Economic Sanctions, Foreign Direct Investment and Firms' Ex Ante Risk Assessment[*]

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Abstract

When do firms choose to invest in markets that were previously sanctioned by the United States? How can target countries lure investment in the aftermath of sanctions removal? The reward of investing in target countries following the lifting of sanctions is often high, since early investors can avoid competition and thus have proprietary access to lucrative contracts. However, firms are also wary of risks in host markets, especially the risk of sanctions recurrence and disinvestment. In this paper, I argue that firms assess the risk of sanctions recurrence and choose to invest in countries if they are convinced that the relationship between the U.S. and their potential host country is normalizing. I empirically show that U.S. foreign aid to target countries serves as a credible signal of rapprochement between the two countries and gives confidence to firms. Additionally, sanctions that end with target concessions, as well as the ones that last for a relatively short period of time create a more attractive investment environment for firms in the post-sanctions period.

Introduction

The lifting of economic sanctions can open up untapped opportunities for foreign investors and businesses looking to invest in new emerging-economy markets. When the United States government has lifted, or eased long-standing comprehensive sanctions against Cuba, Iran, and Myanmar in 2016, and Sudan in 2017, these countries were one of the few internationally untouched markets with unique investment opportunities in sectors ranging from agriculture to mining. However, the economic opportunities and potential high returns these markets offer also come with high levels of risk. In fact, Cuba, Myanmar, and Sudan have not witnessed substantial increases in their foreign direct investment (FDI) levels following sanctions removal.

However, in the case of Iran, the lifting of sanctions has created significant investor interest. In the wake of the nuclear deal, numerous multinational corporations (MNCs) competed to secure contracts in Iran. Boeing, an American aerospace company, signed a deal to supply national carrier Iran Air with 100 airplanes for around \$19 billion at list prices. Boeing's European competitor, Airbus, also signed a similar contract to deliver 80 aircraft with a list price of about \$17 billion. Schlumberger Limited, the world's largest oil driller, along with European and Saudi Arabian oil companies, secured agreements to re-enter Iran, while French carmakers Peugeot, Citroën, and Renault agreed to open plants to manufacture cars. German manufacturer Siemens made multi-billion dollar contracts with Iran's energy industry and so did General Electric.[1] However, the optimism has waned when the Trump administration announced the reinstatement of economic sanctions on Iran, which led to all these MNCs, along with others, to incur billions of dollars of losses.

In this paper, I explore when firms invest or re-invest in target countries following U.S. government's decision to end sanctions. Even if sanctions removal is an indication of lucrative

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[1]Koenig, David and Angela Charlton "Sanctions on Iran could cost US, European companies billions" (2018, May 9) *AP News* Retrieved from: https://apnews.com/2d65918e1f2c414289cd9429058ced9b

opportunities for foreign investors, the uncertainty remains about the possibility of sanctions recurrence and the risk of future disinvestment. In this uncertain environment with a short window of opportunity, how do firms decide whether to invest? I argue that MNCs seek informational short cuts to assess the future of the relationship between the U.S. and their potential host states and show that they hesitate to invest in countries facing the risk of snapback sanctions in the near future. Specifically, I demonstrate that the U.S. foreign aid the target country receives following sanctions removal works as a credible signal of rapprochement and low risk of sanctions recurrence, thereby providing confidence to firms about the long-term safety of their investment. Additionally, sanctions characteristics can also inform firms about the future of the United States-target relations. I show that targets attract higher levels of FDI if sanctions lasted for a relatively short period of time and ended with their concession.

Sanctions and Foreign Direct Investment

The existing literature on the determinants of foreign direct investment establishes that risky markets find it difficult to attract FDI. The high sunk costs, relatively lower mobility, and the long-term nature of foreign direct investment imply high costs for exiting markets for investors (Jensen 2008). Therefore, firms are wary of uncertainty in host markets and look to invest in countries that can minimize these risks, especially the types of risks that will force their disinvestment. Scholars have largely focused on the political risks discouraging investment. Fear of expropriation and breach of contracts (Markusen 2001; Li 2009), risk of domestic political unrest (Braithwaite, Kucik and Maves 2014), presence or anticipation of internal or external armed conflict (Bussman 2010; Jensen 2008; Busse and Hefeker 2007), political instability (Feng 2001; Li and Resnick 2003; Tomashevskiy 2017), and human rights violations (Blanton and Blanton 2007) are known to inhibit investment in host countries. Firms also weigh these risks against economic benefits; such as large market size, trade and capital openness, high numbers of bilateral investment treaties (Neumayer and Spess 2005)

and preferential trade agreements (Büthe and Milner 2008), development, economic growth, and tax incentives (Li 2006).

An additional risk that can lead to firms' sudden and costly disinvestment is economic sanctions. For instance, Lektzian and Biglaiser (2013) show that U.S. firms disinvest during U.S. sanctions, especially when sanctions impose major costs to the target's economy and the U.S. pursues major policy goals with a stronger incentive to enforce sanctions domestically. Barry and Kleinberg (2015) complement these findings and show that U.S. firms disinvest and shift investment to markets that can provide indirect access to the target country's economy, such as the major trading partners of the sanctioned country. Therefore, the expectation of sanctions imposition on their potential host states can make some firms reluctant to do business with the country in the first place (Biglaiser and Lektzian 2011).

The findings on whether U.S. sanctions lead to the disinvestment of non-US firms are mixed. Lektzian and Biglaiser (2013) show that U.S. sanctions lead U.S. companies to disinvest, while non-US companies act opportunistically and increase their investment to targeted countries. On the other hand, Mirkina (2018) uses a sample of more recent economic sanctions episodes and find that U.S. sanctions have a significant negative effect on the overall FDI levels of the target country in the long run.

In this paper, I argue that firms' concerns about economic sanctions and their potential risk of disinvestment are especially high if the imposer of economic sanctions is the United States. The U.S. is a unique sender in its ability to influence investment decisions of domestic, as well as foreign firm. At home, the U.S. government can directly block its firms from engaging in any economic exchanges with the target country and credibly threaten to prosecute companies that fail to comply with the restrictions. The government has been increasingly tightening its enforcement and the Department of Treasury's Office of Foreign Assets Control (OFAC) has begun imposing enormous fines for violating U.S. sanctions. American companies such as Stanley& Decker, Kollmorgen Corporation, e.l.f. Cosmetics,

Expedia Group Inc, among many others, had to pay fines over their violations of various sanctions. Foreign firms and financial institutions are also not immune to U.S. enforcement. On the contrary, Early and Preble (2018) show that OFAC punishes foreign firms far more severely than U.S. firms for similar sanctions violations. For instance, in May 2015, the French bank BNP Paribas SA was forced to make a $8.9 billion settlement over their violations of sanctions against Sudan, Cuba and Iran, marking the largest penalty ever levied against a financial institution over violations of U.S. economic sanctions. The second largest penalty also hit a French Bank Société Générale in November 2018.[2]

In addition to the U.S. government's tightening enforcement efforts, the U.S. sanctions derive their power from the centrality of the United States in international trade and finance networks (Oatley et al. 2013). For instance, manufacturers all around the world are dependent on U.S. licenses if more than 10 percent of their products' parts and labor come from U.S. companies. This gives the U.S. Treasury Department substantial leverage on trade relations of targeted countries. Similarly, the U.S. can exploit the global financial industry's dependency by denying access to U.S. financial and banking system in case of non-compliance with its sanctions regimes (Arnold 2016).

Therefore, we should expect MNCs to seriously consider the risk of U.S. sanctions when making their investment decisions, especially in the case of host countries that were the targets of U.S. sanctions in the near past. In addition to the direct costs of disinvestment or fines if they choose not to disinvest, sanctions can also hurt MNCs' profit margins in more indirect ways. First, sanctions can restrict trade with the targeted country, thereby limiting MNCs' ability to export goods to their home country or into the international markets. Second, sanctions are known to have disproportionate economic impact on citizens of the targeted country rather than the leadership (Drury and Li 2006; Lopez and Cortright 1997).

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[2]Keohane, David and Kadhim Shubber. "Société Générale fined $1.3 for US sanctions violations" *Financial Times* November 19,2018. Retrieved from: https://www.ft.com/content/4411cad6-ec23-11e8-89c8-d36339d835c0

Therefore, sanctions can hurt the ability of the consumers of the targeted country to buy goods and limit the opportunities of MNCs in the target country, especially the ones that were attracted to the host country due to its market size. Third, sanctions can have adverse effect in the target country which then can intensify the political risks that MNCs aim to minimize. Economic sanctions increase repression and political violence in target countries (Allen 2004; Wood 2008), deteriorate private property rights (Peksen 2017), and destabilize leaders politically (Marinov 2005; Escriba-Folch and Wright 2010). For these reasons, the presence or the expectation of sanctions by the United States may cause firms to be hesitant to invest in target countries. Similarly, it would force them to disinvest, if they are already active in the target country.

Sanctions Removal and Foreign Direct Investment

Once sanctions are lifted, the economic environment of the targeted country might begin to look more favorable for foreign investors. First of all, it becomes legal to invest in the target country and companies' risk of being penalized by the U.S. disappears. Second, and more importantly, the target country begins to offer new lucrative economic opportunities for investors. These opportunities often arise due to the access to a new emerging market and the targets' potential to grow its economy in the absence of sanctions. The reward of investing in previously isolated economies might especially be higher shortly after the removal of sanctions, since early investors can avoid competition and thus have proprietary access to lucrative contracts (Appel and Loyle 2012). Overall, U.S government's decision to end sanctions is expected to send a positive signal about the improving business environment of the target country and promote investor confidence.

However, these lucrative opportunities and the possibility of high returns come with considerable risks and uncertainty. Specifically, countries previously hit by U.S. sanctions can face the risk of snapback sanctions, which create a significant disinvestment risk for MNCs. Firms tend to withhold investment until uncertainty regarding the future of their

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investment is eliminated (Rodrik 1991), and the threat of disinvestment is a key source of uncertainty (Tomashevskiy 2017). Therefore, forward-looking and profit-seeking firms need to assess the risk of sanctions recurrence and their subsequent disinvestment. To do so, they often seek informational short-cuts that will help them evaluate the future of the bilateral relations between the U.S. and their potential host states.

I argue that U.S. foreign aid can strongly signal the normalization of bilateral relations between the U.S. and the target state MNCs are considering investing in. Governments often pursue strategic, military, and/or political goals when allocating foreign aid (Schraeder, Hook and Taylor 1998; Alesina and Dollar 2000). They can also have recipient-centered goals such as development, poverty reduction, prevention of problems as conflict or climate crisis (Bermeo 2017; Bearce and Tirone 2010). Irrespective of what goals the U.S. government pursues with foreign aid or the extent to which they achieve these goals, U.S. foreign aid serves as a credible signal of the rapprochement between the U.S. and the recipient country.

First and foremost, foreign aid signals trust. Garriga and Phillips (2013) argue that aid is a costly signal indicating that the recipient government is trusted to handle international funds and to commit to certain policies in post-conflict environments. When the recipient government used to be the target of economic sanctions, trust can take a different form. Specifically, U.S. foreign aid can indicate trust in the target country's prospects of long-term compliance. When providing foreign aid following sanctions removal, the U.S. government risks contributing to the offensive policies of the recipient country that previously triggered sanctions. U.S. aid can create strong incentives for target governments to channel the gains from foreign aid into their policies against American interests (Powell 2006). If the U.S. government chooses to provide foreign aid despite the evident commitment problems and risks contributing to target recidivism, foreign aid can serve as a credible signal to firms about the long-term safety of their investment. In other words, observing U.S. foreign aid can lead MNCs to deduce that the relationship between the U.S. and their potential host state

is normalizing and the host state's likelihood of long-term compliance is high. Therefore, they will perceive a low the risk of sanctions recurrence and disinvestment. This leads to the following hypothesis:

H1: *In the aftermath of sanctions removal, U.S. foreign aid to the target state leads to higher levels of foreign direct investment.*

Sanctions characteristics can also provide valuable information to firms about the risk of sanctions recurrence and their potential disinvestment. Each sanctions episode is unique and how they evolve over the years, as well as how they are terminated can be used as informational shortcuts about how the U.S-target relations will shape up following sanctions removal. I argue that sanctions that end with complete target concessions will send the strongest signal to the investors about the long-term safety of their investments. Target concessions will lead MNCs to perceive a low risk of target recidivism, and therefore, a low risk of sanctions recurrence. This leads to the following hypothesis:

H2: *Targets that concede to the United States' demands at the time of sanctions removal attract higher levels of foreign direct investment.*

One additional sanctions characteristic that can serve as an informational short-cut for MNCs is how long sanctions have lasted for. I argue that sanctions that remain in place for a long time can be perceived as challenging cases by investors. In these cases, firms can assume that the hostile relationship between the U.S. and the target state is deeply rooted and will continue to be that way despite sanctions removal. This can lead firms to be worried about the risk of sanctions recurrence. On the contrary, sanctions that end in a relatively short period of time can provide confidence to investors.

H3: *In the aftermath of sanctions removal, targets of short-lived sanctions receive higher levels of foreign direct investment.*

The theoretical discussion presented thus far, and the hypotheses derived are based on an

assumption that is widely accepted in the foreign direct investment literature: FDI is a risky form of investment due to its low exit mobility, high sunk-costs, fixed capital expenditures, and long-term nature. This makes disinvestment a costly risk MNCs need to minimize prior to making their investment decisions. However, MNCs' investment portfolios include numerous options with varying degrees of commitment, control, liquidity, and exit mobility (Kim 2013; Kerner 2014; Kerner and Lawrence 2014; Lee, Biglaiser and Staats 2014). I expect the arguments presented in this paper to hold for forms of investment that are associated with sunk costs, lower mobility, and lower liquidity.

For instance, stocks are one of the most common forms of investment and are considered to be highly liquid assets. A stock is a type of investment that represents an ownership share in a company. Stocks can pose significant risks to investors, since companies can lose value or go out of business completely, which can lead investors to lose all or part of their investment. However, at any point in time, selling stocks and converting them into cash are relatively easy. Therefore, I do not expect investors to be concerned about their risk of disinvestment due to a potential sanctions recurrence when they are considering purchasing shares of a target country's company. This leads to the following hypothesis:

H4: *US foreign aid (H1), outcome of sanctions (H2), and duration of sanctions (H3) are not significantly associated with stock inflows of target states in the aftermath of sanctions removal.*

Research Design

To test my hypotheses, I create a time-series cross-sectional dataset covering the years between 1968-2018, using the Threat and Imposition of Economic Sanctions (TIES) dataset (Morgan, Bapat and Krustev 2009; Morgan, Bapat and Kobayashi 2014). Security-related U.S. sanctions[3] enter into the dataset once they have been lifted and the target of each case

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[3]Containing political influence and military behavior, destabilizing regimes, demanding the release of citizens or property, solving territorial disputes, denying strategic material, retaliating for alliance choices, demanding human rights improvements, ending weapons proliferation, terminating support of non-state

is observed for 10 years upon its initial entry.

Analyzing security-related sanctions, but not trade-related sanctions, allows me to focus on the cases that are more severe and costly. Previous research has shown that trade sanctions often do not have a significant influence on firms' investment or disinvestment decisions (Biglaiser and Lektzian 2011). Therefore, they do fit in the theoretical framework proposed in this paper. Similarly, analyzing U.S. sanctions provides a better fit to my theory, since the U.S. is a unique sender with extensive leverage in international trade and finance, as well as an ability to enforce sanctions internationally. Therefore, I include security-related cases unilaterally imposed by the U.S., as well as multilateral sanctions where the U.S. is considered as the primary sender.[4]

Dependent Variable:

The dependent variable used to test Hypothesis 1, 2, and 3 measures the target country's net inflows of FDI in a given year in the aftermath of sanctions removal, as a percentage of its gross domestic product (GDP),[5] taken from the World Bank's World Development Indicators. The World Bank provides the following description for the variable:[6]

> "Distinguished from other kinds of international investment, FDI establishes a lasting interest in or effective management control over an enterprise in another country. A lasting interest in an investment enterprise typically involves establishing warehouses, manufacturing facilities, and other permanent or long-term organizations abroad. Direct investments may take the form of greenfield investment, where the investor starts a new venture in a foreign country by constructing new operational facilities; joint venture, where the investor enters into a partner-

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actors and punishing drug trafficking are considered as security-related goals.

[4]The TIES dataset codes a primary sender as the state that proposes sanctions or is responsible for mobilizing other states to initiate sanctions.

[5]Dividing FDI by GDP allows me to scale the amount of FDI by the size of the market, following previous work on FDI determinants (Büthe and Milner 2008; Blanton and Blanton 2007; Jensen 2003).

[6]The World Bank, World Development Indicators (2018). Foreign direct investment, net inflows (% of GDP). Retrieved from https://data.worldbank.org/indicator/BX.KLT.DINV.WD.GD.ZS

ship agreement with a company abroad to establish a new enterprise; or merger

and acquisition, where the investor acquires an existing enterprise abroad."

The long-lasting nature of the investment is what makes it costly for firms to exit markets. Therefore, the World Bank's FDI measure is suitable to test my theory about the risk perception of firms about sanctions recurrence and disinvestment. On the other hand, as stated in Hypothesis 4, I do not expect my theory to be applicable to the forms of investment in liquid assets, such as stocks, due to the relative ease of disinvestment. To test Hypothesis 4, I use United Nations Conference on Trade and Development's data (UNCTAD) on inward stocks (in US dollars at current prices in millions) as my dependent variable.[7] Due to the temporal coverage of the stock investment data, the test of Hypothesis 4 covers the years between 1980 and 2018.

Independent Variables

To test Hypothesis 1, I use information on foreign aid the U.S. government provides to target states in the years following sanctions removal. The U.S. Overseas Loans and Grants, also known as the U.S. Greenbook, provides information on both U.S. economic and military aid, in constant 2017 US$ (USAID 2017). I take natural logarithm of both variables to smooth their distribution.[8] Even if economic and military aid are substantively very different and serve different purposes both for the U.S. government and the recipient governments, my theory does not suggest different mechanisms for how they work when it comes to investor confidence and the firms' investment decisions in the recipient countries. I expect all types of foreign aid to work as a signal of rapprochement between the U.S. and the recipient country, and thus lead to increases in FDI inflows in these countries. In the analyses below, I use *U.S. Economic Aid*, *U.S. Military Aid* and their combined value (*U.S. Total Aid*), as separate independent variables.

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[7]Retrieved from: https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx

[8]I add $1 to each variable prior to taking its natural logarithm, because $log(0)$ is undefined, and there are some target states that does not receive any foreign aid from the U.S. in the years under consideration.

To test Hypothesis 2, I include a measure of weather a given sanctions episode ended with target concessions or not. The TIES dataset codes five distinct outcomes for imposed sanctions: partial acquiescence by the target, complete acquiescence by the target, capitulation by the sender, stalemate, or a negotiated settlement. I code *Target Concessions* variable as 1 if the sanctions ended with complete target acquiescence, and 0 for the other four outcomes.[9] Lastly, to test Hypothesis 3, I code how long sanctions have lasted, by calculating the number of years between the imposition and removal years. As a robustness check, I also code the *Duration* variable in months, and the results remain unchanged.

Control Variables

I add several other predictors of FDI flows that may bias the results if omitted. I group the control variables into two categories: targets' (host states') economic and political characteristics.

Economic Characteristics:

First, I add a lagged dependent variable ($FDIInflow_{(t-1)}$). I expect investment levels in $(t-1)$ to be a powerful predictor of investment levels in year t. Additionally, the inclusion of the lagged dependent variable corrects for the high degree of temporal correlation FDI data exhibits. Next, I include a measure of the target's capital account openness, using Chinn and Ito (2006)'s index. Higher levels of *Financial Openness* is expected to be affiliated with higher levels of FDI (Coan and Kugler 2008). I also include a measure of population size to account for the target countries' market size, using data from the World Bank. States with larger markets attract higher levels of FDI (Caves 2007; Chakrabarti 2001; Asiedu 2006). I take the natural logarithm of this variable to smooth its distribution. Lastly, I include a measure of total natural resource rents of a target country as a percentage of its GDP, using data from the World Bank.[10] It accounts for oil, natural gas, coal, mineral and forest rents

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[9]In future drafts, I will adopt a more nuanced approach and examine the varying effects of different outcomes on the target country's FDI levels.

[10]The World Bank, World Development Indicators (2018). Total Natural Resource Rents (% of GDP) https://data.worldbank.org/indicator/NY.GDP.TOTL.RT.ZS?view=chart

and they are all known to attract FDI (Asiedu and Lien 2011).[11]

Political Characteristics:

Finally, I control for three political determinants of FDI. I account for the regime type and executive constraints of the target state, using the Polity IV data (Marshall, Jaggers and Gurr 2013). The literature on the link between FDI activity and the regime type of host countries presents mixed findings (Jensen 2006; Li and Resnick 2003). However, leaders that have more institutionalized constraints on their decision-making powers might be able to send more credible signals to investors about the respect for property rights and contractual obligations (Jensen 2008). The *Democracy* variable is coded as 1 if the target country has a score of 6 or higher on the -10 to 10 regime type scale, and 0 otherwise. The *Executive Constraints* variable is an ordinal variable ranging from 1 (unlimited executive authority) to 7 (executive parity or subordination), and higher values are expected to be associated with higher levels of FDI. Lastly, I add the *Domestic Conflict* variable, using the Cross-National Time-Series (CNTS) Data Archives' Domestic Conflict Event Data (Banks and Wilson 2019). Their weighted conflict measure includes information about anti-government demonstrations, assassinations, general strikes, terrorism, major government crises, purges, revolutions, and riots. The higher values represent a higher density of domestic conflict and are expected to be associated with low FDI levels (Enders, Sachsida and Sandler 2006; Robertson and Teitelbaum 2011).

Methodology

All models are estimated using Ordinary Least Squares (OLS) regression with robust standard errors as a caution against heteroskedasticity. Moreover, to account for the time it takes for investors to select a host and execute their investment decisions, I lag all independent variables by one year, except temporal controls. This allows me to reduce the risk of endogeneity bias.

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[11]Economic growth, the percentage change in the country's GDP from the previous year, also attracts FDI. Its inclusion neither alter the results, nor improves fit of the models.

Results

Table 1 presents the test for Hypothesis 1. Model 1, 2 and 3 present the results from models in which the variable of interest is *US Economic Aid*, *US Military Aid*, and *US Total Aid*, respectively. In all three models, economic and political control variables are included, and sanctions characteristics (outcome and duration) are excluded. The results with their inclusion is presented in Table 2. The coefficient estimate for all three foreign aid variables are positive and statistically significant. This confirms Hypothesis 1 and suggests that U.S. foreign aid to the target state following sanctions removal is positively associated with higher levels of FDI. Additionally, the size of the coefficient estimates of the aid variables are not very different from one another, confirming the argument about how economic and military aid does not work differently when it comes to providing confidence to firms about the long-term safety of their investments.

Table 2 builds on the models presented in Table 1 by including the *Target Concessions* and *Sanctions Duration* variables to the models. First, the inclusion of these sanctions characteristics does not alter the results for the significant relationship between U.S. foreign aid and targets' FDI levels in the post-sanctions period. Second, the coefficient estimates for both of the sanctions characteristics provide support for Hypothesis 2 and 3. The positive and statistically significant coefficient estimate of *Target Concessions* indicate that target concessions are positively associated with high levels of FDI. Moreover, when we compare the size of the coefficient estimate of the *Target Concessions* variable with the coefficient estimates of all other regressors, we see that the coefficient estimates of the *Target Concessions* variable is the largest, with the expectation of $FDIInflow_{t-1}$. Similarly, the negative and statistically significant coefficient estimate of *Sanctions Duration* indicate that targets attract higher levels of FDI if the sanctions were short-lived.

Table 1: The Effect of U.S. Foreign Aid on Net FDI Inflows in Target States

DV: Net FDI Inflow/GDP	Model 1	Model 2	Model 3
H1: US Foreign Aid			
US Economic Aid	**0.076****		
	(0.03)		
US Military Aid		**0.064****	
		(0.02)	
US Total Aid			**0.086***
			(0.04)
Control Variables: Economic			
FDI Inflow$_{t-1}$	0.397***	0.393***	0.397***
	(0.11)	(0.11)	(0.11)
Population	-0.487***	-0.499***	-0.485***
	(0.13)	(0.14)	(0.13)
Resource	0.250*	0.251*	0.253*
	(0.10)	(0.10)	(0.10)
Financial Openness	0.753**	0.721**	0.748**
	(0.27)	(0.26)	(0.27)
Control Variables: Political			
Executive Constraints	-0.263	-0.238	-0.232
	(0.24)	(0.22)	(0.23)
Democracy	2.889	2.609	2.768
	(1.52)	(1.43)	(1.49)
Domestic Conflict	0.000	0.000	0.000
	(0.00)	(0.00)	(0.00)
Count of Post-Sanctions Years	0.104	0.109	0.110
	(0.08)	(0.08)	(0.08)
Constant	6.562***	7.259***	6.195***
	(1.77)	(1.90)	(1.71)
N	696	696	696
Adjusted R-squared	0.29	0.29	0.29
AIC	4484.753	4490.839	4490.438
BIC	4530.192	4536.293	4535.892

- Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
- Standard errors are in paranthesis.
- Estimates are derived from an OLS model with robust standard errors.

Table 2: The Effect of Sanctions Characteristics on FDI Inflows in Target States

DV: Net FDI Inflow/GDP	Model 4	Model 5	Model 6
H1: US Foreign Aid			
US Economic Aid	0.091**		
	(0.03)		
US Military Aid		0.064*	
		(0.03)	
US Total Aid			0.104*
			(0.04)
H2 & 3: Sanctions Characteristics			
Target Concessions	**1.149***	**1.110***	**1.112***
	(0.44)	**(0.43)**	**(0.43)**
Sanctions Duration	**-0.084***	**-0.072***	**-0.082***
	(0.04)	**(0.03)**	**(0.04)**
Control Variables: Economic			
FDI Inflow$_{t-1}$	0.372***	0.370***	0.371***
	(0.10)	(0.10)	(0.10)
Population	-0.451***	-0.460***	-0.448***
	(0.12)	(0.13)	(0.12)
Resource	0.287*	0.286*	0.291*
	(0.11)	(0.11)	(0.12)
Financial Openness	0.754**	0.715**	0.760**
	(0.27)	(0.26)	(0.28)
Control Variables: Political			
Executive Constraints	-0.158	-0.137	-0.116
	(0.22)	(0.21)	(0.22)
Democracy	2.729	2.427	2.552
	(1.45)	(1.35)	(1.40)
Domestic Conflict	0.000	0.000	0.000
	(0.00)	(0.00)	(0.00)
Count of Post-Sanctions Years	0.094	0.098	0.097
	(0.08)	(0.08)	(0.08)
Constant	5.046**	5.913***	4.615**
	(1.62)	(1.69)	(1.64)
N	640	640	640
R-squared	0.31	0.31	0.31

- Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
- Estimates are derived from an OLS model with robust standard errors.
- Standard errors are in paranthesis.

Lastly, in Table 3, the dependent variable is the stock sales in the target country following sanctions removal. Neither the coefficient estimates of the aid variables, nor the coefficient estimates of the sanctions characteristics variables achieve conventional levels of statistical significance. This confirms Hypothesis 4, and suggests that the theory presented in this paper is only applicable to forms of FDI that has a relatively high cost of disinvestment.

Assessing the control variables across all models also provides additional insights about the determinants of FDI inflow into countries previously targeted with economic sanctions by the United States. The coefficient estimates for most of the economic control variables presented in Table 1 and 2 are in line with the existing literature on FDIs. Target countries that are more financially open, have a relatively large population, and are resource-rich attract more FDI than the target countries that have a relatively closed financial system, smaller population size, and are resource-poor.

The variables that capture the political characteristics of the target country, however; do not achieve conventional levels of statistical significance. Level of domestic constraints on the target's executive body, whether or not the target is a democracy, and the density of domestic conflict are not significantly associated with the level of FDI in post-sanctions environments. This might be due to the fact that the samples FDI determinants literature findings are based on and my sample are substantively different from one another. When the focus is exclusively on the set of countries previously targeted with U.S sanctions, the majority of the countries in the sample are authoritarian, have weak constraints on their executive officials, and experience relatively high levels of domestic conflict to begin with. Moreover, the FDI determinants literature offers conflicting theories and incongruous findings about the impact of regime type and regime stability on FDI inflows. Some scholars argue that democracy promotes FDI due to their stability or transparency, while some others argue that democratic governments can increase political risk for private firms due to the frequent domestic changes via normal elections, the influence of interest groups in policy-making or higher labor or environmental standards (Franzese 2002).

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Table 3: Stock Purchases in Target States

DV: Net Stock Inflow	Model 7	Model 8	Model 9
H1: US Foreign Aid			
US Economic Aid	-0.000		
	(0.00)		
US Military Aid		-0.001	
		(0.00)	
US Total Aid			-0.001
			(0.00)
H2 & 3: Sanctions Characteristics			
Target Concessions	0.019	0.019	0.019
	(0.02)	(0.02)	(0.02)
Sanctions Duration	0.000	0.000	0.000
	(0.00)	(0.00)	(0.00)
Control Variables: Economic			
Stock Inflow$_{t-1}$	0.994***	0.994***	0.994***
	(0.01)	(0.01)	(0.01)
Population	0.016**	0.016**	0.016**
	(0.01)	(0.01)	(0.01)
Financial Openness	-0.004	-0.004	-0.004
	(0.01)	(0.01)	(0.01)
Resource	0.001	0.001	0.001
	(0.00)	(0.00)	(0.00)
Control Variables: Political			
Executive Constraints	0.007	0.007	0.007
	(0.01)	(0.01)	(0.01)
Democracy	-0.005	-0.004	-0.004
	(0.03)	(0.03)	(0.03)
Domestic Conflict	-0.000	-0.000	-0.000
	(0.00)	(0.00)	(0.00)
Count of Post-Sanctions Years	-0.006*	-0.006*	-0.006*
	(0.00)	(0.00)	(0.00)
Constant	-0.103	-0.099	-0.091
	(0.08)	(0.07)	(0.08)
N	590	590	590
R-squared	0.99	0.99	0.99

 - Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
 - Estimates are derived from an OLS model with robust standard errors (in paranthesis).

Conclusion

Foreign direct investment can be a path towards economic recovery for targets of economic sanctions; however, they may struggle to lure investors. Sanctions removal can offer lucrative opportunities for firms, while also creating uncertainty due to potential risk of sanctions recurrence. I suggest that in this uncertain environment, firms seek assurances about the long-term stability of their investments. First, they observe the extent to which the relationship between the U.S. and the target state is normalizing in the aftermath of sanctions removal. I show that U.S. foreign aid serves as a credible signal and can minimize firms' perceived risk of disinvestment. Second, firms also observe sanctions characteristics to assess the potential for sanctions recurrence. I demonstrate that sanctions that end with target concessions in a relatively short period of time create a more attract business environment for investors.

The theoretical framework and the findings have important implications for research on economic sanctions, foreign direct investment, and foreign aid. First, the findings propose a new perspective on sanctions success. The research on sanctions outcomes often presents sanctions success as a win for the sender country, and a loss for the target country. This paper suggests a way in which target countries can benefit from conceding to the demands of the sender country, beyond the lifting of economic sanctions. Second, the theory presented about the link between U.S. foreign aid and foreign direct investment in the post-sanctions period offers a new source of leverage for U.S. government on the countries they have a history of economic conflict with. This also speaks to the literature highlighting the need to use negative inducements such as economic sanctions, in conjunction with positive inducements, such as foreign aid (Early and Jadoon 2019). Lastly, the findings have important implications about targets' economic recovery, an understudied, but highly policy-relevant topic.

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