

This is an Accepted Manuscript of an article published by Taylor & Francis in Asia-Pacific Journal of Accounting & Economics on 03 Nov 2019 (published online), available at: <http://www.tandfonline.com/10.1080/16081625.2020.1686841>

Impact of the Belt and Road Initiative on China's Soft Power: Preliminary Evidence

Jan P. Voon ^a and Xinpeng Xu ^{b,*}

ABSTRACT Using latest available international survey data on soft power and China's overseas direct investment (ODI) statistics, this paper examines if China's Belt and Road Initiative (BRI), commonly perceived as an institution set up by China to build cross-border infrastructure to bolster trade and investment, had increased China's international image or soft power. We find that the overall impact of ODI in BRI countries on China's soft power is statistically insignificant over the period 2011 to 2016, yet further analysis reveals that the investments in the BRI countries along the 'Belt' route bring significant improvement in China's soft power.

JEL Classification: F6, F3.

KEYWORDS: Soft Power; Overseas Direct Investment; Belt and Road Initiative.

^a Jan P Voon, Department of Economics, Lingnan University Hong Kong; Email: jvoon@ln.edu.hk

^{b,*} Corresponding Author: Xinpeng Xu, Faculty of Business, Hong Kong Polytechnic University, Hong Kong; Email: xinpeng.xu@polyu.edu.hk

1. Introduction

One of China's greatest strategic threats today, according to some scholars, is its international image (Ramo 2007). To remedy the so-called China threat, the argument goes, it needs to change the global view or international perception of China. A large literature thus has been devoted to the discussion on China's image and the need to alleviate the "China's threat theory" (see Wang 2008 for a review). Many scholars recommend the enhancement of soft power because increasing soft power is analogous to raising the international image.

The benefits of soft power have been widely acknowledged (see Andrabi and Das 2017; Nye 2004). Soft power rests on the ability to shape the preferences of others. It works to co-opt people rather than coerce them. It involves leading by example. It fortifies the country's intangible assets such as an attractive personality, culture, political values and institutions, and policies that are being viewed as having moral qualities. It uses an attraction to shared values, and the justness and duty of contributing to the achievement of those values. Soft power has been a key element of effective leadership. Its attractiveness stems from credibility, trust, fairness, legitimacy, right motives, among others. If the country exhibits values that other countries want to follow, it will cost less to lead (Nye 2004). Soft power inexorably causes other countries to be willing to cooperate in trade and investment and to accept its policies and business proposals which render the cooperating countries to thrive together. Soft power has become increasingly important in the modern age with the advent of social media and communication technology.

How then can a country such as China raise its soft power that purports to promote peace and prosperity? From the perspective of political science, the task of enhancing China's soft power lies in public diplomacy that helps international community to learn to trust China or to dispel doubts and misconceptions about China. China has been trying hard to raise its international image or soft power but face multiple challenges in improving its image. The problems facing China in bolstering its international image require that the Chinese government take positive and effective public diplomacy steps and place the practice of public diplomacy at the heart of the national strategy (Wang 2008). It should use public diplomacy to shape a sympathetic and harmonious international environment by building Chinese soft power and changing China's rise from a hard rise to a soft rise (rising in values not just GDP). Given that public diplomacy is a major channel to promote national image and soft power, how could China attempt to achieve it?

One of the major developments international trade and international relations this century is China's Belt and Road Initiative (hereafter BRI). It is hailed perhaps as the most significant public diplomacy steps taken by China this century. Announced by President Xi Jinping in November 2013, BRI focuses on bringing together China, Central Asia, Russia, Central and Eastern Europe, and Western Europe, linking China with the Persian Gulf and the Mediterranean Sea through Central Asia and West Asia, and connecting China with Southeast Asia and the Indian Ocean (Du and Zhang 2017). The BRI region is estimated to cover more than 60 emerging economies, a total population of over 4 billion and a lion share of the world's output. It is a grand public diplomacy plan for China to integrate with various regions around the world (Cheng 2016; Johnston 2018). Primarily, China has this ambitious plan to develop the infrastructure of its strategic partners, including the constructions of roads, railways, ports, power plants, oil pipelines, etc. Besides,

through BRI, China plans to increase bilateral trade with many of its potential partners. Furthermore, statistics show that China since the inception of BRI, has vehemently increased its overseas direct investments (ODI) to its trading partners, especially in the BRI participating countries (see Du and Zhang 2017; Chung and Voon 2017). BRI, from the vantage point of the populace in many countries outside China, is largely construed as a framework or an institution set up by China to engage in bilateral trade and infrastructural expansions.

This paper examines whether BRI can be used as a grand public diplomacy channel to raise China's global image or soft power. Just like foreign aid that purports to build trust in a region of a developing country devastated by earthquake, for instance (see Andrabi and Das 2017), BRI purports to promote China's global image by helping many developing countries around the world to develop infrastructural network and enhance trade and investment. Besides, it is thought that BRI provides a conduit for economic and political interactions between china and the BRI countries which, as argued in Berman, Felter and Shapiro (2015), might work to alter population attitudes. However, does BRI really work to promote China's soft power?

Most economic literature thus far has presumed and conjectured BRI to be an effective strategy to promote trade, infrastructural building, FDI flows and therefore GDP growth. Baniya et al (2019) show that BRI increases trade flows among BRI countries by up to 4.1 percent. De Soyres (2018) finds that BRI will promote GDP for BRI countries between 2.6% to 3.9%. While the economists often advocate the benefit side of BRI which may raise China's international image, there are also concerns about the negative impact expressed in popular international media. The recent heated

debate about whether BRI will lead to so called “debt trap” for BRI countries may itself generate concerns and impact on image about China’ BRI (Brautigam, 2019). Hence, whether or not BRI (a grand public diplomacy architecture) enhances China’s soft power remains an empirical question which we aim to answer in this paper. As far as we know, this is the first attempt that researchers endeavor to address such an issue of gigantic importance not only to China, but to the whole world.

Given that foreign perception of China’s soft power may be changed following the onset of BRI, due inter alia to China’s massive and very ambitious infrastructural investments and geopolitical strategy that are happening on a global scale affecting almost every country and the bulk of the world’s population, we devise an empirical strategy, in the absence of the abundance of the data (as BRI is still a relative new concept), attempting to capture the effects of BRI on China’s soft power. Our empirical strategy includes the following: (a) we separate the time period into two, that is, before and after the implementation of BRI, (b) we examine how BRI through huge increases in the flows of ODI as propelled by BRI affect China’s soft power as perceived by the international communities, and (c) we explore how the soft power changes in the BRI countries as opposed to the non-BRI countries. The empirical strategy constitutes employing a difference-in-differences estimation framework. Our empirical results demonstrate that China’s ODI has significant positive effect on China’s soft power during the sample period 2011 to 2016. This result applies to the data sample before and after the implementation of BRI. However, using the difference-in-differences analysis, we show that China’s soft power among the entire sample of BRI countries after BRI was launched in late 2013 are not statistically significantly different from its impact among the non-BRI countries despite the massive trade agreements and infrastructural

investments proposed and executed by China in BRI countries since 2013. We then separate the whole data sample into BRI countries that lie along the land route and those that lie along the maritime silk route.¹ The motivation for doing this is that China's soft power is hypothesized to be lower among BRI countries along the maritime route than the land route due to political and economic reasons. From political perspective, the South China Seas dispute between China and a number of countries along the BRI maritime route for example, may have an impact. From economic perspective, the export structure, and therefore production structure, for countries along the BRI maritime route may be more similar to China's and thus it is expected that competition pressure from China's export could be more intense than those along the BRI land route. Our empirical results reveal that BRI has indeed significantly increased China's soft power among countries along the land route but not maritime route, pointing to the offsetting negative political and economic factors that are happening predominantly, if not exclusively, along the maritime route.

Our empirical findings provide implications for China to advance BRI by genuinely engaging in dialogues, personal interactions, and mutual cooperation that would dispel distrust, among the participating countries. For example, negative perception from the BRI initiative could be alleviated by effectively managing the interaction among diverse players and interests (state owned enterprises and private firms from China, political elites and ordinary people in the host countries) involved in the BRI projects, encouraging the use of local labor in the construction of the mega infrastructures, alleviating the intensities of asset acquisitions and management controls, among others.

¹ We thank one reviewer for pointing this out to us.

The rest of the paper is organized as follows. Section 2 discusses the empirical strategy and the theoretical discourse. Section 3 provides data and variable definitions while Section 4 presents the empirical results. Section 5 offers concluding remarks.

2. Empirical Strategy and Hypothesis

2.1 Capturing the impact of BRI

We first hypothesize that China's soft power would be significantly altered after BRI initiative was implemented, due to the inadvertent rise in China's geo-economic and geo-political influences around the world as well as the "foreign aid" effect. Economically, China has actively increased bilateral trade with and built infrastructure in many countries through its BRI grand strategy. Politically, China has attempted to change the international relation landscape by actively helping many developing countries to develop their infrastructure and promoting the goal of closer economic integration. From the viewpoint of the common people in the countries partnering with China, BRI is interpreted as an institutional framework that primarily fosters trade and engages vehemently in infrastructural constructions. Given that China has chosen to invest specifically in some countries (the BRI countries which is the "treatment" group) but not in other countries (the non-BRI countries which is the "control" group) and the "treatment" period is post 2013 (i.e., BRI implementation years are after 2013), a difference-in-differences (DID) estimation strategy is appropriate in capturing the effects of BRI.

Specifically, we estimate the following difference-in-differences regression model.

$$\begin{aligned} \ln(\text{SoftPower})_{j,t} = & \alpha_1 + \beta_1 \text{Post 2013 Dummy}_t \\ & + \beta_2 \text{BnR}_j + \beta_3 \text{BnR}_j * \text{Post 2013 Dummy}_t + \varepsilon_{j,t} \end{aligned} \quad (1)$$

where $\ln(\text{SoftPower})_{j,t}$ denotes China's soft power as perceived by host country j at year t ; Post 2013 Dummy_t is a dummy variable that takes on value of one when a year is 2014 or later and zero otherwise; BnR_j is an indicator variable that equals to one if a country is one of the Belt and Road countries and zero otherwise; and $\varepsilon_{j,t}$ is an error term.

The time dummy, Post 2013 Dummy_t , separates our data series into distinct periods: before and after 2013, the year at which BRI was officially implemented. Though the international image of China could be changed by many factors, we believe that BRI is likely to be a major cause of the change as BRI is China's grand international trade and relation architecture that begs the participations and responses from many countries around the world, one that may potentially change the world order, and one that seems to provide foreign aid by dint of infrastructural development. The time or year dummy, general in measurement as it may be, captures both the positive and negative political and economic factors, among others, that may or may not emanate from BRI. The "group" dummy, BnR_j is an indicator variable that separates the sample countries into two experimental groups, namely, BRI countries and non-BRI countries. We first hypothesize that the change in China's soft power, positively or negatively, is likely to happen in BRI countries that openly and legally, through formally agreements with China for instance, participate in China's investment funding and accept the inflows of ODI from China. Soft power in non-BRI countries is hypothesized as less likely to be influenced due to their lack of affinity to BRI.

The coefficient of interest in the above DID framework is the β_3 , the coefficient on the interaction term $BnR_j * Post\ 2013\ Dummy_t$, which captures the differential impact on China's soft power in the BRI countries vis-à-vis the non BRI countries after the year 2013 when BRI was officially implemented vis-à-vis the period prior to the implementation of BRI. The identifying assumption is that the BRI countries share common trend as non-BRI countries. This assumption is reasonable as the BRI countries were exogenously selected by China at the end of 2013.

Nevertheless, to address the possible setback that the BRI dummy may encompass other non-BRI factors that may change China's soft power, we adopt and construct a specific BRI proxy using the interactions of the BnR_j dummy and China's actual direct investment in the host country after 2013 for measuring the effects of BRI. This is outlined as follows. As we know, BRI has been designed not only to promote trade and investment but to raise the flows of China's outward direct investment (ODI) to many participating countries. Statistics show that China's ODI has increased tremendously experiencing a significant slope change since the implementation of BRI in 2013 (Xu, Voon and Shang 2017; Chung and Voon 2017). We therefore model the increases in ODI being distinctively propelled by BRI as a proxy for capturing the effect of BRI, following Du and Zhang (2017). The theoretical proposition is that the BRI's massive investments in infrastructure would improve the quality and availability of logistics facilities in the participating countries which then boost ODI flows from China. Besides, the government-level international cooperation, policy coordination, and government support embedded in the BRI initiative would considerably lower destination countries' political risks for Chinese firms investing in the BRI participating countries, which then boost ODI outflows from China (Xu and Sheng, 2012). Furthermore, investments in

transport and port facilities would greatly increase international trade, which then calls for greater inflows of ODI (physical capital assets) from China into the BRI countries. The magnitude of ODI in the Belt and Road countries after 2013, i.e., captured by an interaction term such as $ODI * BnR * Post\ 2013\ Dummy$, is therefore deemed to be a good proxy for capturing the economic effects of BRI.

2.2. Measuring Soft Power

The key variable that adds novelty to our empirical analysis relates to the perception of China's international image or soft power. China's image and attraction in the eyes of the people in other countries constitute a crucial role for its ability to promote exports, investment, tourism, ideas and policies abroad. Soft power has been seen to wield more positive influences that enhances national and international interests than hard power such as military might. There has been a paucity of empirical research on soft power until recent years due to the difficulty of measuring this pretty but very subjective variable. Following Rose (2016), we construct our soft power measure based on the perception of China by another country. We resort to using the polling results conducted by the Program on International Policy Attitudes (PIPA) along with GlobeScan under the commission of BBC World Service. Survey results are freely available online, along with the associated methodological details. Participants in a large number of countries are asked about their views about a country such as China and asked whether they perceive a particular country such as China as having a mainly positive or mainly negative global influence. These surveys have been conducted since 2006. Details about the data are discussed in the next section.

2.3. Hypothesis Development

Nunn and Wantchekon (2011) argue that it is difficult to break the vicious cycle of personal attitudes. In contrast, Andrabi and Das (2017) show that foreign aid helps to increase the level of trust in a developing country especially in times of crisis such as the Pakistan earthquake of 2005. Berman, Shapiro and Felter (2011) show that improved service delivery in Iraq reduced insurgent violence and possibly pacified the attitudes of the people in Iraq. With reference to the above literature, we explore if the BRI raises the global image of China, given that the BRI helps to streamline logistic network (analogous to service delivery) and helps to raise the GDP of many developing countries through infrastructural building (analogous to a foreign aid). However, whether or not China's international image is perceived by another country as positive or negative is largely an empirical question. Firstly, it is hard to change the ingrained attitudes of the local people (Nunn and Wantchekon 2011). Secondly, BRI may create both positive as well as negative effects among the international community. In the economic realm, survey participants in many countries may view China as bringing economic opportunities to their countries in terms of trade expansion, infrastructural building, employment growth and GDP growth. China is seen as contributing to the economic welfare and hence positive image can be ascribed to the BRI. However, economically, BRI may also create a negative image (see Chung and Voon 2017). For instance, some people may view BRI as China's deliberate push of its excess capacity/exports to their countries; BRI may be viewed as Chinese indomitable strategy to take over certain assets or business entities resulting in some local firms losing their autonomy in major decision making; BRI may also be construed as the substitution of local labor subsequent to the influx of Chinese workers; BRI could expose participating countries to more competition pressure from China's

exports (Lall et al. 2019); BRI projects may give rise to corruption and unfairness concerning the funding of the infrastructural projects.

Since BRI can lead to positive or negative perceptions among the sample countries (see also Filakowski 2011; Nye 2012), it is difficult to predict how it may affect China's soft power. Generally speaking, since enormous benefits from economic growth as propelled by infrastructural building, bilateral trade expansion and massive inflows of FDI to the participating countries can potentially be reaped from the BRI initiative, we therefore conjecture that BRI are likely to generate positive soft power for China. However, a recent study of the reactions of residents in ASEAN countries (Voon and Chung 2019) show that persistent doubts remain about the motives and the intentions of China's BRI initiative. For example, BRI is still considered, rightly or wrongly, by some to be China's geostrategic strategy to gain global influences. Hence, overall, whether BRI generates positive or negative impression among the participating countries remain an empirical and a very interesting question. Our paper provides some policy implications for China on how positive image may be strengthened and how negative soft power could be allayed or alleviated.

BRI operates along the land route as well as the sea route. It is of interest to compare the change in China's soft power among BRI countries along the land route and among BRI countries along the maritime route. The motivation for this analysis is that the territorial disputes in the South China Sea between China and several maritime BRI-participating countries have significantly increased in recent years (Chung and Voon 2017). Moreover, the export structure, and therefore

production structure, for countries along the BRI maritime route may be more similar to China's and thus it is expected that competition pressure from China's export could be more intense than those along the BRI land route. Hence, we hypothesize that China's BRI initiative would either adversely affect maritime BRI countries more than land-routed BRI countries or positively affect land-routed BRI countries more than maritime BRI countries.

3. The Data

We obtain data for our key variable China's soft power ("SP" in short), from Pew Research Center (<http://www.pewglobal.org/database/indicator/24/survey/all/>). Data for China's overseas direct investment in millions of US dollars ("ODI" for short) is collected from China's Bureau of Statistics' official yearbook *2016 Statistical Bulletin of China's Outward Foreign Direct Investment*. The data summary statistics are presented in Table 1. We have data on soft power for 38 countries for the period between 2011 and 2016. The average soft power of China for the period is 51.35 which indicates that 51.35 percent of the survey respondents attached a positive image to China with a minimum of 5 and a maximum of 96. The number of BRI countries accounts for 36.8% in the sample.

[Insert Table 1 Here]

Note that there are substantial increases in China's ODI in the sample countries over the two periods 2011 to 2013 and 2014 to 2016. However, the average increase in China's ODI in the non-BnR countries (around 82.4%) over the same period is much lower than that of China's ODI in the BnR countries (around 841.9%), suggesting that China indeed increases its investment in BnR

countries. Does the increase in China's ODI lead to improvement in China's perceived power in host countries? Does the disproportional increase in China's ODI in BnR countries lead to better perceived image in BnR host countries than non-BnR host countries? Figure 1 shows the correlation between ODI and China's soft power. The vertical axis measures China's soft power in host country while the horizontal axis measures China's direct investment (in logarithm). A visual inspection from the simple regression line suggests that there is a slightly negative relation between China's ODI and its soft power. But this will be subject to a more rigorous econometric tests using DID framework in the next section.

[Insert Figure 1 Here]

4. Empiric Results

We first examine whether China's soft power experienced any significant changes after the announcement of the Belt and Road Initiative in late 2013. Though many things may affect China's soft power post 2013, China's BRI initiative is thought to be the most important as it is planned and implemented at the global level involving trillion of US dollar in trade and investment. Besides, it has both economic and political implications. However, to provide a robust test of the results, we implement a difference-in-difference estimation strategy as outlined in equation (1) to capture the differential impacts of China's BRI on BRI countries relative to other non-BRI countries after 2013. The regression model is repeated as follows.

$$\begin{aligned} \ln(\text{SoftPower})_{j,t} = & \alpha_1 + \beta_1 \text{Post 2013 Dummy}_t \\ & + \beta_2 \text{BnR}_j + \beta_3 \text{BnR}_j * \text{Post 2013 Dummy}_t + \varepsilon_{j,t} \end{aligned} \quad (1)$$

where $\ln(\text{SoftPower})_{j,t}$ denote China's soft power as perceived by host country j at year t ; Post 2013 Dummy_t is a dummy variable that takes on value of one when a year is 2014 or later and zero otherwise; BnR_j is an indicator variable that equals to one if a country is one of the Belt and Road countries and zero otherwise; $\varepsilon_{j,t}$ is an error term.

[Insert Table 2 Here]

Table 2 presents empirical results from the panel fixed effects regressions. Column (1) shows the fixed effects regression results that control for country-fixed effects only, while Column (2) shows fixed effects regressions after controlling for both country- and year-fixed effects. Note that with country fixed effects specifications, the BnR dummy is absorbed by country effects and is not independently estimated. As observed, there is a significant decline of China's soft power after 2013 with the Post 2013 Dummy_t showing a highly significantly negative coefficient in both specifications. However, our insignificance of the coefficients on interaction terms indicate that China's soft power did not significantly increase in the BRI countries relative to non-BRI countries after the BRI was implemented. This result is in sharp contrast to the expectation of significant positive effects due to the huge economic impacts as perceived to be brought by the massive global-scale infrastructural developments. In our previous section, we hypothesize using the available literature and predict a positive influence of the economic factors but a negative influence of the political factors on China's soft power. An implication of our finding is that the positive

effects appear to be neutralized by the negative (presumably political) effects such that the aggregate effects as measured by the coefficient of our interaction term are negative. The coefficient on the interaction term, $BnR_j * Post\ 2013\ Dummy_t$, is not statistically different from zero, suggesting an interplay of factors that may affect China's soft power. Our preliminary empirical evidence seems to suggest that China's intention to cultivate a positive image for itself by launching the public diplomacy architecture fails to materialize. Huge anticipated economic effect seems to be diluted by the negative political and other possible factors that dampen China's international image.

One may argue that *BnR* dummy is a catch-all variable which may not be specific to China's BRI investment. To capture more specifically the effect of China's ODI on its soft power, we first regress China's soft power on China's ODI adding interaction term between China's ODI with post 2013 year dummy (see also Du and Zhang 2017 for the theoretical justification). If increases in ODI has any significant effects on soft power, we would observe significant increase in its effect after 2013. Specifically, to examine the effects of ODI on China's soft power, we perform the following regressions:

$$\begin{aligned} \ln(SoftPower)_{j,t} = & \alpha_1 + \beta_1 \ln(ODI)_{j,t} + \beta_2 Post\ 2013\ Dummy_t \\ & + \beta_3 \ln(ODI)_{j,t} * Post\ 2013\ Dummy_t + \varepsilon_{j,t} \end{aligned} \quad (2)$$

where $\ln(ODI)_{j,t}$ is a more specific measure of China's overseas direct investment in host country j at year t .

Column (1) of Table 3 shows the results from panel fixed effects regression that controls for both country- and year-fixed effects. Overall, China's ODI over the period under study is reported to bring significant positive effects on its soft power. This finding is in line with our hypothesis that ODI has positive soft power effect due to the favorable perceptions wrought by FDI inflows, massive infrastructural building, and trade expansion that enhance economic growth of the partner countries. However, to check whether the impact on soft power of China's ODI after 2013 is significantly different from that over the previous period, we construct the interaction term that helps to examine if China's soft power has been significantly enhanced after the implementation of the BRI. Our results in Table 3 does not point to any significant increase in China's soft power after the BRI was initiated. The coefficient for the interaction term, $\ln(\text{ODI}) * \text{Post 2013 Dummy}$, is positive but insignificant, indicating that the impact of China's ODI wrought by BRI after 2013 is not statistically different from the period before 2014.

[Insert Table 3 Here]

One potential concern of using the post-2013 year dummy in the above estimation is that the dummy is a catch-all variable, including the effects of BRI but also potentially other factors that are in play after 2013. To address specifically whether the substantial increases in China's ODI in BRI countries after the announcement of BRI in late 2013 has any discernable effects on China's soft power, we run the regressions with the following basic form:

$$\begin{aligned}
\ln(\text{SoftPower})_{j,t} = & \alpha_1 + \beta_1 \text{BnR}_j + \beta_2 \text{Post 2013 Dummy}_t + \beta_3 \ln(\text{ODI})_{j,t} + \beta_4 \text{BnR}_j * \\
& \text{Post 2013 Dummy}_t + \beta_5 \text{Post 2013 Dummy}_t * \ln(\text{ODI})_{j,t} + \beta_6 \text{BnR}_j * \ln(\text{ODI})_{j,t} + \beta_7 \text{BnR}_j * \\
& \ln(\text{ODI})_{j,t} * \text{Post 2013 Dummy}_t + \varepsilon_{j,t} \quad (3)
\end{aligned}$$

[Insert Table 4 Here]

Table 4 shows the regression results of simple OLS as in Column (1), results that control for country-fixed effects only as in Columns (2) as well as results that control for both country- and year-fixed effects as in Column (3). As can be seen, results from the fixed effects models, reported in Columns (2) and (3), suggest that the impact on soft power of China's ODI remains positive and statistically significant if year fixed effect is included. However, the coefficient on the triple interaction term, $\ln(\text{ODI}) * \text{BnR} * \text{Post 2013 Dummy}$, though positive, is not statistically significant across all three specifications, suggesting that China's ODI in the Belt and Road Countries after 2013 does not bring about statistically significant differential effects on China's soft power from that in the non-BRI countries.

[Insert Table 5 Here]

One further interesting question to explore is whether the effects of BRI on China's soft power depends on whether or not the BRI countries are located along the continental land route or along the maritime sea route. We hypothesize that China's BRI initiative would either negatively affect maritime BRI countries more than land-routed BRI countries or positively affect land-routed BRI

countries more than maritime BRI countries because the territorial disputes along the South China Sea and the Indian Ocean are less of a concern among the predominantly land-locked BRI countries. We run regressions similar to Table 4 but separate BnR countries into “Land” BnR countries and “Maritime” BnR countries. We report the regression results in Table 5. The coefficients of interest are the two interaction terms, $\text{Ln}(\text{ODI}) * \text{Land} * \text{D2014}$ and $\text{Ln}(\text{ODI}) * \text{Maritime} * \text{D2014}$. As shown in Column (2) using country-fixed effects estimation and in (3) using both country- and year-fixed effects estimation, the coefficients for $\text{Ln}(\text{ODI}) * \text{Land} * \text{D2014}$ are found to be positive and significant while the coefficients for $\text{Ln}(\text{ODI}) * \text{Maritime} * \text{D2014}$ are not, suggesting that infrastructural and ODI investments in BRI countries along the land route after 2013 had led to significantly improvement in China’s perceived image.

Taken together, our preliminary empirical results indicate three robust results: (1) China’s ODI has statistically significant positive impact on its soft power yet the impact is not significantly different between the two distinct periods, i.e., before and after the announcement of BRI; (2) China’s soft power among the BRI countries is in general not statistically different from that in the non-BRI countries, even though substantially more investments have been poured into the BRI countries; (3) Investment in the Belt and Road countries along the “Land” route indeed brings improvement in China’s perceived image though we do not observe similar effects for the countries along the “Maritime” route.

5. Concluding Remarks

In this paper, we examine if China's BRI, a massive international development initiative, affects the perception of its soft power around the world. Using latest available international survey data on soft power and China's overseas direct investment (ODI) statistics, we find that China's ODI outflows have significant positive impacts on China's soft power. However, our difference-in-differences analysis shows that BRI did not significantly raise China's soft power across the BRI countries relative to the non BRI countries after 2013, as anticipated. This is in sharp contrast to the general perception of positive effect BRI is likely to bring onto the image of China due to the gigantic investments and economic benefits wrought by BRI. We argue that the positive impact on China's soft power due to the massive trade expansions and infrastructural building in BRI countries were likely to be diminished by negative influences such as perception of the inflows of Chinese labor that may substitute the local workers, the loss of local autonomies and identities, potential mismanagement of individual BRI project, perceived competition pressure from China, among others.

We demonstrate in this paper that there are indeed offsetting factors that could have dampened China's potential increase in soft power due to the gigantic infrastructural building and massive trade expansion spurred by BRI. By disaggregating BRI countries into the land route countries and the sea route maritime countries, we show that China's soft power had significantly increased in land route BRI countries but not in sea route countries, implying that the above negative factors has indeed played an important role that dampened China's international image. Therefore, in order to raise China's overall image among all the BRI countries following the implementation of BRI, it is crucial for these negative factors to be allayed or dispelled. Future research would be valuable to identify exactly which negative factors are at play.

References

- Andrabi, Tahir and Jishnu Das, 2017. In aid we trust: hearts and minds and the Pakistan earthquake of 2005. *The Review of Economics and Statistics*, 99(3), 371-386.
- Baniya, Suprabha, Rocha Gaffurri, Nadia Patrizia; Ruta, Michele, 2019. Trade Effects of the New Silk Road: A Gravity Analysis. Policy Research Working Paper 8694, World Bank Group.
- Berman, Eli, Jacob, N. Shapiro, and J.H. Felter, 2011. Can hearts and minds be bought? The Economics of counterinsurgency in Iraq. *Journal of Political Economy*, 119, 766-819.
- Brautigam, Deborah (2019). Is China the World's Loan Shark? Op-ed. *New York Times*, April 26, 2019.
- Chung, Chien-peng and Jan P. Voon, 2017. China's maritime silk road initiative: Political-economic Calculations of Southeast Asian States. *Asian Survey* 57 (3), 416-449.
- De Soyres, Francois, 2018. The Growth and Welfare Effects of the Belt and Road Initiative on East Asia Pacific Countries, Working Paper, World Bank Group.
- Du Julan and Yifei Zhang, 2017. Does one belt one road initiative promote Chinese overseas direct investment? *China Economic Review* 47 (C), 189-205.
- Fijalkowski, Łukasz, 2011. China's "soft power" in Africa. *Journal of Contemporary African Studies*, 29:2, 223-232.
- Cheng, Leonard K., 2016. Three questions on China's "Belt and Road Initiative". *China Economic Review* 40: 309–313
- Johnston, Lauren A., 2018. The Belt and Road Initiative: What is in it for China? *Asia and the Pacific Policy Studies*, 2018:1–19.
- Lall, Somik V., Lebrand, Mathilde, Sylvie Maria (2019). Who Wins, Who Loses? Understanding the Spatially Differentiated Effects of the Belt and Road Initiative, Policy Research Working Paper 8806, World Bank Group.

Nunn, Nathan, and Leonard Wantchekon, 2011. The slave trade and the origins of mistrust in Africa. *American Economic Review*, 101, 3221-3252.

Nye, Joseph, H. 2004. *Soft power: The means to success in world politics*. 1st edition, New York: Public Affairs.

Nye, Joseph, H. 2012. Why China is weak on soft power? *The New York Times*, January 17.

Ramo, Joshua Cooper. 2007. Brand China. London: Foreign Policy Centre. <https://fpc.org.uk/wp-content/uploads/2007/02/827.pdf>.

Rose, Andrew K. 2016. Like me, buy me: The effect of soft power on exports. *Economics and Politics*. 28:2, 216-232.

Voon, Jan P. and Chien-peng Chung, 2019. Economic Sub-optimization and Political Setbacks of China's Belt and Road Initiative in Southeast Asia. Working Paper, Lingnan University.

Wang, Yiwei, 2008. Public Diplomacy and the Rise of Chinese soft power. *The Annals of The American Academy Political and Social Science*, 616, 257-273.

Xu, X. and Y. Sheng, 2012. Are FDI spillovers regional? Firm-level evidences from China. *World Development* 40(1), 244-258.

Xu, X., Jan P. Voon and Y. Shang, 2017. Unbundling institutional determinants of multinational investments. *Applied Economics* 49(23), 2269-2285.

Table 1 Descriptive Statistics

| VARIABLES | (1) Obs. | (2) Mean | (3) SD | (4) Min | (5) Max |
|-----------------|-------------|-------------|-----------|------------|------------|
| SP | 158 | 51.35 | 19.20 | 5 | 96 |
| Post 2013 Dummy | 228 | 0.500 | 0.501 | 0 | 1 |
| BnR | 228 | 0.368 | 0.483 | 0 | 1 |
| ODI | 217 | 659.5 | 1,566 | -814.9 | 16,981 |
| ln(ODI) | 202 | 5.047 | 2.188 | -2.408 | 9.740 |

Note: Total number of countries available in the Pew International Poll of Soft Power is 38. The period is from 2011 to 2016. SP refers to China's Soft Power (Pew International Poll); Post 2013 Dummy equals 1 if year \geq 2014 and zero otherwise. BnR is a dummy indicating the Belt and Road Countries; ODI is China's overseas direct investment in million US dollar; ln(ODI) is the natural logarithm of ODI.

Table 2 Changes of China's Soft Power due to the Belt and Road Initiative

| Dependent Variable: | (1) | (2) |
|-----------------------|----------------------|----------------------|
| Soft Power | Fixed Effects | Fixed Effects |
| Post 2013 Dummy | -3.706*** (1.329) | -10.22*** (2.500) |
| BnR | | |
| BnR* Post 2013 Dummy | 1.378 (2.364) | 1.114 (2.333) |
| Constant | 53.17*** (0.621) | 55.91*** (1.672) |
| Observations | 158 | 158 |
| R-squared | 0.086 | 0.243 |
| Country fixed effects | Yes | Yes |
| Year fixed effects | No | Yes |

Note: Robust standard errors in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Total number of countries available in the Pew International Poll of Soft Power is 38. The period is from 2011 to 2016. BnR refers to the Belt and Road countries; Post 2013 Dummy is a dummy variable that equals to one if a year is 2014 and after and zero otherwise.

Table 3 Effects of ODI on China's Soft Power

| Dependent Variable: | Fixed Effects (1) | Fixed Effects (2) | Fixed Effects (3) |
|--------------------------|---------------------|---------------------|----------------------|
| Soft Power | | | |
| ln(ODI) | 1.661** (0.652) | 1.420** (0.633) | 1.775*** (0.539) |
| Post 2013 Dummy | | -5.554* (2.930) | -15.14*** (3.713) |
| ln(ODI)* Post 2013 Dummy | | 0.213 (0.498) | 0.334 (0.492) |
| Constant | 47.51*** (3.577) | 44.37*** (3.241) | 46.38*** (3.153) |
| Observations | 158 | 139 | 139 |
| R-squared | 0.244 | 0.136 | 0.331 |
| Country fixed effects | Yes | Yes | Yes |
| Year fixed effects | Yes | No | Yes |

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Total number of countries available in the Pew International Poll of Soft Power is 38. The period is from 2011 to 2016. Post 2013 Dummy is a dummy variable that equals to one if a year is 2014 and after and zero otherwise; BnR is a dummy variable indicating the Belt and Road Countries; ODI is China's overseas direct investment in million US dollar; ln(ODI) is the natural logarithm of ODI.

Table 4 Impacts of Investment on BRI countries on China's Soft Power

| Dependent Variable: | (1) | (2) | (3) |
|------------------------------|---------------------|---------------------|----------------------|
| Soft Power | OLS | Fixed effects | Fixed Effects |
| BnR | -17.48** (6.781) | | |
| Post 2013 Dummy | 11.84 (7.218) | -1.879 (3.869) | -11.78*** (4.295) |
| BnR* Post 2013 Dummy | -14.07 (11.39) | -7.021 (5.876) | -5.550 (5.367) |
| ln(ODI) | -1.855** (0.885) | 1.363 (0.923) | 2.069** (0.842) |
| Ln(ODI)*BnR | 5.081*** (1.280) | 0.0864 (1.219) | -0.480 (1.300) |
| ln(ODI)* Post 2013 Dummy | -1.903* (1.135) | -0.451 (0.524) | -0.210 (0.448) |
| ln(ODI)*BnR* Post 2013 Dummy | 0.662 (2.170) | 1.457 (1.039) | 1.023 (1.014) |
| Constant | 58.32*** (5.365) | 44.50*** (3.552) | 45.46*** (4.030) |
| Observations | 139 | 139 | 139 |
| R-squared | 0.116 | 0.156 | 0.339 |
| Country fixed effects | No | Yes | Yes |
| Year fixed effects | No | No | Yes |

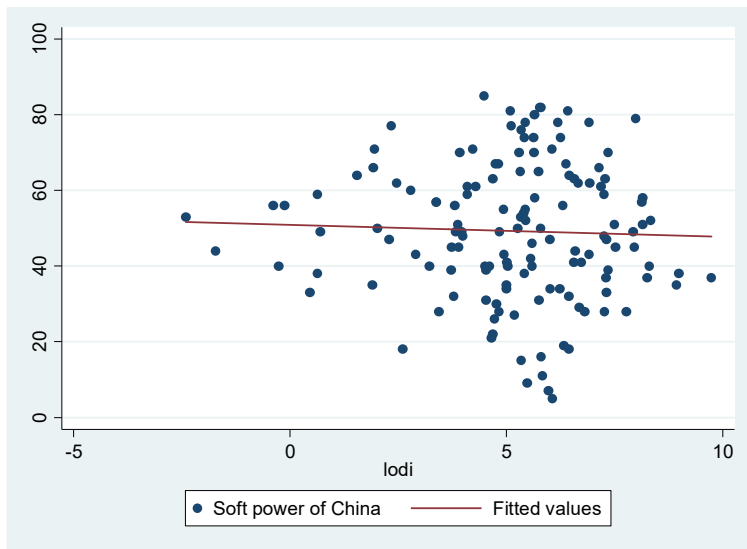
Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Total number of countries available in the Pew International Poll of Soft Power is 38. The period is from 2011 to 2016. Soft Power refers to China's Soft Power (Pew International Poll); Post 2013 Dummy is a dummy variable that equals to one if a year is 2014 and after and zero otherwise; BnR is a dummy variable indicating the Belt and Road Countries; ODI is China's overseas direct investment in million US dollar; and ln(ODI) is the natural logarithm of ODI.

Table 5 China's BRI and Soft Power: Differential Impacts along the Belt and Road

| VARIABLES | (1) OLS | (2) Fixed effects | (3) Fixed Effects |
|------------------------|----------------------|----------------------|----------------------|
| Land | -24.72 (15.34) | | |
| Maritime | 10.38* (5.794) | | |
| D2014 | 29.27*** (7.486) | -1.317 (4.141) | -7.290 (4.974) |
| Land*D2014 | -8.373 (20.91) | -28.05*** (7.544) | -26.37*** (8.332) |
| Maritime*D2014 | -49.92*** (9.760) | -3.043 (6.198) | -2.492 (5.962) |
| Ln(ODI) | 0.580 (0.963) | 1.186* (0.688) | 1.632** (0.700) |
| Ln(ODI)*Land | 4.498* (2.681) | -0.935 (0.739) | -1.572 (1.244) |
| Ln(ODI)*D2014 | -4.988*** (1.181) | -0.594 (0.577) | -0.517 (0.519) |
| Ln(ODI)*Land*D2014 | 1.703 (4.046) | 5.717*** (1.459) | 5.432*** (1.760) |
| Ln(ODI)*Maritime*D2014 | 7.249*** (1.485) | 0.881 (0.973) | 0.721 (0.904) |
| Constant | 45.39*** (6.136) | 46.99*** (3.134) | 48.51*** (3.771) |
| Observations | 158 | 158 | 158 |
| R-squared | 0.123 | 0.188 | 0.315 |
| Country fixed effects | No | Yes | Yes |
| Year fixed effects | No | No | Yes |

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. "Land" refers to the Belt and Road countries along the land route while "Maritime" refers to the Belt and Road countries along the Maritime route.

Figure 1 China's ODI and Soft Power: 2011-2016



Note: The vertical axis refers to the Pew International Poll of Soft Power of China perceived by host country and the horizontal axis is China's ODI in host country. The period is from 2011 to 2016.