

The Effects of US Economic Sanctions on Chinese Investment Patterns

Abstract

Despite the theoretical arguments that link political and economic sanctions to increased uncertainty and risk in targeted states, most empirical studies find strategic substitution: disinvestment by one or more states gets replaced by investment from third parties. This is puzzling since monies should flow to safer returns on investment. We explain this gap between theory and empirics by demonstrating that now several major economies have had firms or firm-like investors that did not always pursue profits. Noting the rise of Chinese ODI since 2001—now the second largest global investor—we argue that US sanctions actually create investment opportunities for Chinese investment in key economies. Newly collected data on Chinese ODI flows from 2003 to 2014 demonstrate strong support for this argument, and we describe how this feature of subsidized investment may also explain sanctions busting in other time periods, by other subsidizing states.

Introduction

With few exceptions, economic sanctions are generally seen as an ineffective means of punishing the actions of foreign governments (Bapat and Kwon 2015; Hovi, Huseby, and Sprinz 2005; Pape 1997). A primary explanation for this focuses on the role of third parties (Barry and Kleinberg 2015; Lektzian and Biglaiser 2013). Though sanctions should increase the risk and uncertainty for firms in the targeted markets, most empirical studies show that any lost monies are promptly replaced by third parties. Sanctions thus become a means of altering market forces that tends only to punish the sanctioning country's firms.

The economic logic of sanctioning is sound. Political intervention by a major power should create uncertainty in any state targeted by sanctions as investors will have less confidence in the breadth and depth of that market. Trade routes will be disrupted, and the startup costs of foreign investment will be lost. Also sound, however, are the many empirical studies that find global investment replaces the monies lost in sanctioned countries and little support for the macroeconomic logic of sanctions. Firms must either ignore or find trivial the rising risk and political uncertainty of sanction environments, or they derive other benefits from their investment decisions. Our argument turns on that second point.

The assumption underpinning the theory behind sanctions has always been that firms follow market forces in their trade and investment decisions. However, that is not true for all firms in all countries. For example, China is now the second largest provider of outward direct investment globally (UNCTAD 2017), and their state-run and state-influenced firms may intervene economically when state interests are advantaged. These firms invest *despite* the increased risks to their capital because the state seeks other types of returns, such as market access or foreign policy leverage. As non-market-oriented investment capital grows globally, these monies will increasingly explain why few costs are borne in markets sanctioned by Western, mostly capitalist states. This suggests that sanctions will be ineffective whenever non-market firms are large enough and have non-economic interests that encourage substantial investment. We focus on outward foreign direct investment (ODI) here, using a dataset of Chinese outlays from 2003 to 2014, but the argument we make should apply to trade sanctions and also other time periods in which a large economy can block effective sanctioning because of non-monetary interests.

Explanations for Why Sanctions May Not Be Effective

Early research suggested economic sanctions had a success rate of approximately 34%, which would make the foreign policy tool a useful alternative to military force (Hufbauer, Schott, and Elliott 1990). However, reexaminations of the sanctions data cast doubt on how success was coded. Notably, Pape (1997) argued

that almost all of the successes—35 of 40—could not be properly labeled as cases in which sanctions alone changed the foreign policy of a targeted state. The threat or use of force better explained about half the cases, and Pape argued that most of the remaining cases were thoroughly mislabeled.

More recent scholarship has begun to focus on actual trade and investment flows. Thus, we now know that sanctions are most often ineffective at substantially hurting investment patterns within targeted states. Few find that global money supplies to targeted states are permanently affected. Lektzian and Biglaiser (2013) provide some of the best evidence of this when examining US sanctions in particular. They find that US firms will disinvest from targeted countries as sanctions become likely, but global investment in the targeted country will actually increase. The sanctions regime only hurts US firms because third parties replace any investment capital lost by the targeted country. The clear implication from their work is that sanctions are unlikely to affect political change because no costs will be borne by targeted states.

These observed relationships may actually understate the effects of third parties. Peksen and Peterson (2016), for example, argue and find that sanctioning states do anticipate whether an alternative market exists in a potential target before applying sanctions. Countries that have strong interdependence with a potential target are more likely to invoke economic sanctions if that interdependence cannot be easily replaced by third-party firms. Conversely, leaders will shy away from sanctioning countries that can likely find other markets or investment. If this type of strategic decision making is present, and Peksen and Peterson (2016) provide good evidence that it is, then the strong findings in Lektzian and Biglaiser (2013) actually understate the effect, and third-party investment patterns dilute sanctioning effectiveness even more than we observe.

These results are puzzling for economic theory. All else equal, firms should actually avoid investments in political environments that make returns uncertain. When making a decision among potential investments with approximately equal returns, disinvestment by a major economy should increase uncertainty and make investment in a sanctioned state more costly, diverting foreign investment to safer returns. Why, then, do third parties ignore higher risks and continue to invest? There are at least two possible explanations.

First, Barry and Kleinberg (2015) observe the interconnectedness of contemporary global investment patterns and suggest that firms also behave strategically when economic sanctions are likely. Though the risk attached to a sanctioned economy is higher, returns may also be higher if competition decreases. Multinational corporations realize this and shift their investments to third-party countries that are able to establish indirect ties to targeted states. These companies will then benefit disproportionately as those firms less able or unwilling to similarly diversify lose their ability to compete. Barry and Kleinberg (2015) provide indirect support for this logic by observing substantial changes in global flows of US FDI.

Redirection of investment flows suggests that firms remain profit-maximizing actors and assumes that profits will escalate enough to displace any increased risk. This is what Early (2015) finds in one case study (UAE trading with Iran) and additional quantitative analyses. Important for our argument, though, is that Early also provides a case in which a major state busts American sanctions because of its strategic location—this is Cuba aided by the Soviets, of course. The logic of Soviet investment in Cuba did not follow a pattern of profit maximization. Cuba held little economic opportunity for the Soviets. Instead, the goods the Soviet leadership sought were penetration of the United States sphere of influence and the continued presence of a Communist regime in the Western Hemisphere. Their support was almost entirely unprofitable economically, but the Soviets maintained the aid regime until almost the very end of the Soviet state.

We believe the Cuba case hints at a more general pattern that may explain sanctions failure in the 20th Century but is especially important for sanctioning in the 21st Century. Unfortunately, data on Soviet investment patterns are inconsistent, mostly inconvertible to other currencies, and often highly suspect. This has probably hampered examinations of alternative rationales for state-led investments. However, these problems are not endemic to contemporary data on Chinese investments. Though quite different from Soviet investment behavior, Chinese firms—especially state-owned firms—also often pursue goals other than profit. Given the large and increasing presence of Chinese capital globally, these investment goals may distort the ability of sanctioning regimes to be effective, and with good data we can examine their effects.

Ignoring Risk: The Rise of Chinese ODI

Buckley et al. (2007) provide one of the earliest and best examinations of the determinants of Chinese ODI. Using data from 1984 to 2001, they confirm that Chinese investments do flow to more risk-prone countries than do monies from other countries. Dividing their sample into two—1984 to 1991 and 1992 to 2001—Buckley et al. (2007) find that Chinese investments are more likely in larger markets that are proximate to China in the first period and then concentrated on natural resource endowments in the second period (see also Cheung and Qian 2009).

Perhaps most interesting is that the distribution of ODI that Buckley et al. (2007) analyzed is quite small relative to Chinese investment in recent years. As UNCTAD (2017) reports, Chinese ODI in 1992, which is the first year these figures are reported to the UN, totaled less than 1% of world investment funds. That percentage changed little over the next decade, and the percent of global ODI invested by Chinese firms was less than 0.5% by 2001. Now, China is the second largest provider of ODI, behind only the United States, and is responsible for almost 10% of all ODI, or 19% if Hong Kong-based investments are also included.¹

¹Chinese PDO was \$1.5 billion in 1992 and \$2.5 billion in 2001; meanwhile, world investment rose from \$203 billion to

The growth in Chinese ODI actually began in 2001, when it joined the World Trade Organization and initiated a “going out” economic strategy in 2002. Since then, China’s ODI doubled approximately every two years until its current level of investment (Yao and Wang 2014). This was a conscious decision by the Chinese government. The 10th Five-Year Plan on Economic and Social Development developed in March of 2000 provided a strategy “to encourage OFDI into areas where China has competitive advantages, and to expand the scope, channels and modes of international economic and technological cooperation” (quoted in Sauvant and Chen 2014). Implementation of the new strategy focused on changing the regulatory environment for Chinese investment abroad so that the government could encourage investment in firms capable of resource exploration and better develop competitive multinational firms.

Chinese subsidies to their firms that pursue ODI are substantial. State-owned banks offer low rates and reduced regulatory burden for companies sending investments abroad. The government itself also offers direct subsidies to firms focused on ODI for research and development centers, manufacturing facilities, trade zones, and natural resource extraction (Yao and Sutherland 2009; Xiao and Sun 2005). As Sauvant and Chen (2014) describe, the 10th Five-Year Plan marked a commitment to developing the Chinese economy with a focus on those industries thought to be crucial for both state interests and firms that would be competitive globally. Thus, the political use of investment has grown dramatically as China has become the second largest provider of ODI globally in just over a decade and a half. The effects of this type of footprint on global investment and sanctioning behavior will be substantial.

China is not the first country to use financial investment for political gain on a substantial scale. The United States pursued the Marshall Plan after World War II, but this policy had few effects on sanctions use since the global market was small and not diversified. Too, any economic coercion used resulted in separating the economic blocs between East and West rather than trying to punish individual transgressors.

As we mention above with the case of Cuba, the Soviet Union did often provide economic subsidies to friendly government and did so for political gains. We believe that this behavior has been instrumental in stymieing the effectiveness of American and other Western-state sanctioning regimes, but there are real difficulties trying to test that argument with existing data. Soviet investment data was notoriously untrustworthy, and their currency was not convertible to Western currencies. Thus, for example, some estimates put total Soviet investment at over 70% of Cuba’s trade in 1985, which was during US-led sanctions (Bain 2005), but measuring the \$US displacement of that investment is almost impossible. We cannot know with

\$583 billion between those two years in the Buckley et al. (2007) sample. Investment in 2001 was significantly lower than 2000 because of aftershocks of 9/11. So, 2000 provided an investment peak of \$1.16 trillion, but Chinese ODI remained low during that peak year with only \$3.1 billion flowing outward (UNCTAD 2017).

any certainty whether sanctions led to higher or lower costs than Soviet investment subsidized, and thus the level of political risk in the country. This is why we use a different time period and focus on the effects of contemporary Chinese investment. The Chinese emphasis on regulatory clarity and subsidy following the 10th Five-Year Plan also brought reliable and available figures on the extent of the country's ODI. Indeed, by 2003, data for investment flows to individual countries were published annually.

Our expectations are straightforward. We believe that sanctions do, in fact, increase the risk and uncertainty in targeted states, and this will affect the investment decisions of profit-seeking firms. Subsidized Chinese firms, however, will be part of a class that can often ignore the increased risk to returns so long as the investment matches well the government's interests. The lack of competition for investment dollars will also privilege Chinese firms. Therefore, we expect Chinese ODI will likely flow to countries targeted by economic sanctions, and in the tests that follow we focus on US-led sanctioning behavior.

Previous studies suggest that Chinese firms will emphasize proximity, size of the economy, natural resources, and geostrategic position when identifying possible investments. Save for geostrategic position, each of these variables should also control investments for US firms. Further, since proximity is already embedded within the determinants of US investment (a gravity-model approach), the loss of significant US investment in a country targeted by US sanctions should also identify a prime target for Chinese-led investment that wants greater access to American interests. Thus, we expect: *Decreased US investment in countries targeted by sanctions will lead directly to increased Chinese, replacing that country's lost investments.*

Research Design

We examine ODI data for all countries during the years 2003 to 2014 which, as we describe above, are years that witnessed expansive growth in the amount and diversity of Chinese foreign investment. We collected that data using the 2014 Statistical Bulletin of China's Outward FDI. The Bulletin is published annually by the Chinese government agency and reports annual amounts of Chinese foreign investment in \$10,000USD. We transformed the data by dividing state-year value by the host country's GDP, multiplying by 100, and subtracting the previous year's value to obtain a measure of an annual change in Chinese investment as a percent of host country's GDP, which is consistent with most other ODI studies (e.g., see Lektzian and Biglaiser 2013).

Figure 1 shows the geographic distribution of Chinese ODI allocations since 2003. As the map shows, a great deal of Chinese investment follows the traditional markets to North America and Western Europe. Notable, however, is the strong Chinese presence in non-traditional markets such as those in Central and

Figure 1: China Stock ODI, 2003-2014 (logged)



Darker colors represent larger amounts.

Southeast Asia, Africa, and Oceania. Many countries in these regions have been targeted with sanctions by Western countries for various political reasons, and this allowed Chinese state-backed firms an opportunity for increased influence.

We obtained the data for the first of our two primary independent variables—US FDI—from the Bureau of Economic Analysis (BEA), a US Department of Commerce agency. We also similarly transformed this measure to obtain an annual change in US investment as a percent of each host country’s GDP. US sanctions data does not currently cover our time period, so we coded US State Department reports using rules developed by Morgan, Bapat, and Kobayashi (2014). This makes our sanctions measure comparable to previous studies. We also control for Taiwanese ODI, measured analogously to China FDI discussed above, and made available by UNCTAD (2017).

Our economic control variables—*GDP per capita* and *Growth*—are standard measures from the World Bank (2016), and we also include controls for political institutions such as democracy and regime change, using the Polity IV dataset (Marshall and Jaggers 2014). Finally, we include the variable *War* as a control for high-intensity armed conflicts using UCDP/PRIO data.

Results

Table 1 presents the results of our analysis using OLS regression with country fixed effects. Since the primary explanatory variable—*US Sanctions*—enters as part of an interaction, we supplement the table of main results with Figure 2, which plots the marginal effect of *US Sanctions* for various levels of *Change in US Investment*. The effect of the interaction term *US Sanctions*Change in US FDI* is negative and statistically

significant in Table 1, which suggests that, on average, an increase in US investment is associated with a decrease in Chinese investment in the absence of US sanctions against a country.

Table 1: The Effect of US Sanctions on Change in Chinese Investment

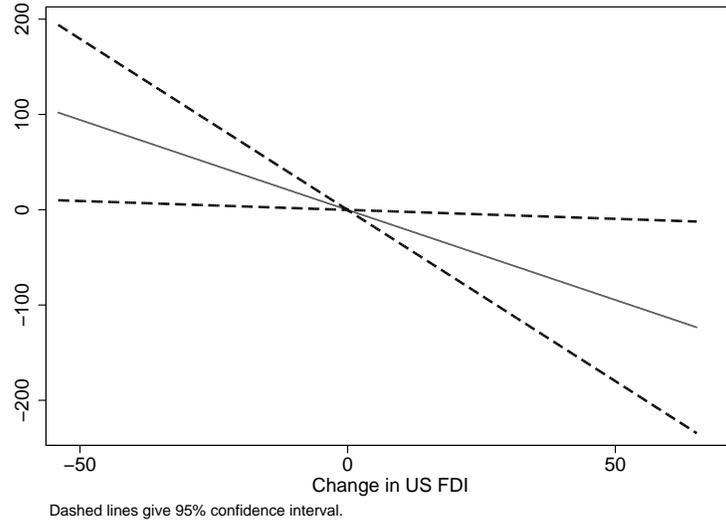
	Change in China's FDI	
Change in US FDI	0.009	(0.009)
US Sanctions	-0.221	(0.240)
US Sanctions*Change in US FDI	-1.890*	(0.861)
Change in Taiwan FDI	-0.094*	(0.027)
Polity (t-1)	-0.007	(0.014)
Regime Change	0.119	(0.138)
GDP/cap (t-1)	0.024	(0.076)
Growth	0.003	(0.004)
War (t-1)	0.008	(0.076)
Lagged DV	-0.477*	(0.069)
Constant	-0.087	(0.619)
σ_u		0.298
σ_e		0.956
N		1522

Notes: *p<0.1, **p<0.05, ***p<0.01. Country-fixed effects not shown

Figure 2 confirms this interpretation but adds important nuance. As we can see from the figure, the effect of US sanctions varies depending on the level of US investment. When the US is serious about its sanctions and complements political sanctions with significant decreases in economic investment, Chinese investment increases linearly. When US sanctions are not coupled with decreased American firm investment, Chinese investment decreases. If we assume that sanctions generate increased risk and uncertainty, then the interaction demonstrates well the political nature of Chinese investment patterns.

The variable for Taiwanese investment underscores the political nature of Chinese investment as well. Taiwan has been a long-time political and economic rival of mainland China, and we find a negative relationship between Taiwanese and Chinese investment patterns. Taiwanese disinvestment leads to increased Chinese investment and substitution, and increased Taiwanese investment seemingly crowds out Chinese funds. Of course, this could be a product of a close relationship between Taiwanese and American firm investment, with Taiwan following the lead of its political ally. However, our analyses suggests otherwise. We find no correlation between these variables in the data, and the joint inclusion of both variables in the model keeps both predictors statistically significant. Instead, it seems that Chinese firms are taking advantage of lowered Taiwanese investment for their own political gains.

Figure 2: Marginal Effect of US Sanctions on Change in China’s FDI, by Change in US Investment



Conclusion

As we noted early on, economic theory suggests that political sanctions should induce disinvestment in targeted countries. Increased risk and political uncertainty are not welcomed by profit-maximizing firms. However, almost all studies continue to find that sanction-based disinvestment by one country tends to be replaced by monies from firms in other countries. This disjuncture between theory and empirics has been puzzling for the sanctions literature.

We provide one of the first large-scale answers to this puzzle by noting that not all state-backed firms pursue profits, and not all firms worry about political risk and uncertainty. Using Chinese ODI data as our example, we find that state-backed firms have often used American disinvestment as a means to enter new, politically-important markets. Chinese government policies emphasize this practice, and our analyses of the large growth in Chinese ODI since 2003 confirm the argument. Serious US sanctions lead to immediate increases in Chinese investment patterns with investment levels that can be quite dramatic.

Our results suggest two important implications for the effects of political sanctioning. First, the role of sanctions busting described here is clearly consistent with previous findings that indicate that multilateral, targeted sanctions are more likely to be effective than bilateral and broad sanctions. Second, though we focus on China here, the argument is portable and implies similar behavior among all economies in which the state plays an outsized role. This may not matter for most state-focused economies since investment patterns are constrained by relatively low levels of economic output and, consequently, lower levels of foreign

investment. However, the argument easily describes the role of Soviet foreign investment during the Cold War as well as, to a lesser degree, the role of Russian investment after. Increased influence for state-led firms and entities may often be more important than profits, and this explains the substitution effect that follows political sanctions. Thus, when broad and bilateral sanctions are implemented without the help of major state-led economies, political sanctions only harm the firms in sanctioning economies, and as we show here, the implementation of serious sanctions has the added perverse effect of allowing political access to interested third parties.

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