Over the last few years, the world has been shocked by a new wave of political conflict, including the events of the Arab Spring and the conflict in Ukraine. This dissertation evaluates the causes of political conflict and its consequences for investments by multinational enterprises (MNEs). The studies that are part of this thesis aim to improve our understanding of the relationships between political conflict, investment and ultimately human prosperity. These three concepts are interdisciplinary in nature and the different chapters included in this thesis reflect this. By combining conceptual frameworks and methodologies from economics and business research, they shed light on the increasing levels of political conflict and the reaction of firms to this development.

In the first part of this thesis, the causes of non-violent political conflict are examined. The findings demonstrate that a decrease in subjective wellbeing (i.e. happiness) can motivate citizens to engage in acts of civil resistance. In the second part, the consequences of armed political conflict for Foreign Direct Investment (FDI) are examined. The effect of political violence on greenfield FDI is heterogeneous across types of violence, sectors and firms, falsifying the claim that all FDI flows are negatively affected by political violence. In addition, the results indicate that similar to international conflict, internal wars can disturb existing relationships between the MNE’s home and host country.

The Erasmus Research Institute of Management (ERIM) is the Research School (Onderzoekschool) in the field of management of the Erasmus University Rotterdam. The founding participants of ERIM are the Rotterdam School of Management (RSM), and the Erasmus School of Economics (ESE). ERIM was founded in 1999 and is officially accredited by the Royal Netherlands Academy of Arts and Sciences (KNAW). The research undertaken by ERIM is focused on the management of the firm in its environment, its intra- and interfirm relations, and its business processes in their interdependent connections.

The objective of ERIM is to carry out first rate research in management, and to offer an advanced doctoral programme in Research in Management. Within ERIM, over three hundred senior researchers and PhD candidates are active in the different research programmes. From a variety of academic backgrounds and expertises, the ERIM community is united in striving for excellence and working at the forefront of creating new business knowledge.
Bloody Business:
Multinational investment in an increasingly conflict-afflicted world
Bloody Business:
Multinational investment in an increasingly conflict-afflicted world

Bloederige zaken:
Buitenlandse investeringen in een wereld getroffen door conflict.

Thesis
to obtain the degree of Doctor from the Erasmus University Rotterdam by command of the rector magnificus

Prof.dr. H.A.P. Pols

and in accordance with the decision of the Doctorate Board.

The public defence shall be held on Thursday, 25 January 2018, at 15:30 hrs

by

Caroline Theresia Witte
born in Zoeterwoude
ACKNOWLEDGMENTS

In December 2012 I celebrated the completion of a research seminar and the start of the Christmas holidays together with my fellow students in the campus bar the Smitse. While time passed and several beers were enjoyed, I got talking to Martijn Burger, the course coordinator of the research seminar. It turned out we had some things in common: a bachelor obtained from a university college, an interest in the role of multinationals in economic development and a fondness of Winnie the Pooh. A few months later I received an email from Martijn with a PhD proposal that build on this casual conversation. Although I had not given any serious thought to doing a PhD before, I was immediately enthusiastic. The project had my name all over it: an interdisciplinary study about private sector development in fragile economies in partnership with the World Bank. And the rest, as they say, is history.

Martijn, you were the best daily supervisor. I’m grateful for the opportunity to do a PhD in the first place, but also for all the support you gave me throughout this long process. Your door was always open and your enthusiasm motivated me time and time again. Of course, all the trips you took me on also did not hurt: our World Bank visits (e.g. late night Stata sessions, pandas, Netflix binge-watching and tubing) and many conferences (e.g. the ‘interesting’ conversations in Clermont-Ferrand, the beautiful walk in Oxford, soju in Seoul and driving around in circles in the surroundings of Macerata). This all made me a very happy PhD.

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with articles and books to read, a head full of new ideas that needed to be explored and a big smile on my face.

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I want to thank all my colleagues at Applied Economics and my fellow PhDs for the great atmosphere. I could not have asked for a better place to do my PhD. There are some people that deserve some additional words of thanks. Kim, I am so happy you were my officemate over the last 4 years (Yes, I’ve forgiven you the Tony Chocolony incident). You made coming to the office more than worth the daily 2.5 hour commute. Thank you for all the (often unsolicited) research breaks, the moments of reflection, our sparring sessions, your encouraging words, and all our lunch and tea breaks. I’m so happy you agreed to be my paranimf and I’ll gladly return the favor at your defense. Francine, Indy, Ronald, Tong, Myrthe and all those other PhDs on the 7th and 8th floor, thank you for sharing the joys and the frustrations of being a PhD student. To everyone at EHERO, thanks for adopting me as one of yours: you contributed to my happiness. Bas, Kirsten, Thomas, Nicola, Peter, Jolanda and Brigitte, thank you for our wonderful lunches and all the times you let me distract you from your important work.

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live? And that it is unlikely that the Danes are going to exit the E.U. any time soon? O, and
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Pap, do you remember taking me to the open day at the Erasmus University when I was 17
years old? And me saying that I would never ever go study there? Well, I guess I was
wrong and you were right; it is a pretty cool place in the end.

Lastly, Constantijn, thank you for being by my side. I could never express in words what
your support means to me.

Caroline Witte
Copenhagen, November 2017
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Chapter 1

Introduction

This dissertation evaluates the causes of political conflict and its consequences for investments by multinational enterprises (MNEs). The studies that are part of this thesis aim to better understand the relationships between political conflict, investment and ultimately human prosperity. These three concepts are interdisciplinary in nature and the different chapters included in this thesis reflect this. By combining conceptual frameworks and methodologies from economics and business research, they shed light on the increasing levels of political conflict and the reaction of firms to this development. The papers in this dissertation are inspired by the movement within business research to address ‘Grand Challenges’, which is reflected not only in the interdisciplinary approach, but also in the phenomena-driven perspective (Buckley, Doh & Benischke, 2017). Section 1.1 of this introductory chapter sketches the problem of an ‘increasingly conflict-afflicted world’ and the phenomenon of widespread multinational activity in conflict-afflicted regions. Section 1.2 elaborates on the motivation behind this research project. Section 1.3 provides an outline of this dissertation. This section includes a graphical representation of the concepts studied (Figure 1.3) and an overview of the different chapters (Table 1.2). Finally, to ensure that my co-authors in this dissertation get credit for their work, their contributions are discussed in Section 1.4.
1.1 THE CONTEXT

1.1.1 An increasingly conflict-affected world

On December 17, 2010 at noon Mohammed Bouazizi set himself – and indirectly Tunisia, Libya, Egypt, Yemen and Syria – on fire. It is unlikely that he could have predicted the consequences of his final act of despair. Yet, it became the last straw that broke the camel’s back and eventually led to the ousting of four dictators and the outbreak of several large scale armed conflicts. In the first months of the Arab Spring, there was hope of democracy and social justice. However, at the start of my PhD trajectory, in summer 2013, the Arab Spring had turned into an Arab Winter; there was a full-scale civil war in Syria which had left nearly 100,000 death and in Egypt General Abdel Fattah el-Sisi had just removed Mohammed Morsi from power and suspended the constitution (Black, 2013; Kingsley & Chuloy, 2013). In the years that followed and in which I fully developed the articles in this dissertation, human rights remained under attack across the Arab region and the conflicts in Syria, Yemen and Libya merely escalated (Amnesty International, 2016). This also had a major consequences for the rest of the world, as the conflicts lead to the largest refugee crises of the 21st century and created fears of terrorist attacks across the globe.

Since the end of the Cold War there had been a discernible downward trend in the number and intensity of armed conflicts, defined as “a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in one calendar year” (Pettersson & Wallensteen, 2015, p. 1). The global decline in conflict brought about optimism that wars are waning (e.g. Goldstein, 2011). However, in recent years the number and severity of conflicts has increased again (See Figure 1.1). In 2015 UCDP recorded a total of 50 armed conflicts relative to 32 in 2005; an increase of 56.3% within a decade (Gleditsch, Wallensteen, Eriksson, Sollenberg, & Strand, 2002). The conflicts that resulted from the Arab Spring can to a large extent account for this increase, but political violence has also escalated in Iraq, Afghanistan, Nigeria, and Ukraine. Unfortunately, due to the consequences of climate change we can expect to see an even further increase in the number of armed conflicts in the future (Harrari & La Ferrara, 2012; Hendrix & Salehyan, 2012; Hsiang, Meng & Cane, 2011).

The current wave of armed conflict is different from those that plagued previous eras. Few of these conflicts are interstate, i.e. fought between two state actors. Instead the majority of present-day armed conflicts are intrastate, although often international actors are involved such as the U.S. interference in Syria, Afghanistan and Iraq. Despite the fact that almost all armed conflicts are located in middle and low income countries, several of these conflicts have also lead to a renewed fear of terrorist attacks, refugee crises or nuclear attacks in

---

1 The terms armed conflict and violent (political conflict) are used interchangeable throughout this PhD dissertation.
Figure 1.1 Armed conflict in 2005 and 2015 (UCDP PRIO, 2017).

Conflicts with more than 25 battle-related deaths (BRD) and less than 1,000 (BRD) in one calendar year are colored light grey, whereas wars defined as armed conflicts that caused at least 1,000 BRD are colored dark grey.
high income economies. In addition, there is preliminary evidence that the origins of the current conflicts are different and that existing models of civil war are unable to fully explain their causes (Duffield, 2014). For example, both the Arab Spring and the Ukrainian uprising can hardly be explained with traditional models of civil war which focus merely on GDP growth and ethnic fractionalization (Arampatzi et al., 2017; Kurkov, 2014). This begs for renewed attention to both the causes and the consequences of these conflicts.

Also non-violent political conflict remains an important factor in today’s world. Non-violent political conflict refers to civil resistance campaigns against the political regime which are typically coordinated and organized by activists, public figures or civilians (Chenoweth & Ulfelder, 2017). Non-violent conflict is different from armed conflict to the extent that non-violent conflict per definition excludes actions that have a violent nature, but they are similar to the extent that in both conflicts the government or state is involved. In addition, not unlike armed conflict, non-violent conflicts are a major source of political instability, regularly leading to the replacement of a regime and a transition to democracy (Chenoweth & Stephan, 2011). When non-violent resistance fails, opposition groups often use this as a justification to escalate to civil war (Regan & Norton, 2005). To a large extent the early Arab Spring protests could be classified as non-violent conflict, leading to successful democratization in Tunisia but also major violent conflicts in Syria, Libya and Yemen. In Figure 1.2 we depict the change in demonstrations and strikes, two prominent non-violent conflict events, over the 2004 to 2014 period. There is a large increase from 2011 onwards, which is partly due to the Arab Spring.

Figure 1.2 The number of demonstrations relative to the frequency of armed conflict over 2000-2015.
1.1.2 Multinational investment in conflict zones

A firm becomes a multinational (MNE) – a firm present in more than one country - by undertaking Foreign Direct Investment (FDI) (Barba Navarette & Venables, 2004). FDI is a flow of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. Compared to short-term credits and portfolio investments, FDI signals a long-lasting commitment. As a result, there is less of a risk of divestment if economic conditions deteriorate or investors’ perception of a country’s prospects change, reducing the risk of sudden capital flight. In addition, FDI is associated with several positive effects on the host economy, including transfer of technology and managerial know-how, formation of capital, creation of employment and better access to international markets (Jensen, Biglaiser & Li, 2012). It is therefore not surprising that many developing countries try to attract FDI. According to the World Bank (2017), developing countries received on average FDI inflows amounting to 2.4% of their GDP, while FDI inflows to developed nations equaled only 3.1% of GDP in 2015.

Trade economists and international business scholars (IB) have extensively analysed how political risk - most notably risks related to expropriation and corruption - can explain variation in the distribution of FDI flows. They have reached a general consensus that political risk negatively affects these flows, although the effect is clearly heterogeneous across firms and depends among other things on the sector in which they are active and the firm’s experience (e.g. Brouthers, Gao & McNicol, 2008; Brunetti & Weder, 1998; Burger et al., 2015; Busse & Hefeker, 2007; Cuervo-Cazurra, 2006; Feinberg & Gupta, 2009; Garcia-Canal & Guillén, 2008; Habib & Zurawicki, 2002; Henisz, 2000; Holburn & Zelner, 2010; Meon & Sekkat, 2012; Schneider & Frey, 1985).

Political conflict is considerably less well understood. Political conflict, and armed conflict in particular, differs from political risk, because it leads to a direct destruction of physical and human capital and is less predictable. Yet, on the conceptual level there is a general consensus that also political conflict can be expected to increase the cost of doing business and accordingly reduce FDI flows, because setting up a subsidiary in a conflict country is associated with a high risk of bombardment of assets, disruptions in the supply chain, extreme volatility in currency value, disorder in the market system and violence against employees (Dai et al., 2013; Li & Vashchilko, 2010).

Nevertheless, for a number of firms political violence might actually signal an investment opportunity. Guidolin and La Ferrara (2007) propose three reasons why some firms might profit from conflict. First, violent conflict can reduce the transparency required from firms.

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2 In this thesis political risk is defined as the risk that a government unexpectedly changes ‘the rules of the game’ to which firms ought to adhere (Butler & Joaquin, 1998).
As such, firms might profit from unofficial activities, such as tax evasion. Guidolin and La Ferrara show that during the Angolan war (1975-2002) private investors were able to profit from unofficial business, since necessary institutional reforms were not implemented until as a result of the government’s ‘state of emergency’. Second, in times of conflict entry of new firms is limited, as companies that are less able to function in a risky environment are less likely to invest. Consequently, competition is less fierce, which can raise profits. Hence, companies that have a competitive advantage in operating in conflict countries can benefit considerably from war. Third, political violence can pressure governments to obtain revenues to finance military expeditions, security arrangements and rebuilding efforts. As a result, bargaining power might shift in the favor of foreign investors. Especially investors with the right connections might be able to secure very low corporate tax rates or obtain operating licenses for nominal fees.

In line with these arguments, there is plenty of anecdotal evidence that not all MNEs are deterred by conflict (Driffield, Crotty & Jones, 2012). For example, Eni SpA announced major investments in Egypt’s oil and gas industry during the Arab Spring (fDi Markets, 2013). Likewise, a British company invested in petroleum facility in Syria after the outbreak of the civil war, while Chinese, Indian and Arab investors have major stakes in South Sudan’s oil fields. Not only MNEs active in the natural resource industry invest in countries marred by conflict, also manufacturing and services firms locate in such countries. For example, General Motors and Coca Cola announced expansions of their production facilities in Egypt during the midst of the Arab Spring and companies such as Volvo, Deloitte and the Citigroup invested in Iraq during the previous few years.

These anecdotes are representative for a larger set of investments. In terms of value more than 13% of all greenfield FDI flowing to developing countries in the period from 2003-2012 went to countries experiencing a political conflict with at least 25 battle-related deaths per year, and nearly 5% went to countries experiencing a war (fDi Markets, 2013). According to the World Bank (2017), FDI flows make up 3.9% of GDP of conflict-afflicted economies over this time period. The study of FDI is particularly insightful, because it signals that the investing firm expects a new subsidiary in a conflict country to be profitable. Although conflict causes uncertainty and increases security costs, sustained FDI flows indicate that multinationals can flourish in this environment, possibly gaining a sustainable competitive advantage and obtaining great profits.

1.2 MOTIVATION
Although scholars in the fields of political science, economics and management have paid considerable attention to the relationship between political conflict and FDI, the empirical results remain mixed (Table 1.1). One explanation for these mixed results is that there is considerable heterogeneity in how MNEs are affected by political conflict. Accordingly, the sample selection criteria could have a large impact on the findings. For example, if
MNEs in the manufacturing industry were to be more deterred by armed conflict than MNEs in the resource sector, I would find a particularly strong negative effect of conflict on FDI if I were to only include manufacturing investments. Or if only wars, i.e. armed conflicts that cause over 1,000 deaths, affect FDI, the results found depend to a large extent on whether I measure wars or armed conflict in general.

In the International Business (IB) literature there have been some first explorations of the heterogeneous responses of MNEs to political conflict. These studies examine why some firms are more likely to invest in conflict areas than others. Driffield et al. (2012) find evidence that MNEs firms with more concentrated ownership and firms from home countries with relatively weak institutions are most likely to own a subsidiary in a conflict zone. Dai et al. (2013) analyse how political conflict affects exit decisions of Japanese MNEs and demonstrate that, contrary to expectations, geographically clustering with peers reduces firm survival in conflict zones. Using the same data, Dai et al. (2017) also find that subsidiaries’ exposure to political conflict increases exit rates, particularly for those subsidiaries that are most central in the firm’s network. Oh and Oetzel (2017) focus on the role of experience and show that only country-specific experience about how the government deals with insurgents reduces a subsidiary’s sensitivity to armed conflict.

Nevertheless, there is much unknown about what drives MNEs to conflict areas. The challenges posed by the increase in violent conflict require a greater understanding of how firms react to periods of unrest. Such an understanding is needed to improve regulations and possibly create public-private partnerships. The Sustainable Development Goals (SDGs) adopted by the UN General Assembly (2015) explicitly recognize the importance of peace and the role of partnerships in two separate goals: Peace, justice and strong institutions (SDG16) and partnerships for the goals (SDG17). The introduction of the SDGs has been followed by calls for more research on these topics (Kolk, Kourula & Pisani, 2017; Witte & Dilyard, 2017). Kolk et al. (2017) note: “[The lack of IB research on peace] is all the more remarkable as ‘business for peace’ and ‘peace through commerce’ (terms often used interchangeably) have given risen to a multidisciplinary body of work. This is thus another area that deserves further research attention.” Hence, whilst it impossible to open a newspaper without being faced with the terrible consequences of armed conflict and whilst there is ample anecdotal evidence that despite conflict commerce goes on, little is still known about multinational investment in this increasingly conflict-afflicted world.
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1.3 THESIS OUTLINE

1.3.1 Political conflict, FDI and prosperity
In my dissertation I address the relationships between political conflict, FDI and prosperity. The triangle in Figure 1.3 schematically shows the three concepts and their interrelationships. Political conflict (Figure 1.3, top box) has two components. Whereas violent conflict, most notably civil war and to a lesser extent international conflicts, might be the most salient types of political conflict, in my dissertation I also pay attention to civil resistance, the non-violent counterpart of armed conflict. In terms of FDI (Figure 1.3, bottom left), I move beyond whether FDI flows are on the whole affected by political conflict and will focus on different sources of heterogeneity that affect how FDI flows react to political conflict. These sources of heterogeneity include sector, firm and home country characteristics. The final concept in the triangle is prosperity (Figure 1.3, bottom right), which focuses on healthy societies and thriving citizens. Prosperity could hence be regarded as the ultimate life goal. Whereas prosperity is often seen as a synonym for economic development, I am particularly concerned with the relationship with subjective wellbeing (i.e. citizen’s happiness).

Figure 1.3 Illustration of the hypothesized political conflict, FDI and prosperity triangle.

The solid lines represent the relations studied in this dissertation, while the dashed lines correspond to relations established in the literature. The numbers indicate the chapters of this dissertation in which the relationship is discussed.

The relationships between the concepts in Figure 1.3 are depicted by arrows. The two solid arrows are addressed in this dissertation, whereas the dashed arrows between FDI and prosperity depict a relationship that has received considerable scholarly attention before and is hence not analyzed in the following chapters. That is not to say, that there is
consensus on the relationship between these two concepts. As depicted in Figure 1.3, the relationship goes two ways with FDI - and particularly the market-seeking kind - being attracted to flourishing markets and FDI also been thought to benefit the domestic economy by creating knowledge spillovers for domestic firms (Borensztein, De Gregorio & Lee, 1998; Javorcik, 2004; Newman, Rand, Talbot & Tarp, 2015). This makes it troublesome to identify the direction of the relationship and hence, skepticism about the existence of these relationships remains. This is exemplified by the current anti-globalization movement (e.g. Brexit, Trump’s election), that questions the benefits that multinationals bring to a host economy (Economist, 2017).

The three chapters in this dissertation address the relationships depicted by the two solid arrows in Figure 1.3. First, I analyze how changes in prosperity are related to non-violent conflict. The first task of my PhD project was to perform an extensive literature review on the political conflict literature. After all, to be able to explain how variations in conflict affects MNEs, it is necessary to understand how variation in conflict emerges (Angrist & Pischke, 2008; Reeb, Sakakibara & Mahmood, 2012). Although conflict scholars produced several insightful explanations of armed conflict (for an overview see Blattman & Miguel, 2010), I was puzzled by the inability of many of their models to explain the non-violent conflicts that are to a large extent to blame for the instability and armed conflict at the beginning of the 21st century. Chapter 2 is aimed at filling this gap in the literature, whilst also providing the background information for the other two chapters in my dissertation.

Chapter 3 and 4 look at the relationship between armed conflict and FDI, depicted by the left-hand side solid arrow in Figure 1.3. These chapters focus on why some firms are willing to invest in countries afflicted by armed conflict, whereas other would not even consider these locations. As such, these chapters shed light on what type of investment is attracted to conflict countries. In Chapter 3 I analyze variations in investment responses to political conflict on the basis of the type of conflict, characteristics of the sector and the MNE’s ability to diversify the risk. Chapter 4 looks at how political conflict moderates the effect of home-host ties on investment decisions. Can MNEs from a home country that has a historical connection with a host country benefit from the uncertainty created by conflict?

Although this dissertation enhances theory on country risk in several ways, its main goal has not been to develop theory, but to improve our understanding of a phenomenon: the increase in political conflict in recent years and the large number of MNEs that choose to operate in challenging environments. As such, it takes a more solution-oriented approach, inspired by the literature on ‘grand challenges’ (Buckley, Doh & Benischke, 2017; Watts, 2017). Rather than developing theory for the sake of ‘making a theoretical contribution’³, we enhance theory with the aim of answering two pressing questions:

³ For a discussion of management’s devotion to theory see Hambrick (2007).
(1) Can we explain and predict non-violent conflicts like those during the Arab Spring?
(2) Why would multinationals be willing to invest in countries afflicted by conflict?

1.3.2 Economics and IB: A happy marriage?
The topic of this thesis is interdisciplinary; grand challenges like political conflict do not adhere to disciplinary boundaries (Buckley, Doh & Benischke, 2017). Political conflict is studied by political scientists, sociologists, psychologists, business scholars and economists, while FDI is studied by economists and business scholars. In line with Beugelsdijk et al.’s (2010) call for a more interdisciplinary approach to MNEs’ location choice, this research project takes place on the interface between economics and business. This interdisciplinary approach was partly intended at the outset of this project, and has partly been due to a shift in my interests from development economics to IB. Whilst Chapter 2 is primarily written for an audience of (development) economists, Chapter 3 and 4 are targeted at the IB community. Chapter 2 provides recommendations to government agencies, whereas in Chapter 3 and 4 I also discuss implications for managers of multinationals.

Notwithstanding the praise given to interdisciplinary research in social science and IB in particular (e.g. Cheng, Henisz, Roth & Swaminathan, 2009; Buckley, Doh & Benischke, 2017; Watts, 2017), I have learned that doing interdisciplinary research is hard and getting it published is even harder. I felt an economist when at an IB conference and a management scholar at an economics conference. The two disciplines speak different languages and there were times that I felt neither was my native language. Over time, I started to identify more as an IB scholar and, fortunately, I got the one of the chapters in this dissertation published in an IB journal. Although most economics-inspired elements were replaced with their management counterparts during the review process, the methodology kept its economics flavor. In all three chapters the statistical tests and models (e.g. 2SLS, GMM models, LSDVC and mixed logit) are inspired by my background in economics. Even if real interdisciplinary research is difficult, a crossover in methods is feasible and valuable. In my fifth chapter I conclude my dissertation with some directions for future research. Here I also return to how economists and IB scholars can cooperate to work on topics related to ‘grand challenges’.

1.3.3 Findings per chapter
Chapter 2: Unhappy Rebels: The Role of Subjective Wellbeing in Civil Uprisings
Motivated by the inability of existing models of grievances – which mainly rely on traditional socioeconomic indicators - to explain and predict the recent wave of political conflicts, we test whether wellbeing data can be used to better explain variation in these
events. We focus on non-violent civil conflict and construct a database combining data on non-violent uprisings and subjective wellbeing covering 118 countries over the period 2007 to 2014. Consistent with the grievance-based approach to rebellion, we find that a decrease in average subjective wellbeing – and particularly an increase in self-reported suffering – leads to an increase in non-violent uprisings, but not violent political conflict. We find evidence that this negative effect of overall wellbeing on non-violent uprisings is to a large extent the result of changes to satisfaction with living standards and the perceived capability to have a purposeful and meaningful life.

Chapter 3 Dodging Bullets: The Heterogeneous Effect of Political Violence on Greenfield FDI

The relationship between political violence and greenfield foreign direct investment is contingent on the type of violence, the characteristics of the investment-receiving sector, and the international scope of the investing firm. Analysis with a dynamic fixed effects model for a panel of 90 developing countries shows that nationwide political conflict is negatively associated with total and non-resource-related greenfield FDI, but not with resource-related greenfield FDI. The insensitivity of resource FDI to political conflict is explained by the high profitability of natural resource extraction and geographic constraints on location choice. In the non-resource sector, the least geographically diversified firms are most sensitive to conflict. Other types of political violence, including intermittent violence in the form of terrorist acts and assassinations, or persistent but low-impact events, such as political terror, have no effect on the location choice decisions of multinational enterprises. These findings inform the strategies of multinationals with a nuanced and much needed understanding of the effects of political violence and the risks it poses to their businesses.

Chapter 4 When political instability destroys historical ties

Although institutional and cultural distance evolve slowly, historical home-host ties can swiftly wear away as a result of political shocks. We investigate how shocks related to political instability, i.e. armed conflict and regime changes, affect the importance of historical ties for location choices of multinational enterprises (MNEs). We exploit firm-level variation in a unique dataset comprised of FDI flows to all low income countries in Sub-Saharan Africa from 2003 to 2013 and estimate a mixed logit model. The results show that violent conflict eliminates the positive effect of colonial relationships on the probability of MNE investment. This effect is confined to large conflicts where the probability of government takeover is largest. We also find that regime transitions erode the positive effect of colonial relationships on MNE location decisions. This implies that MNEs originating from a country with historical ties to the host country face incentives to prevent political shocks, whereas MNEs from countries without such home-host ties might actually benefit from threats to the status-quo.
1.4 INDIVIDUAL CONTRIBUTIONS

For all chapters in this dissertation, I am the leading author and have been responsible for most of the literature review, data collection, analyses and writing. I have done the work for the introduction (Chapter 1) and the conclusion and discussion (Chapter 5) independently, although I received valuable feedback from my promotor prof. Harry Commandeur.

The idea of Chapter 2 on unhappy rebels resulted from discussions with my co-authors on this paper, Dr. Elena Ianchovichina and Dr. Martijn Burger, while we were working on a World Bank policy brief on the Arab Spring in Washington DC. Hence, all three of us have contributed to the research idea and conceptual framework. I have been responsible for the writing, the data collection and analyses, although I have received some support from my supervisor Martijn Burger with the GMM estimations presented in this chapter. Martijn Burger, who is an expert in subjective wellbeing research, also assisted with the literature analyses and formulating the contribution of the paper. Elena Ianchovichina provided the data on non-violent uprisings, gave suggestions for sensitivity analyses and assisted in presenting and contextualizing our findings.

Of the chapters in this dissertation, Chapter 3 ‘Dodging bullets’ required most time and efforts. The co-authors on this paper, Dr. Martijn Burger, Dr. Elena Ianchovichina and Prof. Enrico Pennings, contributed during different stages of development of the paper. Martijn Burger was mainly involved in the first stages, including the formulation of the initial research idea, the formulation of the hypotheses and the first analyses. Elena Ianchovichina helped address concerns in the data analyses and contextualize our findings. She has also been a great help in the writing process, particularly in structuring and framing the study. Enrico Pennings, the only co-author that published in IB journals before, has been invaluable in terms of theory development and addressing the comments of referees. I am also grateful for the constructive comments by Journal of International Business editor, Mona Makhija, and three anonymous referees. Early versions of this paper were presented at the Center for the Study of African Economies (CSAE) Conference 2015 and the 2015 AIB Annual Meeting in Bangalore. I would also like to thank seminar participants at Ivey Business School, Copenhagen Business School, the University of Groningen and the Erasmus School of Economics for their useful suggestions.

For Chapter 4 on historical ties I came up with the research idea and conceptualized the study independently. I received useful feedback from my supervisors Martijn Burger and Enrico Pennings, particularly in terms of methodology and framing of the study. I am also grateful for the feedback received at the European Trade Study Group (2015) in Paris, the World Bank lunch seminar (2017) in Washington DC and the Annual Meeting of the Association of International Business (2017) in Dubai.
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Chapter 3

Dodging Bullets: The Heterogeneous Effect of Political Violence on Greenfield FDI

ABSTRACT

The relationship between political violence and greenfield foreign direct investment is contingent on the type of violence, the characteristics of the investment-receiving sector, and the international scope of the investing firm. Analysis with a dynamic fixed effects model for a panel of 90 developing countries shows that nationwide political conflict is negatively associated with total and non-resource-related greenfield FDI, but not with resource-related greenfield FDI. The insensitivity of resource FDI to political conflict is explained by the high profitability of natural resource extraction and geographic constraints on location choice. In the non-resource sector, the least geographically diversified firms are most sensitive to conflict. Other types of political violence, including intermittent violence in the form of terrorist acts and assassinations, or persistent but low-impact events, such as political terror, have no effect on the location choice decisions of multinational enterprises. These findings inform the strategies of multinationals with a nuanced and much needed understanding of the effects of political violence and the risks it poses to their businesses.

3.1 INTRODUCTION

Although research on business in emerging and developing economies has flourished over the last decade (Meyer & Peng, 2016), there has been relatively little focus on the effect of political violence on multinational enterprise (MNE) strategy. This lack of attention is surprising because in terms of value more than 13% of all greenfield investments flowing to developing countries in the period from 2003-2012 went to countries experiencing a political conflict with at least 25 battle-related deaths per year, and nearly 5% went to countries experiencing a war (fDi Markets, 2013). Recent research on the topic acknowledges that many MNEs own subsidiaries in areas prone to political conflict and focuses on how firms can meet the challenges posed by this threat. Oetzel and Getz (2012) study how stakeholders affect the tactics MNEs use to strategically respond to conflict, whereas Bader and Schuster (2015) focus on the role of networks to eliminate the negative effect of terrorist threats on the wellbeing of expatriates. However, few studies explore the mechanisms that attract MNEs to these fragile states in the first place (Czinkota, Knight, Liesch & Steen, 2010; Driffield, Crotty & Jones, 2013).

Whereas the reasons for MNEs’ entry into areas marred by political violence remain largely unknown, a considerable number of studies published in International Business (IB) and political economy journals have tried to answer the question of whether total foreign direct investment (FDI) inflows are in the least affected by political violence. On a conceptual level, scholars tend to agree that political violence has a detrimental effect on expected returns, reducing the propensity to invest. Nevertheless, the empirical results remain inconclusive. Nigh (1985) establishes that political violence in developing countries has a negative effect on U.S. manufacturing FDI, and Abadie and Gardeazabal (2008) show that terrorism has a large negative effect on inward FDI flows relative to Gross Domestic Product (GDP). Asiedu (2006) finds that in African countries, the number of coups, riots, and assassinations is negatively associated with the ratio of net FDI flows to GDP. However, in an earlier paper on the determinants of FDI in developing countries, she infers that the average number of assassinations and revolutions does not significantly influence FDI inflows (Asiedu, 2002). Li (2006) also concludes that the occurrence of unanticipated interstate wars has a negative influence on FDI, but he finds no significant association between FDI and intrastate wars or terrorist incidents, which represent most of the political violence incidents since the end of the Cold War (Pettersson & Wallensteen, 2015). In contrast to Li (2006), Busse and Hefeker (2007) find that civil war negatively affects FDI, whereas interstate war has no effect on FDI. Several other scholars find no relationship between political violence and FDI (Biglaiser & DeRouen, 2007; Li & Vashchilko, 2010; Oetzel & Oh, 2014), whereas Biglaiser and DeRouen (2006) and Asiedu and Lien (2011) find a positive relationship between FDI and conflict.

There are several explanations for these heterogeneous and seemingly contradictory findings in the literature on political violence and FDI. First, the relationship between
political violence and FDI is contingent upon the type of violence. Building on the literature classifying different types of risk (Miller, 1992; Oetzel & Oh, 2014), we develop the argument that the effect of political violence depends upon the extent to which violence poses a continuous risk to business activities. Risk is considered to be continuous if it is persistent and foreseeable, whereas discontinuous risk refers to events that are episodic and difficult to anticipate (Oetzel & Oh, 2014; Ramanujam, 2003). In contrast to Oetzel and Oh (2014), we conceptualize country risk as a continuum on which, at one end, persistent risks such as corruption and expropriation risk are continuous risks; and at the other end, less-predictable hazards, for example, terrorist attacks, pose discontinuous risks to MNEs. Political conflict falls in the middle; it is less predictable and persistent than corruption but more continuous than terrorism. Following Li (2006), we argue that a certain level of predictability is required for firms to adjust their location choice process; hence, only the types of violence that pose a relatively continuous risk may affect firm’s location choice strategies. In addition, the geography of political violence matters because political conflicts that are geographically concentrated or localized in one part of the country are likely to pose less risk to an MNE investing in this country than political conflicts that are non-localized and are instead spread throughout the country.

Second, the relationship between political violence and FDI depends upon characteristics of the FDI-receiving industry as well as firm-level attributes. Industries differ in the degree to which investments yield economic rents. When expected returns are high, MNEs are willing to take additional risk to capture these rents and are hence more likely to invest in countries affected by political violence. Moreover, sectors differ in terms of geographic constraints on investment activity due to the availability of resources only in certain locations. Particularly when resources or inputs are scarce, the presence of limited investment opportunities might result in the insensitivity of FDI to political violence. In this paper, we test whether these mechanisms drive MNEs to conflict areas using data from the natural resource industry, a sector in which rents can be exceptionally high and location choice is significantly restricted. Finally, the ability of the MNE to diversify or absorb the potential downward shock of political violence moderates the relationship between political conflict and FDI. Geographically diversified MNEs are considerably less affected by political violence than relatively undiversified MNEs, present in only a small number of countries.

This paper is linked to the extensive literature on FDI and external sources of risk, notably political violence (Abadie & Gardeazabal, 2008; Dai, Eden & Beamish, 2003; 2016; Driffield et al., 2013; Li & Vashchilko, 2010; Oh & Oetzel, 2017) and political institutions (e.g., Burger, Ianchovichina, & Rijkers, 2016; Feinberg & Gupta, 2009; Globerman & Shapiro, 2003; Henisz & Delios, 2001; Meyer, Estrin, Bhaumik & Peng, 2009; Peng, Wang & Jiang, 2008). It builds on the work of Burger et al. (2016), who analyze sectoral heterogeneity with respect to the relationship between political risk and FDI in the Arab
World before and during the Arab Spring. We extend the analysis to a set of 90 developing countries. Developed economies are excluded because political violence is foremost a developing country phenomenon (see Figure 3.1). In contrast to Burger et al. (2016), who focus on political instability, this study explores the effects of political violence, defined as ‘collective attacks within a political community against the political regime, its actors – including competing political groups as well as incumbents – or its policies’ (Gurr, 1970, p. 3-4). Instances of political violence include civil wars, territorial disputes, acts of terrorism and genocides; cases of criminal behavior are not considered political violence (Kalyvas, 2013). Thus, political violence differs from political instability, which merely focuses on the probability of a regime change. The risk posed by political violence is also different from political risk, because, whereas political risk poses a relatively continuous risk, political violence is more discontinuous. In addition, political risk is generally conceptualized as uncertainty about government policy, which affects MNEs indirectly, whereas political violence is foremost associated with the direct effect of capital destruction. Instead of considering political violence as one homogeneous category, we study the different manifestations of political violence (political conflict, terrorism, state terror, and assassination) separately, recognizing the complex nature of the phenomenon.

Figure 3.1 Pie charts depicting the number of deaths due to terrorist attacks (START, 2015) (left-hand side) and conflict (UCDP/PRIO, 2015) (right-hand side) for the period 2003-2012

In addition, this article relates to the literature on the strategy tripod perspective (Peng, Wang & Jiang, 2008; Peng, Sun, Pinkham & Chen, 2009). Since the conception of the institution-based view of international strategy that, combined with the resource-based view and the industry approach, forms the tripod of strategy, several studies have focused on the effect of institutions on international strategy and the interaction with the resource-based view (e.g. Darendelli & Hill, 2016; Goerzen, Sapp & Delios, 2010; Holburn & Zelner, 2010). Yet, this literature largely overlooks the interrelations with the industry-based view – a significant gap given the evidence that the sector in which an MNE operates matters for its location choice decisions in countries with weak institutions.
nevertheless, theory on the mechanisms that explains these heterogeneous effects is lacking. Building on the existing literature, we identify the underlying mechanisms that differentiate sectors and analyze the interrelations between industry-level mechanisms and the other two legs of the strategy tripod.

We also contribute to the existing IB and economic geography literature by developing theory that uncovers the mechanisms behind the heterogeneous relationship between political violence and FDI, testing several hypotheses that help explain the mixed results of previous studies. In our study, we bring together the notions of space, place, and organization, a previously identified and emerging topic in IB (Beugelsdijk et al., 2010). We incorporate the spatial context in three different ways. First, we consider the geographic scope of political violence, arguing that the effect of violence on inward FDI depends critically upon the extent to which firms can opt for a location in which the risk of attacks is minimized. Second, we develop the concept of geographical constraints on location choice, referring to the limitations on the location choice process resulting from requirements for inputs, which are exclusive, specific and irregularly dispersed across space, and we show that these constraints can moderate the effect of risk on location choice. Third, we show that the ability to absorb discontinuous risk depends on the geographic diversification of a firm.

In our study, we establish that there is considerable heterogeneity in MNEs’ investment responses to political conflict in developing countries. This heterogeneity reflects differences in the type of violence, industry characteristics, notably the existence of rents and geographic constraints on location choice, and differences in the extent of a multinational’s geographic diversification. We find empirical evidence that conflicts have a negative effect on FDI in manufacturing and services but no effect on resource-related FDI; this finding holds for nationwide conflicts and not for localized conflicts. Finally, we show that the negative effect of conflict on total greenfield FDI stems from the sensitivity of relatively undiversified MNEs’ to political conflict. Most other types of political violence have no effect on any type of greenfield FDI.

These findings inform the strategies of MNEs with a nuanced and much needed understanding of the effects of political violence and the risks it poses to their businesses in the context of a significant rise in the incidence of politically violent events around the world in recent years (Ianchovichina, 2016). Building on the work by Ramanujam (2003) and Oh and Oetzel (2017), we show that the continuity of the risk posed by political violence is an important factor influencing MNEs’ entry strategy into developing countries marred by political violence. Other factors that influence an MNE’s sensitivity to risk include sector characteristics, the MNE’s exposure to violence, and the ability of firms to diversify risk. Finally, our results suggest that political violence does not necessarily
depress earnings and put off investors; thinking otherwise is too simplistic. The paper shows that for geographically diversified MNEs entering a country in conflict may even be profitable.

Several policy implications emerge from this analysis. First, because conflict-related risks vary by sector and conflict type, it is imperative to collect and examine disaggregated greenfield investment and conflict data when analyzing FDI in fragile developing countries. Second, institutions offering investment guarantees must recognize the differential exposure and sensitivity of MNEs to conflict when pricing risk. Third, FDI to resource-rich, conflict-affected countries can hamper rather than facilitate countries’ efforts to escape the conflict-resource trap. FDI flows to fragile countries are mostly financing resource projects, deepening resource dependence and thus threatening prospects for successful peace building (Doyle & Sambanis, 2000). Hence, the efforts of fragile developing countries to diversify and attract FDI into manufacturing and services sectors has to be accompanied by efforts to improve political stability, governance, transparency, and institutional quality.

The rest of the paper is organized as follows. Section 2 presents a review of the previous literature, a theoretical framework building on the risk and economic geography literature, and several hypotheses. Section 3 presents the econometric framework and the data. Section 4 discusses estimation issues, the main empirical results, and additional analysis exploring the robustness of the results. This section also discusses the mechanisms at play in the case of the oil and gas sector. Section 5 provides a summary of findings and suggestions for future research.

3.2 LITERATURE REVIEW AND THEORETICAL FRAMEWORK

A large strand of the IB and economics literature has analyzed the role of risk in internationalization decisions (e.g., Agarwal & Ramaswami, 1992; Kogut & Chang, 1996; Pennings & Sleuwaegen, 2004; Rivoli & Salorio, 1996). Most of the theory explaining and classifying risk and uncertainty can be traced back to the work of Frank Knight (1921). According to Knight, risk applies to situations in which an informed agent can make a reasonable judgment on the probability of the event occurring; as such, risk differs from pure uncertainty in which these probabilities are unknown. Miller (1992) distinguishes three main sources of business risk: the general environment, the industry, and the firm itself. A large body of literature is focused on one specific type of environmental risk, namely political risk (e.g., Brunetti & Weder, 1998; Burger et al., 2016; Darandeli & Hill, 2016; Henisz, 2000; Kobrin, 1979; Miller, 1992; Schneider & Frey, 1985). Although several definitions of political risk exist (Kobrin, 1979), the concept is most often defined
as the risk that a sovereign government might change ‘the rules of the game’ to which firms ought to adhere (Butler & Joaquin, 1998).

The IB literature has traditionally analyzed the effect of three types of political risk on multinationals’ location choice decisions: corruption (Brouthers, Gao & McNicol, 2008; Cuervo-Cazurra, 2006; Habib & Zurawicki, 2002), absence of political constraints (García-Canal & Guillén, 2008; Henisz, 2000; Holburn & Zelner, 2010) and expropriation risk (Duanmu, 2014; Kobrin, 1984). The average effect of all three types of political risk on FDI is consistently found to be negative, although large differences exist depending upon the resources available to the firm. For example, Holburn and Zelner (2010) find that the effect of weak constitutional constraints on MNEs’ location choice is dependent upon whether the multinational acquired relevant political capabilities in its home environment, whereas Duanmu (2014) demonstrates that the strength of the home country’s political influence can moderate the effect of expropriation risk on FDI. Finally, Goerzen, Sapp and Delios (2010) show that experience in the host country positively affects the returns to FDI in environments with high political risk.

Similar to the studies mentioned above, we focus on risk deriving from the environment, specifically, the level of risk resulting from political violence. This risk is closely related to political risk because it also leads to ambiguity concerning government policy. During episodes of major political violence, a host government is more likely to change existing regulations or unexpectedly impose new ones, thus raising the cost of doing business once the MNE enters a market and incurs sunk costs (Li, 2006). These regulatory changes can include breach of contract, limiting repatriation of profits, exchange controls, embargoes, and other restrictive trade policies (Li & Vashchilko, 2010). However, political risk is different from political violence because political violence can also lead to extensive destruction of both human and physical capital due to fighting between government and rebel groups, or terror acts (Bodea & Elbadawi, 2008). In addition, whereas corruption, expropriation risk and political constraints are generally persistent over time, political violence can consist of singular incidents or short episodes of conflict, making it more difficult to predict accurately than other forms of political risk. For example, few predicted the Arab Spring uprisings in 2010 (Gausse, 2011).

The above discussion links to the distinction between risk and uncertainty in which the difference between the two concepts is whether the probability of an event occurring is known. Because it is unlikely that managers know the exact probabilities with which political violence affects their business activities, it seems straightforward to conclude that political violence generates uncertainty instead of risk. However, in reality, managers

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16 The literature on the determinants of political violence also remains inconclusive (for an overview see Blattman & Miguel, 2010).
attempt to approximate the odds of such events (albeit with a margin of error) and, when doing so, they inevitably convert uncertainty into risk. Still, their ability to convert uncertainty into risk depends largely on the process underlying the risk. Discontinuous risk of infrequent and episodic events is closer to pure uncertainty than continuous, Knightian risk of predictable events. The distinction between these two types of risk was made by Oetzel and Oh (2014), who built on the work by Ramanujam (2003). Following this distinction, political violence poses a more discontinuous risk than do most forms of political risk; hence, the occurrence of political violence confers less information about the event reoccurring.

The Multiple Facets of Political Violence and FDI

Although political violence can pose large risks to subsidiaries, the results of empirical inquiries into the relationship between FDI and political violence are inconsistent (Asiedu, 2011; Biglaiser & DeRouen, 2007; Dai et al., 2013; Drifield et al., 2013). A plausible explanation for these inconsistent findings is that the effect depends upon the type of political violence. Different types of violence (e.g., terrorism, conflict, and assassinations) not only have different effects on business activities but also differ in terms of the nature of the risk they pose. Following Oetzel and Oh’s (2014) distinction between continuous and discontinuous risk, we recognize that (i) political violence poses a less continuous risk than do some types of political risk, such as corruption or the lack of constitutional constraints; and (ii) within the category of political violence, there remains substantial heterogeneity in terms of risk continuity. Whereas Oetzel and Oh (2014) presume that the effects of continuous and discontinuous risk are similar, we argue otherwise. In the case of a discontinuous risk, the event occurring does not directly affect the probability of reoccurrence; therefore, it most likely hardly affects risk assessment and ultimately location choice strategy.

Figure 3.2 illustrates our classification of political violence based on two dimensions: the continuity of the political risk and its level of impact on the MNE’s operations. Both high level of impact and high degree of risk continuity are necessary conditions for political violence to affect location choice. First, we recognize that the impact of political violence must be high to affect location choice. Political conflicts (e.g. international wars and civil conflict) and terrorism,17 placed in the right-side panel of Figure 3.2, are high-impact events. They can lead to significant negative shocks to earnings because of property damage, death and injury of employees, destruction of required infrastructure, disruptions in the supply chain, and an increase in the cost of trade (Bodea & Elbadaw, 2008; Li & Vashchilko, 2010; Oh & Oetzel, 2017). Moreover, because of nationalistic sentiments,

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17 Terrorism is the threatened or actual use of illegal force and violence to attain a political, economic, religious or social goal through fear, coercion or intimidation (LaFree & Dugam, 2007).
consumers might be reluctant to purchase products from a foreign firm, if it is a subsidiary of a company located in a country hostile to the host. This reluctance reduces the expected profitability of a subsidiary, particularly in the case of market-seeking FDI. As a result, the pay-off to an investment in a conflict-affected country is subject to a large one-sided risk, making FDI into such countries less attractive.

Political terror, defined as "violations of physical or personal integrity rights carried out by a state" (Wood & Gibney, 2010, p. 369), rarely directly affects an MNE’s earnings, although in rare cases, an MNE’s involvement in countries known for a lack of respect for human rights results in consumer boycotts in the home country (Driffield et al., 2013). Therefore, political terror is considered to be a relatively low impact event and it is placed in the left-side panel of Figure 3.2. Similarly, there is little reason to expect that political assassinations,\(^\text{18}\) affect an MNE’s investment decision as they have a limited effect on a subsidiary’s operations. Hence, this type of event also belongs in the left-side panel of Figure 3.2.

\[\begin{array}{|c|c|c|}
\hline
\text{Type of impact} & \text{Level of impact} \\
\hline
\text{Type of risk} & \text{Low} & \text{High} \\
\hline
\text{Discontinuous/Intermittent} & \text{Assassinations} & \text{Terrorism} \\
\hline
\text{Continuous} & \text{Political Terror} & \text{Political conflict (e.g., civil conflict or interstate war)} \\
\hline
\end{array}\]

\textbf{Figure 3.2 Different types of political violence, organized by level of impact and continuity}

Second, the risk of political violence has to be relatively continuous to affect location choice. In other words, the underlying event needs to be fairly persistent and predictable. Assassinations can be characterized as discontinuous because they are irregular and almost by definition difficult to predict; the success of an assassination depends upon an element of surprise. Similarly, following Oetzel and Oh (2014), we characterize terrorism as a discontinuous risk because isolated incidents tend to be uncommon and non-persistent. Some countries are more prone to attract terrorists, but the actual occurrence of terrorism is difficult to anticipate, making this type of violence more discontinuous than political conflict and terror. Oetzel and Oh’s study also showed that a recent terrorist attack does not significantly affect the probability of entry, confirming our statement that a certain level of continuity is a necessary condition for political violence to have a direct effect on location choice strategies. Finally, political terror, placed in the bottom left corner of

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\(^{18}\) Political assassinations are the murder or attempted murder of a high government official or politician with a political aim (Banks, 2015).
Figure 2, poses continuous risk. This type of violence tends to be persistent and relatively predictable based on political trends, the quality of institutions, and the past prevalence of torture, extrajudicial killings, and political imprisonment.

Political conflict is defined as “a contested incompatibility that concerns government and/or territory where the use of armed force occurs between two parties, of which at least one is the government of a state” by Pettersson and Wallensteen (2015, p. 1). War that causes at least 1000 battle-related deaths per year is a specific case of political conflict. Conflict poses a continuous risk due to its persistent properties and relatively predictable nature. Political leaders often reveal parts of their military strategy in speeches, electoral statements, or political manifests. Moreover, after the onset of a political conflict, a manager is likely to readjust the risk perception of an investment because the probability of future battles is high. In other words, the incidence of battles conveys information about the probability of their impact on business activities and hence enables an updated risk assessment. Given that political conflict poses a continuous risk and at the same time has a high level of impact, we expect that particularly this type of political violence is negatively associated with the location choice decisions of MNEs. Thus, in the remainder of this paper, we focus on political conflict and formulate our first hypothesis.

H1: Total greenfield FDI flows in developing countries are negatively associated with political conflict.

Conflict heterogeneity: Geographic Scope

<table>
<thead>
<tr>
<th>Type of political conflict</th>
<th>Type of sector</th>
<th>Geographic scope</th>
<th>Geographic constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Localized/limited scope</td>
<td>Nationwide/wide scope</td>
</tr>
<tr>
<td>None</td>
<td>Less sensitive</td>
<td>More sensitive</td>
<td></td>
</tr>
<tr>
<td>Severe</td>
<td>Not sensitive</td>
<td>Not sensitive</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3.3 MNE’s sensitivity to political conflict: geography considerations

Although we expect that political conflict is negatively associated with FDI inflows, we also expect that this relationship is heterogeneous. The geographic scope of political conflict within a country can moderate the relationship between political conflict and FDI. Geographic scope refers to the extent to which the conflict is concentrated in one part of the country, where the scope is smallest in conflicts concentrated in only one province and largest in nationwide conflicts. In a subnational analysis, Dai et al. (2013) find that the likelihood of foreign subsidiaries’ survival is negatively associated with their geographic
exposure to conflict. Likewise, it can be expected that the sensitivity of MNEs to political conflict depends upon the extent to which they can limit their exposure to fighting. In countries affected by conflict with a relatively small scope, localized in one part of the country, MNEs can limit their exposure by locating elsewhere within the same country. This is not possible in countries marred by nationwide conflict. Therefore, a conflict with a small scope is likely to pose less risk to MNEs investing in a country than is violence with a large scope, prevalent in all areas of the country (Figure 3.3).

In addition, the goals of rebels fighting in remote or geographically confined areas tend to be different from the goals of groups participating in nationwide conflicts. Buhaug and Gates (2002) showed that geographically contained conflicts are more likely than nationwide conflicts to concern a territorial incompatibility because separatist groups are often active in their area of interest, whereas nationwide conflicts often involve a party contesting the national government. The second type of conflict is more likely to lead to a change in government and hence create additional political risk. Consequently, we can formulate our second hypothesis.

\begin{equation}
H2: \text{The effect of a political conflict on total greenfield FDI flows to a developing country depends on the geographic scope of the conflict, so that total greenfield FDI flows are less sensitive to a localized than to a nationwide political conflict.}
\end{equation}

**Sector heterogeneity: geographic constraints and economic rents**

It is likely that the effect of political conflict on FDI is dependent upon industry characteristics (Driffield et al., 2013). We focus on two industry characteristics: geographic constraints on location choice and economic rents. First, FDI in some industries may be insensitive to political conflict because its set of location choices is restricted by requirements on inputs, which are exclusive, specific and irregularly dispersed across space (Figure 3.3). Only a limited number of locations can satisfy the criteria of an MNE that would like to invest abroad (Dunning & Narula, 2004; Narula & Bellak, 2009; Buckley et al., 2007; Mataloni Jr., 2011), particularly when the economic activities of the firm require high asset specificity (Burger et al., 2013). If assets are scarce and only available in a limited set of locations, MNEs face *geographical constraints on their location choice.*

With geographic constraints on location choice, the acquisition of a first-mover advantage (Lieberman & Montgomery, 1988) increases in importance. First-mover advantages, defined as the advantage of firms investing first over those that invest later, can arise from three sources: technological leadership, buyer switching costs, and pre-emption of rivals’ acquisition of assets. Whereas technological leadership and, to a lesser extent, buyer switching costs are currently determined in increasingly global markets, first-mover advantages due to the acquisition of assets are specific to a geographical area. As a result,
location choice strategies play an important role in obtaining this type of advantage; this is particularly true for MNEs that are geographically constrained in their location choice. By being first in acquiring a license to operate in a location rich in scarce assets, the MNE preempts rival firms from accessing these assets (Lieberman & Montgomery, 1988), significantly affecting its profits. Smit and Trigeorgis (2004) show that if by investing a firm can obtain strategic advantages over its rivals, investing is the optimal action even when uncertainty is high.

Natural resource MNEs are particularly dependent upon specific scarce assets; thus, they are geographically constrained in their location. These firms might invest in a location despite the presence of political conflict to secure access and acquire the rents associated with a first-mover advantage (Mason & Weeds, 2010; Smit & Trigeorgis, 2004). As a result, MNEs active in the resource sector should be less sensitive to political conflict than MNEs in sectors in which location choice is less restricted. We refer to the effect of limited investment opportunities as the geographic-constraints mechanism.

Second, FDI flows may not be sensitive to conflict if the returns on an investment are sufficiently high to counteract the negative effect of the increased risk associated with conflict. In this article, we focus on the natural-resource industry, in which returns to investment can be especially high in times of commodity booms (Kolstad & Wiig, 2009). During resource booms, large rents increase the value of a project and hence increase the probability of investment despite high risk due to war. We refer to the effect of economic rents on the responsiveness of FDI to political conflict as the economic-rent mechanism. As the geographic-constraints and the economic-rent mechanisms are expected to be essential factors that differentiate the sensitivity of resource-related and non-resource-related FDI to political conflict, we formulate our third hypothesis.

**H3: Resource-related greenfield FDI flows are less negatively associated with political conflict in developing countries than non-resource-related greenfield FDI flows.**

**Sector heterogeneity: geographic scope of conflict**

The geographical constraints on location choice interact with the geographic scope of conflict (Figure 3.3). MNEs are constrained in their location choice by local resource availability, and not all locations are suitable for all types of investments because they lack the appropriate specialized location advantages (Mataloni Jr., 2011; Burger, Van der Knaap, & Wall, 2013). Particularly, for investments in the resource sector, the number of potential locations is limited given the very specific location requirements with respect to the presence of natural resources. If an MNE is limited in its location choice, it might not have the option to locate its subsidiaries away from political conflict, and we expect that the firm is not sensitive to conflict, irrespective of its geographic scope. Hence, firms active in the resource sector might be unable to locate their operations in a safe area that is
far away from a localized conflict, whereas MNEs active in non-resource industries might have several investment options within the same country and thus can choose a safer location. Therefore, in cases of localized conflict, resource MNEs might have fewer opportunities to circumvent areas where fighting is concentrated than firms that are less constrained in their location choices. Accordingly, we formulate the following hypothesis:

H4: The moderating effect of the geographic scope of conflict is larger for non-resource-related greenfield FDI flows than for resource-related greenfield FDI flows in developing countries.

Firm heterogeneity: MNE’s ability to absorb risk through geographic diversification

Political violence tends to be exogenous to actions of investors (Li, 2006). It poses a type of uncertainty that can only be resolved with the passage of time and hence there is limited room for subsidiaries to implement strategies reducing the level of political violence. In a firm-level analysis Oh and Oetzel (2017) confirm this, showing that (general) experience with political conflict does not influence MNEs investment response to new disasters; only country-specific experience with conflict risk reduces MNEs sensitivity to conflict. Garcia-Canal and Guillén (2008) even found that firms that have invested in a high-risk economy in the past develop an aversion against entering countries with similarly high levels of risk.

Nevertheless, whereas MNEs might have limited influence on the level of political violence they face, the impact of political violence on a firm’s internationalization strategy is likely to depend on firm-specific resources, particularly the firm’s ability to absorb and diversify risks. Rugman (1976) already demonstrated that in the case of imperfectly correlated national economic fluctuations an MNE faces less risk than a comparable firm selling goods in one market alone because the number of subsidiaries in the MNE’s portfolio reduces the variance of the overall portfolio of subsidiary results (Kogut & Kulatilaka, 1994). Several studies confirmed that geographic diversification improves firm’s risk-return performance (Kim, Hwang & Burgers, 1993; Qian, 1996; Qian & Li, 1998). Following these findings, we expect that the degree of an MNE’s geographic diversification will reduce the negative effect of the risks posed by political violence on earnings.

In addition, real options theory posits that geographic diversification confers firms the option to transfer production to another subsidiary in the case of unanticipated events (Kogut & Kulatilaka, 1994; Lee & Makhija, 2009; Li & Rugman, 2007). Accordingly, MNEs present in a relatively large number of countries can minimize the effect of downside risks on earnings. Both the option value and the value of diversification are largest when unanticipated events are not globally correlated (Belderbos, Tong & Wu, 2014). Because political violence tends to be limited to one or at most a few countries, this condition is typically satisfied. Hence, geographically diversified firms seem better able to
absorb risks posed by political conflict than relatively undiversified MNEs. Accordingly, we expected that conflict has a smaller effect on their expected earnings, increasing the probability that more diversified MNEs invest in countries characterized by a high conflict risk relative to less diversified MNEs. Finally, the most geographically diversified firms may be running out of opportunities to expand to highly attractive markets (Penrose, 1959). Hence, they might be more willing to invest in high-risk environments than less diversified firms. Oetzel and Oh (2014) also find evidence that the impact of terrorism on FDI is moderated by international diversification, albeit using it merely as a control variable. We therefore hypothesize the following:

\[ \text{H5: Greenfield FDI flows from more geographically diversified MNEs are less negatively associated with political conflict than greenfield FDI flows from less geographically diversified MNEs.} \]

3.3 METHODOLOGY & DATA

Our economic model departs from the assumption that the decision to invest in a foreign subsidiary is a function of both expected returns and perceived uncertainty (e.g., Wheeler & Mody, 1992; Meon & Sekkat, 2012). Therefore, we assume that MNEs evaluate each investment opportunity individually and invest if the expected payoff exceeds a certain cutoff value. Hence, our model represents a positive sum economy in which an investment made in one country does not directly affect the amount of FDI in other territories. Guimaraes, Figueirdo and Woodward (2003) show that in models with only location-level determinants such as ours, the assumption behind the location decision does not directly affect results. We estimate the following sector-specific, reduced-form dynamic investment model:

\[ FDI_{ist} = \alpha_0 + \alpha_1 FDI_{ist(-1)} + \alpha_2 P_{i(t-1)} + \alpha_3 X_{i(t-1)} + \mu_i + \mu_t + \varepsilon_{ist}, \quad (1) \]

The model links the greenfield foreign direct investment, \( FDI_{ist} \), flowing into country \( i \) in sector \( s \) in year \( t \) with a range of variables underpinning perceived uncertainty and expected returns. These variables include lagged FDI in sector \( s \); political violence indicator \( P_{i(t-1)} \) for country \( i \) in the previous year; a set of control variables \( X_{i(t-1)} \), which capture conditions that might confound the relationship between political violence and

\[ \text{According to Penrose’s (1959) view of firm growth, MNEs expand internationally to utilize firm-specific assets that exhibit economies of scope. Compared to MNEs that already operate in many foreign locations, MNEs in the early stages of international expansion are likely to have more limited international expertise. Yet, they have greater expansion opportunities that are tightly linked with their existing resource base than MNEs that are already geographically diversified.} \]
greenfield FDI; a set of country dummies $\mu_i$ for time-invariant country characteristics; and a vector of time dummies $\mu_t$. 

The country fixed effects capture time-fixed heterogeneity, controlling for effects such as country size, resource endowments, culture, ethno-linguistic fractionalization, as well as institutions because institutions change very slowly over time. Moreover, the country fixed effects control for unobserved heterogeneity, limiting the risk of self-selection bias. We thus consider only within country variation, that is, whether a country attracts less FDI when its level of political violence increases. The time dummies capture time-dependent effects, such as global FDI waves, global commodity price fluctuations, and other global economic phenomena. The lagged $FDI_{it}$ variable minimizes the risk of omitted variable bias because the amount of FDI received in the previous period is one of the best predictors of FDI received in the subsequent period. In addition, this variable makes possible the estimation of the long-term effects of our variables. To reduce the problem of reverse causality, all independent variables are lagged. However, ultimately, this model cannot determine causality, so the results should be interpreted as conditional associations, not causal relationships.

The data on flows of greenfield FDI into developing countries for the period from 2003 to 2012 are obtained from the fDi Markets database, a Financial Times databank tracking cross-border investment in new projects and expansions of existing ventures. The data are collected through Financial Times newswires, internal information and other media sources, project data acquired from industry organizations and investment agencies, and data purchased from market research and publication companies. Each project is cross-referenced against multiple sources. The dataset includes 51,800 greenfield investments in developing countries, amounting to US$ 4.62 trillion. Annual FDI inflows are aggregated to the sector level of the receiving country. To test hypotheses three and four, we split total FDI flows into resource-related flows, which include flows to hydrocarbons, minerals, and agriculture, and non-resource-related FDI flows, which include flows to manufacturing, construction, distribution, and commercial services. FDI flows are measured in millions of US dollars, and because the distribution of these flows is skewed, they are log-transformed, using the logarithm of the inverse hyperbolic sine: $y = \ln(x + \sqrt{x^2 + 1})$.

We focus on greenfield investment because it consists of a relatively homogeneous group of investments in new facilities and excludes investments resulting from fire sales (Krugman, 2000). This focus eliminates concerns that heterogeneity of FDI is driving the results and the possibility that investment reflects repairs of facilities associated with prior investments rather than new projects. In developing countries, the inflow of greenfield investments is also considerably greater than the inflow of brownfield investments (Markusen & Stähler, 2011). A comparison of the number of greenfield investments in our dataset to all mergers and acquisitions (M&As) registered by the Thomson One data...
service in the same period reveals that 81.6% were greenfield investments. Moreover, many policymakers are particularly interested in attracting greenfield FDI (UNCTAD, 2013). Finally, data on greenfield investments are more detailed than data on M&As. Although the Thomson One data service includes information on M&As, the size of the investment is missing for approximately 50% of the observations in developing countries for the period under study.20

Following the political science literature, we measure political conflict using the number of battle-related deaths (BRD) per year in a country. The data are obtained from the UCDP/PRIO Battle Related Death database (Pettersson & Wallensteen, 2015) and are gathered using information taken from a selection of publicly available sources, including journals, news agencies, NGO reports and statements of governments. The battle-related deaths variable is a best estimate, based on all information evaluated by UCDP/PRIO. The variable measures fatalities in conflict situations such as conventional battlefield fights, guerrilla attacks on government personnel, and bombardments of military bases, cities, and villages. It only includes battle-related deaths for conflicts with more than 25 battle-related deaths per year. Although this indicator has limitations – e.g., it does not measure non-fatal casualties or damage to property – it is widely available for conflict countries and is considered a good proxy for political violence. In addition, this variable is less likely to be endogenous to FDI than most subjective measures of conflict because MNE investments are unlikely to cause battle-related deaths directly. Because the battle-related deaths variable is highly skewed, we take the natural log of the inverse hyperbolic sine function.

For our second and fourth hypothesis on the moderating effect of geographic scope of political conflict, we use again the UCDP/PRIO Battle Related Deaths dataset. UCDP/PRIO records the warring parties and the incompatibility of each conflict. The geographic scope variable is a dummy, which is 0 if a conflict is localized and 1 if a conflict is nationwide. First, we coded every secessionist conflict as localized because secessionist fighting is generally confined to the territory that is fought over (Buhaug & Gates, 2002). Subsequently, we manually checked whether conflicts, in which the incompatibility concerned the government instead of a regional territory, were nationwide by analyzing articles on the conflict on the website of BBC news and profiles of the insurgents on the START website (2014). Finally, we visually confirmed our coding using maps based on the UCDP/PRIO Georeferenced Event Database (Sundberg & Melander, 2013) for all conflicts in Africa and South Asia. Unfortunately, UCDP/PRIO GED does not yet collect georeferenced data on conflicts on other continents. We found no

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20 Some of the data on the size of investment are estimated by fDi Markets rather than directly observed. Therefore, we repeated our estimations with the number of projects (In) as the dependent variable. The results were qualitatively the same as those reported here and are available from the authors on request.
inconsistencies in the coding based on the information provided by BBC News or START. We exclude the main effect of localized conflict from our regressions because the type of conflict is virtually country invariant and is hence absorbed by the country fixed effects in our regression. If a country experienced both a localized and non-localized conflict, we coded the observation as having experienced a nationwide conflict. In 22.4% of the observations, there is an ongoing conflict; of those, 56.6% are coded as localized.

Although fDi Markets records FDI data on the project level, it does not include any information on the investing firm other than the name of the company and its parent company. We collected firm-level data from Bureau van Dijk’s Orbi database, containing annual report data of over 79,000 companies worldwide, and manually matched these data to companies in the fDi Markets dataset. Nevertheless, 32.9% of all investment projects in fDi Markets could not be linked to companies in the Orbis dataset. We code geographically diversified firms using a dummy variable which is 1 if the firm has subsidiaries in at least 10 countries and zero otherwise. To facilitate the comparison of different models and to limit sample selection bias, we divide greenfield FDI into FDI by geographically diversified firms and FDI by other firms. Whereas we restrict the coefficients of our control variables to be fixed at the country-year level, the effect of political conflict and the constant are allowed to vary over the values of the diversification dummy. In the section containing our robustness analysis, we also present the results of a firm-level model.

The data on our control variables come primarily from the World Bank’s World Development Indicators Database. We control for GDP given in millions of US$ in 2013 prices; the size of the population; and inflation measured as the annual growth rate of the GDP implicit deflator. In addition, we add three variables that control for continuous political risk: the level of democracy; regulatory quality; and control of corruption. Democracy is measured by the Polity Index developed by Marshall and Jaggers (2002), which ranges from -10 to +10, where low negative numbers indicate autocracies and high positive numbers correspond to democracies. The quality of regulations indicator, part of the World Governance Index (WGI) (Kaufman, Kraay, & Mastruzzi, 2011), measures perceptions of a government’s ability to formulate and implement sound policies and regulations that permit and promote private sector development. The control of corruption

---

21 Only Pakistan and Mali experienced both a localized and non-localized conflict.
22 Firms that were not matched to firms registered by Orbis or firms for which no data were available on the number of employees were assumed to be small and hence undiversified. We also tested our hypotheses using other operationalizations of the diversification variable and obtained results that were qualitatively the same. These results are available from the authors on request.
23 Data on firm-level variables other than multinationality were limited, even more so than the data on the geographic location of subsidiaries.
measure also comes from the WGI and measures the extent to which public officials use power for private gain. Both WGI variables are measured as a z-score varying from approximately -2.5 to 2.5, with higher values corresponding to better governance. Furthermore, we control for nominal exchange rates (level and standard deviation\textsuperscript{24}) using data collected through OANDA. Appendix 3.1 provides descriptive statistics and the correlation matrix. Appendix 3.2 shows a list of all countries included in the sample.

3.4 ESTIMATION & EMPIRICAL RESULTS

Using a fixed effects estimator to estimate the dynamic model (1) presents a problem. In panels with a large number of countries but a small number of time periods, the standard fixed effects estimates are inconsistent because the transformation process creates a correlation between the regressor and the error (Nickell, 1981). We therefore use the bias corrected least-squares dummy variable dynamic panel estimator, also known as the LSDVC model, developed by Bun and Kiviet (2003) to correct for this Nickell bias, where a system GMM estimator initializes the bias correction. In a simulation, Flannery and Hankins (2013) compared the LSDVC model to other popular models designed to address dynamic panel data bias, including the popular system GMM model developed by Blundell and Bond (1998). They find that even in the case of moderate endogeneity and serial correlation, the LSDVC emerges as the most accurate methodology. We estimate dynamic model (1) separately for the resource and non-resource sectors and perform a Chow test (Chow, 1960) in order to test whether the coefficients in the resource and non-resource FDI estimations are statistically different from each other. The Chow test is designed to test whether the coefficients of a model estimated over one group are similar to those estimated in another group.

In addition to analyzing the short-term effect of political violence on greenfield FDI inflows, we are also interested in the long-term effect, which is the total cumulative effect from year \( t \) until infinity. The dynamic panel model (1) makes it possible to identify the long-term equilibrium effect of political violence on greenfield FDI as follows:

\[
\sigma_{LR} \ln(BRD) = \frac{\alpha_2}{(1 - \alpha_1)}
\]

Results

Table 3.1 shows the baseline results estimated using the Bun and Kiviet LSDVC estimator. We estimate six different specifications in which the dependent variable represents total greenfield FDI (columns 1 and 2), resource greenfield FDI (columns 3 and 4), and all other greenfield FDI, also referred to as non-resource FDI (columns 5 and 6).

\textsuperscript{24} Following the literature, exchange rate volatility is operationalized as the standard deviation of the first difference of the natural logarithm of daily bilateral exchange rates vis-a-vis the U.S. dollar.
Table 3.1 Effect of Political Violence on Total, Resource, and Non-resource Greenfield FDI

<table>
<thead>
<tr>
<th>Dependent Variable: Log greenfield FDI (in USD millions), LSDVC Estimation</th>
<th>Total FDI</th>
<th>Resource-Related FDI</th>
<th>Non-Resource-Related FDI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>BRD (t-1 \text{ (ln)} )</td>
<td>-0.095+</td>
<td>-0.111</td>
<td>0.009</td>
</tr>
<tr>
<td></td>
<td>(0.052)</td>
<td>(0.072)</td>
<td>(0.074)</td>
</tr>
<tr>
<td>BRD (ln)*localized (t-1 )</td>
<td>0.033</td>
<td>-0.075</td>
<td>-0.075</td>
</tr>
<tr>
<td></td>
<td>(0.096)</td>
<td>(0.137)</td>
<td>(0.137)</td>
</tr>
<tr>
<td>Greenfield FDI (t_i \text{ (ln)} )</td>
<td>0.190***</td>
<td>0.189***</td>
<td>0.095*</td>
</tr>
<tr>
<td></td>
<td>(0.042)</td>
<td>(0.043)</td>
<td>(0.043)</td>
</tr>
<tr>
<td>GDP (t-1 \text{ (ln)} )</td>
<td>-0.427</td>
<td>-0.440</td>
<td>-1.484+</td>
</tr>
<tr>
<td></td>
<td>(0.594)</td>
<td>(0.597)</td>
<td>(0.848)</td>
</tr>
<tr>
<td>Population (t-1 \text{ (ln)} )</td>
<td>8.696**</td>
<td>8.734**</td>
<td>14.547***</td>
</tr>
<tr>
<td></td>
<td>(2.831)</td>
<td>(2.838)</td>
<td>(4.027)</td>
</tr>
<tr>
<td>WGI regulatory quality (t-1 )</td>
<td>-0.069</td>
<td>-0.084</td>
<td>1.616+</td>
</tr>
<tr>
<td></td>
<td>(0.647)</td>
<td>(0.651)</td>
<td>(0.925)</td>
</tr>
<tr>
<td>Polity Index (t-1 )</td>
<td>0.006</td>
<td>0.002</td>
<td>0.014</td>
</tr>
<tr>
<td></td>
<td>(0.049)</td>
<td>(0.049)</td>
<td>(0.070)</td>
</tr>
<tr>
<td>Exchange Rate (t-1 \text{ (ln)} )</td>
<td>-1.515+</td>
<td>-0.272</td>
<td>-1.447</td>
</tr>
<tr>
<td></td>
<td>(0.783)</td>
<td>(0.367)</td>
<td>(1.024)</td>
</tr>
<tr>
<td></td>
<td>(7.480)</td>
<td>(7.476)</td>
<td>(10.638)</td>
</tr>
<tr>
<td>Control of Corruption (t-1 )</td>
<td>1.495*</td>
<td>1.487*</td>
<td>0.784</td>
</tr>
<tr>
<td></td>
<td>(0.627)</td>
<td>(0.629)</td>
<td>(0.893)</td>
</tr>
<tr>
<td>Inflation (t-1 )</td>
<td>-0.002</td>
<td>-0.002</td>
<td>0.011</td>
</tr>
<tr>
<td></td>
<td>(0.008)</td>
<td>(0.009)</td>
<td>(0.012)</td>
</tr>
<tr>
<td>Long-term BRD (ln)</td>
<td>-0.117*</td>
<td>0.137</td>
<td>0.010</td>
</tr>
<tr>
<td></td>
<td>(0.065)</td>
<td>(0.088)</td>
<td>(0.083)</td>
</tr>
</tbody>
</table>

Note: Political conflict proxied by battle-related deaths. Bootstrapped standard errors in parentheses.

*** p<0.001, ** p<0.01, * p<0.05, + p<0.10
Battle-related deaths are negatively associated with total FDI flows, and the variable is significant at the 10% level. A 10% increase in the number of battle-related deaths decreases total greenfield FDI flows by approximately 0.95%, ceteris paribus. This effect is in addition to the decline in FDI stemming from worsening macroeconomic conditions and restrictions in investment policies; these additional effects are captured by the controls for changes in GDP, exchange rates, inflation, and the regulatory quality index. The long-term effect of BRD on total greenfield FDI flows is slightly larger than the short-term effect. A 10% increase in BRD decreases greenfield FDI with 1.2%. We therefore find support for the first hypothesis (H1), namely that political conflict has a negative effect on total greenfield FDI.

In the second specification, we take into account the geographic scope of conflict by adding a moderator for scope of conflict to the model. The coefficient of the moderator is positive and eliminates the negative effect of the main effect. However, the moderator is not significantly different from zero. Therefore, we find no support for our second hypothesis (H2) that the effect of political conflict on total FDI flows depends on the geographic scope of the conflict. The fact that the number of BRD in a localized conflict reflects more intense fighting than the same number of BRD in a nationwide conflict could offset the effect of the geographic scope of conflict on the relationship between conflict and FDI. This could explain why the scope of conflict moderator is not statistically significant.

With respect to the control variables, the lagged FDI term is highly significant across both specifications. Exchange rate volatility and level are negatively associated with FDI flows. The effect is particularly strong for exchange rate volatility. Control of corruption and large population size are positively and significantly associated with FDI flows, whereas regulatory quality, level of democracy, inflation and GDP do not significantly affect FDI in any of the specifications, possibly because these variables vary little during the years covered by our sample.

In columns 3 to 6, we show results from split sample analyses for resource-related and non-resource-related FDI. In the resource sector, the coefficient on BRD is positive, very small and not statistically significant (column 3). The addition of the localized conflict moderator (column 4) slightly increases the estimate of the positive effect of BRD, but the moderator itself is small and statistically insignificant. Additionally, the long-term effect of BRD on resource-related FDI is positive and insignificant. Hence, there is no evidence that political violence affects greenfield FDI flows to this sector, either over the short or long term.

In the models in columns 5 and 6 explaining FDI to the non-resource sector, the effect of political conflict is negative and statistically significant at the 5% level; this effect is
slightly larger than that for total FDI. A 10% increase in BRD decreases greenfield FDI flows to non-resource sector by 1.3%. A Chow test shows that this effect is significantly larger than the effect on resource-related FDI at the 5% level. Hence, we find empirical support for the third hypothesis (H3), namely that resource-related FDI is less sensitive to conflict than non-resource-related FDI.

The scope-of-conflict moderator (column 6) is positive, relatively large, and significant at the 5% level. A Chow test shows that the moderator is significantly larger in the model explaining non-resource-related FDI (column 6) than in the model analyzing resource-related FDI (column 4). Hence, we find support for hypothesis 4. Due to the addition of the moderator, the coefficient of BRD becomes more negative and its significance increases to the 1% level. Whereas an increase in the BRD in a localized conflict does not affect greenfield FDI in the non-resource sector (effect size = 0.023, standard error = 0.072), a 10% increase in the BRDs in a nationwide conflict is associated with a significant reduction of 2.3% in greenfield FDI in the non-resource sector, ceteris paribus. The long-term effect is even slightly larger.

With respect to the control variables in the split sample analysis (columns 3-6), the lagged FDI term and the size of the population are highly significant in the regressions for both sectors. Exchange rates, the level of democracy and inflation do not significantly affect FDI in any of the specifications. The control of corruption and exchange rate volatility are important only in the non-resource sector, whereas GDP and regulatory quality have a significant effect only in the resource sector. The finding that the regulatory quality measure has an opposite sign in the split sample analyses is noteworthy. Compared to political violence, low-quality investment regulations pose a continuous risk to MNEs because these institutions are very persistent, and the risk posed by them is predictable. Our results suggest that the regulatory environment matters for resource activities, which tend to be associated with large capital investments. None of the results changed substantively when a non-corrected LSDV estimator was used, suggesting that the Nickell bias is small.25,26

Table 3.2 shows the results for hypothesis 5. For these regressions we aggregated greenfield FDI, distinguishing between investments made by relatively diversified and undiversified MNEs. Since this results in a three-dimensional dataset (country - year - diversification dummy), the Bun and Kiviet LSDVC estimator is unsuitable. Instead, we

25 The results of the non-corrected LSDV are reported in the appendix with a random effects and pooled OLS model. All support our hypotheses (1), (3) and (4).
26 In an additional analysis, we excluded the level and volatility of exchange rates because the inclusion of these variables reduced the size of our sample by 25%. The results were qualitatively the same as those reported herein and are available from the authors on request.
estimate an Ordinary Least Square model with country and year fixed effects and robust standard errors.27

**Table 3.2 Effect of Political Conflict on FDI by relatively Undiversified and Diversified Firms**

<table>
<thead>
<tr>
<th>Dependent Variable: Log greenfield FDI (in USD millions), LSDV Estimation</th>
<th>Total FDI</th>
<th>Resource-Related FDI</th>
<th>Non-Resource-Related FDI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Undiversified MNEs</td>
<td>Diversified MNEs</td>
<td>Undiversified MNEs</td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>BRD(_{t-1}) (ln)</td>
<td>-0.129(^{+})</td>
<td>-0.015</td>
<td>0.060</td>
</tr>
<tr>
<td>(0.073)</td>
<td>(0.082)</td>
<td>(0.071)</td>
<td>(0.071)</td>
</tr>
<tr>
<td>Constant</td>
<td>-50.651</td>
<td>-53.071</td>
<td>-106.398(*)</td>
</tr>
<tr>
<td>(34.988)</td>
<td>(34.912)</td>
<td>(49.570)</td>
<td>(49.577)</td>
</tr>
<tr>
<td>BRD (ln)*localized(_{t-1})</td>
<td>-0.001</td>
<td>-0.122</td>
<td>0.084</td>
</tr>
<tr>
<td>(0.079)</td>
<td>(0.092)</td>
<td>(0.069)</td>
<td></td>
</tr>
<tr>
<td>Greenfield FDI(_{i,t-1}) (ln)</td>
<td>0.120(**)</td>
<td>0.037</td>
<td>0.137(**)</td>
</tr>
<tr>
<td>(0.037)</td>
<td>(0.033)</td>
<td>(0.036)</td>
<td></td>
</tr>
<tr>
<td>GDP(_{t-1})</td>
<td>-0.100</td>
<td>-0.933</td>
<td>0.293</td>
</tr>
<tr>
<td>(0.460)</td>
<td>(0.655)</td>
<td>(0.442)</td>
<td></td>
</tr>
<tr>
<td>Population(_{t-1}) (ln)</td>
<td>3.955</td>
<td>7.898(*)</td>
<td>3.761(+)</td>
</tr>
<tr>
<td>(2.417)</td>
<td>(3.316)</td>
<td>(2.155)</td>
<td></td>
</tr>
<tr>
<td>WGI regulatory quality(_{t-1})</td>
<td>0.275</td>
<td>1.091</td>
<td>-0.454</td>
</tr>
<tr>
<td>(0.706)</td>
<td>(1.017)</td>
<td>(0.620)</td>
<td></td>
</tr>
<tr>
<td>Polity Index(_{t-1})</td>
<td>-0.037</td>
<td>0.008</td>
<td>-0.050</td>
</tr>
<tr>
<td>(0.044)</td>
<td>(0.047)</td>
<td>(0.036)</td>
<td></td>
</tr>
<tr>
<td>Exchange Rate(_{t-1}) (ln)</td>
<td>-0.400</td>
<td>0.050</td>
<td>-0.319</td>
</tr>
<tr>
<td>(0.295)</td>
<td>(0.459)</td>
<td>(0.295)</td>
<td></td>
</tr>
<tr>
<td>Exchange Rate Volatility(_{t-1})</td>
<td>-13.326(*)</td>
<td>-6.163</td>
<td>-4.232</td>
</tr>
<tr>
<td>(5.404)</td>
<td>(7.057)</td>
<td>(3.556)</td>
<td></td>
</tr>
<tr>
<td>Control of Corruption(_{t-1})</td>
<td>1.000(+)</td>
<td>0.361</td>
<td>1.117(*)</td>
</tr>
<tr>
<td>(0.568)</td>
<td>(0.778)</td>
<td>(0.542)</td>
<td></td>
</tr>
<tr>
<td>Inflation(_{t-1})</td>
<td>0.001</td>
<td>0.011</td>
<td>-0.002</td>
</tr>
<tr>
<td>(0.008)</td>
<td>(0.010)</td>
<td>(0.007)</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>1,234</td>
<td>1,234</td>
<td>1,234</td>
</tr>
<tr>
<td>Number of Countries</td>
<td>90</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Country FE</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Year FE</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Note: Political conflict proxied by battle-related deaths. Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

27 For the analysis in Table 1 we show that the Nickell bias is limited and we assume that the bias remains negligible in the models distinguishing between diversified and undiversified MNEs.
The results in column 1 show that the effect of BRD on undiversified firms’ greenfield FDI flows is negative but only statistically significant at the 10% level. A 10% increase in BRD is associated with a 1.3% decrease in FDI flows made by undiversified MNEs. In contrast, the effect of BRD on FDI of diversified firms, defined as those having subsidiaries in 10 countries or more, is close to zero and is not significant (column 2). A Chow test shows that the coefficients in models 1 and 2 are statistically different from one another at the 1% level, supporting hypothesis 5 that political conflict has a smaller effect on FDI made by diversified MNEs than on FDI made by undiversified MNEs. In columns 3 to 6, we also distinguish between resource-related and non-resource-related greenfield FDI flows of diversified and undiversified firms. The effect of BRD on resource-related FDI flows is small and statistically insignificant, irrespective of whether these are investments made by undiversified or diversified MNEs. This supports our previous finding that political conflict does not significantly affect resource-related FDI flows (see Table 3.1, columns 3-4).

The results for non-resource-related FDI flows (Table 3.2, columns 5-6) show a different pattern. Nationwide conflict negatively affects the non-resource-related FDI flows of undiversified firms. This effect is significant at the 5% level, indicating that a 10% increase in BRD decreases non-resource-related FDI flows of undiversified MNEs by 1.5%. Non-resource-related FDI flows of diversified MNEs are less affected by increases in the number of BRD and the coefficient is not statistically significant. The difference between the coefficients in regressions 5 and 6 is statistically significant at the 1% level. Thus, whether firms are geographically diversified matters for the relationship between political conflict and greenfield FDI flows only in the case of non-resource-related FDI.

3.5 ROBUSTNESS ANALYSES

In this section, we explore the robustness of the main results to the inclusion of other types of political violence. We also investigate the importance of within-sector heterogeneity and the robustness of our results to using an alternative measure of political conflict, distinguishing in particular between wars and conflicts. In addition, we test our hypotheses at the firm level using a two-stage Heckman model. Finally, the section discusses the special case of the hydrocarbons industry and the role of economic rents and geographic constraints on investment.

Different types of political violence

We argued in the theoretical section that there are two necessary conditions for political violence to affect FDI inflows. Violence must have a sufficient effect on a subsidiary’s profits and pose a relatively continuous risk to its operations. Because political conflict is the only type of political violence that meets these conditions, we focused on this type of violence in the main results section. Nevertheless, the literature suggests that the effect of other types of political violence on FDI flows is mixed. Most studies on terrorism focus on
its impact on developed economies. They find that terrorism leads to a negative shock to a country’s GDP and global capital markets (Abadie & Gardeazabal, 2003; Chen & Siems, 2004), a drop in inward FDI (Enders & Sandler, 1996), an increase of vacancy rates in Central Business Districts (Abadie & Dermisi, 2008), and a drop in the number of tourists (Drakos & Kutan, 2003). Studies on the effect of terrorism in developing countries, particularly those focusing on its relationship with FDI, are considerably less abundant. Moreover, those that consider developing nations show conflicting results (Abadie & Gardeazabal, 2008; Enders et al., 2006; Li, 2006; Oetzel & Oh, 2014; Powers & Choi, 2012). Similarly, studies on the effect of assassinations and political terror on total FDI do not reach a consensus (Asiedu, 2002; 2006; Bary, Clay & Flynn, 2014; Blanton & Blanton, 2007; Edwards, 1990). Most of these authors ignore other forms of political violence and risk in their empirical strategies, which could largely explain the mixed results.

In Table 3.3, we include measures for terrorism, political terror and assassinations in our regression models to test our assumption that political violence must be both relatively continuous and detrimental to returns on economic activity. We measure terrorism using the number of deaths during terrorist attacks from the Global Terrorism Database (GTD). This database, developed by the National Consortium for the Study of Terrorism and Responses to Terrorism, is based on reports from a variety of open media sources (LaFree & Dugan, 2007). We prefer this proxy to the number of terrorist attacks because it measures not only the prevalence of attacks, but also their intensity. The number of terrorist fatalities is highly skewed; hence, we transform the measure using the natural log of the inverse hyperbolic sine function. We measure political terror with the widely used Political Terror Scale (Wood & Gibney, 2010), an index constructed based on information from three sources: Amnesty International Yearly Country Reports, the U.S. State Department Country Reports on Human Rights Practices, and the World Reports of Human Rights Watch. The index ranges from 0 in the case of a strong rule of law to 5 in the case of widespread political terror. We measure the numbers of assassinations using the Cross-National Time Series data developed by Banks (2015).

The results confirm that terrorism, political terror, and assassinations in a country do not affect its total greenfield FDI inflows (Table 3.3, columns 1-3). The coefficient of the conflict variable BRD is negative and significant at the 10% level in two of the three regression models (columns 1-2). Although terrorism and assassinations do not significantly affect greenfield FDI in the resource sector, political terror has a positive effect on investment in this industry (columns 4-6), indicating that MNEs in the resource sector benefit from a certain level of oppression. This benefit could be explained by the fact that a high level of oppression might be necessary to keep certain governments in place. MNEs active in the resource sector might benefit in such an environment because they depend upon government contracts that might be reneged upon by a new government; hence, these MNEs have the most to lose if an incumbent ruler is removed from office.
The effect of conflict on resource greenfield FDI remains small and insignificant (columns 4-6). In the models explaining non-resource FDI, terrorism, political terror, and assassinations are not significantly different from 0. The effect of conflict (BRD) remains strongly negative and significant at the 0.1% or 1% level. The type of conflict moderator is positive and significant at the 5% level. Hence, nationwide political conflicts have a strong negative effect on non-resource FDI, whereas localized conflicts have a negligible effect on this type of FDI.

Table 3.3 Effect of Political Conflict, Terrorism, Political Terror and Assassinations on Greenfield FDI

<table>
<thead>
<tr>
<th></th>
<th>Dependent Variable: Log greenfield FDI (in USD millions), LSDVC Estimation</th>
<th>Total FDI (1)</th>
<th>Resource-related FDI (4)</th>
<th>Non-Resource related FDI (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(2) (3) (5) (6)</td>
<td>(8) (9)</td>
<td></td>
</tr>
<tr>
<td>BRDt-1 (ln)</td>
<td>0.133+ 0.125 -0.112</td>
<td>0.037 -0.004 -0.036</td>
<td>0.254** 0.216* 0.226*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.075 (0.073 (0.072</td>
<td>(0.107 (0.103 (0.083</td>
<td>(0.073 (0.071 (0.070</td>
<td></td>
</tr>
<tr>
<td>BRD (ln)* localizedt-1</td>
<td>0.034 0.039 0.034</td>
<td>-0.074 -0.053 0.058</td>
<td>0.202* 0.198* 0.202*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.096 (0.096 (0.096</td>
<td>(0.138 (0.137 (0.113</td>
<td>(0.082 (0.094 (0.094</td>
<td></td>
</tr>
<tr>
<td>Terrorismt-1 (ln)</td>
<td>0.074</td>
<td>0.031</td>
<td>0.098</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.072</td>
<td>(0.102</td>
<td>(0.070</td>
<td></td>
</tr>
<tr>
<td>Political terrort-1</td>
<td>0.186 0.632*</td>
<td>-0.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.166</td>
<td>(0.236</td>
<td>(0.139</td>
<td></td>
</tr>
<tr>
<td>Assasinations</td>
<td>0.006</td>
<td>0.035</td>
<td>0.004</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.063</td>
<td>(0.090</td>
<td>(0.062</td>
<td></td>
</tr>
</tbody>
</table>

Observations 707 707 707 707 707 707 707 707 707
Number of countries 90 90 90 90 90 90 90 90 90
Economic controls Yes Yes Yes Yes Yes Yes Yes Yes Yes
Country FE Yes Yes Yes Yes Yes Yes Yes Yes Yes
Year FE Yes Yes Yes Yes Yes Yes Yes Yes Yes

Note: Political conflict proxied by battle-related deaths. Bootstrapped standard errors are in parentheses.

*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

67
Within-sector heterogeneity

The analyses so far distinguish between non-resource and resource industries but there might be substantial within-sector heterogeneity that may affect our results. There are substantial differences between the manufacturing and service industries, for example, in terms of sunk costs and labor intensity. There might also be considerable heterogeneity in the natural resource category. Investments in the hydrocarbon industry (oil, gas and coal) might not be sensitive to political violence because they occur in remote locations (offshore). Recognizing these differences, we re-estimate the model using more disaggregated data on manufacturing and services FDI flows and hydrocarbon and non-hydrocarbon FDI flows.

Table 3.4 Effect of Political Conflict on Manufacturing, Services, Hydrocarbon, and Non-hydrocarbon Greenfield FDI

<table>
<thead>
<tr>
<th>Dependent Variable: Log greenfield FDI (in USD millions), LSDVC Estimation</th>
<th>Manufacturing FDI (1)</th>
<th>Service FDI (2)</th>
<th>Hydrocarbon FDI (3)</th>
<th>Non-hydrocarbon FDI (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRD (ln)</td>
<td>-0.132+</td>
<td>-0.209**</td>
<td>0.055</td>
<td>0.091</td>
</tr>
<tr>
<td></td>
<td>(0.071)</td>
<td>(0.067)</td>
<td>(0.105)</td>
<td>(0.091)</td>
</tr>
<tr>
<td>BRD (ln)*localized&lt;sub&gt;-1&lt;/sub&gt;</td>
<td>0.123</td>
<td>0.168*</td>
<td>0.020</td>
<td>0.082</td>
</tr>
<tr>
<td></td>
<td>(0.101)</td>
<td>(0.096)</td>
<td>(0.142)</td>
<td>(0.123)</td>
</tr>
<tr>
<td>Observations</td>
<td>707</td>
<td>707</td>
<td>707</td>
<td>707</td>
</tr>
<tr>
<td>Number of countries</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Economic Controls</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Country FE</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Year FE</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Note: Political conflict is proxied by battle-related deaths. Bootstrapped standard errors are in parentheses.

*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Our results confirm that the negative effect of conflict on non-resource FDI is observed in both the manufacturing and service industries (Table 3.4, columns 1 and 2). The coefficients of the conflict variable and the scope-of-conflict moderator are similar across the two specifications and a Chow test shows that the coefficients of the BRD variable are not systematically different for the two industries. This indicates that it is valid to group manufacturing and services into one non-resource industry. The results in columns 3 and 4 suggest that the effect of conflict on hydrocarbon and non-hydrocarbon FDI is comparable in size and positive but insignificant in both cases. In addition, a Chow-test shows that the difference between the BRD coefficients in columns 3 and 4 is not statistically significant. Hence, there is no evidence that the insensitivity of resource-related FDI to political conflict is driven solely by the hydrocarbon sector.
Conflict and war onset
As an additional robustness check, we use a dummy variable for conflict onset instead of our continuous BRD variable to measure whether a country experiences a conflict or a war according to the definitions of UCDP/PRIO. We code an observation as a conflict if there were at least 25 BRD but not more than 1000 BRD in a year and as a war (or a large conflict) if there are at least 1000 BRD per year. Thus, we measure the effect of conflict and war onset rather than the intensity of the disputes. Figure 3.4 shows that conflicts are more prevalent than wars and that in both categories approximately half of the disputes are localized and the other half are nationwide.

Figure 3.4 Incidence of conflict and war and their geographic scope in developing countries over the period of 2003-2012

Table 3.5 shows the results of the LSDVC regression model, including dummy variables for conflict and war and moderators for their geographic scope. In Column 1 the coefficient of the political conflict dummy is negative and significant at the 0.1% level and the coefficient on the scope-of-conflict moderator is positive and significant at the 5% level. These results indicate that the onset of a nationwide political conflict has a large effect on greenfield investments and that the scope of conflict matters to MNEs. The onset of a nationwide political conflict decreases greenfield FDI flows on average by 86.2%, whereas the onset of a localized political conflict has a smaller effect which is not significantly different from zero (effect size = -0.413, standard error = 0.503). The main effect of war onset is also negative and as statistically significant as in the case of conflict onset, but as expected the size of the war effect is much larger than that of conflict. There is evidence that the scope of violence matters in this case too. The moderator for the onset of a localized war is positive and significant at the 10% level. Quantitatively, the onset of a
nationwide war has a very large effect on greenfield FDI flows; on average, the onset of nationwide wars is associated with a decline in greenfield investment flows of 93.2%. The onset of a localized war has a smaller effect on greenfield FDI and it is not significantly different from zero (effect size = -0.937, standard error = 0.778).

In Column 2 the main effect of conflict onset on resource-related FDI is negative, but insignificant. The coefficient of the moderator for geographic scope is positive, but also insignificant. Hence, there is no evidence that the onset of a conflict affects resource FDI, independent of the scope of the conflict. However, the onset of a war has a negative effect on resource-related FDI, which is statistically significant at the 10% level. The onset of a nationwide war decreases resource FDI flows by 84.1%, whereas that of a localized war has a small and statistically insignificant effect (effect size=-0.103, standard error = 1.183).

Table 3.5 Effect of Political Conflict and War on Total FDI, Resource FDI and Non-Resource FDI

<table>
<thead>
<tr>
<th>Estimation</th>
<th>Total FDI (1)</th>
<th>Resource-related FDI (2)</th>
<th>Non-resource-related FDI (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflict Dummy</td>
<td>-1.985***</td>
<td>-0.562</td>
<td>-1.632***</td>
</tr>
<tr>
<td>Conflict Dummy*</td>
<td>1.572*</td>
<td>0.123</td>
<td>1.683*</td>
</tr>
<tr>
<td>Localized</td>
<td>(0.528)</td>
<td>(0.762)</td>
<td>(0.522)</td>
</tr>
<tr>
<td>War Dummy</td>
<td>-2.692***</td>
<td>-1.842+</td>
<td>-2.172***</td>
</tr>
<tr>
<td>War Dummy*</td>
<td>1.755+</td>
<td>1.739</td>
<td>0.954</td>
</tr>
<tr>
<td>Localized</td>
<td>(0.689)</td>
<td>(0.995)</td>
<td>(0.679)</td>
</tr>
<tr>
<td>No. of Countries</td>
<td>707</td>
<td>707</td>
<td>707</td>
</tr>
<tr>
<td>Economic Controls</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Country FE</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Year FE</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Bootstrapped standard errors are in parentheses.

*** p<0.001, ** p<0.01, * p<0.05, +p<0.10

In model 3 the main effect of conflict onset on non-resource-related FDI flows is negative and significant at the 1% level. The geographic scope moderator is positive and significant at the 5% level. The onset of a nationwide conflict reduces greenfield FDI flows to the non-resource sector by 80.4%, but the effect of a localized conflict is not significantly different from 0 (effect size = 0.051, standard error = 0.547). The onset of a war has a strong negative effect, but this effect is again only statistically significant if the war is nationwide. This analysis suggests that even when we consider conflict onset rather than conflict intensity, we find support for the hypotheses proposed in the theoretical section of
the paper. One additional insight we obtain is that unlike conflict onset, war onset has a negative effect on all types of greenfield FDI.

**Firm-level Model**

In this section, we discuss how we test our hypotheses using firm-level panel data. This method has the advantage of enabling us to measure geographic diversification continuously and to add control variables for firm-level characteristics that might confound the relation between FDI and political conflict. However, the disadvantage is that for many of the observations in the original dataset, firm-level variables were not available. Although as many as 67.1% of all parent companies in the fDi Markets dataset could be matched to firms registered in ORBIS, only for 1,413 of those firms (10.2%) data on firm-level characteristics were available. Although a sample of this size is not rare in IB research, it considerably decreases the precision of our estimates and the ability to detect statistically significant effects. In addition, a missing value logistic regression (Long & Freese, 2006) shows that firm-level data are not missing at random; the probability that data are missing depends on the sector and the level of political conflict. As this could considerably bias our results, we prefer the country-level estimates and show the estimates of the firm-level regressions merely for robustness.

The firm-level dataset comprises data on the 1,413 MNEs that invested in a developing country between the years 2003 and 2012 according to the fDi Markets dataset. For each MNE \((m)\) we report greenfield FDI to a host country \((i)\) in a certain year \((t)\), resulting in the following regression model:

\[
FDI_{mit} = \alpha_0 + \alpha_1 P_i(t-1) + \alpha_2 X_{i(t-1)} + \alpha_3 X_{m(t-1)} + \alpha_4 X_{io(t-1)} + \mu_i + \mu_m + \epsilon_{mit}. \tag{2}
\]

Similarly to our previous models, the independent variable of interest is political conflict \(P_i\) for country \(i\) in the previous year, while we control for destination country variables \(X_{i(t-1)}\), a set of country dummies \(\mu_i\), and a vector of time dummies \(\mu_t\). In addition, we add fixed effects for the country of origin \(\mu_o\), controlling for time-invariant characteristics of the home country of the MNE. We also add a set of firm-level control variables \(X_{m(t-1)}\), including greenfield FDI flows by the MNE \(m\) to country \(i\) in the previous year, the age of the firm (ln), the number of employees (ln), the rate of return on equity (ROE), and geographic diversification, measured by the number of countries in which the multinational is present (ln). The diversification variable is standardized to simplify the interpretation of the main effect of political conflict and the moderator. Finally, we include a set of bilateral variables, \(X_{io(t-1)}\), controlling for the population-weighted distance (ln) between the host country \(i\) and country of origin \(o\) and whether the origin and host country share a common language, common border, or colonial history. Data on these bilateral variables were obtained from the gravity dataset developed by Head, Mayer and Ries (2010).
Table 3.6 Heckman estimation of the effect of Political Conflict on firm level greenfield FDI flows

<table>
<thead>
<tr>
<th>Dependent Variable: Log greenfield FDI (in USD millions), Heckman estimation</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total FDI</td>
<td>Resource-related FDI</td>
<td>Non-resource-related FDI</td>
<td></td>
</tr>
<tr>
<td>Intensive Margin</td>
<td>Extensive Margin</td>
<td>Intensive Margin</td>
<td>Extensive Margin</td>
</tr>
<tr>
<td>BRD, (ln)</td>
<td>-0.247*</td>
<td>-0.009</td>
<td>-0.093</td>
</tr>
<tr>
<td></td>
<td>(0.109)</td>
<td>(0.022)</td>
<td>(0.200)</td>
</tr>
<tr>
<td>BRD (ln) * localized, t-1</td>
<td>0.301**</td>
<td>0.000</td>
<td>0.142</td>
</tr>
<tr>
<td></td>
<td>(0.106)</td>
<td>(0.022)</td>
<td>(0.191)</td>
</tr>
<tr>
<td>BRD(ln)* Diversification, t-1</td>
<td>-0.018</td>
<td>0.007+</td>
<td>0.010</td>
</tr>
<tr>
<td></td>
<td>(0.012)</td>
<td>(0.003)</td>
<td>(0.027)</td>
</tr>
</tbody>
</table>

Bilateral Controls

<table>
<thead>
<tr>
<th></th>
<th>Distance</th>
<th>Common Border</th>
<th>Common Language</th>
<th>Colonial History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensive Margin</td>
<td>Extensive Margin</td>
<td>Intensive Margin</td>
<td>Extensive Margin</td>
<td>Intensive Margin</td>
</tr>
<tr>
<td>BRD, (ln)</td>
<td>0.196+</td>
<td>-0.228***</td>
<td>-0.908</td>
<td>-0.337***</td>
</tr>
<tr>
<td></td>
<td>(0.113)</td>
<td>(0.016)</td>
<td>(0.571)</td>
<td>(0.039)</td>
</tr>
<tr>
<td>BRD (ln) * localized, t-1</td>
<td>-0.961**</td>
<td>0.424***</td>
<td>0.925</td>
<td>0.349*</td>
</tr>
<tr>
<td></td>
<td>(0.371)</td>
<td>(0.079)</td>
<td>(0.953)</td>
<td>(0.172)</td>
</tr>
<tr>
<td>BRD(ln)* Diversification, t-1</td>
<td>-0.538**</td>
<td>0.307***</td>
<td>1.729*</td>
<td>0.337***</td>
</tr>
<tr>
<td></td>
<td>(0.196)</td>
<td>(0.040)</td>
<td>(0.767)</td>
<td>(0.080)</td>
</tr>
</tbody>
</table>

Firm Controls

<table>
<thead>
<tr>
<th></th>
<th>Diversification, t-1</th>
<th>FDI, (ln)</th>
<th>Age, (ln)</th>
<th>ROE, t-1</th>
<th>Employees, (ln)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensive Margin</td>
<td>Extensive Margin</td>
<td>Intensive Margin</td>
<td>Extensive Margin</td>
<td>Intensive Margin</td>
<td>Extensive Margin</td>
</tr>
<tr>
<td>BRD, (ln)</td>
<td>-0.155*</td>
<td>0.096***</td>
<td>0.516</td>
<td>0.216***</td>
<td>-0.065</td>
</tr>
<tr>
<td></td>
<td>(0.062)</td>
<td>(0.014)</td>
<td>(0.381)</td>
<td>(0.036)</td>
<td>(0.113)</td>
</tr>
<tr>
<td>BRD (ln) * localized, t-1</td>
<td>0.009</td>
<td>0.061***</td>
<td>0.057***</td>
<td>0.068***</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>(0.018)</td>
<td>(0.002)</td>
<td>(0.008)</td>
<td>(0.003)</td>
<td>(0.018)</td>
</tr>
<tr>
<td>BRD(ln)* Diversification, t-1</td>
<td>-0.105**</td>
<td>-0.019*</td>
<td>-0.209+</td>
<td>-0.029</td>
<td>-0.095**</td>
</tr>
<tr>
<td></td>
<td>(0.035)</td>
<td>(0.009)</td>
<td>(0.118)</td>
<td>(0.025)</td>
<td>(0.033)</td>
</tr>
<tr>
<td>BRD(ln)* Diversification, t-1</td>
<td>-0.001</td>
<td>0.000+</td>
<td>-0.001</td>
<td>-0.002*</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.000)</td>
<td>(0.005)</td>
<td>(0.001)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>BRD(ln)* Employees, (ln)</td>
<td>-0.059</td>
<td>0.118***</td>
<td>0.247</td>
<td>0.137***</td>
<td>0.106</td>
</tr>
<tr>
<td></td>
<td>(0.051)</td>
<td>(0.006)</td>
<td>(0.239)</td>
<td>(0.014)</td>
<td>(0.137)</td>
</tr>
</tbody>
</table>

Constant | 177.034** | * | -57.929*** | 39.617 | -50.043** | 201.298** | -62.014*** |
| | (46.194) | (9.001) | (77.702) | (19.365) | (48.315) | (9.271) |

Inverse Mills Ratio | 0.434 | -1.427** | 0.300 | 19.365 | -1.550*** |
| | (0.434) | (0.511) | (0.454) |

Observations | 519,030 | 58,528 | 491,123 |

Econ. Controls | Yes | Yes | Yes |

Destination FE | Yes | Yes | Yes |

Origin FE | Yes | Yes | Yes |

Year FE | Yes | Yes | Yes |

Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.10
We estimate a two-stage Heckman model to simultaneously examine investment at the extensive margin - i.e. whether to invest - and the intensive margin - i.e. how much to invest. The first stage analyzing the extensive margin consists of a probit model, where the dependent variable is 1 if a MNE invested in a host country in year $t$ and 0 otherwise. The second stage, examining the intensive margin, consists of an OLS-model estimating the amount of greenfield FDI (transformed using the inverse sine-transformation) for those firms that decided to invest. To avoid multicollinearity resulting from limited nonlinearity in the functional form, we use the colonial history dummy as our exclusion restriction. However, our results are also robust to using different exclusion restrictions.

Table 3.6 presents the results from the two-stage Heckman model. Column 1 shows the results for the regression of the intensive margin, where the dependent variable is the amount of greenfield FDI flows given that an MNE invests in a country. At the average geographic diversification level, a nationwide conflict has a significant negative effect on total FDI flows, whereas a localized conflict does not significantly affect greenfield FDI flows (Column 1). This is consistent with our hypotheses and main results. However, in the equation for the extensive margin there is no significant main effect of BRD, irrespective of the type of conflict. Hence, political conflict affects greenfield FDI flows through a decrease in the size of investment projects, whilst there is no evidence that conflict affects the probability that an MNE invests in a country.

The diversification moderator is not statistically significant for the intensive margin, but it is positive and significant at the 10% level for the extensive margin (Column 2). At particularly high levels of geographic diversification, with presence in at least 26 countries, the effect of BRD becomes positive. This indicates that for MNEs that are better able to absorb the risk posed by political violence, the increase of conflict can actually positively affect the probability of investment. Although this might seem counterintuitive, it could suggest that MNEs that are sufficiently diversified have a competitive advantage in countries with high discontinuous risk and can accordingly reap the monopoly rents associated with this advantage. This can in turn initiate entry into high-risk environments.

Concerning the control variables, distance positively affects the intensive margin, but has a negative effect on the extensive margin. A common border and a shared language negatively affect the intensive margin, but positively affect the extensive margin. In addition, a shared colonial history has a positive effect on the extensive margin. Hence, the bilateral controls indicate that an increase in psychic distance decreases the probability that an MNE sets up a subsidiary in a country, but increases the size of the FDI flow if the MNE makes an investment. Moreover, FDI in the previous year, the rate of return on equity and the number of employees positively and significantly affect the probability of investment, whereas they do not affect the size of the investments. Age has a significant negative effect on both the intensive and extensive margin, whereas geographic
diversification increases the probability of an MNE making an investment, while decreasing the size of FDI flow.

We also estimate the Heckman model separately for resource and non-resource FDI decisions.\textsuperscript{28} The estimates for non-resource-related FDI flows (Column 3) are similar to those of total FDI flows. This is not surprising; in the firm-level dataset 88% of the observations concern non-resource FDI flows. However, the estimates for the resource sector differ (Column 2). Political conflict, the type of conflict and the diversification moderator are no longer significant. In line with our hypotheses, the effect sizes are also considerable smaller than the effects on non-resource-related FDI flows. However, the number of MNEs in the resource-related FDI regression is small and therefore, the estimates of the coefficients are relatively imprecise. This concern in combination with the sample selection effect, explained above, lowers our confidence in the Heckman estimates for the resource sector.

\textbf{Testing the Mechanisms: The Role of Economic Rents and Geographic Constraints}

This section examines the factors behind the insensitivity of resource-related FDI to political violence by focusing on the two mechanisms discussed in the theory section: the size of the economic rents and the geographic constraints on location choice. We focus on the oil and gas industry because no data on rents and location choice are available for other natural resource industries. The BP Statistical Review of World Energy provides a large dataset containing information on global oil, gas reserves and prices, obtained from government sources and published data. As a proxy for geographic constraints on location choice, we use proven global reserves of oil and gas that can be extracted from known reservoirs with reasonable certainty in the future. We first standardize the oil and gas reserves data (because oil and gas reserves are measured in different units) and subsequently take the average of the two measures to obtain our $\text{gasoilreserves}$ variable. We then interact this score with battle-related deaths to test the limited-location-choice mechanism. The main effect of global oil and gas reserves is excluded because it does not vary over countries and is hence absorbed by the time fixed effects.

It is possible that oil- and-gas-related FDI flows and political violence are the result of the discovery of one of these valuable resources. Therefore, we also control for large oil and

\textsuperscript{28} We estimate separate Heckman regressions for resource-related and non-resource-related FDI flows instead of including interaction effects to avoid the issue of interpretation concerning three-way interactions. In addition, the regression results in Table 1 show that also the control variables behave differently for the two sectors. Finally, many of the firms in the resource sector also make greenfield FDI in the non-resource sector.
gas field discoveries within a country using a dataset obtained from the BP Statistical Review of World Energy. The variable for discovery is a dummy coded as one if a major oil or gas field was found in the country, and zero otherwise. A major gas/oil discovery is a discovery of a field that contains at least 500 million barrels of oil or 79 million m$^3$ of gas (Halbouty, 2001).

Table 3.7 Effect of Political Conflict on Greenfield FDI in the Oil and Gas sector

<table>
<thead>
<tr>
<th></th>
<th>LSDVC estimations, greenfield FDI in USD millions</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>BRD$_t$-1 (ln)</td>
<td>0.064</td>
<td>0.090</td>
<td>-0.091</td>
<td>-0.097</td>
</tr>
<tr>
<td></td>
<td>(0.077)</td>
<td>(0.078)</td>
<td>(0.114)</td>
<td>(0.130)</td>
</tr>
<tr>
<td>Ln(BRD) * gasoilreserves$_{t-1}$</td>
<td>-0.090*</td>
<td>-0.156**</td>
<td>-0.156**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.046)</td>
<td>(0.055)</td>
<td>(0.055)</td>
<td></td>
</tr>
<tr>
<td>Ln(BRD) * gasoilindex$_{t-1}$</td>
<td>0.002*</td>
<td>0.002*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.001)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ln(BRD) * localized$_{t-1}$</td>
<td></td>
<td></td>
<td></td>
<td>0.013</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.141)</td>
</tr>
<tr>
<td>Major Gas/Oil discoveries$_{t-1}$</td>
<td>-0.391</td>
<td>-0.332</td>
<td>-0.337</td>
<td>-0.336</td>
</tr>
<tr>
<td></td>
<td>(0.507)</td>
<td>(0.507)</td>
<td>(0.505)</td>
<td>(0.505)</td>
</tr>
<tr>
<td>FDI$_t$-1 (ln)</td>
<td>0.086*</td>
<td>0.086*</td>
<td>0.081+</td>
<td>0.081+</td>
</tr>
<tr>
<td></td>
<td>(0.043)</td>
<td>(0.043)</td>
<td>(0.043)</td>
<td>(0.043)</td>
</tr>
<tr>
<td>GDP$_t$-1 (ln)</td>
<td>-0.962</td>
<td>-0.950</td>
<td>-1.004</td>
<td>-1.008</td>
</tr>
<tr>
<td></td>
<td>(0.877)</td>
<td>(0.877)</td>
<td>(0.874)</td>
<td>(0.877)</td>
</tr>
<tr>
<td>Population (ln)</td>
<td>13.495**</td>
<td>14.050**</td>
<td>13.965**</td>
<td>13.973**</td>
</tr>
<tr>
<td></td>
<td>(4.312)</td>
<td>(4.330)</td>
<td>(4.313)</td>
<td>(4.322)</td>
</tr>
<tr>
<td>WGI regulatory quality$_{t-1}$</td>
<td>1.287</td>
<td>1.121</td>
<td>1.104</td>
<td>1.096</td>
</tr>
<tr>
<td></td>
<td>(0.997)</td>
<td>(1.002)</td>
<td>(0.998)</td>
<td>(0.996)</td>
</tr>
<tr>
<td>WGI Corruption$_{t-1}$</td>
<td>-0.419</td>
<td>-0.482</td>
<td>-0.656</td>
<td>-0.659</td>
</tr>
<tr>
<td></td>
<td>(0.905)</td>
<td>(0.905)</td>
<td>(0.907)</td>
<td>(0.909)</td>
</tr>
<tr>
<td>Polity Index$_{t-1}$</td>
<td>-0.061</td>
<td>-0.038</td>
<td>-0.052</td>
<td>-0.053</td>
</tr>
<tr>
<td></td>
<td>(0.073)</td>
<td>(0.074)</td>
<td>(0.074)</td>
<td>(0.074)</td>
</tr>
<tr>
<td>Real Exchange Rate$_{t-1}$ (ln)</td>
<td>0.415</td>
<td>0.470</td>
<td>0.468</td>
<td>0.466</td>
</tr>
<tr>
<td></td>
<td>(0.545)</td>
<td>(0.544)</td>
<td>(0.542)</td>
<td>(0.543)</td>
</tr>
<tr>
<td>Exchange Rate Volatility$_{t-1}$</td>
<td>-2.525</td>
<td>-1.560</td>
<td>-3.752</td>
<td>-3.798</td>
</tr>
<tr>
<td></td>
<td>(11.240)</td>
<td>(11.242)</td>
<td>(11.206)</td>
<td>(11.208)</td>
</tr>
<tr>
<td>Inflation$_{t-1}$</td>
<td>0.009</td>
<td>0.010</td>
<td>0.010</td>
<td>0.010</td>
</tr>
<tr>
<td></td>
<td>(0.012)</td>
<td>(0.012)</td>
<td>(0.012)</td>
<td>(0.012)</td>
</tr>
<tr>
<td>Observations</td>
<td>707</td>
<td>707</td>
<td>707</td>
<td>707</td>
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<td>Number of countries</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
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<tr>
<td>Country FE</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Year FE</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The gas and oil reserves variable is standardized, and the gas and oil index is a price index. Bootstrapped standard errors are in parentheses.

*** p<0.001, ** p<0.01, * p<0.05
We proxy oil and gas rents with a global price index of oil and gas prices (gasoilindex). This index is constructed using data from the BP Statistical Review of World Energy. We take 2003 as the base year and subtract 100 from the index to ease the interpretation of our results. We interact this price index with battle-related deaths to test for the effect of rents on the responsiveness of resource-related FDI to political violence. The main effect of our global oil and gas price measure is excluded because it does not vary over countries and is hence absorbed by the time fixed effects.

Column 1 of Table 3.7 shows the baseline model for the oil and gas industry. Similar to column 3 in Table 3.4, the results show that the effect of political violence on oil and gas FDI is comparable to the effect on total resource-related FDI flows (see columns 3-4, Table 3.1): battle-related deaths do not have a significant effect on oil-and-gas-related FDI. In columns 2 and 3, respectively, we add the moderator for hydrocarbon reserves and moderator for the price index. Figures 3.5a and 3.5b present the effect of these moderators, as estimated in model 3. The moderating effect of reserves on the relationship between battle-related deaths and oil and gas FDI is negative and significant, indicating that when new oil and gas reserves are discovered, MNEs active in the oil and gas sector are less willing to invest in countries marred by political violence. Nevertheless, the change in global reserves must be large for the total effect of conflict on greenfield FDI flowing to the hydrocarbon sector to be different from zero. Figure 3.5a shows that the effect of battle-related deaths on oil-and-gas-related FDI flows is positive if global reserves decrease by 0.5 standard deviations or more relative to the mean. However, the effect only becomes significantly greater than zero if global reserves decrease by at least 2.5 standard deviations relative to the mean. The effect of conflict on oil and gas FDI is significantly smaller than zero only if reserves increase by 2.0 standard deviations or more relative to the mean. If global reserves increase by two standard deviations relative to the mean, a 10 percent increase in battle-related deaths is associated with a reduction of greenfield FDI in the oil-and-gas sector of approximately 4%, ceteris paribus. Hence, our results suggest that during the estimation period, the geographic-constraints mechanism was at work.

The effect of political violence is positively moderated by oil and gas prices, indicating that the effect of battle-related deaths on FDI flows to the oil and gas sector depends positively upon the global prices of oil and gas. This dependency implies that during commodity booms when prices are high, MNEs are more likely to enter countries marred by political conflict than when prices are low. Figure 3.5b shows that only in cases of exceptionally high oil and gas prices do the effects of political violence on oil- and gas-related FDIs become significantly different from zero. For example, if prices are at their base 2003 level and global reserves are at their mean value, the effect of political violence on oil-and-gas-related FDIs flows is negative but insignificant. However, when the oil-and-gas price index increases to 240, i.e., the 2012 level, the effect of battle-related deaths becomes significantly positive at the 5% level. Hence, we find that the effect of political
violence on oil and gas FDI flows depends positively on economic rents or the profitability of oil and gas extraction and that the rent mechanism was at work towards the end of our investigation period. Finally, in Column (4), we add the moderator effect of localized and battle-related deaths to the model. The effect of this moderator is positive but insignificant and does not change the results associated with the rents and geographic-constraints mechanisms.

**Figures 3.5a and 3.5b Marginal effect of ln(BRD) on oil- and gas-related FDIs at different levels of global oil and gas reserves (std) and oil and gas prices, respectively**

### 3.6 CONCLUDING REMARKS

This study makes several contributions to the literature on political violence and FDI, particularly on the heterogeneous nature of their relationship. We argue that the relationship between political violence and greenfield FDI flows is contingent on the type of violence, the characteristics of the FDI-receiving sector and the international scope of the MNE. We differentiate among several different types of political violence: high- and low-impact events, discontinuous and continuous events, and localized and nationwide events. We also differentiate between resource and non-resource sectors, focusing specifically on differences stemming from geographic constraints on location choice and economic rents.

By disaggregating total FDI into sectoral flows and limiting our analysis to a homogeneous set of greenfield investments, we show that the effect of political conflict on greenfield FDI flows depends upon sector characteristics, particularly those flows tied to economic rents and geographic constraints on location choice. We show that while non-resource-related greenfield FDI flows are negatively associated with political conflict, resource-related greenfield FDI flows do not significantly decrease when political conflict
intensifies. We also find evidence that the effect of nationwide political conflict on non-resource FDI tends to be greater than the effect of localized conflict. Resource-related FDI is affected neither by localized nor geographically dispersed conflicts. Finally, we find evidence that political conflict particularly deters investment by MNEs that are relatively geographically undiversified. These results are remarkably robust across different specifications and provide a plausible explanation for the ambiguous results reported in the literature.

We empirically show that the insensitivity of resource MNEs to political violence can be attributed to the high profitability of resource extraction and these companies’ geographic constraints on location choice during the period of estimation. These characteristics might not be the only attributes that distinguish the resource from the non-resource sector. Greenfield FDI in the resource sector also tends to be more dependent on government contracts and might have a longer time horizon. Yet, our moderator analysis for the hydrocarbon sector shows that high profitability of resource extraction and geographic constraints on location choice largely explain the insensitivity of the resource sector to political violence. The two mechanisms are related, as suggested by the prolonged period of high oil prices in the 2000s and the subsequent increase in investment opportunities provided by the discovery of hydraulic fracturing. During periods of commodity booms, profitability and limited investment opportunities reinforce one another. However, when the development of alternative sources of energy reduces the constraints on location choice within the resource sector, or if the economic rents associated with resource extraction drop, resource MNEs are likely to be considerably less willing to invest in countries experiencing political conflict. Although we use the oil and gas sector to illustrate the effect of the rents mechanism and the geographic constraints mechanism on the propensity of MNEs operating in this industry to invest in conflict areas, we recognize that certain non-resource sectors might also be characterized by these mechanisms. Hence, we argue more generally that MNEs active in sectors in which these mechanisms are at play are more likely to invest in countries experiencing political conflict.

Finally, our results suggest that a certain level of continuity and impact are necessary conditions for political violence to affect greenfield FDI flows. Only political conflict, a continuous and high-impact type of political violence, has a significant effect on greenfield FDI. Other types of political violence, such as terrorism and assassinations, do not affect greenfield investments, although political terror is positively associated with the flow of greenfield FDI into resources, possibly because political repression reduces political instability and the risk that resource licenses might be reneged upon due to government change.

The findings in this paper point to a vicious cycle between resource dependence and conflict by providing evidence that political violence entrenches the resource dependency
of fragile countries. We show that some types of political violence, namely repression through political terror, can be positively associated with resource-related FDI and that political conflict is detrimental to non-resource-related FDI – the type of investment considered most effective in promoting structural transformation and employment creation. At the same time, conflict does not affect resource-related FDI – the type of investment associated with the resource curse (Collier, 1998; Fearon & Laitin, 2003; Hodler, 2006; Poelhekke & Van der Ploeg, 2013; Sachs & Warner, 1995).

These findings provide managers of MNEs with a more nuanced understanding of the effects of political violence and the risks it poses to the MNE. We show that the continuity of the risk posed is an important factor influencing MNEs’ entry strategy. However, also sector characteristics that influence an MNE’s sensitivity to risk, the MNE’s exposure to violence and the ability to diversify risk should be taken into account when making a risk assessment of investment into developing countries marred by political violence. As such, our results emphasize that the assumption that political violence necessarily depresses earnings and puts off investors is too simplistic. Our finding that political conflict positively affects greenfield FDI by the most diversified firms, suggests that entry into conflict countries might even increase earnings if MNEs are able to absorb discontinuous risk. As such, MNEs might want to consider entry into conflict countries – taking into account sector and firm attributes, despite the large level of risk posed, with the intention of obtaining a competitive advantage.

The main limitation of this study is that the empirical analysis cannot establish a causal relationship between FDI and political violence; therefore, the results should be interpreted as conditional associations. Although it is unlikely that total FDI flows have a direct effect on the number of battle-related deaths, FDI in the natural resource sector might affect political violence – particularly separatist violence – by intensifying grievances or increasing the perceived gains of secession. However, finding sources of exogenous variation in political violence that can be exploited in a panel format is challenging. Therefore, we address the endogeneity problem by including fixed effects and a large set of control variables, including income and quality of institutions. In the robustness analyses, we also control for the discovery of large oil and gas reserves because it is likely that the discovery of valuable resources rather than the involvement of an MNE fuels conflict. This additional control variable does not change our main results.

Another limitation lies in the data sources used. The data on greenfield FDI flows are collected through Financial Times newswires, internal information sources, other media sources, project data acquired from industry organizations and investment agencies and data purchased from market research and publication companies. MNEs investing in conflict countries might actively avoid publication of the investment project in the media to avoid a public outcry. This selection effect could drive our results on the effect of
political conflict on total greenfield FDI flows. To our knowledge, however, there are no FDI datasets that are not based on media coverage while simultaneously covering an equally large set of countries and allowing for disaggregation at the sector level. Nevertheless, it is unlikely that our results on sector heterogeneity are driven by sample selection bias. It could be expected that particularly resource-related FDI is sensitive to public outcry because this type of investment is generally believed to have negative environmental, economic and institutional development effects (Collier & Hoeffler, 1998; Fearon & Laitin, 2003; Hodler, 2006; Ross, 2004; Sachs & Warner, 1995). Non-resource-related greenfield FDI, however, is widely considered a vehicle for economic development and accordingly does not have a reputation as bad as resource-related FDI (Poelhekke & Van der Ploeg, 2013). Hence, it could be expected that managers in this sector face fewer incentives to avoid publication of FDI projects than do managers in the resource sector. Such a selection mechanism would yield results opposite to ours. It is therefore unlikely that this drives our sector-level results.

In addition, our data covers the relative short time period from 2003 to 2012. This limits our ability to analyze dynamics, including variations in the lag-structure of our models and the effect of sustained political conflicts. Accordingly, we cannot rule out that gestation periods are longer in the resource than in the non-resource sector. This could partially explain why we find that these firms are relatively insensitive to political conflict in the previous year. However, the results of our analysis for the hydrocarbon sector show that insensitivity of resource FDI to political conflict can be primarily explained by the profitability of resource extraction and geographic constraints on location choice. Because gestation periods are likely to be time-invariant, differences in gestation periods between the resource and non-resource FDI are unlikely to bias these estimates.

This study explores the heterogeneous effects of political violence on greenfield FDI flows to developing countries. Additional research could examine sectoral FDI and conflict at the subnational level. During such an examination, it is possible to consider the distance from the investment location to the epicenter of a conflict, the exact location and characteristics of an MNE, and the role of oil rent sharing between subnational and national governments in determining what affects the likelihood of MNE investment in an affected region. In addition, future research could explore how gestation periods matter for MNEs’ sensitivity to political violence and whether prolonged conflicts affect firms differently than short-term outbursts of violence.
### 3.7 APPENDICES

**Appendix 3.1: Descriptive Statistics and Correlation matrix**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
<th>Min</th>
<th>Max</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
<th>(9)</th>
<th>(10)</th>
<th>(11)</th>
<th>(12)</th>
<th>(13)</th>
<th>(14)</th>
<th>(15)</th>
<th>(16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) BRD (ln)</td>
<td>1.28</td>
<td>2.50</td>
<td>0.00</td>
<td>9.92</td>
<td>1</td>
<td></td>
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</tr>
<tr>
<td>(2) Localized Conflict dummy</td>
<td>0.25</td>
<td>0.43</td>
<td>0.00</td>
<td>1.00</td>
<td>0.292</td>
<td>1</td>
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</tr>
<tr>
<td>(3) GDP (current US$, billions)</td>
<td>10.98</td>
<td>1.86</td>
<td>6.15</td>
<td>15.95</td>
<td>0.251</td>
<td>0.216</td>
<td>1</td>
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<tr>
<td>(4) Regulatory Quality</td>
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<td>0.50</td>
<td>-2.26</td>
<td>0.69</td>
<td>-0.056</td>
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<tr>
<td>(5) Policy Index</td>
<td>2.69</td>
<td>5.44</td>
<td>-9.00</td>
<td>10.00</td>
<td>-0.024</td>
<td>-0.073</td>
<td>0.033</td>
<td>0.494</td>
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</tr>
<tr>
<td>(6) Population (ln)</td>
<td>16.45</td>
<td>1.48</td>
<td>13.10</td>
<td>21.02</td>
<td>0.368</td>
<td>0.356</td>
<td>0.802</td>
<td>0.054</td>
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<tr>
<td>(7) Exchange rate (ln)</td>
<td>4.30</td>
<td>2.34</td>
<td>-0.35</td>
<td>16.02</td>
<td>0.121</td>
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<tr>
<td>(8) Exchange rate volatility</td>
<td>0.01</td>
<td>0.01</td>
<td>0.00</td>
<td>0.20</td>
<td>0.011</td>
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<td>-0.093</td>
<td>-0.07</td>
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<td>-0.002</td>
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<td></td>
</tr>
<tr>
<td>(9) Inflation (annual %)</td>
<td>8.85</td>
<td>9.48</td>
<td>-25.31</td>
<td>103.82</td>
<td>0.015</td>
<td>0.034</td>
<td>0.01</td>
<td>-0.22</td>
<td>-0.08</td>
<td>0.036</td>
<td>0.125</td>
<td>0.055</td>
<td>1</td>
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</tr>
<tr>
<td>(10) Control of Corruption</td>
<td>-0.62</td>
<td>0.46</td>
<td>-1.51</td>
<td>1.00</td>
<td>-0.075</td>
<td>-0.057</td>
<td>0.171</td>
<td>0.065</td>
<td>0.238</td>
<td>-0.076</td>
<td>-0.438</td>
<td>-0.085</td>
<td>-0.125</td>
<td>1</td>
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<tr>
<td>(11) No. of Assassinations</td>
<td>0.15</td>
<td>1.10</td>
<td>0.00</td>
<td>26.00</td>
<td>0.176</td>
<td>-0.021</td>
<td>0.078</td>
<td>0.021</td>
<td>0.038</td>
<td>0.074</td>
<td>0.065</td>
<td>-0.005</td>
<td>0</td>
<td>0.004</td>
<td>1</td>
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<td>(12) Political Terror Scale</td>
<td>3.11</td>
<td>0.86</td>
<td>1.00</td>
<td>5.00</td>
<td>0.482</td>
<td>0.215</td>
<td>0.27</td>
<td>-0.275</td>
<td>-0.222</td>
<td>0.511</td>
<td>0.179</td>
<td>0.077</td>
<td>0.109</td>
<td>-0.364</td>
<td>0.152</td>
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<td>(13) Terrorism:Fatalities</td>
<td>1.59</td>
<td>2.25</td>
<td>0.00</td>
<td>8.62</td>
<td>0.712</td>
<td>0.304</td>
<td>0.39</td>
<td>-0.096</td>
<td>-0.013</td>
<td>0.548</td>
<td>0.146</td>
<td>0.044</td>
<td>0.052</td>
<td>-0.145</td>
<td>0.161</td>
<td>0.557</td>
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<tr>
<td>(14) Global Oil/Gas Reserves</td>
<td>0.36</td>
<td>0.98</td>
<td>-0.80</td>
<td>2.02</td>
<td>0.014</td>
<td>0.026</td>
<td>0.133</td>
<td>0.043</td>
<td>0.062</td>
<td>0.023</td>
<td>0.033</td>
<td>-0.057</td>
<td>0.024</td>
<td>0.014</td>
<td>-0.029</td>
<td>-0.054</td>
<td>0.008</td>
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<tr>
<td>(15) Oil/Gas Price Index</td>
<td>101.23</td>
<td>42.45</td>
<td>21.96</td>
<td>165.83</td>
<td>0.025</td>
<td>0.02</td>
<td>0.109</td>
<td>0.02</td>
<td>0.038</td>
<td>0.016</td>
<td>0.023</td>
<td>-0.054</td>
<td>0.1</td>
<td>0.014</td>
<td>-0.069</td>
<td>-0.007</td>
<td>0.051</td>
<td>0.516</td>
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<tr>
<td>(16) Major Oil/Gas discovery</td>
<td>0.08</td>
<td>0.27</td>
<td>0.00</td>
<td>1.00</td>
<td>0.031</td>
<td>0.109</td>
<td>0.391</td>
<td>-0.097</td>
<td>-0.167</td>
<td>0.338</td>
<td>-0.037</td>
<td>-0.036</td>
<td>0.032</td>
<td>-0.064</td>
<td>0.021</td>
<td>0.147</td>
<td>0.074</td>
<td>0.017</td>
<td>-0.002</td>
<td>1</td>
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### Appendix 3.2: List of countries in the sample

<table>
<thead>
<tr>
<th>Country</th>
<th>Country</th>
<th>Country</th>
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</thead>
<tbody>
<tr>
<td>Albania</td>
<td>Ethiopia</td>
<td>Morocco</td>
</tr>
<tr>
<td>Algeria</td>
<td>Gabon</td>
<td>Mozambique</td>
</tr>
<tr>
<td>Angola</td>
<td>Gambia</td>
<td>Namibia</td>
</tr>
<tr>
<td>Armenia</td>
<td>Georgia</td>
<td>Nepal</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>Ghana</td>
<td>Nicaragua</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>Guatemala</td>
<td>Niger</td>
</tr>
<tr>
<td>Belarus</td>
<td>Guinea</td>
<td>Nigeria</td>
</tr>
<tr>
<td>Bolivia</td>
<td>Guinea-Bissau</td>
<td>Pakistan</td>
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<tr>
<td>Botswana</td>
<td>Guyana</td>
<td>Panama</td>
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<tr>
<td>Brazil</td>
<td>Haiti</td>
<td>Papua New Guinea</td>
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<td>Bulgaria</td>
<td>Honduras</td>
<td>Paraguay</td>
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<td>Burkina Faso</td>
<td>India</td>
<td>Peru</td>
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<td>Burundi</td>
<td>Indonesia</td>
<td>Philippines</td>
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<td>Cambodia</td>
<td>Iran</td>
<td>Rwanda</td>
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<td>Iraq</td>
<td>Senegal</td>
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<td>Central African Republic</td>
<td>Jamaica</td>
<td>Sierra Leone</td>
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<td>Chad</td>
<td>Jordan</td>
<td>South Africa</td>
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<td>China</td>
<td>Kazakhstan</td>
<td>Sri Lanka</td>
</tr>
<tr>
<td>Colombia</td>
<td>Kenya</td>
<td>Sudan (-2011)</td>
</tr>
<tr>
<td>Congo</td>
<td>Lebanon</td>
<td>Suriname</td>
</tr>
<tr>
<td>Congo, Dem. Rep.</td>
<td>Liberia</td>
<td>Syria</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>Libya</td>
<td>Tajikistan</td>
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<tr>
<td>Cote d'Ivoire</td>
<td>Madagascar</td>
<td>Thailand</td>
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<td>Cuba</td>
<td>Malawi</td>
<td>Togo</td>
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<tr>
<td>Eritrea</td>
<td>Mongolia</td>
<td>Yemen</td>
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## Appendix 3.3: Results of Fixed Effects (LSDV), Random Effects and pooled OLS models

### LSDV Estimation

<table>
<thead>
<tr>
<th>Dependent Variable: Log greenfield FDI (in USD millions)</th>
<th>Total FDI (1)</th>
<th>Resource FDI (2)</th>
<th>Non-Resource FDI (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRD(_t-1) (ln)</td>
<td>-0.120(^+)</td>
<td>0.040</td>
<td>-0.228***</td>
</tr>
<tr>
<td></td>
<td>(0.065)</td>
<td>(0.093)</td>
<td>(0.064)</td>
</tr>
<tr>
<td>BRD(_t-1) (ln)*localized</td>
<td>0.049</td>
<td>-0.066</td>
<td>0.208*</td>
</tr>
<tr>
<td></td>
<td>(0.091)</td>
<td>(0.129)</td>
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<tr>
<td>Observations</td>
<td>707</td>
<td>707</td>
<td>707</td>
</tr>
<tr>
<td>Number of Countries</td>
<td>90</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Economic Controls</td>
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<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Country FE</td>
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<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Year FE</td>
<td>Yes</td>
<td>Yes</td>
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</table>

Robust standard errors are in parentheses.

*** p<0.001, ** p<0.01, * p<0.05, +p<0.10

### Random Effects Estimation

<table>
<thead>
<tr>
<th>Dependent Variable: Log greenfield FDI (in USD millions)</th>
<th>Total FDI (1)</th>
<th>Resource FDI (2)</th>
<th>Non-Resource FDI (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRD(_t-1) (ln)</td>
<td>-0.089*</td>
<td>-0.045</td>
<td>-0.101**</td>
</tr>
<tr>
<td></td>
<td>(0.040)</td>
<td>(0.047)</td>
<td>(0.047)</td>
</tr>
<tr>
<td>BRD(_t-1) (ln)*localized</td>
<td>0.082(^+)</td>
<td>0.035</td>
<td>0.111*</td>
</tr>
<tr>
<td></td>
<td>(0.045)</td>
<td>(0.061)</td>
<td>(0.052)</td>
</tr>
<tr>
<td>Observations</td>
<td>707</td>
<td>707</td>
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<td>90</td>
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<tr>
<td>Economic Controls</td>
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<td>Yes</td>
<td>Yes</td>
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<tr>
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<td>Yes</td>
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<tr>
<td>Year FE</td>
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</table>

Robust standard errors are in parentheses.

*** p<0.001, ** p<0.01, * p<0.05, +p<0.10

### Pooled OLS Estimation

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<th>Resource FDI (2)</th>
<th>Non-Resource FDI (3)</th>
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<tr>
<td>BRD(_t-1) (ln)</td>
<td>-0.089*</td>
<td>-0.045</td>
<td>-0.101*</td>
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<td>(0.047)</td>
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<tr>
<td>BRD(_t-1) (ln)*localized</td>
<td>0.082(^+)</td>
<td>0.035</td>
<td>0.111*</td>
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<td>(0.045)</td>
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</table>

Bootstrapped standard errors are in parentheses.

*** p<0.001, ** p<0.01, * p<0.05, +p<0.10
This chapter commences with a summary of the main findings of each chapter in this thesis (Section 5.1). In this section I revisit the conceptual triangle presented in the introduction. It is followed by a discussion of the implications of these findings for government agencies and managers of multinational enterprises (Section 5.2). In Section 5.3 the limitations of the studies in this dissertation are discussed, followed by suggestion on how to address these in future research. In this section I provide future research suggestions for research in economics and in International Business separately. In a short epilogue (Section 5.4), where the focus is on the importance of solution-based research, I also outline the opportunities for researchers in these two fields to work together to address ‘Grand Challenges’ like political conflict.
5.1 MAIN FINDINGS
This thesis looks at the causes and consequences of political conflict. The findings can be depicted in the triangle introduced in the introduction and duplicated in Figure 5.1.

![Figure 5.1 Illustration of the hypothesized political conflict, FDI and prosperity triangle. The solid lines represent the relations studied in this dissertation, while the dashed lines correspond to relations established in the literature. The numbers indicate the chapters of this dissertation in which the relationship is discussed.]

In Chapter 2 the causes of political conflict are examined. Here the focus lies on civil resistance, the non-violent counterpart of armed conflict. The findings demonstrate that a decrease in subjective wellbeing (i.e. happiness) can motivate citizens to engage in acts of civil resistance. This negative effect of overall wellbeing on non-violent uprisings is to a large extent the result of changes to satisfaction with living standards and the perceived capability to have a purposeful and meaningful life. Hence, in contrast to previous literature, I find that there are systematic causes of non-violent uprisings, although these causes might be difficult to capture using traditional socioeconomic indicators. However, there is no evidence for a direct relationship between unhappiness and armed conflict.

In Chapter 3 and 4 I analyze the consequences of political conflict for Foreign Direct Investment (FDI). This is depicted by the right-hand side arrow in Figure 5.1. In these chapters the focus is on armed conflict. In Chapter 3 I compare the effect of armed conflict to other types of political violence, i.e. terrorism, assassinations and political terror. The effect of political violence on greenfield FDI is heterogeneous across types of violence, sectors and firms, falsifying the claim that all FDI flows are negatively affected by political violence. These findings demonstrate that the sensitivity of investment by MNEs to political conflict is reduced by (1) the extent to which conflict is localized, (2) whether
there are constraints on location choice due to requirements on inputs, (3) the size of economic rents and (4) the extent to which the firm is sufficiently internationalized to diversify the risk posed by conflict. On the other hand, the spread of violence, its continuity and its impact positively affect the sensitivity of investment to political violence. Only investment by relatively non-diversified MNEs in the non-resource sector is affected by nationwide armed conflict. Other types of political violence (e.g. localized armed conflict, terrorism, political terror) do not affect greenfield FDI flows.

Chapter 4 looks at the effect of armed conflict on MNEs’ location choice strategies, shedding light on how armed conflict moderates the effect of home-host ties on location choice strategies. Whereas the ways in which international wars can disrupt international (business) relationships are relatively well understood, this paper demonstrates how internal conflict – currently the dominant form of armed conflict – affects these relationships. The focus is on historical ties, specifically ties resulting from colonial history. I find that similar to international conflict, internal wars can disturb existing relationships between the MNEs’ home and host country. However, smaller conflicts have no effect on the relevance of these ties for FDI. These results do not support the idea that connected firms can benefit more from the confusion caused by political conflict. In contrast, they seem to have more to lose and accordingly face considerable incentives to avoid the outbreak of wars.

5.2 IMPLICATIONS

5.2.1 Implications for government
Political conflict has become more prevalent in the last decades and with the consequences of global warming becoming more pronounced, the prospects of world peace are only declining. Although it might be impossible to prevent these conflicts all together, an improved understanding of their causes makes it easier to anticipate them and by addressing these causes, some conflicts might be avoided. In terms of the findings of this thesis, this implies two things. First, we need to strengthen the efforts to collect data on developing countries. This thesis provides evidence that decreases in subjective wellbeing can explain non-violent conflicts, although not armed conflict (Chapter 2). Hence, non-violent political conflict, which is often the predecessor of major instability and armed conflict, has systematic causes and might hence be predicted by monitoring data on subjective wellbeing together with traditional measures of economic development. Data collection efforts should therefore not be limited to objective socioeconomic indicators, and special attention should be given to collecting data on subjective wellbeing. By combining objective and subjective data, a more complete picture can be drawn of how prosperous societies are and how probable political conflict is. The importance of more inclusive data collection efforts is exemplified by the Arab Spring, which took economist
and policymakers by surprise, whereas those that monitored the downward trend in subjective wellbeing could have anticipated the conflict.

Second, more attention should be given to societies that appear to be suffering in terms of subjective wellbeing. Here the case of ‘unhappy development’ merits special attention. Countries experiencing ‘unhappy development’ prosper in terms of objective indicators of development, but suffer in terms of subjective wellbeing. The Arab Spring was preceded by a period of such unhappy development. There is preliminary evidence that the quality of institutions and welfare policies influence the extent to which economic growth translates to improvements in subjective wellbeing (Burger, Ianchovichina, Arampatzi, Devarajan, Veenhoven & Witte, 2017). Hence, policies should not only be evaluated in terms of objective economics outcomes, but also in terms of their effect on subjective wellbeing. This is not just relevant for democratically elected leaders, who will be punished for reductions in subjective wellbeing at the ballot box, but also for malevolent autocratic regimes, which face the risk of unhappy citizens ‘taking to the streets’.

Regarding the consequences of (violent) conflict for FDI inflows, my findings suggest that conflict countries are still able to attract FDI. For Sub-Saharan Africa, I find that 13.9% of investments are actually attracted to conflict countries (Chapter 4). FDI into the resource sector is to a large extent insensitive to political conflict (Chapter 3). This is the result of the rents that could be obtained by investment in new resource reserves and the constraints on location choice that these firms face. However, when the development of alternative sources of energy reduces the constraints on location choice within the resource sector, or if the economic rents associated with resource extraction drop, resource MNEs are likely to be considerably less willing to invest in countries experiencing political conflict. This would make it more difficult for countries afflicted by conflict to attract FDI.

However, the question remains whether resource-related FDI, which has been related to the resource curse, is beneficial for fragile economies in the first place. Although the effect of FDI in the resource sector— or any other sector— on prosperity is beyond the scope of this thesis, I would recommend that conflict countries focus on attracting MNEs in the non-resource sector instead, as resource dependence has been associated with decreased prosperity and peace (e.g. Collier, 1998; Fearon & Laitin, 2003; Hodler, 2006; Poelhekke & Van der Ploeg, 2013; Sachs & Warner, 1995). I find evidence that also non-resource multinationals which are sufficiently internationally diversified are insensitive to political conflict (Chapter 3). Firms active in at least 26 different countries even seem to be attracted to conflict countries. Investment promotion agencies could target their efforts to non-resource firms that are somewhat internationalized, but not yet to the extent that they can completely diversify the risk of conflict. Additional incentives or information could convince these firms to invest anyhow.
Although non-resource FDI could inject capital in a war-ridden economy and create much needed employment opportunities, the question remains whether these foreign investments will eventually benefit the citizens of the conflict-affected country. Although this question is not answered directly in this dissertation, the fact that MNEs invest during a conflict rather than just before or after it, could suggest that they benefit from the conflict. This might be because other firms are not willing to invest, which reduces competition and increases monopoly rents, or because MNEs profit from rebellion more directly. Yet, in both cases firms have an incentive to prolong conflict. Even if MNEs invest *despite* conflict, because they, for example, expect to obtain a first-mover advantage when fighting stops, it is doubtful whether this will benefit the conflict-affected country, as there is strong evidence that the effect of FDI on prosperity depends critically on a country’s absorptive capacity. Only if financial markets are sufficiently well developed, there is a basic level of human capital and the quality of institutions is high, will FDI inflows positively affect economic development. During political conflict these aforementioned factors tend to be lagging and hence it is unclear whether attracting MNEs to conflict-affected countries enhances prosperity. By sharing data on investment, employment and tax collection with researchers, governments can assist research on this topic. Table 5.1 summarizes the recommendations for government agencies.

Table 5.1 Implications and recommendations for government agencies.

<table>
<thead>
<tr>
<th>Recommendations for government agencies</th>
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<tr>
<td><strong>Prosperity &amp; political conflict</strong></td>
<td><strong>Political conflict &amp; FDI</strong></td>
</tr>
<tr>
<td>- Strengthen the efforts to collect more data on objective and perceived prosperity.</td>
<td>- Be aware that although on average conflict does not affect oil and gas FDI, growth in renewable energy production, is likely to increase the sensitivity of oil and gas MNEs to conflict.</td>
</tr>
<tr>
<td>- Pay more attention to societies that are suffering in terms of subjective wellbeing – also when objective measures indicate prosperity improvements.</td>
<td>- Provided that conflict countries are looking to attract FDI, Investment Promotion Agencies (IPAs) could target non-resource firms that are somewhat internationalized, but not yet to the extent that they can completely diversify the risk of conflict.</td>
</tr>
<tr>
<td>- Evaluate policies not only in terms of objective economics outcomes, but also in terms of their effect on subjective wellbeing.</td>
<td>- Share data on investment, employment and tax collection with researchers to learn how FDI in conflict countries enhances prosperity.</td>
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5.2.1 Managerial implications

The findings of this thesis provide managers of MNEs with a more nuanced understanding of the risks associated with political conflict. We show that the continuity of the risk is an important factor influencing MNEs’ entry strategies, so that exceptionally discontinuous risks, such as the risk of a terrorist attack, are so unpredictable that they do not affect FDI decisions. Yet, MNEs tend to avoid countries that are afflicted by armed conflict, a type of political violence that poses a relatively continuous type of risk and can have a large negative impact on a firm’s profits. This suggests that political conflict tends to be detrimental to MNEs. This is not surprising, because conflicts decrease the profitability of subsidiaries due to supply chain disruption and the risk of capital destruction. The average MNE thus faces incentives to minimize the probability of conflict. Although MNEs are unlikely to have a major influence on the outbreak of conflicts, they can nevertheless engage in voluntary actions that might decrease human suffering and could accordingly decrease conflict. Examples of such actions are providing adequate schooling and supporting small business development through skill trainings and microfinance. They could also have a more direct effect on the intensity of conflict by refraining from selling to those who facilitate conflict or actively mediating between players (Oetzel & Getz, 2012).

Yet, the relationship between political conflict and FDI is heterogeneous. Several factors determine the sensitivity of FDI to political conflict, most notably:

1. sector characteristics, i.e. are there large economic rents or constraints on location choice?
2. the MNE’s geographic exposure to violence, i.e. is the conflict nationwide or localized?
3. the MNE’s ability to diversify risk, i.e. is the firm sufficiently internationalized?
4. the existence of home-host ties, i.e. do the home and host country share a historical connection?

As such, our results emphasize that the assumption that political violence necessarily depresses earnings and puts off investors is too simplistic. Our finding that political conflict positively affects greenfield FDI by the most diversified firms, suggests that entry into conflict countries might even increase earnings if MNEs are able to absorb discontinuous risk. As such, taking into account sector and firm attributes, MNEs might want to consider entry into conflict countries, despite the large level of risk posed, with the intention of obtaining a competitive advantage. The key for managers is to recognize the risk conflict poses to their operations and understand how this risk can be diversified. In this regard, size does matter. Or to quote Africa’s richest man, Aliko Dangote, “if you are not a big player, you have no way of survival” (Lacqua, 2017, p. 58).

The findings in this thesis also imply that wars can reduce the importance of colonial ties for current investment decisions. These ties are still conducive to business dealings
between a previous colony and colonizer, but wars can reduce the advantage that MNEs from previous colonizers have. Wars increase the probability of a regime change which in turn erodes ties by causing legitimacy problems, increasing institutional distance and reducing the value of relational resources. This creates two separate sets of incentives for connected and unconnected MNEs. Connected MNEs are likely to benefit from the strengthening of a host government’s state capacity and particularly from an increase in military power. A strong state could deter rebellion, whilst also decreasing the probability that insurgents win a conflict. MNEs could enhance host countries’ state capacity by providing intelligence and financial resources, which can be employed to enhance military capacity. In addition, connected MNEs can lobby their home country governments, which often remain involved with the politics of their colonies, into providing military support to the host country’s government, as to deter insurgents. Examples of military support to previous colonies include France’s involvement in the conflict in Mali and the British participation in the peace keeping mission in South Sudan.

Table 5.1 Implications for managers of MNEs.

<table>
<thead>
<tr>
<th>Implications for managers of MNEs</th>
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<tr>
<td>- The average MNE thus faces incentives to minimize the probability of conflict and could engage in voluntary actions that might decrease human suffering and could accordingly decrease conflict.</td>
</tr>
<tr>
<td>- The assumption that political violence necessarily depresses earnings is too simplistic, there are profit opportunities in conflict countries.</td>
</tr>
<tr>
<td>- To formulate location choice strategies it is essential to understand the risk conflict poses to a firm’s operations and how this risk can be diversified. This depends on sector characteristics, the MNE’s geographic exposure to violence, the MNE’s the ability to diversify risk, and the existence of the existence of home-host ties.</td>
</tr>
<tr>
<td>- Connected MNEs are likely to benefit from the strengthening of a host government’s state capacity and particularly an increase in military power.</td>
</tr>
<tr>
<td>- Unconnected MNEs might benefit from a regime change, which opens up opportunities for to create partnerships with the new political leaders.</td>
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In contrast, unconnected MNEs might in the long run benefit from a regime change, because this could reduce the advantage of firms originating from a previous colonizer and opens up opportunities for non-connected firms to create partnerships with the new political leaders. This is particularly the case when new leaders are actively seeking out new alliance partners to distinguish themselves from the previous rulers (Bucheli & Kim, 2012; Siverson & Starr, 1994). By entering a country that is likely to go through a change of regime in the near future and partnering up with the opposition party, MNEs can create a considerable political first-mover advantage. Likewise, MNEs that enter an economy immediately after a regime change might face a window-of-opportunity for the creation of connections to speed up the wheels of commerce. Table 5.2 summarizes the implications of this thesis for managers of MNEs.

5.3 LIMITATIONS & FUTURE RESEARCH

5.3.1 Limitations
Although this thesis provides several new insights into the causes and consequences of political conflict, there are some limitations to bear in mind. Most notable, the findings presented in this thesis have been obtained using secondary data sources. Data on political conflict, obtained from the CNTS, UCDP/PRIO or ACLED, is gathered using media sources and accordingly only conflict events that received attention in the media are included in the analyses. This is problematic, because media attention is not random. Coverage is probably better for countries where there is freedom of press and where the information infrastructure is better developed. Both my findings on the causes and the consequences of conflict might be affected by this. Regarding the causes of conflict, a decrease in press freedom might simultaneously reduce happiness and decrease the ability of the media to cover conflict events. Although we include country fixed effects and control for several country characteristics related to press freedom, the estimates of the effect of unhappiness on non-violent conflict are most likely lower bounds. Regarding the consequences of conflict, countries that enjoy more press freedom, might also be more likely to attract FDI and hence it is likely that FDI flows are actually more strongly reduced than our results suggest. Despite these biases, media-based measures of political conflict are currently the best available measure of political conflict, not in the least because managers rely on the same information from media sources to make strategic decisions.

Data on FDI flows is collected in a similar manner to conflict data. Data on greenfield FDI flows are collected through Financial Times newswires, internal information sources, other media sources, project data acquired from industry organizations and investment agencies and data purchased from market research and publication companies. Again it is unlikely that the coverage of FDI projects in the media is random. Firms that feel that their consumers might punish them for their engagement in conflict-afflicted economies, face
incentives to hide these projects from the media. Hence, the negative effect we find of armed conflict on FDI, could merely be the result of MNEs putting more effort into hiding their projects from the media. However, it is unlikely that this can explain our findings on the heterogenous nature of this relationship. At the end of Chapter 3 and 4 I further elaborate on how our moderation analyses could be affected by sample selection bias.

Although I aimed to use state-of-the-art techniques to address endogeneity, I cannot be certain that the relationships found are causal. To claim causality, a randomized control trial would be preferable. In such an experiment the treatment - in this case a war or a negative shock to happiness - should be randomized, and accordingly the difference in the outcome variable – i.e. non-violent uprisings or FDI – between the treatment and control group could be calculated. There are clearly several ethical and practical reasons why running a randomized control trial with wars or negative shocks to happiness is impossible. Therefore, I resort to second-best econometric techniques. In Chapter 2 we estimate a two-stage least-square regression, instrumenting subjective wellbeing with deaths due to infectious diseases, to verify whether the relationships can be interpreted as causal effects. Yet, it is impossible to know with certainty whether our instrument is valid and hence, we cannot rule out that our results are driven by endogeneity. In Chapter 3 and 4 addressing endogeneity is even more difficult, because finding an instrument for conflict is extremely tricky. In these chapters we focus on the mechanisms through which violence could affect FDI and we use these mechanisms to rule out alternative explanations. Here I am also more cautious in claiming causality and discuss in length how endogeneity concerns could have affected the findings in the discussion section of these chapters.

5.3.1 Future research suggestions
In the introduction of this dissertation, I emphasized that the relationship between FDI and prosperity has received considerable attention in the past, and is therefore not part of the research questions of this dissertation. These relationships are depicted with dashed arrows in Figure 5.1. However, the findings presented in this thesis raise several questions about the relationship between value creation by MNEs and prosperity. These questions are targeted to both economists as management scholars. For economists the main question is: ‘Whether MNEs can promote prosperity in conflict-afflicted countries?’. This question could be illustrated by drawing an additional arrow going from political conflict to the arrow from FDI to prosperity in Figure 5.1. To management scholars, my questions can be summarized as: ‘how can firms structure their operations in conflict zones?’. Below I discuss these research directions in depth.

Future research: economics
More research is needed to show whether FDI can benefit conflict and post-conflict economies. This is particularly important because, the international community has repeatedly sanctioned countries experiencing war, disrupting the activities of MNEs active
in these countries and often leading to disinvestments (Bais & Huijser, 2005). In addition, lobby groups mistrusting the operations in conflict countries called for consumer boycotts, reducing the attractiveness of the countries. However, as long as the effect of FDI on these countries is not systematically verified, there is only a weak rational for these boycotts and sanctions. If MNEs’ involvement in conflict countries has a beneficial effect on economic development and reduces political conflict, the way policymakers and the general public regard MNEs active in these countries should be reconsidered.

Previous studies found that in order for countries to benefit from FDI flows into their economy, they need to have an initial stock of ‘absorptive capacity’, i.e. the ability of local firms to benefit from the presence of a MNE (e.g. Borensztein et al., 1998; Görg & Greenaway, 2004). In the case of conflict countries, this absorptive capacity is most likely missing, because financial markets, human capital and institutional quality have depreciated as a result of conflict. Accordingly, it could be expected that there is little to gain from FDI for a conflict-afflicted economy. However, in most studies on FDI and absorptive capacity conflict countries are excluded from the sample due to data restrictions. It is reasonable to believe that the effect of FDI on conflict-afflicted economies is different from non-conflict countries at a similar level of development, because there is room for reconstruction of the country. Manufacturing and service FDI might help raise the level of human capital and infrastructure FDI could play an important role in the reconstruction of internet connectivity, public transport, ports and roads. This is especially valuable if the domestic private sector has diminished due to conflict and hence, the risk of crowding out domestic firms is limited. Research on the effect of FDI on (post-) conflict economies should take into account the heterogeneity across types of firms, characteristics of the host country and types of conflict.

This thesis cannot distinguish between firms that decide to invest in a country because of war and those that invest despite war. Firms that invest because of war face incentives to prolong conflict and their FDI might hence not be beneficial to the host country’s development, whereas firms that invest despite war might be inclined to take actions to restrict fighting. Of course, firms that willingly prolong conflict could be punished by courts ex post. However, actions that might prolong conflict are not always observable, and courts of fragile economies tend to be relatively weak. Hence, it might be preferably to design policies that disincentivize entry by firms that profit from conflict and incentivize entry by firms that profit from peace. In order to design such policies, more research on how to identify war-profiting and the peace-profiting firms is needed.

In addition, whereas previous work on the relationship between FDI and prosperity has extensively analyzed objective indicators of prosperity, the effect of FDI on perceived prosperity is largely unknown (Figure 5.1, arrow from FDI to prosperity). This is surprising, because the perceptions of citizens rather than the objective conditions
influence their actions, including domestic investment decisions, political actions and their willingness to engage in conflict. The assumption that if FDI increases objective prosperity, it will automatically increase subjective wellbeing, is too simplistic. The current anti-globalization sentiments are indicative of this. While the objective benefits of globalization were taken for granted, many citizens nevertheless felt aggrieved which might have contributed to the Brexit vote and Trump’s election. Hence, we need an improved understanding of how FDI affects perceived prosperity and how the institutional and cultural context and the type of FDI moderate this relationship.

Similar to the relationship between objective wellbeing and FDI, the relationship between FDI and subjective wellbeing could also go the other way (see bottom arrows, Figure 5.1). MNEs might want to consider the level of subjective wellbeing when taking investment decisions, as subjective data captures country characteristics that remain under the radar using objective data. A happy workforce tends to be more productive (Oswald, Proto & Sgroi, 2015) and expatriates might be more willing to live in countries where perceived quality of life is relatively high (Schotter & Beamish, 2013). Future research could shed light on whether subjective data can explain variation in location choice decisions above what is captured by the traditional objective indicators. Similar to studies on the effect of economic growth on FDI, such studies have to be innovative in terms of identification strategies (e.g. instrument variable analyses and natural experiments) to limit reversed causality concerns, whilst also clarifying the mechanisms through which the effect of subjective wellbeing on FDI operates.

Future research: International Business

Whereas this dissertation focusses on entry decisions into conflict countries, future research in the field of IB could focus on the strategies of firms that own a subsidiary in a conflict zone. What strategic decision could firms would limit MNEs’ exposure to (armed) conflict? How can firms design their operations to improve resilience to conflict? How can firms limit consumer boycotts in response to engagement in conflict zones? What is the role of tax havens in keeping investments in conflict countries secret? When is it wise to abandon a subsidiary when a conflict occurs? And if an MNE decides to exit a conflict zone, how could the subsidiary be best dismantled to avoid rebels taking advantage of the abandoned firm? These are all examples of possible future research questions. Because many of these topics are sensitive, innovative research methods are needed to answer these questions. Case studies, possibly combined with a quantitative analysis, and experimental research are valuable methodologies in this context, because they can shed light on mechanisms and address endogeneity.

Future research could also focus on how MNEs in fragile economies can support the prevention of political conflict. Although MNEs might have limited direct influence on the onset of war, they could reduce the extent of human suffering, which could in turn reduce
the probability of political conflict. MNEs could work together with local authorities and NGOs to limit human suffering. When such activities are chosen wisely, they can simultaneously benefit the firm and reduce human suffering – a concept known as Creating-Shared Value (Kramer & Porter, 2011). For example, Mars created a program in Kenya in which the company provided their deliverers with discounted microfinancing so that they could buy a bike. This reduced uncertainties in the Mars supply chain, while also improving the earnings of these deliverers. This exemplifies how MNEs can reduce human suffering, without it negatively affecting their bottom line. Other ways in which MNEs can reduce the probability of intensity of conflict include refraining from selling to those that facilitate conflict or providing emergency relieve in the region. More research is needed on how these types of strategies can be best applied and to what extent they are efficient in reducing conflict risk.

Assuming that the average MNE profits from peace, there is considerable room within IB research to study how firms can reduce human suffering as to limit conflict. Accordingly, there is considerable overlap with development economics, which also aims to promote human prosperity. In addressing research questions related to how MNEs could promote prosperity, interdisciplinary research is invaluable. Whilst economists are knowledgeable on how development programs can be best designed, management scholars know how to maximize benefits for the firm. Also in terms of methodology, spillover effects between the two fields are realizable, especially because experimental research is very appropriate for these types of research questions. In the next section, I outline some of the opportunities and challenges for partnerships between economics and management.

5.4 EPILOGUE

Although this dissertation enhances theory on country risk in several ways, its main goal has not been to develop theory, but to improve our understanding of a phenomenon. This in stark contrast with the current approach in management research, where theory-building is generally believed to be paramount in order to ensure a valuable contribution to the field. The IB field has largely de-emphasized the relevance of phenomenon-based research and has instead stressed theory-building as a prerequisite for publishing in top journals, although the Journal of World Business forms a noteworthy exception to this (Doh, 2015). Accordingly, every article published in the top management journals at least claims to make a unique far-reaching theoretical advancement. Watts (2017) describes the consequences of such a theory-building approach as follows: ‘theories pile up in an often incoherent heap, much like the multitude of rooms and stairwells piling up in Sarah Winchester’s house’ (p.2). Because it is difficult – if not impossible – to conclusively test these theories in the real world, their popularity is to a large extent depended on other reasons than their ability to account of empirical relationships.
In economics there is less emphasis on theory-building, not in the least because economists tend to prefer the term ‘model’ over ‘theory’. To quote Dani Rodrik (2015, p.113): “The term ‘theory’ has a ring of ambition”. He argues that theories are presumed to have universal and general validity. Even though the toolbox of an economists holds several so-called theories (e.g. game theory, real options theory, growth theory), in reality they are all models which might hold in one setting, but not in another. Models differ from theories, because they provide at best partial explanations of causal mechanism and interactions. Similar to the role of theories in management research, the importance of models is well recognized in economics: “[Models] make economics a science – not a science like quantum physics or molecular biology, but a science nonetheless” (Rodrik, 2015, p. 5). These models tend to be merely used to clarify hypotheses and explicate assumptions and are seen as tools, not end goals per se. Economics journals also acknowledge the relevance of papers whose main goal is not the advancement of theory per se, but merely finding facts. For example, development economists are nowadays specialized in running small-scale field experiments to solve an issue on the ground, whether it is to reduce birth rates, boosting school participation or increasing savings rates (Ashraf, Field & Lee, 2014; Dupas & Robinson, 2013; Miguel & Kremer, 2004).

Recently there have been attempts to remind (management) scholars that theories are not ends in themselves (e.g. Doh, 2015; Hambrick, 2007). Their main aim is to help us make sense of the world around us by increasing our understanding of phenomena. Theories or models help us organize our thoughts, think of mechanisms and make predictions (Hambrick, 2007). As such, theory-building research is strongly related to phenomenon-based studies. Phenomenon-based research aims to outline and contextualize phenomena, whereas theory-building research focusses explicitly on how and why phenomena occur (Doh, 2015; Gioia & Pitre, 1990). This means that actually in both types of research phenomena are central.

Watts (2017) promotes the idea of solution-oriented research by putting more emphasis on finding answers to practical questions that are salient within the business community or civil society. In contrast to theory-building or phenomenon-based research, which both focus on phenomena, solution-oriented science is motivated by a question or a problem. Examples would be ‘How can we prepare for national disasters?’ or ‘How can I deal with corruption when entering a new market?’ Of course, many studies already address questions that are directly relevant for managers or society. Nevertheless, there are many societal challenges which require scholarly attention and scholars are facing ever increasingly pressured by those outside academy too not only publish but too also have a relevant and impactful research agenda. Buckley, Doh and Benischke (2017) call for more research on so-called ‘grand challenges’, critical global problems that can capture the public’s imagination. Examples of these challenges are poverty, global warming, infectious diseases and of course violent conflict. When working on these challenges, the
development of theoretical approaches will remain extremely important, just not merely for the sake of the theory. Paradoxically, the excessive emphasis on theory-building in management research might have had the unintended effect of preventing the development of theory on new phenomena and challenges (Hambrick, 2007). In addition, a solution-oriented approach can enhance (social) scientists’ legitimacy by increasing visibility and usefulness to outsiders. Hopefully this reduces the skepticism against scientists that seems to be growing within society (Gawande, 2016).

Grand challenges do not adhere to disciplinary boundaries. This is exemplified the topic of this dissertation; political conflict is a topic of study in almost all social sciences, most notably economics and business. Hence, to generate a more comprehensive understanding of these grand challenges, an interdisciplinary approach is essential. Although the importance of interdisciplinary research in general - and for solution-oriented research in particular - has been widely recognized (Buckley et al., 2017; Cheng, Henisz, Roth & Swaminathan, 2009; Dunning, 1989; Watts, 2017), truly interdisciplinary work is rare. In order for a study to qualify as interdisciplinary, the approaches from two different disciplines need to be integrated. Introducing an existing framework into a new discipline does not make a paper interdisciplinary – neither would it contribute to a more comprehensive understanding of a phenomenon. To achieve interdisciplinarity there are two options. A scholar might know the language of both disciplines and be well informed of the developments in both fields, making it possible to integrate state-of-the-art concepts from these fields. In the introduction of this dissertation I explained that being an expert in more than one field is strenuous and the academic incentive system is not designed to make the efforts worthwhile. The other option is to work in a team with researchers from different disciplines. However, to communicate effectively these teams will still require scholars who speak the language of at least two disciplines, although in this case they do not have to be experts in more than one field. In my future career I aspire to become such a bridge-builder and facilitate truly interdisciplinary, solution-oriented research on ‘grand challenges’.
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Summary
This dissertation evaluates the causes of political conflict and its consequences for foreign direct investment (FDI). The studies that are part of this thesis aim to better understand the relationships between political conflict, foreign investment and, ultimately, human prosperity. The aforementioned concepts are interdisciplinary in nature and the different chapters included in this thesis reflect this. By combining conceptual frameworks and methodologies from economics and business research, they shed light on the increasing levels of political conflict and the reaction of multinational enterprises (MNEs) to this development. The papers in this dissertation are inspired by the movement within business research to address ‘Grand Challenges’, critical global problems that can capture the public’s imagination. This reflected not only in the interdisciplinary approach, but also in the phenomena-driven perspective (Buckley, Doh & Benischke, 2017).

In Chapter 2 the causes of political conflict are examined. Here the focus lies on civil resistance, the non-violent counterpart of armed conflict. I estimate regression models (OLS, GMM & 2SLS) on a database combining data on non-violent uprisings and subjective wellbeing, covering 118 countries over the period 2007 to 2014. The findings demonstrate that a decrease in subjective wellbeing (i.e. happiness) can motivate citizens to participate in acts of civil resistance. This effect of overall wellbeing on non-violent uprisings is to a large extent the result of changes to satisfaction with living standards and the perceived capability to have a purposeful and meaningful life. Hence, in contrast to previous literature, I find that there are systematic causes of non-violent uprisings, although these causes might be difficult to capture using traditional socioeconomic indicators. There is however no evidence for a direct relationship between unhappiness and armed conflict.

In Chapter 3 and 4 I analyze the consequences of political conflict for Foreign Direct Investment (FDI). In these chapters the focus is on armed conflict. In Chapter 3 I compare the effect of armed conflict to other types of political violence, i.e. terrorism, assassinations and political terror, and estimate a dynamic fixed effects model for a panel of 90 developing countries. The findings demonstrate that only armed political conflict deters FDI, whereas other types of political violence do not affect MNEs’ investment decisions. I also find that the sensitivity of investment by MNEs to political conflict is reduced by (1) the extent to which conflict is localized, (2) whether there are constraints on location choice due to requirements on inputs, (3) the size of economic rents and (4) the extent to which the firm is sufficiently internationalized to diversify the risk posed by conflict. Ultimately, only investment by relatively non-diversified MNEs in the non-resource sector is affected by nationwide armed conflict. This falsifies the claim that all FDI flows are negatively affected by political violence.
Chapter 4 looks at the effect of armed conflict on MNEs’ location choice strategies, shedding light on how armed conflict moderates the effect of home-host ties on location choice strategies. Whereas the ways in which international wars can disrupt international (business) relationships are relatively well understood, little is known about how internal conflict – currently the dominant form of armed conflict – affects these relationships. This paper analyzes how armed conflict and political instability moderates the effect of historical ties, specifically ties resulting from colonial history, on FDI. I find that similar to international conflict, internal wars can disturb existing relationships between the MNEs’ home and host country and accordingly moderate the effect of ties on FDI. However, smaller conflicts have no effect on the relevance of ties for location choice decisions. These results do not support the idea that connected firms can benefit more from the confusion caused by political conflict. In contrast, they seem to have more to lose than those without historical ties to the host country and accordingly face incentives to avoid the outbreak of wars.
Nederlandse Samenvatting

Dit proefschrift onderzoekt de oorzaken van politieke conflicten wereldwijd en de consequenties van deze conflicten voor buitenlandse directe investeringen, ook wel bekend als FDI. De studies die deel uitmaken van dit proefschrift hebben tot doel de relaties tussen politieke conflict, investeringen en menselijke welvaart beter te begrijpen. Deze drie begrippen zijn interdisciplinair van aard en de verschillende hoofdstukken in dit proefschrift reflecteren dit. Door conceptuele kaders en methodologieën uit de economie en bedrijfskunde te combineren, belicht en verklaart dit onderzoek de toenemende mate van politiek conflict en de reactie van multinationale bedrijven hierop. Het onderzoek in dit proefschrift is geïnspireerd op de beweging binnen bedrijfskunde om 'Grand Challenges', grootse kritieke problemen die tot de verbeelding van het publiek spreken, aan te pakken. Dit is niet alleen weerspiegeld in de interdisciplinaire aanpak in dit proefschrift, maar ook in het fenomeen-gedreven perspectief (Buckley, Doh & Benischke, 2017).

In hoofdstuk 2 worden de oorzaken van politieke conflict onderzocht. Hier ligt de nadruk op burgerlijk verzet, de geweldloze tegenhanger van gewapend conflict. Ik schat mijn regressiemodellen (OLS, 2SLS en GMM) op een database die gegevens over burgerlijk verzet combineert met indicatoren van subjectief welzijn in 118 landen in de periode 2007 tot 2014. Uit de bevindingen blijkt dat een afname in subjectief welzijn (oftewel geluk) burgers kan motiveren om deel te nemen aan burgerlijke verzet. Het effect van een vermindering van geluk op burgerlijk verzet is grotendeels het gevolg van veranderingen in tevredenheid met de levensstandaard en de waargenomen mogelijkheden om een doelbewust en zinvol leven te leiden. In tegenstelling tot eerdere literatuur, vind ik dus bewijs dat er systematische oorzaken zijn van burgerlijk verzet, hoewel deze oorzaken moeilijk gedetecteerd kunnen worden aan de hand van traditionele sociaaleconomische indicatoren. Er is echter geen bewijs voor een directe relatie tussen ongeluk en gewapend conflict.

In de hoofdstukken 3 en 4 analyseer ik de gevolgen van politiek conflict voor FDI. In deze hoofdstukken ligt de nadruk op gewapend conflict. In hoofdstuk 3 vergelijk ik het effect van gewapend conflict met dat van andere vormen van politiek geweld, d.w.z. terrorisme, politieke moorden en politieke terreur en schat een dynamisch model voor een panel van 90 ontwikkelingslanden. Hieruit blijkt dat alleen gewapende conflicten investeringen afschrikken. Andere vormen van politiek geweld (bijvoorbe

eld gelokaliseerd conflict, terrorisme en politieke terreur) hebben geen invloed op FDI-stromen. Daarnaast blijkt dat de gevoeligheid van multinationale bedrijven voor politieke conflict beperkt wordt door: (1) de mate waarin conflicten gelokaliseerd zijn, (2) beperkingen aan locatiekeuzesbeslissingen door vereisten aan grondstoffen, (3) de omvang

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van de surpluswinst, en (4) de mate waarin de onderneming voldoende geïnternationaliseerd is om conflictrisico’s te diversifiëren. Uiteindelijk worden alleen investeringen door relatief minder geïnternationaliseerde multinationals die actief zijn in de maak- en service-industrie negatief beïnvloed door (landelijk) gewapend conflict. Dit falsificeert de bewering dat alle FDI afneemt in tijden van politiek geweld.

Hoofdstuk 4 kijkt naar het effect van gewapend conflict op de locatiekeuzestrategieën van multinationals, waarbij wordt aangetoond hoe conflict het effect van verbanden tussen het huis- en gastland op locatie-keuzestrategieën modereert. Terwijl bekend is hoe internationale oorlogen de commerciële relaties tussen landen kunnen verstoren, kijkt dit papier naar het effect van binnenlandse conflicten - momenteel de dominante vorm van gewapend conflict – op deze relaties. De focus ligt op historische verbanden, in het bijzonder, banden die voortvloeien uit de koloniale geschiedenis. De bevindingen laten zien dat, vergelijkbaar met internationaal conflict, binnenlandse oorlogen de bestaande relaties tussen het thuis- en gastland van de MNE verstoren, opdat ze het effect van verbanden op FDI modereren. Kleinere conflicten hebben echter geen invloed op de relevantie van deze banden voor FDI. Deze resultaten tonen aan dat het niet klopt dat bedrijven uit landen met banden met het gastland meer kunnen profiteren van de verwarring veroorzaakt door politieke conflicten. Ze lijken daarentegen meer te verliezen te hebben dan multinationals zonder historische banden met het gastland en daardoor redenen te hebben om binnenlandse conflicten en regimeveranderingen te voorkomen.
About the Author

Caroline Theresia Witte was born on the 21st of October 1990 in Zoeterwoude, The Netherlands. She obtained her Bachelor of Arts (BA) degree cum laude in Liberal Arts and Sciences at University College Maastricht (Maastricht University), The Netherlands in 2012. Subsequently, she did a master’s degree (MSc) in Economics and Business at the Erasmus School of Economics (Erasmus University Rotterdam). She wrote a master thesis on the determinants of social entrepreneurship and graduated cum laude in 2013. In September 2013, she started her PhD journey at the department of Applied Economics at the Erasmus School of Economics, under the supervision of Professor Enrico Pennings, Professor Harry Commandeur and Doctor Martijn Burger.

Caroline’s fields of interests include international business, development economics and applied econometrics. She is mainly interested in the strategies of multinational enterprises in fragile economies. She presented her work at several prestigious conferences in the fields of economics and business, such as the Conference of the Center of African Economies in Oxford and the Annual meetings of the Association of International Business (AIB) in Bengalore, New Orleans and Dubai, and won the AIB best dissertation proposal award in 2016. During her PhD she chaired the PhD council of the Erasmus Institute of Management and was a board member of the Young ESE Program. During her PhD, Caroline also had the opportunity to work as an external consultant for the World Bank and to go on a three-month research visit at the University of Oxford. She is continuing her career as an assistant professor of international business at the department of Strategic Management and Globalization at the Copenhagen Business School, Denmark.
Portfolio of Caroline Witte


**EDUCATION**

Erasmus Research Institute for Management (ERIM)
Course work included: Research Methods, Statistics, Mathematics, Microeconometrics and Basic Didactics.

2012 – 2013  **Master Entrepreneurship and Strategy Economics**
Erasmus School of Economics, Rotterdam. Cum laude (8.4/10)

2009 – 2012  **University College Maastricht**, Maastricht University
Economics and Development Studies, Cum Laude (8.3/10)

2011  **Australian National University**, Canberra Australia.
Exchange Program, College of Business and Economics and Department of Psychology.

**PUBLICATIONS**


**ARTICLES UNDER-REVIEW**


**WORKING PAPERS**


GRANTS & AWARDS
- Doctoral travel stipend, AIB Annual meeting, New Orleans, 2016
- Nominee ‘That’s Interesting Award’, AIB annual meeting, Bengaluru, 2015.
- Scholarship, Olympia Summer Academy, European International Studies Association, 2014.

PODIUM PRESENTATIONS
- Canadian Economic Association Conference (2017), Antigonish, Canada.
- China Goes Global Conference (2016), Macerata, Italy.
- AIB Annual Meeting 2015, Bengalore, India: Competitive session.
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Dissertations in the last five years


Szatmari, B., *We are (all) the champions: The effect of status in the implementation of innovations*, Promotors: Prof J.C.M & Dr D. Deichmann, EPS-2016-401-LIS, http://repub.eur.nl/pub/94633


Over the last few years, the world has been shocked by a new wave of political conflict, including the events of the Arab Spring and the conflict in Ukraine. This dissertation evaluates the causes of political conflict and its consequences for investments by multinational enterprises (MNEs). The studies that are part of this thesis aim to improve our understanding of the relationships between political conflict, investment and ultimately human prosperity. These three concepts are interdisciplinary in nature and the different chapters included in this thesis reflect this. By combining conceptual frameworks and methodologies from economics and business research, they shed light on the increasing levels of political conflict and the reaction of firms to this development.

In the first part of this thesis, the causes of non-violent political conflict are examined. The findings demonstrate that a decrease in subjective wellbeing (i.e. happiness) can motivate citizens to engage in acts of civil resistance. In the second part, the consequences of armed political conflict for Foreign Direct Investment (FDI) are examined. The effect of political violence on greenfield FDI is heterogeneous across types of violence, sectors and firms, falsifying the claim that all FDI flows are negatively affected by political violence. In addition, the results indicate that similar to international conflict, internal wars can disturb existing relationships between the MNE’s home and host country.

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