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The Impact of Terrorism on Foreign Direct Investment: Which Sectors are More Vulnerable?

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ABSTRACT

The impact of conflict and violence on foreign direct investment (FDI) is not a topic that has been done justice by the literature, and what few studies exist have contradictory results. This paper studies the impact that transnational terrorism has on FDI inflows by economic sector, in developed countries. Results indicate a statistically significant negative correlation between terrorist events and total FDI inflows. Amongst a list of 12 broad industrial sectors, FDI inflows for manufacturing, trade and repair, and construction were found to have a statistically significant negative correlation with terrorist events.

Contents

1. Introduction

The last twenty five years have witnessed an unprecedented expansion of economic integration across the world, and the combination of rapid advances in information and communications technology along with economic liberalization in many countries has dramatically reduced the cost of doing business on a global scale and created new and exciting opportunities for business firms.

The two most common measures of economic globalization are global trade and foreign direct investment (FDI), both of which have grown much faster than global GDP since 1985. Within them, FDI has grown even faster than global trade, largely because of privatization of public-sector enterprises and liberalization of foreign investment rules in many countries. It can be argued that FDI has an even more lasting impact on economic development of local economies than trade, mainly because host countries receive not just capital flows but also new technologies, products and management skills. On the other side, FDI allows companies to grow beyond the limitation of their national markets, produce products more cheaply, and enjoy greater economies of scale.

Despite some concerns about how effective FDI has been in helping poor countries tackle poverty, it is by now largely recognized that FDI is a net positive for both the host country and the investing company. At a minimum, FDI has created what

Levitt (1993) calls a "new commercial reality", which is the production and distribution of goods on a scale that was previously unimagined.

Over the last two decades, major changes have occurred in the nature, direction and even source of global FDI flows, the most profound change being FDI flows are increasingly going to developing countries rather than developed countries. Annual FDI flows to all developing countries in the 1970s used to be on average less than $10 billion, but that figure is now more than half a trillion a year. A significant milestone was crossed in 2010 when, for the first time, developing and transition economies received more than half of all global FDI flows, especially China, India and Southeast Asia (UNCTAD, 2011).

There is a large body of literature on why companies invest abroad, especially why they take the trouble of establishing operations in a foreign (and usually new) location when they could also sell by exporting There are also many studies on the impact of government incentives and subsidies on FDI. However, one of the more interesting challenges in understanding the growth of global FDI is the fact that violence and terrorism have also become more acute public concerns in the last twenty five years, especially since the 9/11 terror bombing in New York city in 2001. Since then, terror attacks have either occurred or been uncovered before they happened in London, Madrid, Berlin, Mumbai, Jakarta, Bali and even Moscow. Technological advancements now allow terrorists to acquire advanced weaponry with greater ease and inflict large-scale damage.

There are probably a large number factors that motivate foreign investment decisions, and potential FDI investors have to in the end weigh their perception of expected returns and all risks associated with the venture. Conflict and acts of terror generate fear and economic uncertainty, and are at least on paper clear disincentives for investors. Wagner (2006) describes the factors which influence this uncertainty as "the economic health of the investment destination, the difficulty associated with doing business in a given country, the existence of rule of law and good corporate governance, the existence of corporate and government connections, and of course the cost of production." These factors are all prevalent indicators of developed countries, implying that FDI decision makers differentiate between developed and developing countries, when assessing the level of country risk.

However, political terrorism, especially in the European and Anglo-Saxon context, is a relatively new phenomenon. This is why there is a need to understand the empirical linkage between FDI flows and terrorism, especially in the modern geopolitical context. This study aims to understand the impact of violent conflict, in the form of terrorist acts, and FDI flows in developed countries.

This paper is organized as follows: Section 2 is a survey of previous literature in this area; Section 3 explains the data collection method; Section 4 presents the empirical testing of the methodology and results; Section 5 presents the analysis of the findings; Section 6 ends with some conclusions.

2. Literature Review

Early literature on FDI has tended to overlook the phenomenon of violent conflict, either focusing on political risks associated with corruption and government action or on quantifiable economic indicators such as per capita income and inflation. It is only in recent years that there have there been some attempts to study and explore the macroeconomic impact of political conflict.

In a study on Spain and Greece, Enders and Sandler (1996) report that an "atmosphere of intimidation and heightened financial risk" causes investors to invest elsewhere in order to protect themselves from losses, and results in a reduction in FDI inflows. This study has attempted to quantify the impact of terrorism on FDI flows by using time-series analysis – transfer function modeling and vector auto regression analysis, they find that terrorism has a significant negative influence on FDI. In Spain, an average year's worth of terrorist events reduces annual FDI by 13.5 percent; in Greece it reduces by 11.9 percent.

Evrensel and Kutan (2007) focus on Indonesia and the impact of political instability and risk on FDI. They measure political instability using armed conflict, social unrest, ethnic tensions, and the average number of assassinations and revolutions. They create a political risk index using language, ethnic and religious fractionalization, demonstrations, and street violence.

The scope of both of these studies is limited due to their focus on just a few countries. Their results cannot be generalized to the rest of the world, or even to larger geographical regions, because it will not factor in other influential observations such as the economic, political and cultural differences. As an example, Enders and Sandler only consider the impact of seven anti-capitalist and Marxist groups such as The Basque Fatherland and Liberty in Spain, who primarily attack businesses with the aim of discouraging foreign investments. However there exist other terrorist groups such as the Liberation Tigers of Tamil Eelam in Sri Lanka who target civilians and assassinate political figures to achieve their goals, and whose actions might not impact FDI so directly (Subramanian, 1999).

Schneider and Frey (1985) conduct a larger scale study on the political determinants of Foreign Direct Investment (FDI) in fifty four countries. Their results show that demonstrations, riots, strikes, assassinations of political figures, coup d'états, and civil wars create incertitude amongst decision-makers, and causes them to undertake less direct investments. Although their country sample is very diverse, they only study the effects across three years, which is not enough to observe long term trends.

Not all studies show a significant negative relationship between conflict and FDI – some yield contradictory results, such as a study done at Pennsylvania State University which conducts a time-series analysis of 129 countries. It analyzes the impact of anticipated and unanticipated terrorism on FDI, and results indicate that neither type of terrorism has an impact on FDI inflows.

Although these results challenge our intuitive assumption that a rational investor will be risk averse, Wagner (2006) explains this investor mindset as a result of the "lure of profit". If the payoff is high enough, it can offset associated risks in a venture.

Most studies however find a negative correlation between conflict and FDI. In a recent Harvard study, Abadie and Gardeazabal (2008) hypothesize that when investors can diversify their investment country portfolio, terrorism results in a decrease in FDI in a host country and a large movement of capital across countries.

Two seminal studies that have been pioneers in studying the terror-FDI link are by Busse and Hefeker (2007), and Blomberg and Mody (2007). These conduct a time-series analysis across a large sample of countries, utilizing one of the most comprehensive data sets on transnational terrorist events. This same data set is used in this study, and is described in detail in the Data section.

Busse and Hefeker (2007) explore FDI indicators, and their results show that governmental stability, religious tensions, and democratic accountability are the three most important political risk indicators that impact FDI.

Blomberg and Mody (2007) study the impact of violence on trade and bilateral FDI flows between 12 source countries and 43 host countries. Their study focuses on the impact of conflict on FDI divided by level of country development, horizontal and

vertical FDI, and types of violence. Their results indicate that violence has a significant negative impact on FDI and trade, and that host country violence in a developed country has a weakly significant positive correlation with FDI. For developing countries, increased host country violence induces a shift of horizontal FDI to vertical FDI. A substantial portion of developed country FDI is vertical, and although violence deters vertical FDI, firms substitute for that decline in business by engaging in more horizontal FDI.

When it comes to sector-specific FDI analysis, the literature is rather scanty, and most studies correlate economic indicators - and not political indicators - with FDI flows. One of the few such sector-specific studies is by Enders, et al (1992) which has looked at the impact of terrorism on European tourism revenue. Their findings indicate a significant negative correlation between political violence and tourism in Greece, Italy, and Austria, but not in countries such as France, Germany and Norway. In a sense, their study has only partially validated the conventional wisdom that a climate of security is a prerequisite for the success of industries such as tourism.

Another study has examined the link between political conflict and tourism, but this has come to different conclusions. Steiner (2010) has analyzed the impact of political risk and political violence on FDI flows in the tourism sector in Egypt, and surprisingly the results of this study do not indicate any clear relationship whatsoever. That itself is rather telling, especially given the perpetual state of unrest in Egypt. This

hints at the fact that FDI investors in the tourism sector, especially in developing

countries, may actually be more resilient and risk-taking than is commonly imagined.

Mihalache (2010) presents one of the few studies which analyze the impact of

violence on FDI across sectors, and its results indicate differentiated relationship across

different economic sectors. This study finds that political violence does have a significant

negative impact on FDI flows in mining, manufacturing, construction, transportation and

infrastructure sectors, but not in agriculture, footloose manufacturing[1] and finance

sectors.

3. Data and Methodology

This section describes the sources, and limitations, of data for both international violence

and FDI.

3.1. Measure of Transnational Terrorism

The source for information on terrorist incidents is obtained from the International

Terrorism: Attributes of Terrorist Events (ITERATE) data set by Mickolus et al. (2002).

The data set attempts to quantify transnational terrorist acts, and presents one of the most

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[1] The term "footloose manufacturing" refers to manufacturing models that are designed to minimize the impact of economic and political uncertainties by outsourcing many tasks outside the firm, thereby allowing relatively greater ease in moving production from one geographic location to another. IKEA and Nike are good examples of this. In comparison, Toyota, HewLett-Packard and Samsung, are typically more rooted to their location because they use their own production and supply chain facilities.

comprehensive data sets of terrorist incidents for 179 countries from 1968 till present. It defines an international terrorist event as the following:

"the use, or threat of use, of anxiety-inducing, extra-normal violence for political purposes by any individual or group, whether acting for or in opposition to established governmental authority, when such action is intended to influence the attitudes and behavior of a target group wider than the immediate victims and when, through the nationality or foreign ties of its perpetrators, its location, the nature of its institutional or human victims, or the mechanics of its resolution, its ramifications transcend national boundaries." (Mickolus et al, 2002).

As such, events like the Oklahoma City bombing which do not fall into this definition of a terrorist event, but might have had a significant impact on the study, are not taken into account, (Blomberg et al, 2004), limiting the study.

ITERATE data is obtained from a combination of scholarly publications, interviews with government officials and victims, and a manual search through electronic and print media (Flemming et al, 2008). Media and news organizations however are not primary sources of data, and oftentimes details are inaccurately reported either unintentionally or to aid government agencies in covering up the full impact of events. This creates another limitation, as many of the data categories are not entirely accurate.

The raw data in the ITERATE data set is divided into four distinct files – the common file, hostage file, fate file, and skyjack file – and I focus my study on data from the common file. This includes terrorist event timings, information on terrorist groups, victim characteristics, and the quantification of damages. The first variable that I utilize is the annual number of terrorist incidents reported (nr_cflct). This is the most consistent ITERATE data set measure, and I use it as the primary measure of international terrorism in my regression models. I also include the annual number of civilians wounded (nr_wound) and the annual number killed (nr_kill) due to terrorist events. I sum these two variables to generate my final variable (nr_victim), which represents the number of victims.

3.2. *Measures of Foreign Direct Investment*

The source for data on FDI flows is the International Direct Investment Database of the Organization for Economic Co-operation and Development (OECD), which has defined FDI as:

> "a category of cross-border investment made by a resident in one economy (the *direct investor*) with the objective of establishing a lasting interest in an enterprise (the *direct investment enterprise*) that is resident in an economy other than that of the direct investor… The "lasting interest" is evidenced when the direct investor owns at least 10% of the voting power of the direct investment enterprise." (OECD, 2008)

This data set contains FDI data for its 34 member countries, in both local currency and US dollar value, from 1985 to 2009. In order to uphold consistency I only consider the US dollar values, which are given in millions of US dollars and which are calculated by taking price and exchange rate changes into account.

In addition to total FDI, each country has FDI data for 12 industrial sectors, which are further divided into 45 sub sectors. Some of these sub sectors are defined in a non-exclusive manner, such as 'post and telecommunications', 'post and courier activities', and 'telecommunications', giving rise to the issue of double counting. Since removing only the overlapping sectors would bias my sample, I decided to remove all of the sub sectors and use only the broad industrial categories in my study.

Although FDI is presented as both inflows and outflows for each sector, I limit my focus to FDI inflows in order to isolate the impact that host country terrorism has on foreign investments. Countries calculate FDI inflow data by only recording the directional change in investment, not the total stock. Thus when a foreign investor sells part of the equity held in the investment venture, or when the direct investment enterprise buys back its shares from the direct investor, a negative value for FDI may be observed (OECD, 2010). From the data set, the FDI inflow of -$118,000,000 in USA's Agriculture and Fishing sector in 1994 indicates that in that year, there was an $18 million disinvestment in assets.

Of the 34 OECD member countries, three countries were filtered out for lack of data, and one country was removed because it is not included in the ITERATE data set. In addition, data for sector specific FDI is available from 1985 onwards, while ITERATE has data until 2007. Thus my data set consists of FDI inflows for 30 countries, across 12 sectors, and over a period of 23 years.

3. Methodology

The study starts off by examining sample wide trends in FDI inflows and terrorism. Table 1 portrays the average total FDI and average number of terrorist events across time. Note that there appears to be a seemingly consistent, inverse relationship between the two. In order to statistically quantify this relationship, a regression model is created which includes country and year dummies in order to control for their other influential variables that cannot be observed. The size of a country and its economy may impact FDI, and so population and real Gross Domestic Product (GDP) per capita is included to check for country size. The following regression model relates total FDI with terrorism for a country i and year t:

$$\text{totalfdi}_{it} = \alpha_0 + \text{nr\_cflct}_{it} + \alpha_2 \text{nr\_victim}_{it} + \alpha_3 \text{lnpop}_{it} + \alpha_4 \text{lngdp}_{it} + \alpha_5 \text{FE}_i + \alpha_6 \text{FE}_t + \varepsilon_{it}$$

where totalfdi is the annual FDI by country, nr_cflct is the number of terrorist events, nr_victim is the number of individuals wounded or killed due to terrorist events,

lnpop is the log of country population, lngdp is the log of real Gross Domestic Product (GDP) per capita, FE_i is the country dummy, and FE_t is the year dummy. These variables and their sources are described in Appendix A.

The study's main interest lies in the impact that terrorism has on FDI by sector, and for this a similar model is generated, adding a sector dummy. The model is for a given sector j, and is expressed as follows:

$$fdi_{ijt} = \alpha_0 + nr\_cflct_{it} + \alpha_2 nr\_victim_{it} + \alpha_3 lnpop_{it} + \alpha_4 lngdp_{it} + \alpha_5 FE_i + \alpha_6 FE_j + FE_t + \varepsilon_{ijt}$$

where fdi_{ijt} is the annual FDI for all countries by sector, FE_j is the sector dummy, and all the remaining variables are the same as above.

The country, sector and year dummies should control for as many omitted variables as possible, while the inclusion of population and GDP should be an appropriate check for country size. It would be interesting to see which particular sectors are significantly impacted by terrorism, and so a model is generated which keeps the sector fixed (j*) in order to isolate the impact on that specific sector. The model is as follows:

$$fdi_{ij*t} = \alpha_0 + nr\_cflct_{it} + \alpha_2 nr\_victim_{it} + \alpha_3 lnpop_{it} + \alpha_4 lngdp_{it} + \varepsilon_{ijt}$$

where fdi_{ij*t} is the annual FDI for all sample countries, keeping the sector constant.

5. Results

5.1 Total FDI Model

Table 2 explores the correlation between total FDI and the number of terrorist incidents and victims. The regression model includes the logarithms of country population and real GDP per-capita, in order to account for differences in country size that could skew results. The models in columns 3-8 utilize dummy variables for country and year, in order to control for possible omitted variables. The models in columns 7 and 8 use both dummy variables. Columns 1 and 2 portray a normal model without fixed effects.

All combinations of the model indicate the existence of a negative relationship between total FDI and the number of terrorist incidents, and while models 5 and 6 are not statistically significant, the rest are at the 1 percent level. This indicates that when there is an additional terrorist incident in a given country, one observes a decline in FDI inflows. The model indicates that the number of victims from terrorist events has a slight positive correlation with FDI.

Population and real GDP per-capita have a significant positive correlation with FDI, except in models 7 and 8. These are the models with country and year dummies,

which indicate that there are specific country and year combinations for which other influential observations impact population and real GDP per-capita.

When the year dummy is implemented, the value of the coefficient for the number of terrorist events drastically reduces, and is no longer significant. This indicates that there are other influential variables and events which impact the number of terrorist events over time. Indeed, larger political and economic developments of a region often influence investor risk perception. The results indicate that the sample countries observed significant global or regional developments within the timeframe of the study that influenced their FDI inflows.

For instance, 1989-1992 represent a period of extreme political volatility in Europe. After the fall of the Iron Curtain, Germany was unified and the Soviet empire finally broke up into numerous independent nations. During this time, FDI inflows into many of the sample countries dropped dramatically

Similarly, the dotcom-related stock market crash of 2000 hurt many private equity groups and banks in both the US and Europe. Looking back at table 1, note that this resulted in global FDI inflows falling sharply again for a few years, only regaining its earlier peak by 2006.

The R^2 value for the model that includes all variables along with the year dummy is 0.3618, implying that 36.18 percent of the variation in FDI is explained by the model.

When the country dummy is added, the R^2 value is 0.6444, indicating that 64.44 percent

of the variation in total FDI is explained by the model. The low R^2 value for just the year

dummy model, along with the significant increase in the model fit when the country

dummy is added, reinforces the above supposition that there are other influential factors

across time which impacts influences investor decision making.

5.2 Sector FDI Model

The result of the sector FDI model is presented in Table 3. A country, sector and

time dummy is utilized in models 3 to 10, with models 9 and 10 including all three.

Overall, a significant negative relationship is observed between FDI by sector and the

number of terrorist events. Although there appears to be a significant positive relationship

between the number of victims and FDI, the coefficients are so small that in terms of US

dollar amounts the FDI increase is not very large.

Note that just as in the total FDI model, when the year dummy is implemented,

the value of the coefficient for the number of terrorist events drastically reduces, and is

no longer significant. This indicates that there are other influential variables and events

which impact the number of terrorist events over time. Similarly, when the country

dummy is implemented, the value of the coefficient for the number of victims killed

drastically reduces, and is no longer significant. This indicates that there are other

country specific influential observations which the models do not account for, which

impacts how a potential foreign investor perceives the risk associated with the number of victims from terrorist events.

When country, year, and sector dummies are included together, we observe a decrease in the coefficient value and significance, for the number of conflicts. This indicates that there are other influential observations for specific country, sector and year combinations, which impact the way a potential foreign investor perceives risk associated with terrorist events.

5.3 FDI by Individual Sectors   Model

The impact of terrorism on the FDI inflows of individual sectors is isolated, and although the coefficients for the number of terrorist events are negative for every sector, only 3 of them are significant. The three sectors are manufacturing, trade and repair, and construction. The results are presented in Table 4.

The coefficient values make it appears as though the manufacturing industry has a much larger correlation with terrorist events than the other sectors. However these results do not account for sector size, which determines how considerable the change in FDI inflows is, and so one cannot compare these coefficients at face value. To account for this, average FDI inflow in each sector is generated, and used with the coefficients in each model to calculate the percentage change in FDI inflow, as shown in Table 3. Note

that for all three sectors, the percentage decrease in FDI is within a range of 0.47 percent, and so the impact by sector is not very differentiated.

The results indicate that investors from different sectors do not respond to terrorism in a homogeneous manner, and their risk-taking ability is often influenced by the source of capital, intensity of physical assets (IPA), and the location substitutability of the investment.

This is why the three sectors most adversely affected by terrorism are manufacturing, construction and retail sectors. The manufacturing sector refers to the large scale production of goods such as food products, clothing, medicines, appliances, and motor vehicles. The trade and repairs industry deals with the sale of high-value retail goods such as appliances, electronics, computers and automobiles. The construction sector includes the activities related to the construction, demolition, and renovation of structures. The common thread which connects them to each other, and to terrorist events, is their heavy dependence on physical assets, either as machinery, factory assets or precious inventory.

As for the statistical insignificance of remaining sectors, especially the hotels and restaurants sector – the nature of the country sample accounts for some of the results. OECD countries are mostly developed and diversified economies, which are more resilient to external shocks, including terrorism. In such economies, there is usually a fast

recovery of public trust and investor confidence because of the resources and responses of the government.

7. Conclusion

This study has attempted to conduct an empirical investigation on the linkage between terrorist violence and FDI inflows, focusing on developed countries where political violence is a relatively newer phenomenon as compared to many developing countries in Asia, Africa or the Middle East.

In consonance with past research by others, this study has shown a significant but inconsistent relationship between terrorist violence and foreign direct investment. Investors in different sectors do not appear to respond to terrorism in a homogeneous manner, and their ability to absorb or discount future risk appears to be influenced by other economic or political factors. The most negatively impacted economic sectors are those that have a higher percentage of useful assets tied up in physical forms on the ground, which matches our intuitive understanding of the real risks involved in different industries.

While the results of this study are not radical, they do add another layer of understanding to previous research. While it might appear rather obvious that violence of

any kind should deter FDI, the actual relationship between terror and FDI has become more complex in the last two decades, and reflects the increasing diversity of investor profiles, risk appetites and other palliative factors in an environment where companies are increasingly looking to invest abroad in order to cut costs and tap newer markets.

Going forward, it may be useful and interesting to study the correlation between terrorism and investors differentiated by their ownership or debt structure – such as private equity groups, state-owned enterprises, highly leveraged companies and employee-owned firms.

8. Appendix A: Key Variables of Interest

fdi denotes the value of Foreign Direct Investment inflows into host countries, for a given industrial sector. It is denoted in millions of US dollars. Source: The International Direct Investment Database of OECD.

nr_cflct is the annual number of terrorist events that occur in each country, and the data is collected using print and electronic media to observe results. Source: ITERATE data set.

nr_victim is a variable that I generated by summing nr_kill and nr_wound, in order to represent the total number of individuals who were victimized by terrorist incidents, by country and year. Source: ITERATE data set.

nr_kill is the annual number of individuals who were killed as a result of terrorist incidents, by country. Source: ITERATE data set.

nr_wound is the total number of individuals by country and year who were physically harmed and who required medical attention as a result of terrorist incidents. This does not include individuals who later died from their injuries. Source: ITERATE data set.

lnpop denotes the population of each country by year, in log terms. Source: the International Direct Investment Database of OECD.

lngdp denotes the real Gross Domestic Product per capita of each country in log terms. Source: World Bank's World Development Indicators.

Year	Total FDI	Number of Terrorist Events
1985	2225.77	9.79
1986	3514.44	8.80
1987	5341.81	6.86
1988	6106.50	5.82
1989	7960.02	4.32
1990	7186.47	3.96
1991	5077.04	10.96
1992	4564.22	5.22
1993	6005.33	11.43

1994	6674.48	2.39
1995	8993.58	2.71
1996	9819.22	1.88
1997	12065.59	1.88
1998	21151.10	0.50
1999	30937.58	0.96
2000	40967.53	0.69
2001	20400.49	0.48
2002	19792.63	1.03
2003	15839.14	1.07
2004	17726.00	1.24
2005	25597.69	0.38
2006	35265.09	0.20
2007	54403.62	0.40

9. Tables

Table 1: Trends in FDI and Terrorist Events from 1985-2007

Note: This table portrays the trends in annual FDI and number of terrorist events over time. The first column represents the year, from 1985-2007. The second column represents average total FDI for all sample countries, in millions of US dollars. The third column represents the average number of terrorist events that occurred each year.

Table 2: Country-wide Impact of Terrorism on FDI

	1	2	3 Country F.E.	4 Country F.E.	5 Year F.E.	6 Year F.E.	7 Country, Year F.E.	8 Country,Year F.E.
nr_cflct	-311.19** [128.95]	-371.78*** [130.65]	-367.40*** [111.43]	-370.47*** [112.77]	-92.05 [130.06]	-162.23 [131.62]	-311.89*** [109.12]	-327.06*** [110.08]
nr_victim		5.29** [2.12]		.32 [1.72]		5.78*** [2.05]		1.72 [1.65]
lnpop	9307.97*** [890.22]	9121.51*** [889.32]	97362.88*** [28061.15]	96812.96*** [28245.52]	9030.31*** [849.09]	8826.45*** [846.84]	57836.22* [33619.31]	54117.16 [33804.98]
lngdp	31597.16*** [2864.24]	32083.08*** [2857.82]	45307.27*** [9622.12]	45399.38*** [9643.86]	26895.06*** [2808.08]	27542.43*** [2799.83]	2051.61 [15056.58]	2127.27 [15055.46]
Observations	569	569	569	569	569	569	569	569

Notes: standard errors are presented in parentheses. ***, ** and * represent statistical significance at the .01, .05 and .10 levels, respectively. Each column shows a regression model estimated from 1985-2007 for 30 countries. Columns 3-4 and 5-6 include fixed effects for country and year respectively, and columns 7 and 8 include fixed effects for both country and year together. Variables in the regression are: annual total FDI inflows by country (totalfdi), the annual number of terrorist events (nr_cflct) and individuals wounded or killed by terrorist events (nr_victim) by country, the logarithm of real GDP per capita (lngdp), the logarithm of country population (lnpop), and dummy variables for country and year.

Table 3: Sector-wide Impact of Terrorism on FDI

	1	2	3 Country	4 Country	5 Sector	6 Sector	7 Year	8 Year	9 Country, Sector, Year	10 Country, Sector, Year
nr_cflct	-30.99*** [10.63]	-38.08*** [10.77]	-28.00** [11.49]	-30.49*** [11.59]	-29.65*** [10.41]	-36.84*** [10.54]	-11.91 [11.32]	-19.93* [11.46]	-19.80* [11.79]	-22.96* [11.87]
nr_victim		.67*** [.17]		.28 [.18]		.69*** [.17]		.74*** [.17]		.41** [.18]
lnpop	991.66*** [78.66]	963.52*** [78.87]	10538.96*** [3431.83]	10144.53*** [3440.66]	1014.51*** [76.99]	986.05*** [77.18]	1017.41*** [78.51]	984.85*** [78.74]	4529.19 [4180.98]	3779.82 [4191.62]
lngdp	3338.16*** [260.13]	3431.12*** [260.81]	4908.29*** [1182.52]	4997.19*** [1183.73]	3256.31*** [254.63]	3350.39*** [255.27]	2938.78*** [265.64]	3047.70*** [266.39]	-1700.52 [2032.05]	-1628.74 [2031.37]
Observations	4897	4897	4897	4897	4897	4897	4897	4897	4897	4897

Notes: standard errors are presented in parentheses. ***, ** and * represent statistical significance at the .01, .05 and .10 levels, respectively. Each column shows a regression model estimated from 1985-2007 for 30 countries. Columns 3-4, 5-6, and 7-8 include fixed effects for country, sector, and year respectively. Columns 9 and 10 include fixed effects for country, sector, and year together. Variables in the regression are: annual FDI inflows for each country by sector (fdi), the annual number of terrorist events (nr_cflct) and individuals wounded or killed by terrorist events (nr_victim) by country, the logarithm of real GDP per capita (lngdp), the logarithm of country population (lnpop), and dummy variables for country, sector, and year.

Table 4: Sector Models: Impact of Terrorism on FDI in the Manufacturing, Trade and Repairs, and Construction Sectors

	1 Manufacturing	2 Manufacturing	3 Trade and Repairs	4 Trade and Repairs	5 Construction	6 Construction
nr_cflct	-105.84** [51.45]	-117.31** [52.29]	-32.14* [17.61]	-33.78* [17.78]	-3.27 [2.03]	-3.51* [2.06]
nr_victim		1.02 [.84]		.21 [.31]		.019 [.03]
lnpop	3607.81*** [366.25]	3569.86*** [367.41]	1156.95*** [127.98]	1148.94*** [128.59]	69.56*** [14.794]	68.82*** [14.86]
lngdp	8310.35*** [1245.12]	8437.49*** [1248.93]	2955.95*** [432.07]	2983.68*** [434.19]	173.97*** [53.99]	176.88*** [54.25]
Observations	508	508	473	473	419	419
percentage change in FDI inflow	-2.29	-2.54	-2.07	-2.17	-2.25	-2.41

Notes: standard errors are presented in parentheses. ***, ** and * represent statistical significance at the .01, .05 and .10 levels, respectively. Each column shows a sector specific regression model estimated from 1985-2007 for 30 countries. Columns 3-4, 5-6, and 7-8 include fixed effects for country, sector, and year respectively. Columns 9 and 10 include fixed effects for country, sector, and year together. The last row is not part of the regression models, and represents the percentage change in FDI inflows. It is calculated by dividing the coefficient from each model by the average FDI inflows for that sector, and multiplying by 100. Variables in the regression are: annual FDI inflows for each country by sector (fdi), the annual number of terrorist events (nr_cflct) and individuals wounded or killed by terrorist events (nr_victim) by country, the logarithm of real GDP per capita (lngdp), the logarithm of country population (lnpop), and dummy variables for country, sector, and year.

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