unlikely that it has occurred by chance.

## 4 | MECHANISMS

We find that the BRI policy reduces CMAs from non-BRI countries to BRI countries. In this section, we propose two potential channels that are at function. One is that the increased connectivity due to infrastructure, especially transportation construction, might benefit investment flows among BRI countries themselves more, which might drive out CMAs from non-BRI countries. The other is the debt risk. The enormous scale of infrastructure construction induced by the BRI policy could build up the debt and therefore associated risks quickly, which might hinder the investment incentives of multinational corporations from non-BRI countries.

### 4.1 | Crowding out effect from BRI countries’ CMAs

As the connectivity within BRI countries has been significantly improved (Lall & Lebrand, 2020), the costs of commodity, personnel and information flows become lower. Therefore, CMAs among BRI countries could become more active. This might drive out CMAs from non-BRI countries. Figure 5 depicts the total count of CMAs among BRI countries and those from non-BRI countries to BRI countries from 2010 to 2017. After 2013, the average count of CMAs from BRI countries has a steadily increasing trend. Given the capacity of these BRI target countries,

<sup>11</sup>Investing in European Networks. The Connecting Europe Facility: 5 Years Supporting European Infrastructure’, published in July 2019. [https://ec.europa.eu/inea/sites/default/files/cefpub/cef\\_implementation\\_brochure\\_2019.pdf](https://ec.europa.eu/inea/sites/default/files/cefpub/cef_implementation_brochure_2019.pdf).

<sup>12</sup>We also randomly pick fake BRI countries and fake policy year, and directly conduct DID estimation without PSM for 500 times. The results are similar with that shown in Figure 4.

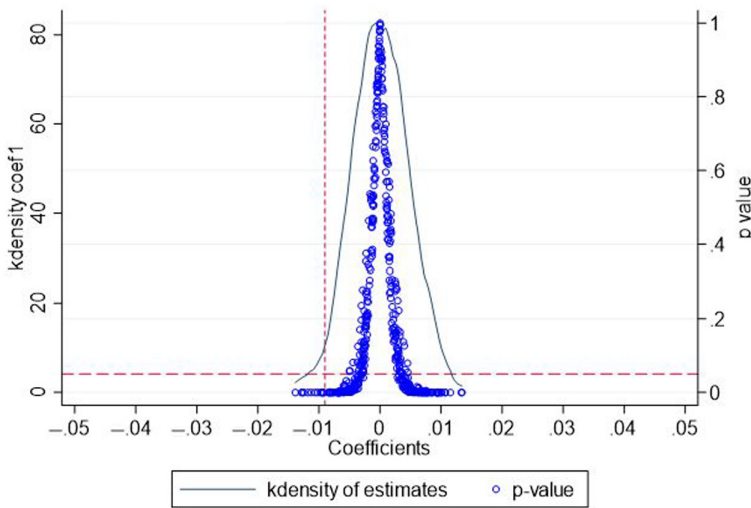


FIGURE 4 Placebo test for propensity score matching-difference-in-differences estimation. [Colour figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]

this increasing trend of CMAs among BRI countries might crowd out opportunities for non-BRI countries' further investments, at least in the short run. Indeed, we observe that CMAs from non-BRI countries to BRI countries decline after 2015 in Figure 5.

We first run a country-year level regression to show that BRI countries receive more CMAs from BRI countries after the initiative than do their non-BRI counterparts, using the following specification:

$$BRI\_CMAs_{jt} = \beta_1 Post_t \times BRI\_Ta_j + X'_{jt} \theta + \lambda_t + \lambda_j + \varepsilon_{jt}, \quad (4)$$

where  $BRI\_CMAs_{jt}$  is the total count of CMAs from BRI countries of country  $j$  in year  $t$ . In column (1) of Table 5, we show that BRI countries experienced an increase in total count of CMAs from all BRI countries, compared to non-BRI countries.

To formally test whether the decline of CMAs from non-BRI countries is associated with the increase of CMAs among BRI countries, we calculate the total count of CMAs from all BRI countries to each target country in the post-BRI period ( $BRI\_CMAs_j$ ). Then we define a dummy variable  $H\_BRI\_CMAs_j$ , which equals one if the  $BRI\_CMAs_j$  is larger than the median of all  $BRI\_CMAs_j$ ; and zero otherwise. We conduct a triple differences estimation (DDD) using the following specification:

$$\ln y_{ijt} = \beta_1 Post_t \times BRI\_Ta_j + \beta_2 Post_t \times BRI\_Ta_j \times H\_BRI\_CMAs_j + \beta_3 Post_t \times H\_BRI\_CMAs_j + X'_{ijt} \theta + \lambda_{it} + \lambda_{ij} + \varepsilon_{ijt}, \quad (5)$$

Column (2) of Table 5 reports the regression results based on the dummy variable  $H\_BRI\_CMAs_j$ . The coefficient of  $Post_t \times BRI\_Ta_j \times H\_BRI\_CMAs_j$  is significantly negative, indicating that the count of CMAs from non-BRI countries decreases more if the target country

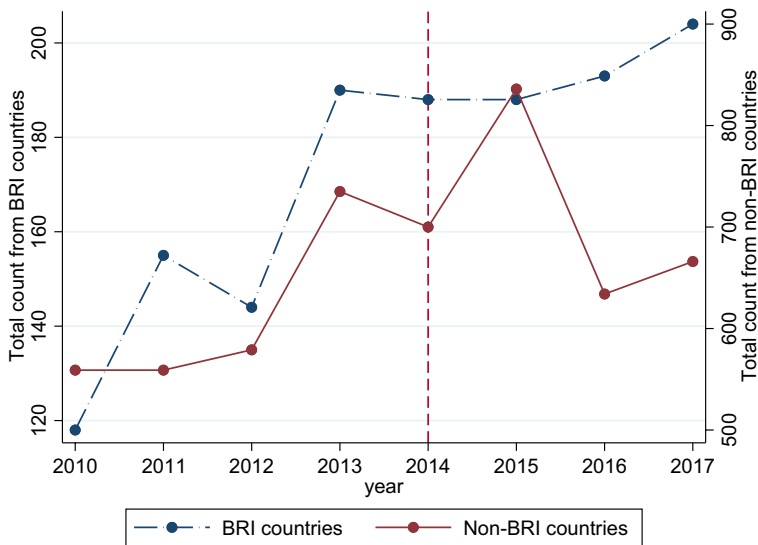


FIGURE 5 The total count of Cross-border M&As from Belt and Road Initiative (BRI) countries to BRI countries and from non-BRI countries to BRI countries, 2010–2017. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com/doi/10.1111/twe.13489)]

receives more BRI countries' CMAs.<sup>13</sup> These findings support our proposed mechanism that the decreased CMAs from non-BRI countries are associated with increased CMAs among BRI countries.<sup>14</sup>

## 4.2 | Debt risks

Implementing the BRI induces an unprecedented level of infrastructure investment, which requires a large scale of financing. This contributes to the soaring public and corporate debt levels of BRI countries. Hillman (2018) finds that after the BRI policy, up to \$1 trillion new infrastructure investments are hugely debt financed. Given that the debt risks have a climbing trend over recent years, especially for low-income developing countries (IMF and World Bank, 2020), the BRI policy could exacerbate this trend. Hurley et al. (2019) find that eight countries will face the risk of debt distress based on an identified pipeline of project lending related to BRI. The rising debt risks could impede the investment incentives from non-BRI countries.

As an international cooperation initiative, BRI projects receive large amount of external finance such as credits from China, or other global institute including Asia Development Bank and

<sup>13</sup>We also replace the dummy variable  $H\_BRI\_CMAs_{jt}$  with a continuous variable  $\ln(BRI\_CMAs_{jt})$ , which is the natural logarithm of one plus the total count of CMAs from all BRI countries to each target country each year. The estimated coefficient is also significantly negative, further confirming the result in column (2).

<sup>14</sup>A strand of empirical literature emphasises the increasing CMAs from China to other BRI countries as China initiated this policy. It is possible that the increasing CMAs from China is associated with the decreasing CMAs from non-BRI countries as well. We find that though the effect is statistically significant and consistent with this conjecture, it is economically trivial. As shown in Figure 1, CMAs from China only account for a limited share of CMAs to BRI countries. Therefore, it is unlikely that they can drive out CMAs from non-BRI countries.



TABLE 5 Mechanism tests.

Dependent variable	(1)	(2)	(3)	(4)	(5)	(6)
	CMA from BRI countries	CMA	External debt	Domestic credit to private sectors	CMA	CMA
$Post_t * BRI\_Ta_j$	0.1338* (0.0710)	0.0019 (0.0012)	0.0406** (0.0187)	0.0460*** (0.0139)	0.0034 (0.0022)	-0.0024 (0.0020)
$Post_t * BRI\_Ta_j * H\_BRI\_CMA_{sj}$		-0.0354*** (0.0040)				
$Post_t * BRI\_Ta_j * H\_debt\_ed_j$					-0.0076** (0.0032)	
$Post_t * BRI\_Ta_j * H\_debt\_pd_j$						-0.0178*** (0.00441)
Controls	Yes					
FE	Country, year	Country-pair, acquirer-year	Country, year		Country-pair, acquirer-year	
N	752	92,816	461	540	57,288	69,096

Note: Other interaction terms are included by not reported to save space. Robust standard error in parenthesis.

\* $p < .1$ , \*\* $p < .05$ , \*\*\* $p < .01$ .

so on, which may make the external debt sensitive to the initiative. Therefore, the first measure of debt risk we employ is the external debt stocks as the share of GNI. The debtors can be the government, corporations or private household. Taking both public and private external debt into account, we use the ratio of external debt stocks to GNI to measure the country's external debt level, and therefore the debt risk.

Moreover, when multinational enterprises (MNEs) make cross-border *corporation* decisions, which mainly involve private firms as targets, the conditions of the private sectors should be more relevant. BRI projects with large-scale investments can incentivise the expansion of domestic credit supplied to private sector, leading to a rapid debt build-up of private firms rapidly and therefore their risk exposures. This debt risk can also be an important factor in determining the MNEs' CMA decisions. Therefore, we use the domestic credit to private sectors as the other measure of debt risk in private sectors. This measure captures financial resources provided to the private sector by financial corporations.

We first run a country-year level regression to show that BRI countries experience increases in debt risks after the initiative compared to their counterparts, using the following specification:

$$Debt_{jt} = \beta_1 Post_t \times BRI\_Ta_j + X'_{jt}\theta + \lambda_t + \lambda_j + \varepsilon_{jt}, \quad (6)$$

where  $Debt_{jt}$  is the debt risk of country  $j$  in year  $t$ , proxied by the two continuous measures discussed earlier.

In columns (3) and (4), we show that BRI countries experienced an increase both in external debt and the domestic credit to private sectors, suggesting increased risks after the initiative. Given these facts, countries with *initially* higher level of external debt, or domestic credit to private sectors, should bear more risks after the initiative. If these risks are important factors in MNEs' CMAs decisions, we would expect the reduction of CMAs should be more salient in countries with initially higher values of these two measures. We construct a dummy  $H\_debt\_ed_j$  which equals to one if country  $j$  has larger than median external debt in 2010, and zero otherwise; and a dummy  $H\_debt\_pd_j$  which equals to one if country  $j$  has larger than median external debt in 2010, and zero otherwise. Analogously to the channel of CMAs between BRI countries, we run triple difference regressions with both measures, separately. Results are reported in columns (5) and (6). We find that BRI countries with higher debt risks in the initial year, whether proxied by the external debt, or the domestic credit to private sectors, receive fewer CMAs from non-BRI acquirers.

## 5 | HETEROGENEOUS ANALYSIS

In this section, we study the heterogeneous effect of the BRI policy. We analyse the heterogeneous effect among different types of countries and different regions below.

### 5.1 | Different income level of acquirer countries

The effects of BRI policy on the CMAs from non-BRI countries to BRI countries might vary across acquirer countries with different income level. To examine the heterogeneity of BRI's effects, we first separate the non-BRI acquirer countries according to their income level.



We have two methods to group the non-BRI acquirer countries. First, we use the amount of GDP per capita in the initial year 2010 to represent the income level of acquirer countries. We define a dummy variable  $H\_gdpp\_ac_i$ , which equals to one if country  $i$  has larger than median income level in 2010; and zero otherwise. Then, we replace  $H\_BRI\_CMAs_j$  in specification (5) with  $H\_gdpp\_ac_i$  and re-run the DDD specification to study whether the negative effect of BRI on CMAs from non-BRI countries varies across acquirers with different income level.

The second method is based on the standard from the World Bank, which classifies countries into four groups: high-income, upper middle-income, lower middle-income and low-income countries. We define the dummy variable  $H\_gdpp\_ac_i$  being one if country  $i$  is a high- or upper middle-income country in 2010; and zero otherwise.

In Table 6, column (1) presents the regression results of the first grouping method and column (4) presents the regression results of the second method. The results show that the coefficients of  $Post_t \times BRI\_Ta_j \times H\_gdpp\_ac_i$  are significantly negative, indicating that the non-BRI acquirer countries with higher income level are the main driver for the decreasing CMAs after BRI policy.

## 5.2 | Different income level of target countries

Next, we examine the heterogeneity effects of BRI policy on the CMAs of different income level of target countries. Similarly, we use the two grouping methods above to classify target countries into two groups and investigate the heterogeneous effects on CMAs for target countries with different income level. The results in columns (2) and (5) of Table 6 show that the coefficients of  $Post_t \times BRI\_Ta_j \times H\_gdpp\_ta_j$  are significantly negative, indicating that CMAs mainly decrease in target countries with higher income after BRI policy.

We also include both interaction terms  $Post_t \times BRI\_Ta_j \times H\_gdpp\_ac_i$  and  $Post_t \times BRI\_Ta_j \times H\_gdpp\_ta_j$  in one regression. The results in the columns (3) and (6) of Table 6 in Section 5.2 show that the coefficients of the interaction terms  $Post_t \times BRI\_Ta_j \times H\_gdpp\_ac_i$  and  $Post_t \times BRI\_Ta_j \times H\_gdpp\_ta_j$  are both significantly negative. Therefore, CMAs mainly decrease in acquirer and target countries with higher level income after BRI policy. The mean of  $lny_{ijt}$  is 0.0307 for the BRI countries before the initiative, and column (3) shows that the non-BRI acquirer countries with higher income level reduces 0.0196 log points CMAs more than non-BRI acquirer countries with lower income level, and BRI target countries with higher income level reduces 0.0226 log points CMAs more than BRI target countries with lower income level after the initiate. Therefore, the BRI policy has on average induced  $\frac{e^{0.0196} - 1}{e^{0.0307} - 1} \times 100\% = 63.49\%$  more reduction in CMAs from non-BRI acquirer countries with higher income level than that from non-BRI acquirer countries with lower income level. Moreover, the policy has on average induced  $\frac{e^{0.0226} - 1}{e^{0.0307} - 1} \times 100\% = 73.32\%$  more reduction in CMAs from other countries to BRI countries with higher income level than that to BRI countries with lower income level.

Based on the World Bank measure, column (6) shows that the non-BRI acquirer countries with higher income level reduces 0.0160 log points CMAs more than non-BRI acquirer countries with lower income level, and BRI target countries with higher income level reduces 0.0184 log points CMAs more than BRI target countries with lower income level after the initiate. Therefore, the BRI policy has on average induced 51.73% more reduction in CMAs from non-BRI acquirer

TABLE 6 Heterogeneous effect among different income level in acquirer or target countries.

	(1)	(2)	(3)	(4)	(5)	(6)
	GDP per capita			World Bank measure		
$Post_t * BRI\_Ta_j$	0.0007 (0.0006)	0.0011 (0.0017)	0.0109*** (0.0020)	0.0008 (0.0006)	0.0017 (0.0019)	0.0115*** (0.0021)
$Post_t * BRI\_Ta_j * H\_gdpp\_ac_i$	−0.0194*** (0.0035)		−0.0196*** (0.0036)	−0.0159*** (0.0029)		−0.0160*** (0.0029)
$Post_t * BRI\_Ta_j * H\_gdpp\_ta_j$		−0.0225*** (0.0036)	−0.0226*** (0.0037)		−0.0184*** (0.0033)	−0.0184*** (0.0034)
Controls	Yes					
FE	Country-pair, acquirer-year					
N	92,816	92,816	92,816	92,816	92,816	92,816

Note: Other interaction terms are included by not reported to save space. Controls include all covariates listed in Table 1. Robust standard error in parenthesis.  
\*\* $p < .05$ ; \*\*\* $p < .01$ .



countries with higher income level than that from non-BRI acquirer countries with lower income level. Moreover, the policy has on average induced 59.57% more reduction in CMAs from other countries to BRI countries with higher income level than that to BRI countries with lower income level.

### 5.3 | Different regions of BRI countries

We also examine the heterogeneous effects of BRI policy on CMAs across BRI countries in different regions. We classify the BRI countries into eight regions, i.e. East Asia, Southeast Asia, South Asia, Central Asia, West Asia, East Europe (including Russia), South Europe (including Egypt) and Central Europe in Table A3. Given that only one BRI country, Mongolia is in East Asia, we add this country to the region of Southeast Asia.

Table 7 shows the results of sub-sample regressions in seven regions. The estimated coefficients of  $Post_t \times BRI\_Ta_j$  are significantly negative in the regions of South Asia, Central Asia and East and Central Europe. Moreover, the difference in coefficients magnitude indicates that CMAs decrease more for BRI countries in East Europe. For treatment group in the region of East Europe, mean of the dependent variable is 0.0897 before the BRI policy. Column (5) of Table 7 shows that the initiate on average reduces 0.0398 log points CMAs for BRI target countries in the region of East Europe. Therefore, the policy has on average induced a  $\frac{e^{0.0398} - 1}{e^{0.0897} - 1} \times 100\% = 43.27\%$  reduction in CMAs from other countries to BRI countries in the region of East Europe.

## 6 | FURTHER DISCUSSION

We discuss the effect of BRI policy on CMAs by exploring the M&A data in this section.

First, we find that the count of CMAs from China to BRI countries increases after the BRI policy, as shown in Figure 1. The existing literature has also documented this finding (Chen et al., 2020; Cinar et al., 2016; Du & Zhang, 2018; Fuest et al., 2021; Yu et al., 2020).

Second, the count of CMAs between BRI countries increases after the BRI policy, as shown in Figure 4. We also conduct PSM-DID estimation to test this effect, using the following specification:

$$\ln y_{ijt} = \beta_1 Post_t \times BRI\_Ac_i + X'_{jt} \theta + \lambda_{jt} + \lambda_{ij} + \varepsilon_{ijt}, \quad (7)$$

where  $BRI\_Ac_i$  is the indicator for whether the acquirer country  $i$  is a BRI country. The treatment group is BRI acquirer countries, while the control group is non-BRI acquirer countries. We only retain BRI target countries in this estimation. The average log number of CMAs between BRI countries is 0.0299 before the BRI policy and 0.0356 after the policy, while the average log number of CMAs from non-BRI countries to BRI countries is 0.0191 before the BRI policy and 0.183 after the policy. Column (1) of Table 8 reports the regression result. For each of the 44 BRI target countries, there are 40 BRI acquirer countries and 54 non-BRI acquirer countries after PSM in each year. Therefore, we have  $(94 \times 44 - 44) \times 8 = 32,768$  observations in the regression. The coefficient of  $Post_t \times BRI\_Ac_i$  is significantly positive, indicating that the count of CMAs between BRI countries is increasing more than that from non-BRI countries to BRI countries.

TABLE 7 Heterogeneous effect among different regions.

Region	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Southeast Asia	South Asia	Central Asia	West Asia	East Europe	South Europe	Central Europe
$Post_t * BRI\_Ta_j$	-0.0044 (0.0031)	-0.0192*** (0.0040)	-0.0208*** (0.0036)	-0.0038 (0.0026)	-0.0398*** (0.0073)	-0.0006 (0.0068)	-0.0160** (0.0063)
Controls	Yes						
FE	Country-pair, acquirer-year						
$N$	41,408	18,720	24,640	48,304	21,672	14,792	21,680

Note: Controls include all covariates listed in Table 1. Robust standard error in parenthesis.  
\*\* $p < .05$ ; \*\*\* $p < .01$ .

**TABLE 8** Other effects on Cross-border M&As (CMAs).

	(1)	(2)	(3)
	CMAs between BRI countries	Outward CMAs	Within-country MAs
$Post_t \times BRI_i$	0.0065** (0.0031)	−0.0053*** (0.0015)	0.1652** (0.0719)
Controls	Yes		Yes
FE	Country-pair, target-year		Country, year
<i>N</i>	32,768	92,816	752

Note: Controls include all covariates listed in Table 1, but changing the subscript  $j$  to  $i$ . Robust standard error in parenthesis.

\*\* $p < .05$ ; \*\*\* $p < .01$ .

Third, we find that the outward of CMAs from BRI countries to non-BRI countries are more active after the BRI policy. We conduct PSM-DID estimation for this effect, using the earlier specification. In this regression, we only retain non-BRI target countries, in order to compare the outward CMAs from BRI countries to non-BRI countries, with those from non-BRI countries to non-BRI countries. The average log number of BRI countries' outward CMAs is 0.0144 before the BRI policy and 0.0171 after the policy, while the average log number of non-BRI countries' outward CMAs before the policy is 0.0185 and 0.0196 after the policy. Column (2) of Table 8 reports the regression result. The estimated coefficient of  $Post_t \times BRI\_Ac_i$  is significantly negative, indicating that the count of CMAs from BRI countries to non-BRI countries is rising less than those from non-BRI countries to non-BRI countries.

Finally, we find that domestic MAs of BRI countries are booming after the BRI policy. We conduct PSM-DID estimation for this effect, using the following specification:

$$\ln y_{it} = \beta_1 Post_t \times BRI_i + X'_{jt} \theta + \lambda_i + \lambda_t + \varepsilon_{it}, \quad (8)$$

where  $y_{it}$  is the count of within-country MAs.  $BRI_i$  is the indicator for whether the country  $i$  is a BRI country. The treatment group is BRI countries, while the control group is non-BRI countries. The average log number of BRI country's domestic MAs before the policy is 1.9808 and 2.2034 after the policy, while the average log number of non-BRI country's domestic MAs before the policy is 1.6413 and 1.6975 after the policy. Column (3) of Table 8 reports the regression result. There are 40 BRI countries and 54 non-BRI countries after PSM in each year. Therefore, we have 752 observations in total. The estimated coefficient of  $Post_t \times BRI_i$  is significantly positive, indicating that the increase in the domestic MAs of BRI countries is larger than that of non-BRI after the BRI policy.

## 7 | CONCLUSION

BRI, proposed by China in 2013, has brought convenience for economic communication between Asia, Europe and Africa. Through an unprecedented scale of infrastructure construction, this initiative has brought considerable benefits to BRI countries and the whole world (Bird et al., 2020; Zhai, 2018) and has induced increased trade flows in BRI countries. This article investigates the effect of BRI on CMAs from non-BRI countries to BRI countries.

Employing the PSM-DID estimation approach, we find that the CMAs from non-BRI countries had declined after 2013 in the short run (till 2017). We provide evidence that two important mechanisms contribute to this phenomenon. One is that the unprecedented scale of infrastructure



construction increases debt financing in BRI countries, meanwhile increasing their debt risks. The debt risks impede the investment incentives of multinational corporations from non-BRI countries. The other mechanism is that the increased CMAs among BRI countries due to their increased connectivity have made fewer opportunities left for non-BRI countries, which drives out CMAs from non-BRI countries.

Given its large scale of investments, especially those in infrastructure, the BRI could have significant and positive effects on the long-run economic growth of BRI countries. However, our findings suggest that there might be some costs and risks in the short run that deserve more attention to ensure the sustainability and success of BRI.

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Authors are listed in reverse alphabetical order and have contributed equally. We benefited from discussions at various conferences and seminars. We would like to express our gratitude for the comments provided by the editor and two anonymous reviewers. Any errors that remain are solely ours.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the National Bureau of Statistics of China. Restrictions apply to the availability of these data, which were used under license for this study.

## ORCID

Chaoqun Zhan  <https://orcid.org/0000-0003-4469-1627>

## REFERENCES

- Bandiera, L., & Tsiropoulos, V. (2020). A framework to assess debt sustainability under the Belt and Road Initiative. *Journal of Development Economics*, 146, 102495.
- Baniya, S., Rocha, N., & Ruta, M. (2020). Trade effects of the New Silk Road: A gravity analysis. *Journal of Development Economics*, 146, 102467.
- Bird, J., Lebrand, M., & Venables, A. J. (2020). The Belt and Road Initiative: Reshaping economic geography in Central Asia? *Journal of Development Economics*, 144, 102441.
- Boffa, M. (2018). Trade Linkages between the Belt and Road Economies. *World Bank Policy Research Working Paper* 8423.
- Breinlich, H. (2008). Trade liberalization and industrial restructuring through mergers and acquisitions. *Journal of International Economics*, 76(2), 254–266.
- Chen, J., Liu, Y., & Liu, W. (2020). Investment facilitation and China's outward foreign direct investment along the belt and road. *China Economic Review*, 61, 101458.
- Chen, M., & Lin, C. (2018). Foreign investment across the belt and road: Patterns, determinants and effects. *World Bank Policy Research Working Paper* 8607.
- Chen, M. X., & Lin, C. (2020). Geographic connectivity and cross-border investment: The belts, roads and skies. *Journal of Development Economics*, 146, 102469.
- Cinar, E. M., Johnson, J., & Geusz, K. (2016). Estimating Chinese trade relationships with the Silk Road countries. *China & World Economy*, 24(1), 85–103.
- Constantinescu, C., & Ruta, M. (2018). *How old is the Belt and Road Initiative?* Long Term Patterns of Chinese Exports to BRI Economies. World Bank MTI Practice Note, 6.
- Di Giovanni, J. (2005). What drives capital flows? The case of Cross-border M&A activity and financial deepening. *Journal of International Economics*, 65(1), 127–149.
- Du, J., & Zhang, Y. (2018). Does one belt one road initiative promote Chinese overseas direct investment? *China Economic Review*, 47, 189–205.



- Erel, I., Liao, R. C., & Weisbach, M. S. (2012). Determinants of cross-border mergers and acquisitions. *The Journal of Finance*, 67(3), 1045–1082.
- Fuest, C., Hugger, F., Sultan, S., & Xing, J. (2021). What drives Chinese overseas M&A investment? Evidence from micro data. *Review of International Economics*, 30, 306–344.
- Hillman, J. (2018). How big is China's Belt and Road? <https://www.csis.org/analysis/how-big-china-s-belt-and-road>.
- Hurley, J., Morris, S., & Portelance, G. (2019). Examining the debt implications of the Belt and Road Initiative from a policy perspective. *Journal of Infrastructure, Policy and Development*, 3(1), 139–175.
- IMF and World Bank. (2020). *The evolution of public debt vulnerabilities in lower income economies*. Policy Paper, 20/003.
- Lall, S. V., & Lebrand, M. (2020). Who wins, who loses? Understanding the spatially differentiated effects of the Belt and Road Initiative. *Journal of Development Economics*, 146, 102496.
- Liu, Q., Qiu, L., & Zhan, C. (2019). Trade liberalization and domestic vertical integration: Evidence from China. *Journal of International Economics*, 121, 103250.
- Ramasamy, B., & Yeung, M. C. H. (2019). China's One Belt One Road Initiative: The impact of trade facilitation versus physical infrastructure on exports. *The World Economy*, 42, 1673–1694.
- Rossi, S., & Volpin, P. F. (2004). Cross-country determinants of mergers and acquisitions. *Journal of Financial Economics*, 74(2), 277–304.
- Silva, J. M. C. S., & Tenreiro, S. (2010). On the existence of the maximum likelihood estimates in poisson regression. *The Economic Letters*, 107(2), 310–312.
- Wang, H., & Miao, L. (2016). *China goes global: How China's overseas investment is transforming its business enterprises*. Springer.
- World Bank. (2019). *Belt and road economics: Opportunities and risks of transport corridors*. The World Bank.
- Yu, L., Zhao, D., Niu, H., & Lu, F. (2020). Does the Belt and Road Initiative expand China's export potential to countries along the belt and road? *China Economic Review*, 60, 101419.
- Zhai, F. (2018). China's Belt and Road Initiative: A preliminary quantitative assessment. *Journal of Asian Economics*, 55, 84–92.
- Zhang, C., Kandilov, I., & Walker, M. (2021). Belt and Road Initiative and Chinese cross-border mergers and acquisitions. *The World Economy*, 45, 1–19.

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## APPENDIX A

**TABLE A1** List of Belt and Road Initiative (BRI) countries (44 in total).

Azerbaijan	Belarus	Brunei Darussalam
Bulgaria	Cambodia	Czech Republic
Egypt	Georgia	Hungary
India*	Indonesia*	Iraq
Iran	Israel	Jordan
Kazakhstan	Kuwait	Kyrgyzstan
Lao	Malaysia	Mongolia
Myanmar/Burma	Nepal	Oman
Pakistan	Philippines	Poland
Qatar*	Romania	Russian Federation
Saudi Arabia*	Serbia	Singapore
Slovakia	Sri Lanka	Tajikistan
Thailand	Turkey	Turkmenistan
Ukraine	United Arab Emirates	Uzbekistan
Vietnam	Yemen	

*Note:* Countries with \* (4 in total) are not included in the treatment group after PSM, because we impose common support by dropping treatment observations whose pscore are higher than the maximum or less than the minimum pscore of the controls.

**TABLE A2** List of matched non-Belt and Road Initiative (BRI) countries for each BRI country after propensity score matching (PSM).

<b>BRI country</b>	<b>Matched country first</b>	<b>Matched country second</b>	<b>Matched country third</b>
Azerbaijan	Trinidad and Tobago	Tunisia	Bolivia
Belarus	Japan	Lebanon	Madagascar
Brunei Darussalam	Paraguay	Panama	Botswana
Bulgaria	Côte D'Ivoire	Botswana	Panama
Cambodia	Trinidad and Tobago	Bolivia	Spain
Czech Republic	Botswana	Panama	Paraguay
Egypt	Brazil	Angola	Bangladesh
Georgia	Republic of Moldova	Greece	Fiji
Hungary	Spain	Bolivia	Trinidad and Tobago
Iraq	Brazil	Angola	Bangladesh
Iran	Tanzania	Ghana	United States of America
Israel	Senegal	Rwanda	Syrian Arab Republic
Jordan	Spain	Bolivia	Trinidad and Tobago
Kazakhstan	South Africa	Kenya	Ecuador
Kuwait	Bangladesh	Equatorial Guinea	Brazil
Kyrgyzstan	Malta	Fiji	Greece
Lao	Italy	Zambia	Germany
Malaysia	Bangladesh	Equatorial Guinea	Brazil
Mongolia	Tanzania	Republic of Korea	Ghana
Myanmar/Burma	Brazil	Angola	Bangladesh
Nepal	Argentina	Ecuador	Kenya
Oman	Algeria	Mexico	Venezuela
Pakistan	Bangladesh	Equatorial Guinea	Nigeria
Philippines	Nigeria	Congo	Equatorial Guinea
Poland	Peru	Colombia	Chile
Romania	Kenya	Ecuador	Argentina
Russian Federation	Congo	Nigeria	Algeria
Serbia	Japan	Lebanon	Madagascar
Singapore	Brazil	Angola	Bangladesh
Slovakia	Portugal	Madagascar	Zimbabwe
Sri Lanka	Sudan	Morocco	Ethiopia
Tajikistan	Haiti	Jamaica	Luxembourg
Thailand	Brazil	Angola	Bangladesh
Turkey	Brazil	Bangladesh	Equatorial Guinea
Turkmenistan	Guatemala	Bahrain	France
Ukraine	Panama	Paraguay	Botswana
United Arab Emirates	Equatorial Guinea	Bangladesh	Brazil
Uzbekistan	Italy	Uganda	Belgium
Vietnam	Equatorial Guinea	Bangladesh	Brazil
Yemen	Botswana	Panama	Paraguay

**TABLE A3** Regions of Belt and Road Initiative (BRI) countries after propensity score matching (PSM).

(a) East Asia			
Mongolia			
(b) Southeast Asia			
Malaysia	Myanmar/Burma	Cambodia	
Thailand	Brunei Darussalam	Lao People's Democratic Republic	
Philippines	Vietnam		
(c) South Asia			
Pakistan	Sri Lanka	Nepal	
(d) Central Asia			
Kazakhstan	Uzbekistan	Kyrgyzstan	
Tajikistan	Turkmenistan		
(e) West Asia			
Azerbaijan	United Arab Emirates	Jordan	
Yemen	Oman	Israel	
Georgia	Kuwait	Turkey	
Islamic Republic of Iran			
(f) East Europe (including Russia)			
Russian Federation	Ukraine	Belarus	
(g) South Europe			
Bulgaria	Romania	Serbia	
(h) Central Europe			
Hungary	Poland	Slovakia	Czech Republic