

Nebenführ, Miriam

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on International Investments

Miriam Nebenführ

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**The Impact of Host Country Institutional Factors
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Miriam Nebenführ

Abstract

Scholars have long examined the influence of host country institutional factors on foreign direct investment (FDI) location decisions by multinational enterprises (MNEs). This study empirically examines the relationship between two institutional factors, democracy and political stability, and FDI using a large panel dataset of secondary data covering the years 2003 to 2021. In addition to multiple regression analysis, this study also employs the new necessary condition analysis (NCA). Relying on Dunning's OLI model and institutional theory, the main finding is that democracy has a significantly positive effect on FDI, while political stability has a significantly negative effect. Moreover, both factors are necessary conditions for FDI: Countries do not receive FDI if certain levels of those factors are not reached. The results contribute to the understanding of how certain institutional factors influence FDI location decisions and provide insights into necessary conditions in international business research.

JEL Codes: C35, C46, D02, F21, F23, O16

Keywords: Democracy, Institutional Theory, International Investments, Necessary Condition Analysis, Political Stability

Der Einfluss Institutioneller Faktoren im Gastland auf Internationale Investitionen

Zusammenfassung

Wissenschaftler untersuchen seit langem den Einfluss institutioneller Faktoren des Gastlandes auf Standortentscheidungen multinationaler Unternehmen für ausländische Direktinvestitionen (FDI). In dieser Studie wird die Beziehung zwischen zwei institutionellen Faktoren, Demokratie und politische Stabilität, und ausländischen Direktinvestitionen anhand eines großen Panel-datensatzes von Sekundärdaten aus den Jahren 2003 bis 2021 empirisch untersucht. Neben der multiplen Regressionsanalyse wird in dieser Studie auch die neue *Necessary Condition Analysis* (NCA) angewandt. Auf der Grundlage des OLI-Modells von Dunning und der Institutionentheorie ist das Hauptergebnis, dass Demokratie einen signifikant positiven Effekt auf ausländische Direktinvestitionen hat, während politische Stabilität einen signifikant negativen Effekt hat. Außerdem sind beide Faktoren notwendige Bedingungen für ausländische Direktinvestitionen: Länder erhalten keine ausländischen Direktinvestitionen, wenn ein bestimmtes Niveau dieser Faktoren nicht erreicht wird. Die Ergebnisse tragen zum Verständnis bei, wie bestimmte institutionelle Faktoren Entscheidungen über die Ansiedlung ausländischer Direktinvestitionen beeinflussen, und bieten Einblicke in notwendige Bedingungen in der internationalen Wirtschaftsforschung.

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Universität Münster
Institut für Organisationsökonomik
Scharnhorststraße 100
D-48151 Münster

Tel: +49-251/83-24303 (Sekretariat)
E-Mail: io@uni-muenster.de
Internet: www.wiwi.uni-muenster.de/io

The Impact of Host Country Institutional Factors on International Investments

1. Introduction

Despite some concerns that globalization is declining and “greater risk aversion, nationalism, and protectionism” (Contractor, 2022, p. 156) are on the rise, multinational enterprises (MNEs), with their foreign direct investments (FDI), have been (cf. Fuentelsaz *et al.*, 2020, p. 1; cf. Villaverde/Maza, 2015, p. 209), and will remain important players in international business (cf. Jensen, 2003, p. 587; cf. Nielsen *et al.*, 2017, p. 63) and have received a lot of attention (cf. Paul/Feliciano-Cestero, 2021, p. 800). MNEs are companies that “own and control value-added activities in more than one national market” (Kim/Aguilera, 2016, p. 133) whose “Foreign Direct Investment [...] is considered a bundle of resources, both tangible and intangible, that are transferred across borders and spillover to the domestic economy generating growth” (Ketteni/Kottaridi, 2019, p. 415). FDI can take different forms, such as mergers, joint ventures or greenfield investments (cf. Erel *et al.*, 2012, p. 1051) and usually implies a long-term commitment of a company (cf. Pajunen, 2008, p. 653). Once a company has placed an FDI, it is genuinely difficult and costly to step back from this decision in the future (cf. Jensen, 2003, p. 592).

Hence, a thorough assessment of potential host countries and the following location decision are some of the most important tasks for an MNE’s top management team (cf. Xu *et al.*, 2021, p. 3; cf. DeGhetto *et al.*, 2020, p. 1). The location decision is determined by several factors that affect the investment’s profitability and the ease of setting up a subsidiary: While the influence of economic factors in the designated host country, such as gross-domestic product (GDP), the size of the market or labor-related costs, has been extensively investigated (cf. Bailey, 2018, p. 139; cf. Ramírez-Alesón/Fleta-Asín, 2016, p. 29; cf. Contractor *et al.*, 2020, p. 1), the influence of host country institutional factors, for example democracy or corruption (cf. Bailey, 2018, p. 140), has received less academic attention (cf. Buckley *et al.*, 2016, p. 430; cf. Paul/Feliciano-Cestero, 2021, p. 808; cf. Busse/Hefeker, 2007, p. 399). The fact that most of these already scarce studies only examine specific subsets of countries, such as emerging economies (cf. Contractor *et al.*, 2020, p. 2), might explain the inconsistent results that are reported in the literature (cf. Bailey, 2018, p. 139; cf. Paul/Feliciano-Cestero, 2021, p. 808; cf. Pajunen, 2008, p. 653; cf. Xu *et al.*, 2021, p. 1).

In general, however, it is well acknowledged that host country institutional factors decisively influence MNEs’ FDI location decisions (cf. van Hoorn/Maseland, 2016, p. 374; cf. Ramírez-

Alesón/Fleta-Asín, 2016, p. 29; cf. Xu *et al.*, 2021, p. 2; cf. Dunning, 2009, p. 25; cf. Faeth, 2009, p. 183), as they significantly affect an investment's attractiveness and long-term profitability (cf. Ketteni/Kottaridi, 2019, p. 424). At the same time, the interplay between institutions and MNE strategies has recently become even more complex and ambiguous due to the evolution of MNEs from developing and emerging countries and the increased attention that these countries receive as FDI destinations (cf. Xu *et al.*, 2021, p. 2). The different characteristics of institutions and the economic potential in developing countries, as opposed to developed ones, currently complicate an MNE's assessment of the investment location (cf. Kim/Aguilera, 2016, p. 136).

Because of this recent development and the inconclusive results of previous research, exploring the influence of institutional factors on FDI location decisions is highly relevant. This is especially the case since this influence is presumed to be so essential that it affects an MNE's location choice more than any other factor (cf. Contractor *et al.*, 2020, p. 2). The call for more research on the relationship between institutional factors and FDI (cf. Holmes *et al.*, 2013, p. 556) motivates the first research question.

Research Question 1: *To what extent do host country institutional factors influence MNEs' foreign direct investment location decisions?*

Moreover, the relevance of institutions might be even more decisive. Globerman & Shapiro (2003, p. 36), for instance, argue that "countries that fail to achieve a minimum threshold of effective governance are unlikely to receive any US FDI". This statement reflects a necessary condition which, until recently, could not be properly examined with empirical methods. Therefore, the second research question targets this specific argumentation.

Research Question 2: *To what extent are host country institutional factors necessary but not sufficient conditions for MNEs' foreign direct investment location decisions?*

This thesis contributes to closing the previously mentioned research gap by examining the influence of two decisive institutional factors, democracy and political stability, on FDI location decisions by MNEs. This influence is empirically investigated with an extensive panel dataset of United States (US) companies that operate subsidiaries in countries all over the world. Two different yet complementing research methods are applied: the first research question is analyzed with a multiple regression analysis, whereas the second research question is examined with the recently developed necessary condition analysis (NCA). In brief, NCA enables the examination of whether one or several determining factors are necessary for an outcome to

emerge (cf. Dul, 2016, p. 11).¹ In necessity logic, the outcome, which in this study is FDI, cannot occur if the necessary conditions are not present (cf. Dul, 2016, p. 11). If necessary conditions for a relationship are confirmed, the required numerical level of the determinant for a specific level of the outcome can be identified subsequently (cf. Vis/Dul, 2018, p. 879).

By conducting an NCA, this thesis follows a recent explicit call to integrate this method into international business research (cf. Aguinis *et al.*, 2020, p. 1602). The relevance of performing NCA to identify necessary conditions in international business is also reflected in previous studies, in which such necessary conditions were hypothesized (cf. Mudambi/Navarra, 2002, p. 639), but could not be analyzed with the existing methods.

The combination of regression analysis and NCA can lead to complementing results and interesting new insights and is explicitly recommended (cf. Dul, 2016, p. 15; cf. Aguinis *et al.*, 2020, p. 1602; cf. Richter/Hauff, 2022, p. 9), especially when taking the claim into account that international business research often cannot draw sufficient evidence about causal relationships between variables with traditional regression analysis only (cf. Aguinis *et al.*, 2020, p. 1596).

Consequently, this study's results are twofold: While the regression analysis examines whether, and in which direction, the levels of democracy and political stability in a host country generally influence FDI (Research Question 1), the NCA assesses whether the institutional factors are necessary conditions, that is, if a country only obtains FDI if both factors are present. Additionally, it is determined which levels of the factors are necessary for a specific outcome level (Research Question 2).

Although research featuring NCA is generally scarce, Richter & Hauff (cf. 2022) applied this method to identify necessary causes in the relationship between several institutional factors, among them political stability, and FDI. The current study, however, deviates from their research in the following ways: first, it follows the recommendation to perform a regression analysis before the necessary condition analysis to receive additional insights into the relationship. Moreover, different data sources and variable operationalizations are used that enabled the extension of the investigated time frame by several years, leading to more robust results. Finally, the second institutional factor analyzed here is democracy, which was not considered in the previous study.

¹ The NCA approach will be explained in detail in Chapter 4.

This study's results suggest that both examined institutional factors have a significant influence on MNEs' FDI. The influence of democracy is, as hypothesized, positive, whereas the influence of political stability is contrary to the suggested direction and negative. The subsequent NCA confirms that both factors are necessary conditions for FDI that must be present at certain levels in a host country. This study thereby contributes to a more nuanced understanding of the relationships between institutional factors and FDI and demonstrates the value of combining regression and necessary condition analysis through its novel insights. The results are of high relevance for MNE managers and politicians in host countries.

The remainder of this thesis is structured as follows: Chapter 2 introduces the theoretical background and defines the institutional environment. In Chapter 3, the hypotheses are developed accordingly. Chapter 4 features the description of the dataset compilation as well as the methodological approach to multiple regression and necessary condition analysis. The results are displayed in Chapter 5 and discussed in Chapter 6, where theoretical and practical implications are derived and limitations and future research opportunities are presented. The thesis closes with the conclusion in Chapter 7.

2. Theoretical Background and Definitions

The most important factors for internationalization are aggregated in Dunning's Ownership, Location, and Internalization (OLI) model (cf. Beamish/Chakravarty, 2021, p. 1863) which will be explained in the following. Subsequently, the often-applied institutional theory is presented.

2.1. OLI Model

Dunning's OLI model is one of the most frequently used models in international business research (cf. Paul/Feliciano-Cestero, 2021, p. 801) and offers a theoretical reasoning for why companies, specifically MNEs (cf. Beamish/Chakravarty, 2021, p. 1863), choose to invest abroad (cf. Pajunen, 2008, p. 653) despite associated increased risks and additional expenses (cf. Li/Resnick, 2003, p. 178). It also justifies an MNE's preference to conduct FDI instead of less-risky internationalization forms that do not include ownership (cf. Li/Resnick, 2003, p. 178).

The model combines the elements ownership, location, and internalization. Each of these elements describes a specific set of advantages that must be present for a company to decide for FDI (cf. Pajunen, 2008, p. 653). They also determine where and in which form the investment is made (cf. Aguilera-Caracuel *et al.*, 2013, p. 2658). The *ownership (O)* and *internalization (I)*

advantages are company-specific, whereas the *location (L) advantages* are country-specific (cf. Villaverde/Maza, 2015, p. 210).

The *ownership advantages* refer to specific assets and resources that an MNE can uniquely access and transfer to another country (cf. Jensen, 2003, p. 591). Those assets can be tangible, such as innovative products or the acquisition of natural resources, or intangible, like brands, property rights and patents (cf. Jensen, 2003, p. 591; cf. Rasciute/Downward, 2017, p. 606; cf. Dunning, 1995, p. 475). These competitive advantages allow a company to serve a market better and more efficiently than its (domestic) competitors (cf. Beamish/Chakravarty, 2021, p. 1862). *Location advantages* describe factors that make a host country a favorable business environment for an MNE's FDI and can be categorized into "economic, political, and sociocultural advantages" (Villaverde/Maza, 2015, p. 210). These factors determine whether an MNE can successfully leverage its *ownership advantages* in the foreign location (cf. Beamish/Chakravarty, 2021, p. 1862). The highly differing motivations of MNEs to internationalize result in contrasting considerations of which host country provides the best environment for FDI; one company can consider a host country as beneficial while another deems it unfavorable (cf. Rasciute/Downward, 2017, p. 606). Exemplary *L-advantages* are the abundance of resources, low labor costs, trade regulations, subsidies and other favorable investment conditions, and institutions (cf. Li/Resnick, 2003, p. 179; cf. Dunning, 1995, p. 475; cf. Rasciute/Downward, 2017, p. 606).

While the *O-* and *L-advantages* present arguments for a company's internationalization in general, the *internalization advantages* justify a company's choice to be directly involved in a country through FDI instead of outsourcing or licensing to other companies (cf. Jensen, 2003, p. 591; cf. Rasciute/Downward, 2017, p. 606). If owning a subsidiary is more beneficial for a company than licensing, mainly because no intermediary needs to be involved (cf. Dunning, 1995, p. 475), and some *O-* and *L-advantages* are present, then a company would choose FDI over other types of investment, even though this is generally associated with more risks (cf. Rasciute/Downward, 2017, p. 606)

Prior to an MNE's internationalization decision, the OLI advantages need to be independently analyzed (cf. Beamish/Chakravarty, 2021, p. 1863). It must be noted that all three advantages are equally important and need to be present for internationalization (cf. Dunning, 1998, p. 45). This reasoning suggests that a company does not engage in FDI if one or more factors are absent and indicates that all three advantages are, individually, necessary causes (cf. Richter/Hauff, 2022, 5f).

By definition, the institutional environment in a host country has a significant influence on the *L-advantages* (cf. Kang/Jiang, 2012, p. 46). The effect of institutions is so decisive that countries with similar business environments, for instance in terms of market size and natural resources, receive varying amounts of FDI (cf. Dunning, 2009, p. 24). However, recent research suggests that institutions influence not only every dimension of the model, but also the interdependencies (cf. Kang/Jiang, 2012, p. 46; cf. Dunning, 2009, p. 25; cf. Dunning/Lundan, 2008, p. 580). The influence of institutions on MNEs' FDI location decisions can be explained with institutional theory which is presented in the following.

2.2. Institutional Theory

Institutional theory is used in international business literature to describe the interplay between institutions and companies (cf. Peng *et al.*, 2008, p. 922; cf. Paul/Feliciano-Cestero, 2021, p. 802). Institutions are most commonly described as “the rules of the game in a society or, more formally, [...] the humanly devised constraints that shape human interaction” (North, 1990, p. 3). More specifically, institutions establish these rules (cf. Papageorgiadis *et al.*, 2020, p. 2) which are intended to simplify exchange between partners (cf. North, 1990, p. 47) by reducing uncertainty (cf. Mudambi/Navarra, 2002, p. 640; cf. North, 1990, p. 3). Establishing and nurturing strong institutions is therefore a key task for governments (cf. Fan *et al.*, 2009, p. 853).

Institutions shape and manage the extensive business environment that all companies are embedded in and thereby directly affect and control an MNE's decisions and actions (cf. Aguilera-Caracuel *et al.*, 2013, p. 2657; cf. Peng *et al.*, 2008, p. 923; cf. Holmes *et al.*, 2013, p. 532; cf. Xu *et al.*, 2021, p. 2). This is because companies that engage in FDI are subject to the host countries' institutional setting (cf. Kang/Jiang, 2012, p. 46) and need to comply with the existing rules and regulations (cf. Dunning/Lundan, 2008, p. 578; cf. Mueller *et al.*, 2013, p. 1608) that either facilitate or limit a company's activities (cf. Mueller *et al.*, 2013, p. 1611; cf. Contractor *et al.*, 2020, p. 2). The reason for the influence of institutions on companies is mainly related to costs (cf. Bailey, 2018, p. 140): The costs of setting up and operating a business vary depending on the chosen country and explain why some countries receive more FDI than others (cf. Ramírez-Alesón/Fleta-Asín, 2016, p. 29). More than only influencing costs, institutions determine whether and how easily a company can access a country's resources, knowledge, services and labor force (cf. Kettani/Kottaridi, 2019, p. 416). Consequently, institutions influence every investment-related decision that an MNE's manager needs to make: The location decision, entry mode, choice of strategy, stakeholder handling and the profitability and general success of the subsidiary (cf. Hitt *et al.*, 2016, p. 61).

Each country possesses its own unique combination of institutional factors that, overall, either attracts or deters MNE investments (cf. Ketteni/Kottaridi, 2019, p. 416; cf. Dunning/Lundan, 2008, p. 586; cf. Arregle *et al.*, 2013, p. 911; cf. Jackson/Deeg, 2008, p. 541). However, since MNEs follow different motivations with their FDI (“market, resource, efficiency or strategic asset seeking”, Dunning, 1995, p. 474) that highly influence the location decision (cf. Dunning, 1998, p. 50), this individual combination can appeal to some companies while discouraging others (cf. Hitt *et al.*, 2016, p. 61). Accordingly, a company that searches for a new location for its research and development (R&D) department, for instance, most likely chooses a country in which intellectual property rights are strictly enforced to protect its investment (cf. Hitt *et al.*, 2016, p. 61).

As a result, institutions are one of the main reasons why countries receive different amounts of FDI, even if they share a similar overall setting in terms of market size and natural resources (cf. Dunning, 2009, p. 24) and despite the ongoing globalization and an overall harmonization of standards and economic development (cf. Guler/Guillén, 2010, p. 188).

In the last decades, mainly two different frameworks have been established that further categorize institutions (cf. Ketteni/Kottaridi, 2019, p. 416; cf. Buckley *et al.*, 2016, p. 430): North (cf. 1990, p. 4) distinguishes formal and informal institutions that together form the institutional system of a country (cf. Dunning/Lundan, 2008, p. 578). It is one of the most cited frameworks for institutions and assumes that the existing differences in institutional systems across countries affect MNEs’ strategic choices (cf. Aguilera/Grøgaard, 2019, p. 28). Formal institutions are “political (and judicial) rules, economic rules, and contracts” (North, 1990, p. 47) that influence the activities and behavior of every subject in a society (cf. Arregle *et al.*, 2013, p. 911). Informal institutions describe constraints that were not deliberately implemented within a society and are, therefore, not formally written down (cf. North, 1990, p. 41). They entail “codes of conduct, norms of behavior, and conventions” (North, 1990, p. 36) and are part of a society’s culture (cf. North, 1990, p. 37). Both depend on each other, because formal rules are the foundation for informal ones (cf. North, 1990, p. 36). Scott’s neo-institutional approach divides institutions into regulative, normative and cognitive (cf. Aguilera/Grøgaard, 2019, pp. 26–27). It differs from North’s approach in that MNEs strive for legitimacy in the host country and alter decisions accordingly (cf. Aguilera/Grøgaard, 2019, p. 27). In line with previous research (cf. Peng *et al.*, 2008, p. 921; cf. Fuentelsaz *et al.*, 2020, p. 2) and the explicit recommendation to use North’s framework (cf. Aguilera-Caracuel *et al.*, 2013, p. 2658), the distinction between formal and informal institutions will be applied in this thesis.

Although informal institutions decisively influence an MNE's FDI decisions, they can neither be easily transformed by the government nor are they likely to change much within a short timeframe of one or two decades (cf. Contractor *et al.*, 2020, p. 3; cf. North, 1990, p. 6). In contrast, a country's formal rules and regulations can be altered more quickly (cf. Albino-Pimentel *et al.*, 2021, p. 1259), thus requiring MNEs to adapt their strategies (cf. Ketteni/Kottaridi, 2019, p. 417), and therefore represent more interesting factors for a time-sensitive analysis of their effect on FDI. The focus on the impact of formal institutions is also a common approach in the international business literature (cf. Kostova *et al.*, 2020, p. 474; cf. Fuentelsaz *et al.*, 2020, p. 4).

The claim that stronger formal institutions overall attract FDI from MNEs is widely accepted (cf. Fan *et al.*, 2009, p. 855; cf. Pajunen, 2008, p. 653), but it is important to note that a country's institutions consist of several individual factors, such as political stability (cf. Pajunen, 2008, p. 654), democracy and rule of law (cf. Bailey, 2018, p. 141), that together form the institutional environment of a country (cf. Holmes *et al.*, 2013, p. 535). Interestingly, it is currently unknown which institutional factors decisively affect an MNE's location decision, and how (cf. Pajunen, 2008, p. 653; cf. Contractor *et al.*, 2020, p. 11). Also, recent research points to an MNE's willingness to accept one weaker institutional factor if it can be compensated for by other factors (cf. Contractor *et al.*, 2020, p. 11). This suggests that an MNE, for instance, invests in a host country that on the one hand is highly politically instable but on the other hand highly democratic. In this case, democracy could compensate for weak political stability. Whether this assumed trade-off claim can be supported or whether all institutional factors themselves need to be present at some level for FDI is part of the following necessary condition analysis.

Several formal institutional factors have been analyzed for their relationship with FDI in the past, for instance, democracy, political stability, justice and judicial system in a society and property rights and taxation policies (cf. Pajunen, 2008, pp. 654f). Democracy and political stability are two of the most important factors (cf. Bailey, 2018, p. 140) and, for this reason, are empirically examined in this study. Although those factors seem to be quite similar and related, they should be analyzed individually because political instability can be observed in all types of regimes, also in democracies (cf. Li/Resnick, 2003, p. 192). Both factors are introduced in detail in the following.

2.2.1. Democracy

Democracy “reflects the discretion of government over its citizenry and is marked by voting rights and freedom of speech, assembly, and media” (Arregle *et al.*, 2013, p. 912). In addition, democratic countries “constrain political powers, and guarantee civil liberties” (Lohwasser *et al.*, 2022, p. 123). However, the construct of democracy is not universally defined and its measurement is even more discussed (cf. Basu *et al.*, 2023b, p. 134). Democracy determines and specifies a country’s institutions and significantly affects a country’s overall business environment (cf. Basu *et al.*, 2023a, p. 2). In general, democracies are described as more peaceful, both internally and externally, stable, trustworthy and well-governed (cf. Basu *et al.*, 2023a, p. 2).

In academic research, however, reasonable theoretical arguments exist for the contrasting views of why democracies would receive more, or less FDI than non-democratic countries (cf. Harms/Ursprung, 2002, p. 652) and studies using democracy as independent variable are scarce (cf. Asiedu/Lien, 2011, p. 101). The effect of democratic institutions on FDI has been analyzed with multivariate regression analysis and has yielded inconsistent and contradicting results (cf. Basu *et al.*, 2023b, p. 149; cf. Paniagua/Sapena, 2014, p. 809; cf. Basu *et al.*, 2023a, p. 4). Some studies report that countries with high levels of democracy attract more FDI than those with lower levels (cf. Busse/Hefeker, 2007, p. 405; cf. Jensen, 2003, p. 605; cf. Harms/Ursprung, 2002, p. 660), whereas others cannot find significant results (cf. Paniagua/Sapena, 2014, p. 810) or even report a negative relationship (cf. Holmes *et al.*, 2013, p. 551; cf. Arregle *et al.*, 2013, p. 923).

A recent empirical study that examined the influence of democracy on FDI net inflows and cross-border Mergers and Acquisitions (M&A) deals demonstrates that democratic countries are more favorable locations than undemocratic countries (cf. Basu *et al.*, 2023a, p. 10). Likewise, a meta-analytic review of empirical studies, where different variable operationalizations for democracy were used, reveals that democratic institutions have a small, but highly significant positive influence on FDI (cf. Bailey, 2018, p. 146). Asiedu & Lien (cf. 2011, p. 102) also report a positive and highly significant direct effect for the democracy-FDI relationship. They found natural resources to be a significant moderator; the positive direct effect is weakened when the host country’s economy is highly dependent on natural resource exports. In contrast, Arregle *et al.* (cf. 2013, p. 923) report a negative relationship in their empirical study of Japanese MNEs and their FDI into a large set of host countries. Although they expected and argued for a positive effect, an increase in democracy results in a significant decrease of FDI. Hence, more research is necessary to determine how democracy affects FDI.

2.2.2. Political Stability

Political stability is defined as “perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism” (Kaufmann *et al.*, 2011, p. 223) and is deemed to be a decisive factor influencing the institutional environment in a host country (cf. Lohwasser *et al.*, 2022, p. 121; cf. Guler/Guillén, 2010, p. 191; cf. Yasuda/Kotabe, 2021, p. 157). Political stability provides the framework that companies need to adhere to when investing in a country and is an indication of the likelihood that quick and potentially adverse changes in regulations and rules are imposed by the government (cf. Demirbag *et al.*, 2007, p. 421; cf. García-Canal/Guillén, 2008, p. 1100). Therefore, when a potential host country is politically stable, unforeseen governmental changes are unlikely and companies can rely on their pre-investment analyses of the current political and regulatory environment and the corresponding revenue forecasts (cf. Alcantara/Mitsubishi, 2012, p. 337). This is especially relevant for FDI because companies cannot easily exit a country after the initial investment is made (cf. Jensen, 2003, p. 594).

In summary, political stability is associated with providing a predictable and stable business environment in a host country (cf. Lohwasser *et al.*, 2022, p. 121). Therefore, a thorough assessment of the level of political stability in the potential host countries before the investment decision is crucial for an MNE’s success (cf. Delios/Henisz, 2003, p. 1153). Although political stability is widely considered to be a positive factor, in the sense that higher levels lead to more FDI, it is unrelated to the regime type, so that a politically stable country can also be undemocratic (cf. Pajunen, 2008, p. 654; cf. Lohwasser *et al.*, 2022, p. 122).

The general assumption in international business literature is that politically stable countries receive more FDI than unstable countries, mainly because investments are then less risky (cf. Holburn/Zelner, 2010, p. 1290; cf. García-Canal/Guillén, 2008, p. 1100; cf. Pajunen, 2008, p. 654; cf. Buckley *et al.*, 2016, p. 432; cf. Albino-Pimentel *et al.*, 2021, p. 1258) and less uncertain (cf. Lohwasser *et al.*, 2022, p. 121; cf. Trevino *et al.*, 2008, p. 123). However, recent increases in FDI to emerging countries, which are mainly deemed to be unstable host countries, raise the question of whether this claim still holds (cf. Buckley *et al.*, 2018, p. 153).

In line with this uncertainty, the empirical results on the relationship between political stability and FDI are mixed (cf. Bailey, 2018, p. 140; cf. Yasuda/Kotabe, 2021, p. 157): while some studies report a positive relationship between political stability and FDI (cf. Mengistu/Adhikary, 2011, p. 293; cf. Busse/Hefeker, 2007, p. 405; cf. Grosse/Trevino, 2005, p. 138; cf. Trevino *et al.*, 2008, p. 130), others find only insignificant results (cf. Globerman/Shapiro, 2003,

p. 30) or negative coefficients (cf. Holburn/Zelner, 2010, p. 1312; cf. García-Canal/Guillén, 2008, p. 1108).

Holburn & Zelner (cf. 2010, p. 1312), for example, concluded that political instability does not necessarily imply less FDI, as an MNE's home country institutions seem to moderate the relationship: companies from unstable home countries are experienced in exerting influence on political institutions and can apply this knowledge in other unstable countries. This organizational learning gives them a competitive advantage over companies from stable economies and leads MNEs from unstable countries to choose even weaker host countries for their FDI (cf. Holburn/Zelner, 2010, p. 1312). Additionally, high competitive pressures in the home market or business affiliations lead MNEs to choose politically unstable countries (cf. Alcantara/Mitsuhashi, 2012, p. 345), even though the authors found that MNEs in general refrain from investing in risky countries.

In contrast, when examining an MNE manager's willingness to take risks when investing, the likelihood of investments to politically instable countries decreases by 55.1 % points as compared to stable countries (cf. Buckley *et al.*, 2018, p. 166). Similarly, Avioutsikii & Tensaout (cf. 2016, p. 390) concluded that high levels of political stability are an important determinant of FDI. A meta-analysis that summarized the results of studies that used different measures of political stability also confirmed a positive relationship (cf. Bailey, 2018, p. 144). In light of this discussion, more research is needed to understand how and under which circumstances both institutional factors, democracy and political stability, influence FDI.

3. Hypotheses Development and Research Model

The next section presents the development of the hypotheses and the research model. Two separate hypotheses will be derived for each of the independent variables, one for the regression analysis and one for the NCA. NCA hypotheses are developed and expressed in a slightly different way, following three steps (cf. Richter/Hauff, 2022, p. 2): first, it is reasoned why the outcome cannot be observed when the determinant X is not present. Then, it is theoretically deduced why the outcome is always existent when X is present and in a last step, it is justified why no other determinant can offset a missing X.

Foreign direct investments offer many opportunities but also entail significant risks for MNEs (cf. Jensen, 2003, p. 592). Once an investment is made, MNEs hardly have any possibility to reverse this decision in case of crises or changing laws and regulations and, therefore, are

subject to the host country government's decisions and policy changes (cf. Jensen, 2003, p. 594). Consequently, MNEs must carefully assess potential host countries for several institutional factors upfront to reduce the possibility of unforeseen governmental changes and general country risks that threaten their investments.

Institutional factors, above all the regime type and political stability, are important determinants for those risks. Therefore, the next paragraphs present arguments for why democracy and political stability likely have a positive influence on FDI.

3.1. Democracy

Democracies, in contrast to non-democratic regimes, are generally associated with offering a more predictable (cf. Avioutskaa/Tensaout, 2016, p. 382), stable and reliable business environment (cf. Li *et al.*, 2018, p. 494). Co-operations between companies and the government are allowed and even encouraged in democracies (cf. Jensen, 2008, p. 1041; cf. Holmes *et al.*, 2013, p. 541). The collaborations are advantageous for governments because their re-election is highly dependent on the public opinion in their country, which in turn is largely influenced by the economic performance (cf. Holmes *et al.*, 2013, p. 541). Since MNEs have a significant influence on their host country's economic growth and development (cf. Ketteni/Kottaridi, 2019, p. 421), governments have a special interest in attracting and retaining those. Consequently, legal and often formal processes are introduced that enable companies to influence political decisions in a host country (cf. Jensen, 2008, p. 1041) which is enhanced by the existence of lobby groups and industry associations (cf. Jensen, 2008, p. 1042). Although cooperations with the government are also possible in undemocratic countries, the process for entering into those relationships is more transparent and formalized in democracies (cf. Jensen, 2008, p. 1041).

As a result, the ties between democratic governments and companies are stronger and more favorable, leading to more transparently communicated changes in regulations (cf. Holmes *et al.*, 2013, p. 541) that provide companies with more time to adapt. Companies can then adhere better to a country's specific demands, which also facilitates strategic long-term FDI planning (cf. Holmes *et al.*, 2013, p. 541). Moreover, this enables a company to establish and leverage firm-specific advantages (cf. Basu *et al.*, 2023a, p. 2). Consequently, companies investing in democracies have a more reliable and transparent communication with the government than in non-democracies, which enables them to trust the stability of decisions.

Furthermore, two basic characteristics of democracies are freedom of media (cf. Li *et al.*, 2018, p. 495), which overall leads to greater transparency (cf. Jensen, 2008, p. 1042), and the distribution of power (cf. Jensen, 2003, p. 594). MNEs benefit from the enhanced transparency not only because it facilitates the identification process of and access to government officials (cf. Holmes *et al.*, 2013, p. 541), but also because democratic governments are less likely to make unpopular decisions that adversely affect an MNEs' profitability (cf. Jensen, 2003, p. 595). This is, because if government actions deviate from prior agreements with companies and this is made public, the country's reputation as investment location may be harmed and potentially discourages future investments (cf. Jensen, 2008, p. 1042; cf. Jensen, 2003, p. 595).

The distribution of power among different political authorities prevents that changes in regulation are made based on the will of one single actor (cf. Jensen, 2003, p. 592). MNEs can rely on democratic processes and trust that existing rules and regulations cannot be quickly and adversely changed because several instances are involved in political decision-making (cf. Jensen, 2003, p. 595). Through the distribution of power and enhanced transparency, democratic countries also provide a better protection of property rights (cf. Li/Resnick, 2003, p. 177).

Autocratic governments cannot reliably guarantee that these rights are respected (cf. Lohwasser *et al.*, 2022, p. 122). Since MNEs' efforts to internationalize are based on unique ownership advantages that are leveraged in the host country, protecting those is of utmost importance for companies and indicates that more FDI are made in democratic countries (cf. Li/Resnick, 2003, p. 179).

One further reason for MNEs to prefer investments in democratic countries is related to corporate social responsibility (CSR). Paniagua & Sapena (cf. 2014, p. 807) argue that FDI involves more than just the transfer of financial assets; it also has a significant influence on the host country by creating jobs, introducing different cultures and enabling learning and economic development. As a result, MNEs bear a significant ethical responsibility in both their home and host countries (cf. Paniagua/Sapena, 2014, p. 807; cf. Driffield *et al.*, 2013, p. 143). Because CSR has received much attention recently (cf. Hitt *et al.*, 2016, p. 58), MNEs' FDI location decisions are now closely examined and monitored by several stakeholder groups (cf. Driffield *et al.*, 2013, p. 143; cf. Basu *et al.*, 2023a, p. 1). This is especially true for MNEs' home countries where the concept of CSR is highly regarded (cf. Driffield *et al.*, 2013, p. 151). Since customers can influence company decisions with their buying behavior and are willing to refrain from companies that behave unethically (cf. Driffield *et al.*, 2013, p. 151), MNE managers must consider those potential consequences before investing in dictatorships and countries with

problematic regimes. The possible subsequent negative public attention and potential reputation damage of investing in undemocratic countries (cf. Driffield *et al.*, 2013, p. 144) must be carefully balanced with potential gains (cf. Fan *et al.*, 2009, p. 852). In order not to deter customers, MNEs can demonstrate ethical responsibility by not investing in undemocratic countries. Based on the arguments presented above, the first hypothesis argues:

H1: *The host country's level of democracy positively influences MNEs' foreign direct investments.*

Besides the basic assumption that democracy positively affects FDI, the influence might be even stronger. Democracy could be a necessary determinant for FDI, suggesting that MNEs only invest in host countries that are democratic. The reasoning for this assumption is as follows. Previous research argues that the ownership advantages derived from Dunning's OLI-model are necessary conditions for FDI, because a company needs to have specific and unique assets that it can transfer to and leverage in the potential host country (cf. Richter/Hauff, 2022, p. 6). However, these advantages must be protected from competitors and the government through property rights laws. Autocratic countries protect those rights less (cf. Lohwasser *et al.*, 2022, p. 122), resulting in higher risks for MNEs to lose their unique competitive advantages when investing there. In addition, democratic countries are less corrupt and have a better rule of law, increasing the accountability and reliability of the government (cf. Lohwasser *et al.*, 2022, p. 123). Moreover, the dependence of MNEs to be upfront informed of regulatory changes introduced by the government, which is ensured in democracies where relationships are trustworthy and long-term oriented (cf. Holmes *et al.*, 2013, p. 541), leads to an assumed preference for democratic countries. Because MNEs cannot afford the risk of losing their ownership advantages or incurring surprising changes in laws and regulations, it is assumed that investments are only made in democratic host countries.

MNEs are always trying to find suitable host country locations for their FDI. The main goal of internationalization is profit maximization while avoiding investment risks as much as possible (cf. Xu *et al.*, 2021, p. 8). Therefore, MNEs choose destinations that provide sound economic potential and a beneficial institutional environment (cf. Xu *et al.*, 2021, p. 8). As democracy is one of the main determinants of the institutional environment (cf. Basu *et al.*, 2023a, p. 2) and other institutional factors are better developed in such a regime type as well, it can be assumed that democracies always attract some investments. The benefits of FDI, such as spillover effects from foreign companies that bring new knowledge and a different culture to the host country

(cf. Paniagua/Sapena, 2014, p. 807), justify why democratic governments are inclined to attract investments.

Because the level of democracy affects how laws and regulations are implemented, sets the guidelines for participation and basic liberties in a society (cf. Arregle *et al.*, 2013, p. 912) and thereby directly affects all other institutional factors, it is assumed that there is no substituting institution. Hence, the second hypothesis is:

H2: Democracy is a necessary (but not sufficient) condition for MNEs' foreign direct investments.

3.2. Political Stability

Political stability determines whether MNEs can trust that political decisions and regulations are kept in place and are not changed (cf. Lohwasser *et al.*, 2022, p. 121). For instance, rules protecting intellectual property are highly relevant for MNEs and the level of political stability indicates the likelihood that existing regulations regarding those factors will either remain in place or be revised (cf. Delios/Henisz, 2003, p. 1155).

A stable host country enables MNEs to form long-term relationships with the government (cf. Lohwasser *et al.*, 2022, p. 121; cf. Holmes *et al.*, 2013, p. 541), which decrease the likelihood of unfavorable regulatory changes. Although this reasoning is similar to the deduction for democracy, which is justified because democracies are mostly associated with providing a politically stable environment, it has distinct underlying mechanisms that apply to different regime types. In a stable country, and regardless of the regime type, cooperations remain in place and can still be leveraged when power is transferred to the next government (cf. Lohwasser *et al.*, 2022, p. 121). Because regime changes in non-democracies are, in any case, seldom and new leaders succeeding to the government are chosen based on their conformity with the system and not through public elections, the stability of regulations is maintained (cf. Lohwasser *et al.*, 2022, p. 122). In democracies, the transfer of power following elections is secured by constitutional regulations (cf. Lohwasser *et al.*, 2022, p. 123). In contrast, if a regime change takes place in an unstable country, then the cooperative relationships may become worthless or even harmful when the new government is negatively disposed towards foreign companies (cf. Lohwasser *et al.*, 2022, p. 121). Since MNEs avoid political risks when investing abroad, investments are less likely to be placed in countries where the possibility of a collapsing government is high (cf. Holburn/Zelner, 2010, p. 1290; cf. Grosse/Trevino, 2005, p. 131; cf. Guler/Guillén, 2010, p. 191). Because the likelihood of such an unfavorable regime change is higher in an unstable

economy, investments there are riskier and, additionally, increase the likelihood of subsidiary failure.

A politically stable country is also characterized by the presence of political constraints (cf. Guler/Guillén, 2010, p. 191; cf. Li *et al.*, 2018, p. 495). The distribution of political power among several actors that control each other's actions (cf. Holburn/Zelner, 2010, p. 1294) reduces the likelihood of quick and unexpected changes in regulations and decreases associated risks for MNEs (cf. Guler/Guillén, 2010, p. 191). This is due to the fact that new laws need to pass several authorities and decisions made by one institution based on subjective assessments can be properly challenged (cf. Guler/Guillén, 2010, p. 191). One further advantage of those constraints is that domestic companies have less influence on the government to change regulations to their own benefit and to the detriment of foreign firms (cf. Mudambi/Navarra, 2002, p. 642). In contrast, countries in which the power is shared by only few political institutions whose actions are not controlled by other actors are deemed politically unstable, since regulations and rights can be changed faster, more unexpectedly and decisively (cf. Holmes *et al.*, 2013, p. 555). Accordingly, the more of such political constraints exist in a country, the more predictable an MNE's return on investment is (cf. Alcantara/Mitsubishi, 2012, p. 337).

For those reasons, companies investing in politically stable countries can expect long-lasting economic conditions and regulations that make up a reliable business environment and reduce uncertainty (cf. Peng *et al.*, 2008, p. 922; cf. Trevino *et al.*, 2008, p. 130). Consequently, forecasts are, in terms of political risks, more reliable, cash flow losses are less likely (cf. Grosse/Trevino, 2005, p. 131) and the investment risk is lower. These factors increase a country's credibility and reliability (cf. García-Canal/Guillén, 2008, p. 1100) and advance its attractiveness for FDI in general. In contrast, if the political environment is unstable, an MNE cannot reliably and accurately predict the profit potential and might incur substantial losses if the government quickly changes the country's business environment (cf. Alcantara/Mitsubishi, 2012, p. 337). The third hypothesis, therefore, states:

H3: The host country's level of political stability positively influences MNEs' foreign direct investments.

In addition to this assumed relationship, political stability might also be a necessary cause for FDI, for the following reasons: MNEs aim to place their investments in destinations where they do not incur exceptional risks (cf. Holburn/Zelner, 2010, p. 1290). However, if a potential host country experiences severe political instability, for example due to a war or social unrest, then

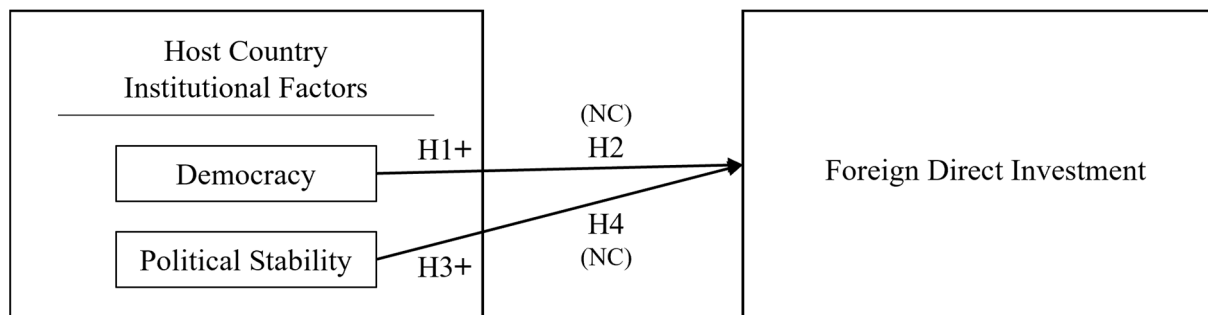
it is reasonable to assume that MNEs are deterred from placing FDI there because of the detrimental risk of investing (cf. Richter/Hauff, 2022, p. 6). This argument is in line with the reasoning of “[...] absolute hazards when the host country fails to create stable and transparent frameworks suitable for the successful development of new business” (Coeurderoy/Murray, 2008, p. 673), which presumes the necessity of stability for FDI. Even in less drastic circumstances, MNEs investing in instable countries are at higher risk, because of increased uncertainty, potentially interrupted processes, a decreasing investment’s profitability (cf. Bailey, 2018, p. 140) and adversely affected innovation (cf. Holmes *et al.*, 2013, p. 555), as compared to investments in stable countries. Therefore, MNEs are likely to be deterred from investing in instable countries altogether (cf. Dorobantu *et al.*, 2017, p. 118).

MNEs are interested in leveraging their competitive advantages in countries where they can successfully operate (cf. Xu *et al.*, 2021, p. 8). A stable economy with reliable regulations is, arguably, always a suitable location choice. Moreover, governments are interested in attracting MNEs' FDI, since it enhances economic growth and can positively influence the domestic economy (cf. Kettani/Kottaridi, 2019, p. 417). Therefore, it is assumed that a politically stable country always encounters at least a small portion of investments from abroad.

Although institutional factors are interrelated and sometimes interdependent, there is reason to believe that they cannot compensate for each other (cf. Richter/Hauff, 2022, p. 6). For example, the absence of corruption is a highly desirable condition but cannot cure the systemic flaws and risks that come with political instability. Additionally, although other institutional factors might be favorable for a company, it is political stability that determines whether the respective regulations and laws are kept in place or can be quickly and potentially adversely modified by the government (cf. Guler/Guillén, 2010, p. 191; cf. Lohwasser *et al.*, 2022, p. 121). Consequently, it is argued that governments must ensure a certain level of political stability in their country to attract MNEs' FDI (cf. Coeurderoy/Murray, 2008, p. 673; cf. Bailey, 2018, p. 140; cf. Pajunen, 2008, p. 666). Those assumptions are reflected in the fourth hypothesis:

H4: *Political stability is a necessary (but not sufficient) condition for MNEs' foreign direct investments.*

Figure 1 displays the research model with all hypothesized relationships.



NC = necessary condition.

Source: Illustration by author.

Figure 1: Research Model

4. Methods

4.1. Dataset and Variable Construction

To empirically analyze the hypothesized relationships between the host country institutional factors democracy and political stability and FDI, multiple datasets were merged to create a single large panel dataset. Five different datasets are used in this study: The Worldwide Governance Indicators and the Varieties of Democracies-index (V-Dem) for independent variables, the Wharton Research Data Services (WRDS) Company Subsidiaries dataset for the dependent variable and the World Development Index and Compustat for control variables on country- and firm-level. These datasets were often used in previous research (cf. Paul/Feliciano-Cestero, 2021, p. 807). The final dataset contains variables on country- and firm-level basis, covers the years 2003 to 2021 and comprises 302,098 observations for 46,001 company-host country combinations.

4.1.1. Dependent Variable

The data on the dependent variable *FDI* was obtained from the WRDS Company Subsidiaries dataset. It contains data on US companies that are filed with the US Securities and Exchange Commission (SEC) and operate subsidiaries abroad. Because this thesis focusses on international investments, all observations with the host country “United States” were excluded from the analysis.

In this study, FDI is operationalized as the number of investments that one company conducts in a single country in one year, which is consistent with previous research (cf. Bailey, 2018, p. 143; cf. Albino-Pimentel *et al.*, 2021, p. 1263; cf. Arregle *et al.*, 2013, p. 918). To achieve this, the number of subsidiaries for each company-host country-year combination is counted and

displayed in a new variable. Resulting duplicate observations are dropped and a new variable is created by subtracting the number of subsidiaries in the previous year from the corresponding figure of the current year. Negative values of this counted firm-level variable represent disinvestments and are excluded from the sample, as they are not relevant to the research question and interfere with model specifications. The resulting variable contains values from 0 to 366 and represents the actual number of new subsidiaries installed by one company in one country within a year.

4.1.2. Independent Variables

The V-Dem-index is used to obtain data on a country's level of *democracy*. The index is multidimensional and features a total of 631 individual variables for democracy (cf. Coppedge *et al.*, 2023, p. 31), of which five are high-level indicators: Deliberative democracy, egalitarian democracy, electoral democracy, liberal democracy and participatory democracy (cf. Coppedge *et al.*, 2023, pp. 44-46). Consistent with previous research (cf. Herrera-Echeverri *et al.*, 2014, p. 1924), an average of those five indicators is calculated for every country-year combination to capture several aspects of democracy. This results in a single democracy variable that is used in the empirical analysis. In theory, the variable can take values from 0 to 1, with smaller values indicating less democracy. The actual range in this dataset, however, is 0.046 to 0.863.

The World Bank's Worldwide Governance Indicators dataset is used to assess *political stability* (cf. Kaufmann/Kraay, 2023). This dataset provides yearly-updated data on six main indicators for more than two hundred countries (cf. Kaufmann *et al.*, 2011, p. 242). These indicators are created by aggregating a few hundred different variables from distinctive data sources (cf. Kaufmann *et al.*, 2011, p. 221). The construct of political stability in this study is represented by the variable called *political stability and absence of violence/terrorism* (cf. Kaufmann *et al.*, 2011, p. 223) which ranges from -2.965 to 1.687. To facilitate the interpretation and comparison of the results, both independent variables are standardized for the regression analysis.

4.1.3. Control Variables

Several other factors are known to affect an MNE's FDI location choice and need to be integrated into the regression analysis to prevent biased results (cf. Fuentelsaz *et al.*, 2020, p. 8; cf. Albino-Pimentel *et al.*, 2021, p. 1263). Market-related factors in the host economy are particularly decisive, since unexpected changes can increase the economic uncertainty of an investment and deteriorate an MNE's upfront planning for market entry (cf. García-Canal/Guillén, 2008, p. 1099). Therefore, the models include *GDP*, *GDP per capita* and *population* as controls,

as recommended by Bailey (cf. 2018, p. 146). Additionally, openness to *trade*, *population growth* and the firm-level variables *employees*, *total assets* and *industry* are included to account for further influences.

The World Development Index, available at the World Bank, provided data on the variables *GDP*, *GDP per capita*, openness to *trade*, *total population* and *population growth*. This data source has been used in prior similar studies (cf. Holburn/Zelner, 2010, p. 1300; cf. Delios/Henisz, 2003, p. 1158). Firm-level variables were sourced from Compustat.

GDP is often used as control variable in studies that examine the relationship between institutional factors and FDI and measures the economic potential of the host country (cf. Contractor *et al.*, 2020, p. 7; cf. Bevan *et al.*, 2004, p. 56; cf. Fuentelsaz *et al.*, 2020, p. 8; cf. Buckley *et al.*, 2016, p. 435; cf. Alcantara/Mitsubishi, 2012, p. 341). *GDP per capita* (cf. Contractor *et al.*, 2020, p. 7; cf. Buckley *et al.*, 2016, p. 435) serves as an indicator for labor cost in the host country (cf. Fuentelsaz *et al.*, 2020, p. 8). Openness to *trade* is operationalized by dividing the sum of imports and exports by the country's GDP (cf. Fan *et al.*, 2009, p. 856; cf. Busse/Hefeker, 2007, p. 403; cf. Albino-Pimentel *et al.*, 2021, p. 1264) and is mainly used as an indicator for a country's trade restrictions (cf. Busse/Hefeker, 2007, p. 403). *Population* measures the total number of inhabitants in a country and reflects the host country's size (cf. Fan *et al.*, 2009, p. 854; cf. Albino-Pimentel *et al.*, 2021, p. 1264), but also represents the quality of a country's institutions (cf. Fan *et al.*, 2009, p. 857). *Population growth* is an indicator of market potential (cf. Delios/Henisz, 2003, p. 1158).

The firm-level control variables number of *employees* and *total assets* are included to represent the company's size (cf. Rasciute/Downward, 2017, p. 609; cf. Albino-Pimentel *et al.*, 2021, p. 1264). The *industry* classification is relevant because the motivation for FDI and the required institutional factors in the host country are likely to vary between industries (cf. Bailey, 2018, p. 143; cf. Ramírez-Alesón/Fleta-Asín, 2016, p. 41; cf. Albino-Pimentel *et al.*, 2021, p. 1264; cf. Delios/Henisz, 2003, p. 1158). To account for time-related effects, a dummy variable for the investment's year is also included (cf. Paniagua/Sapena, 2014, p. 809; cf. Albino-Pimentel *et al.*, 2021, p. 1264; cf. Fuentelsaz *et al.*, 2020, p. 12; cf. Bénassy-Quéré *et al.*, 2007, p. 773).

4.2. Research Approach

As outlined before, this study applies two complementary empirical methods, a multiple regression analysis and a necessary condition analysis. The following paragraphs provide a detailed explanation of both methods.

4.2.1. Multiple Regression Analysis

The multiple regression analysis is performed in Stata (Version 18.0) with the compiled cross-level panel dataset described above. The panel dataset enables the assessment of the institutional factors' impact on FDI over an extended period. Because MNEs consistently evaluate their opportunities and strive to find the best location for their FDI and governments are motivated to attract foreign companies' investments (cf. Ketteni/Kottaridi, 2019, p. 417), favorably developing institutions can lead to changing location preferences that are best observed with a panel dataset. Since the models' dependent variable, *FDI*, is a count variable with many observations with the value of zero, a Poisson regression is the most appropriate regression mode (cf. Albino-Pimentel *et al.*, 2021, p. 1264).

Several approximation tests are recommended to be carried out prior to the regression analysis to prevent misleading results (cf. Kohler/Kreuter, 2016, p. 290), such as a test on autocorrelation, heteroskedasticity and the Hausman test for the decision between random or fixed effects. The Woolridge test confirms that autocorrelation is not present, which is a basic regression requirement because standard errors would be wrongly estimated and significance levels too easily supported if it was (cf. Kohler/Kreuter, 2016, p. 309). Next, the Breusch-Pagan test reveals the presence of heteroskedasticity in the dataset. However, this can be regulated by integrating the `vce(robust)`-option in the regression command, through which the general requirement of homoscedasticity does not have to be fulfilled to receive reasonable standard errors (cf. Kohler/Kreuter, 2016, p. 309). The Hausman test indicates whether fixed or random effects should be used in the regression models. Despite the test's recommendation to use fixed effects, it is theoretically more plausible to use random effects, since differences between companies in the dataset can then be examined (cf. Kohler/Kreuter, 2016, p. 348) which better fits to the research questions.

In empirical international business research, endogeneity, which is defined as "a correlation between the explanatory variables and the error term in a regression" (Roberts/Whited, 2013, p. 494), is a common problem that can result in biased and potentially misleading regression results if it is not treated properly (cf. Reeb *et al.*, 2012, p. 211). In the given dataset, the specific endogeneity problem of reverse causality could occur (cf. Reeb *et al.*, 2012, p. 213), because FDI likely influences a host country's institutional environment (cf. Ketteni/Kottaridi, 2019, p. 417; cf. Asiedu/Lien, 2011, p. 102). Therefore, the presence of endogeneity in this dataset cannot be ruled out.

4.2.2. Necessary Condition Analysis

Necessary condition analysis (NCA) is a quite recent and, so far, barely used analysis method (cf. Richter/Hauff, 2022, p. 2) that was introduced by Jan Dul in 2016 (cf. Dul, 2016, p. 11). It is a powerful technique that is highly recommended for use in international business research, especially when combined with regression analysis (cf. Aguinis et al., 2020, p. 1602). While necessary causes are not new theoretical phenomena and researchers have regularly formulated respective necessity hypotheses (cf. Richter/Hauff, 2022, p. 4), they had to rely on traditional regression analysis because no suitable analysis method was available (cf. Dul, 2016, p. 12). Therefore, studies that utilize NCA as the most appropriate method for necessary-but-not-sufficient causes are rare (cf. Richter/Hauff, 2022, p. 2).

A necessary condition is defined as “a constraint, a barrier, an obstacle, a bottleneck that must be managed to allow a desired outcome to exist” (Dul, 2016, p. 11). Therefore, the NCA enables the examination of whether an independent variable serves as a necessary but not sufficient determinant for a specific outcome. In this context, if a determining factor X is not present, the outcome Y cannot be observed; in other words, X enables the presence of Y (cf. Dul, 2016, p. 10f). In contrast to a sufficiency cause, however, the presence of X does not automatically lead to the existence of the outcome Y (cf. Dul, 2016, p. 11).

Besides analyzing whether a necessary factor is present (necessity in kind), NCA can also determine the precise numeric level that is required of the determining variable for a certain level of the outcome (necessity in degree) (cf. Vis/Dul, 2018, p. 879). The latter point is the main difference between NCA and fuzzy set qualitative comparative analysis (fsQCA) which is applied in other papers for the analysis of necessary causes (cf. Vis/Dul, 2018, p. 873).

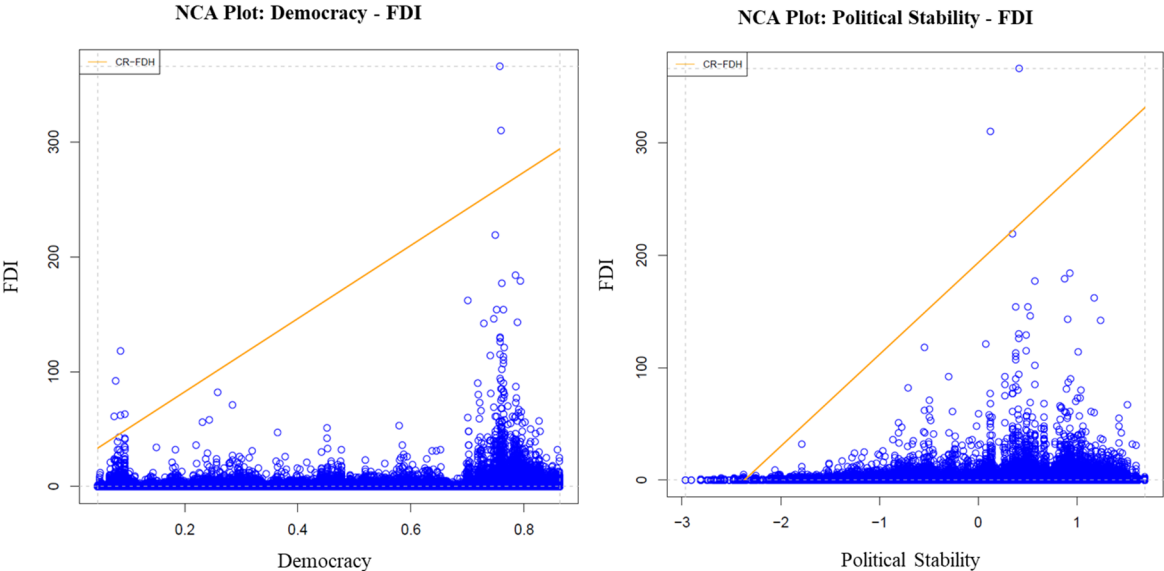
NCA differs from traditional regression analysis in that other independent variables cannot compensate for a missing X; the outcome can under no circumstances be observed, even if other determinants show favorable values (cf. Dul, 2016, p. 11). Put differently, regressions follow an additive logic whereas NCA is multiplicative (cf. Dul, 2016, p. 11). Due to the necessary cause’s non-substitutability, control variables do not affect the necessity relationship and, hence, do not need to be included in the model; endogeneity problems because of omitted variables also cannot occur (cf. Richter/Hauff, 2022, p. 4).

The analysis is performed with the NCA-package (Version 3.3.3) available for RStudio (cf. Dul, 2016, p. 41; cf. Dul, 2023). In the first step of the analysis, and to determine whether the presence of a necessary cause can generally be assumed, a scatterplot is constructed in which

the independent variable is plotted on the x-axis and the dependent variable on the y-axis (cf. Dul, 2016, p. 26). If the upper left part of the scatterplot shows no or only a few observations, a necessary condition can be assumed and the analysis continued (cf. Dul, 2016, p. 23). The constraining effect of the determinant is visualized in the scatter plot, because low values of the determinant cannot lead to high values of the outcome (cf. Dul et al., 2020, p. 385), thereby implying that a high value of Y is not possible without a certain level of X.

In the present study, scatter plots are created for the variable combinations democracy-FDI and political stability-FDI. Observations with higher values for democracy and political stability are found in the right corner. The scatter plots in Figure 2 clearly show an empty upper left corner, hence giving a first indication of the presence of necessary conditions.

Next, a ceiling line is drawn, splitting the (almost) empty space in the upper left corner from the space with observations on the right. The preferred ceiling technique for continuous determining variables as in the present study is the ceiling regression with free disposal hull (CR-FDH) (cf. Dul, 2016, p. 28; cf. Richter/Hauff, 2022, p. 3) which is displayed as the orange line in the scatter plots. The few observations above the ceiling line are not an issue for this ceiling technique (cf. Dul, 2016, p. 23).



Source: Illustration by author based on RStudio output.

Figure 2: NCA Plots with CR-FDH Ceiling Line

To confirm or reject the necessary condition assumed by the observation of the scatter plots, several NCA-specific parameters are calculated such as “ceiling zone, scope, accuracy, effect

sizes, condition inefficiency, and outcome inefficiency” (Dul, 2016, p. 41). The most relevant parameters are accuracy, effect size (d) and the according p-values. The analysis’ accuracy is determined by calculating the “the number of observations that are on or below the ceiling line divided by the total number of observations, multiplied by 100%” (Dul, 2016, p. 28). The effect size is the most important figure to interpret the strength of the constraint that the determinant puts on the output. It is also the response to the proposed research question to what extent the determinant is necessary for the outcome (cf. Vis/Dul, 2018, p. 880). It is determined by calculating the percentage of the size of the empty upper-left corner (ceiling zone) to the size of the total space with observations (scope) (cf. Dul, 2016, p. 29). Consequently, a proportionately large empty upper left corner indicates a large constraint (cf. Dul et al., 2020, p. 385). Effect size values below 0.1 are deemed small, medium effect sizes are those between 0.1 and 0.3, large between 0.3 and 0.5 and those above 0.5 very large (cf. Dul, 2016, p. 37). The accuracy and effect size, however, cannot indicate whether the results are statistically significant or the result of coincidence (cf. Dul et al., 2020, p. 386). Therefore, p-values are determined through approximate permutation tests and reported in the output (cf. Dul et al., 2020, p. 392).

The effect sizes and p-values are significantly affected by outliers, because they are mainly determined based on the position of the ceiling line that is drawn between the ceiling zone and the scope (cf. Richter/Hauff, 2022, p. 6). Therefore, it is highly recommended to perform an outlier analysis using the NCA-specific command in RStudio. Although some outliers are present in the given dataset, their influence on the NCA results is not significant and requires no further action.

Besides the evaluation of the necessity in kind with effect sizes and p-values, the NCA allows for the analysis of necessity in degree, which provides precise information on the required numeric level of the determining variable for a specific level of the outcome variable (cf. Dul, 2016, p. 40). A bottleneck table can be retrieved that displays the necessary levels of democracy and political stability in a host country for a certain number of FDI.

5. Results

5.1. Descriptive Statistics and Correlations

Table 1 and Table 2 present the descriptive statistics and pairwise correlations of the variables used in the regression models, except for year and industry dummies. The variable correlations are on an acceptable level. High correlations with values above 0.7 (cf. Backhaus *et al.*, 2021,

p. 29) can only be observed for the pair political stability and GDP per capita. This result can be explained by the fact that changes in the institutional environment and the economic progress of a country often occur at the same time (cf. Fuentelsaz *et al.*, 2020, p. 8). Nevertheless, a Variance Inflation Factor (VIF) analysis was conducted afterwards to rule out the presence of multicollinearity. A VIF value higher than 10 would indicate that multicollinearity is present (cf. Backhaus *et al.*, 2021, p. 123), but as all values are below 5, this is not an issue (cf. Aguilera-Caracuel *et al.*, 2013, p. 2661).

Variables	Mean	Standard Deviation	Min.	Max.
FDI	0.358	2.362	0	366
Democracy (std)	0.00486	1.001	-2.462	1.086
Political Stability (std)	-0.0110	0.976	-4.126	1.600
GDP	1.418e+12	2.063e+12	3.145e+08	1.782e+13
GDP per capita	31,839	23,660	151.2	133,712
Trade	101.5	87.30	15.68	442.6
Population	1.252e+08	3.148e+08	82,475	1.412e+09
Population growth	0.825	0.911	-6.852	19.36
Employees	30.17	66.53	0	2,300
Total Assets (ln)	8.226	1.909	0	15.14

Notes: N = 302,098 observations for 46,001 company-host country combinations.

Democracy and political stability are standardized, total assets are ln-transformed.

Source: Illustration by author.

Table 1: Descriptive Statistics

Variables	1	2	3	4	5	6	7	8	9	10
1 FDI	1.000									
2 Democracy (std)	0.020	1.000								
3 Political Stability (std)	0.010	0.540	1.000							
4 GDP	0.040	-0.160	-0.120	1.000						
5 GDP per capita	0.030	0.510	0.700	-0.060	1.000					
6 Trade	-0.010	-0.220	0.390	-0.310	0.380	1.000				
7 Population	0.010	-0.420	-0.420	0.640	-0.340	-0.230	1.000			
8 Population growth	0.000	-0.200	-0.140	-0.200	0.020	0.100	-0.010	1.000		
9 Employees	0.030	-0.040	-0.050	-0.070	-0.060	0.000	-0.030	0.020	1.000	
10 Total Assets (ln)	0.070	-0.070	-0.070	-0.120	-0.070	0.010	-0.060	0.020	0.450	1.000

Notes: Democracy and political stability are standardized, total assets are ln-transformed.

Source: Illustration by author.

Table 2: Pairwise Variable Correlations

5.2. Multiple Regression Analysis

Table 3 displays the results of the multiple regression analysis. Four models were developed: Model 1 contains only the control variables, Models 2 and 3 each include one of the institutional variables and Model 4 features all examined variables. Year and industry dummy variables as well as random effects are included in all models. With this step-by-step approach, each variable's individual effect on the dependent variable can be examined (cf. Contractor et al., 2020, p. 9).

	FDI			
	Model 1	Model 2	Model 3	Model 4
Democracy		0.159*** (0.031)		0.182*** (0.031)
Political Stability			-0.027 (0.029)	-0.072* (0.030)
GDP	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
GDP per capita	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
Trade	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	0.001* (0.000)
Population	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
Population Growth	-0.003 (0.012)	0.004 (0.013)	-0.005 (0.012)	0.001 (0.013)
Employees	0.003*** (0.001)	0.003*** (0.001)	0.003*** (0.001)	0.003*** (0.001)
Total Assets (ln)	0.349*** (0.017)	0.349*** (0.017)	0.349*** (0.017)	0.348*** (0.017)
/lnalpha	1.063*** (0.122)	1.062*** (0.122)	1.062*** (0.123)	1.059*** (0.122)
Constant FDI	-4.562*** (0.225)	-4.612*** (0.227)	-4.572*** (0.226)	-4.645*** (0.229)
Industry Dummy	Included	Included	Included	Included
Year Dummy	Included	Included	Included	Included
Random Effects	Included	Included	Included	Included
Degree of Freedom	32	33	33	34
Observations	302,098	302,098	302,098	302,098

Notes: Robust standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, Poisson regressions.

Democracy and political stability are standardized, total assets are ln-transformed.

Source: Illustration by author.

Table 3: Multiple Regression Results

In Model 1, all control variables have a significant influence on the dependent variable, except for trade and population growth. The significance remains constant throughout all models, only the results for the trade variable become slightly significant in Model 4. Hypothesis 1 stated that democracy positively influences MNEs' FDI. In Model 2, democracy has a highly significant and positive influence on FDI ($\beta=0.159$, $p<0.001$). The significance remains at the same high level, but the standardized regression coefficient increases in Model 4 ($\beta=0.182$, $p<0.001$). The regression coefficient indicates that an increase in the democracy variable by one standard deviation results in an increase in the log of FDI by 0.182 units. Therefore, the models' results indicate that democracy has a positive and significant effect on FDI. Accordingly, hypothesis 1 is supported, the higher the level of democracy in a country, *ceteris paribus*, the more FDI it receives.

Hypothesis 3 suggested that political stability positively influences MNEs' FDI. The effect in Model 3 is slightly negative, but not significantly. Although the results turn moderately significant in Model 4 ($\beta=-0.072$, $p<0.05$), the sign remains negative. Hence, a one standard deviation increase results in a decrease of the log of FDI by 0.072 units. Due to the negative sign, which is contrary to the predicted effect, hypothesis 3 cannot be supported: An increase of the level of political stability results in less FDI, all other factors remaining constant.

To validate the results, additional regression analyses were performed. Consistent with previous research (cf. Jensen, 2003, p. 603; cf. Ramírez-Alesón/Fleta-Asín, 2016, p. 36), further regression models were specified in which all independent and control variables are lagged by one year. Apart from lagging the variables, all other settings for the regression remain constant. It is theoretically plausible to assume that MNEs' analyses of potential host countries are dependent on official data sources that are annually updated and that the time between the initial consideration of an investment abroad and the actual implementation can take several months, if not years (cf. Busse/Hefeker, 2007, p. 409). The results of this additional regression analysis can be found in Table 7 in the appendix.

For democracy, the robustness check confirms the previous findings, as the variable in both models still exerts a significant and positive influence on FDI ($\beta =0.220$, $p<0.001$, in Model 4). The effect is even stronger when compared with the non-lagged model, because increasing the democracy variable by one standard deviation is associated with a rise of 0.220 units in the log of FDI. Political stability surprisingly yields a positive, yet still insignificant effect on FDI in the Model 3. In contrast to the previous results, however, this effect remains insignificant in Model 4.

5.3. Necessary Condition Analysis

Since the NCA package cannot deal with panel data specifically (cf. Richter/Hauff, 2022, p. 7), the basic analysis is conducted without taking time factors into account. The NCA results are displayed in Table 4.

Democracy					Political Stability				
Accuracy	<i>d</i>	p-value	Ceiling Zone	Scope	Accuracy	<i>d</i>	p-value	Ceiling Zone	Scope
100%	0.55	0.007 **	165	299	99.8%	0.61	0.013 *	1,031	1,702

Notes: *d* = effect size, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, 1,000 permutations.

Source: Illustration by author, based on RStudio output.

Table 4: NCA Results

Hypotheses 2 and 4 presumed that host country democracy and political stability are necessary (but not sufficient) conditions for MNEs’ FDI. The analysis’ accuracy exceeds the required value of 95 percent (cf. Dul, 2016, p. 38) for both variables. The very large effect sizes found for democracy ($d=0.55$) and political stability ($d=0.61$) imply that both institutional factors put a decisive constraint on the outcome variable FDI. In combination with the significant p-values (0.007 ** and 0.013 *), which suggest that the NCA results are not a coincidental outcome, both institutional factors are confirmed to be necessary conditions. Accordingly, the necessity hypotheses (H2 and H4) are supported. If a host country is not politically stable and democratic, it will not receive any FDI. Additionally, it can be inferred that the institutional factors cannot compensate for each other, because each condition needs to be fulfilled individually. Even if, for instance, a host country is highly democratic, it will not receive FDI if it is not politically stable as well.

With the necessity in kind confirmed, the necessity in degree can be determined. Those results are displayed in Table 5. It provides detailed information regarding the numeric constraints that the necessary conditions put on the outcome variable FDI. The bottleneck table shows actual variable values and provides information on the necessary levels of the independent variables (X_1, X_2) for a given number of new investments in a host country (Y). For instance, for one investment ($Y=1$), a host country’s political stability must achieve a minimum level of -2.356. Host countries whose level of political stability is below that given threshold do not receive any FDI, because the necessary condition of stability is not fulfilled. In contrast, no minimum level of democracy is required for this outcome level. This suggests that small amounts of investments are also made in countries that are undemocratic.

Outcome Y FDI	Determinant X ₁ Democracy	Determinant X ₂ Political Stability
1	NN	-2.356
2	NN	-2.344
3	NN	-2.331
4	NN	-2.319
5	NN	-2.307
10	NN	-2.246
15	NN	-2.184
20	NN	-2.123
25	NN	-2.062
30	NN	-2.001
35	0.051	-1.939
50	0.098	-1.756
100	0.255	-1.143
150	0.412	-0.530
200	0.569	0.082
250	0.725	0.695
300	0.863	1.307

Notes: NN = not necessary, 1,000 permutations.

Source: Illustration by author, based on RStudio output.

Table 5: Bottleneck Table with Actual Variable Values

The minimum levels required for political stability increase slightly with every increase of the outcome variable FDI. Beyond an FDI count of 35 ($Y \geq 35$), democracy and political stability become a necessary AND-condition, because both variables need to exceed individual minimum values of 0.051 for democracy and -1.939 for political stability at the same time.

Since panel data cannot be adequately analyzed with basic NCA, it is recommended to run the analysis for all years individually as a robustness check (cf. Richter/Hauff, 2022, p. 7). These results can be found in Table 6. Although the effect sizes and p-values vary widely, the presence of necessary conditions is supported for several years. Notable here is the observation that for 2016, both variables display very large effect sizes with significant p-values ($d=0.7$, $p=0.005$ ** and $d=0.74$, $p=0.01$ *).

Year	Democracy		Political Stability	
	<i>d</i>	p-value	<i>d</i>	p-value
2003	0.44	0.209	0.41	0.273
2004	0.61	0.011 *	0.49	0.118
2005	0.78	0.018 *	0.54	0.441
2006	0.11	0.901	0.29	0.488
2007	0.53	0.126	0.52	0.204
2008	0.10	0.926	0.56	0.007 **
2009	0.36	0.421	0.48	0.263
2010	0.46	0.180	0.53	0.175
2011	0.46	0.176	0.55	0.244
2012	0.40	0.372	0.59	0.147
2013	0.30	0.570	0.51	0.232
2014	0.57	0.252	0.71	0.196
2015	0.38	0.500	0.64	0.184
2016	0.70	0.005 **	0.74	0.010 *
2017	0.43	0.061	0.55	0.031 *
2018	0.27	0.657	0.46	0.660
2019	0.33	0.551	0.56	0.396
2020	0.45	0.232	0.75	0.001 **
2021	0.40	0.177	0.59	0.103

Notes: *d* = effect size, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, 1,000 permutations.

Source: Illustration by author, based on RStudio output.

Table 6: Yearly NCA Results, Effect Sizes and p-Values

6. Discussion

6.1. Interpretation

This study empirically examined the influence of two institutional factors, democracy and political stability, on MNEs' FDI by performing a multiple regression analysis and a necessary condition analysis with a large cross-level panel dataset.

The regression analysis supports the assumption that democracy has a positive influence on FDI. This result is in line with previous research, where it is argued that democratic countries provide a less risky business environment where companies and the government form close cooperations to ensure economic growth and development (cf. Jensen, 2008, p. 1041). Also, MNEs seem to care about civil liberties that are guaranteed in democracies and are attracted by sound regulations that protect property rights. It can be argued that, as suspected, a company's stakeholders nowadays have a decisive influence on investment location decisions. Companies that want to avoid the potential reputation damages following investments in undemocratic countries are consequently more inclined to choose democratic investment locations. Moreover,

the results provide evidence that countries that want to attract more FDI need to develop democratic processes. The feared trade off, which suggested that countries need to decide between more democratization or more FDI because of a negative influence of democracy, is ruled out with the found results (cf. Asiedu/Lien, 2011, p. 99).

However, when the NCA results are examined, a slightly different picture emerges. Although it is confirmed that democracy, in general, is a necessary condition, its influence is only relevant when a company makes multiple investments in one country. This is reflected in the bottleneck table which displays that for up to 35 new investments, the level of democracy does not constrain the FDI decision. Hence, despite the general finding that a higher level of democracy leads to more FDI and that its presence is necessary, single or few investments are also directed to undemocratic countries. It suggests that the arguments presented in theory only matter when a high number of investments is considered. Accordingly, the advantages of a democratic host country and the pressure that stakeholders put on MNEs to only invest in democratic countries because of social responsibility concerns seem to be irrelevant for small numbers of investments. The increasing required levels of democracy for higher numbers of investments indicate that the positive and stabilizing effects of that institutional factor become relevant when an MNE invests more often. Hence, it is demonstrated that undemocratic countries do not receive FDI in high numbers.

For the second examined institutional factor, political stability, the suggested positive effect on FDI is not supported by the empirical results. The regression coefficient is slightly negative, but also only moderately significant. Although this result is contrary to the widespread understanding that political stability attracts FDI (cf. Alcantara/Mitsubishi, 2012, p. 345), there are a few potential reasons for this. Previous research points to several factors that influence this relationship: For example, intense competition in the MNE's home country and the affiliation with a business group, in particular for small companies (cf. Alcantara/Mitsubishi, 2012, p. 345), as well as concentrated ownership (cf. Driffield et al., 2013, p. 151) have a moderating effect. Further evidence of such an effect is found for the industry that the investing MNE is active in (cf. García-Canal/Guillén, 2008, p. 1109). Also, and in contrast to the reasoning in Chapter 3, the higher number of political constraints in politically stable countries may negatively affect a company's influence on government decisions. This is because other political actors, such as courts, could revise agreements that have already been reached with the government (cf. García-Canal/Guillén, 2008, p. 1110).

A further argument for the negative effect is related to the positive results that this study found for democracy. *Ceteris paribus*, democracies receive more FDI. However, Lohwasser et al. (cf. 2022, p. 122). argue that non-democratic countries are highly politically stable. This variable interdependency might lead to a bias that results in negative effects for political stability.

In light of the surprising regression results, it is highly interesting that the NCA confirms that political stability is a necessary condition with a very large effect size and a significant p-value, supporting Richter & Hauff's results (cf. 2022, p. 8). Although an increase in political stability reduces the amount of FDI that is directed towards a country, a certain level must still be reached. The bottleneck table reveals that the necessary minimum level of political stability for one investment is moderate, but existent. It suggests that countries with a level below that threshold do not receive any FDI; an overview of the countries that do not fulfill this condition is listed in Table 8 in the appendix. It is not surprising to find countries like Afghanistan and the Syrian Arab Republic in this list, as both countries have experienced major crises in the past two decades that deter FDI due to the significant insecurity and tremendous risks present.

Even though both institutional factors are necessary conditions for FDI with similarly large effect sizes, the bottleneck table reveals that political stability in a host country is more relevant than the regime type. Political stability seems to be more influential than democracy because a certain level is required even for one investment. This leads to the assumption that MNEs only invest in relatively stable countries, regardless of the regime type. Previous research has already tried to find explanations for why the regime type is either not as relevant or why democracies might even receive less FDI than non-democracies. One argument presented is that policymakers in non-democracies are not dependent on public support and can, for instance, freely offer MNEs financial incentives in return for investments (cf. Asiedu/Lien, 2011, p. 99).

Nevertheless, for investment counts of 35 and above, a necessary AND-condition occurs since both institutional factors become necessary and need to be in place at the respective required levels. Hence, a country that seeks to attract high numbers of FDI must ensure that both institutional factors are present at the necessary levels.

The yearly NCA that was conducted as robustness check also reveals interesting results. For instance, the effects of the global uncertainty triggered by the financial crisis in 2007 (cf. Nielsen et al., 2017, p. 63) can be observed. The highly significant and very large constraining effect of political stability ($d=0.56$, $p\text{-value}=0.007^{**}$) in 2008 implies that MNEs were highly cautious to invest in stable countries only. The fact that the effect sizes were not significant in the

following years might be explained by the catch-up effects of MNEs hoping to increase financial returns by investing abroad. That investments in those years were also directed to unstable countries might have been motivated by the pressure put on MNE managers to increase profitability after the crisis, which is a circumstance that is known to lead to risky investments (cf. Alcantara/Mitsubishi, 2012, p. 345). While democracy had a large constraining effect for investments in 2016, this applies to political stability in 2016, 2017 and 2020. The increase in protectionism and skepticism towards globalization in developed countries that took place in the 2010's (cf. Cuervo-Cazurra et al., 2023, p. 205) explains the very large effect sizes and significant p-values, as it could be reasoned that investments, if made at all, were only directed to democratic and politically stable countries. One further explanation for those findings is that companies become more risk-averse with increasing internationalization experience (cf. García-Canal/Guillén, 2008, p. 1110). The long time frame of the present study might have uncovered evidence for this underlying mechanism, especially since investments at the firm-level were examined.

6.2. Theoretical Implications

Studies on the relationship between institutional factors and FDI are scarce and report inconsistent results. Even more so, it is unknown which individual institutional factors are significant determinants of FDI, and whether those factors attract or deter investments. This study addresses the recent call for further research on this topic (cf. Bailey, 2018, p. 146) and contributes to closing the research gap by refining the understanding of how host country institutional factors influence FDI. Several theoretical implications can be derived from this study:

First, this study uses an extensive panel dataset that covers an extended time frame of 19 years, which allows accounting for time-variant factors and provides robust results. The large number and geographical distribution of host countries examined here provides a comprehensive overview for the importance of institutional factors.

With the findings of the regression analysis, the empirical evidence of a positive effect of democracy on FDI is enhanced. Thereby, the arguments presented in several previous studies for why the influence is positive and not negative, as argued for by some authors, are supported. Moreover, the results present empirical support for a negative relationship between political stability and FDI. Because the effect is contrary to the expectation and adds to the inconsistent results in the international business literature, further research is needed to uncover the underlying mechanisms and circumstances in which the results hold true or not.

The main value of this study, however, lies in the combined application of regression analysis and necessary condition analysis, which yielded novel and unique insights. With traditional regression analysis alone, which is applied by most studies in international business research, it could only be supported that democracy and political stability affect FDI, one positively and the other negatively. This study, however, is one of the first to additionally perform an NCA which reveals that both factors are indeed necessary conditions and confirms that their influence on FDI is stronger than initially thought or reported in previous studies. The relevance behind this fact is that FDI does not exist without the presence of these two factors. This insight is essential for policymakers that aim to increase their country's attractiveness for FDI. In addition, the NCA's bottleneck table provided insights into the required levels of the independent variables for FDI. The fact that the constraining effect of democracy is weaker than political stability and only becomes relevant when many investments are made adds to the understanding of this relationship. Also, the contrasting insights gained for the influence of political stability from regression and necessary condition analysis substantiate the need for further analysis of the underlying causes.

These findings, overall, contribute significantly to the research on the relationship between institutional factors and FDI. With this study's results, additional research can be performed, for example if similar results are found when the level of effective democracy is examined, that is, how well the formalized democratic rules are indeed implemented and adhered to (cf. Basu et al., 2023a, p. 2)

Finally, this study demonstrates the value and power of NCA and thus supports the call for more studies using this tool in international empirical business research. The precise findings uncovered with the combination of regression analysis and NCA substantiate further research. As argued by Richter & Hauff (cf. 2022, p. 9) and demonstrated in this study, NCA is especially valuable when there are arguments for and against the necessary condition.

6.3. Practical Implications

Foreign investments highly influence economic growth in the host countries (cf. Busse/Hefeker, 2007, p. 397). Among the various possible types of investment, host countries prefer FDI, as it implies a long-term commitment that cannot be easily reversed (cf. Ahlquist, 2006, p. 686) in case the economy develops unfavorably (cf. Busse/Hefeker, 2007, p. 397). Therefore, host countries that wish to strengthen their economic development should aim to attract FDI by MNEs. As this study shows, the host country's attractiveness is increased when well-developed

institutional factors are present. The NCA has identified the critical levels of the institutional factors that need to be in place for FDI and provides highly relevant insights for managers and policymakers alike.

Governments should draft and implement regulations that promote the development of democratic institutions. The simultaneous economic and institutional development of several Central and Eastern European countries is a good example for how favorable regulatory changes can attract FDI and consequently lead to growth (cf. Avioutskaa/Tensaout, 2016, pp. 375–376). Countries that have not obtained much FDI yet are encouraged to continue developing democratic processes, because MNEs will likely direct FDI there once they have realized the potential. Because the increase in FDI is moderate when the level of democracy increases and the necessary condition only applies for large number of investments, governments can fairly quickly expect to obtain additional FDI after implementing more democratic regulations. Policymakers of countries with moderate democracy levels that wish to receive higher amounts of FDI might now identify that the current level is not enough for attracting many investments. With this information, changes and regulations directly intended to strengthen democracy can be implemented.

Moreover, although increased political stability slightly decreases received FDI, a government must still ensure a certain level of that institutional factor. In reality, this implies that the implementation of some regulations is reasonable and necessary, but too many regulations complicate companies' operations and deter them from investing (cf. Holmes et al., 2013, p. 555). For managers, this study provides insights into the likely decisions and actions of competing MNEs (cf. Yasuda/Kotabe, 2021, p. 178). Managers that keep an eye on the institutional development in potential host countries can quickly respond to favorable changes and direct future investments there when sufficient levels of democracy and political stability are reached. The required levels, however, depend on the company's and even the manager's perception of risk and the experience that the company has with difficult business environments (cf. Buckley et al., 2018, p. 166).

6.4. Limitations and Future Research

This study has several limitations that can be addressed in future research. The focus of this study was the examination of the two most important and well-operationalized formal institutional factors that influence MNEs' location choices for FDI. Further research could examine how other institutional factors, such as corruption or rule of law, influence FDI location

decisions or whether they are also necessary conditions. Since only formal institutions were examined here, analyzing informal institutions or a mix of both is advised as it is assumed that companies evaluate the institutional environment in total and not only individual factors (cf. Pajunen, 2008, p. 656). Because NCA allows assessing several determinants at once, examining the necessary levels of several institutional factors for certain FDI levels would be a reasonable extension of this study. Thereby, additional critical factors could be revealed that would allow for highly relevant practical insights. In general, the mere fact that NCA is a highly relevant and recommended but unknown method provides many opportunities for future research.

The operationalization of FDI as a count variable has the advantage of simple interpretation and facilitates the presentation of bottleneck results through integer numbers. However, this variable does not provide information on the investment's volume in terms of invested dollar amount. If variations in project size were considered, more nuanced results could be obtained, in that different levels of the institutional factors could be found to be necessary for certain dollar amounts.

Moreover, the reliability and accuracy of the datasets can be questioned (cf. Asiedu/Lien, 2011, p. 103) because data on institutional factors is primarily collected through expert opinions and can generally only capture a small observable fraction of the true level (cf. Kaufmann et al., 2011, p. 242). Although the datasets used in this study are renowned and have been utilized in previous research, alternative datasets measuring democracy and political stability might yield different results.

Also, this study's dataset only contains data from large US companies. Although a large fraction of global FDI is covered by this dataset because most FDI originate from either the US or China (cf. Contractor, 2022, p. 162), broadening the set of examined home countries could enrich the gained knowledge regarding which institutional factors are influential and necessary. In particular, the comparison of the bottleneck tables for companies from different home countries could lead to interesting results. This is because even within the group of developed countries, whether an MNE invests in an unstable host country or not varies significantly (cf. Driffield et al., 2013, p. 151). A differentiation between developed and developing home countries could lead to even stronger variations; especially an NCA for Chinese companies could reveal considerably different results, because those MNEs seem to be less deterred by risky host countries (cf. Buckley et al., 2016, p. 440).

Lastly, the host countries were not clustered into developing or developed countries. Since developing countries are not as stable as developed countries because they are more likely to recently have experienced changes in their institutional framework (cf. Bailey, 2018, p. 142), this differentiation could lead to interesting results.

7. Conclusion

The research questions posed at the beginning of this study asked to what extent the two host country institutional factors, democracy and political stability, influence MNEs' FDI location decisions and whether they are also necessary conditions. An empirical examination was conducted with a large panel dataset that covered investments by US companies from 2003 to 2021. A multiple regression analysis and a necessary condition analysis were performed and yielded interesting results: First, a significant influence of both factors can be supported. While an increase in democracy, *ceteris paribus*, leads to an increase in FDI, an increase in the level of political stability results in a decrease of FDI. Second, the NCA confirmed the assumption that necessary conditions are in place for both factors. A moderate level of political stability is necessary for any number of investments, whereas a certain level of democracy is only required for a higher number of investments. In general, it can be stated that the higher the number of investments, the higher the respective necessary levels of democracy and political stability. The effect sizes varied significantly over the years covered by this study, indicating that the influence of the institutional variables fluctuates with the overall global economic development.

This study has important theoretical and practical implications. The necessary condition analysis provided highly insightful results into the examined relationship and emphasized its further use in research, especially in combination with multiple regression analysis. In practice, policymakers who want to increase the number of received FDI should maintain and develop mainly their country's democracy, but also the political stability levels. This study contributes to existing research on the influence of institutional factors on FDI but also substantiates the need for further research on these relationships.

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Appendix

	FDI			
	Model 1	Model 2	Model 3	Model 4
L. Democracy		0.204*** (0.035)		0.220*** (0.036)
L. Political Stability			0.010 (0.030)	-0.047 (0.031)
L. GDP	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
L. GDP per capita	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
L. Trade	-0.000* (0.000)	0.001 (0.000)	-0.001* (0.000)	0.001* (0.000)
L. Population	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
L. Population Growth	0.015 (0.016)	0.030 (0.016)	0.015 (0.016)	0.028 (0.016)
L. Employees	0.002** (0.001)	0.002** (0.001)	0.002** (0.001)	0.002** (0.001)
L. Total Assets_ln	0.358*** (0.017)	0.358*** (0.018)	0.358*** (0.017)	0.358*** (0.018)
/lnalpha	1.131*** (0.115)	1.131*** (0.115)	1.131*** (0.116)	1.129*** (0.116)
Constant FDI	-5.143*** (0.266)	-5.221*** (0.265)	-5.139*** (0.266)	-5.248*** (0.266)
Industry Dummy	Included	Included	Included	Included
Year Dummy	Included	Included	Included	Included
Random Effects	Included	Included	Included	Included
Degree of Freedom	31	32	32	33
Observations	227,724	227,724	227,724	227,724

Notes: Robust standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, Poisson regressions.

Democracy and political stability are standardized, total assets are ln-transformed. The independent and control variables are lagged by one year.

Source: Illustration by author.

Table 7: Robustness Check Results, Regression with One-Year Lag

Country	Year
Afghanistan	2007; 2008; 2009; 2010; 2011; 2012; 2013; 2014; 2015; 2016; 2017; 2018; 2019; 2020; 2021; 2022
Burundi	2004
Central African Republic	2014
Colombia	2003
Congo, Dem. Rep.	2004
Guinea	2007
Iraq	2003; 2004; 2005; 2006; 2007; 2008; 2014; 2018; 2019; 2020; 2021; 2022
Libya	2018; 2019; 2020
Mali	2022
Pakistan	2007; 2008; 2009; 2010; 2011; 2012; 2013; 2014; 2015; 2016; 2017
Somalia	2003; 2004; 2005; 2006; 2007; 2008; 2009; 2010; 2011; 2012; 2013; 2014; 2015; 2019; 2020; 2021; 2022
South Sudan	2014; 2015; 2016; 2017; 2018; 2019
Sudan	2007; 2008; 2009; 2010; 2011; 2014
Syrian Arab Republic	2012; 2013; 2014; 2015; 2016; 2017; 2018; 2019; 2020; 2021; 2022
Yemen	2010; 2011; 2012; 2013; 2014; 2015; 2016; 2017; 2018; 2019; 2020; 2021; 2022

Notes: In the respective years, those countries are rated below the required threshold for political stability (-2.356) as reported in the bottleneck table (Table 5).




Source: Illustration by author, based on the World Governance Index dataset.

Table 8: List of Countries and Years Where the Required Threshold for Political Stability Is Not Reached

Diskussionspapiere des Instituts für Organisationsökonomik

Seit Institutsgründung im Oktober 2010 erscheint monatlich ein Diskussionspapier. Im Folgenden werden die letzten zwölf aufgeführt. Eine vollständige Liste mit Downloadmöglichkeit findet sich unter <http://www.wiwi.uni-muenster.de/io/de/forschen/diskussionspapiere>.

- DP-IO 8/2024** The Impact of Host Country Institutional Factors on International Investments
Miriam Nebenführ
August 2024
- DP-IO 7/2024** Flexibles Arbeiten im Hochschulmanagement
Caroline Werner
Juli 2024
- DP-IO 6/2024** Coach Characteristics and Their Impact on Substitution Decisions
Lars Vischer
Juni 2024
- DP-IO 5/2024** Development of Loan Players in Professional Football
Niklas Günter/Lars Vischer
Mai 2024
- DP-IO 4/2024** Effects of the Video Assistant Referee on Games in the Bundesliga
Tom Böttger/Lars Vischer
April 2024
- DP-IO 3/2024** The Influence of Role Models on Women's Entrepreneurial Intention and Behaviour
Lilo Seyberth/Anja Overwien
März 2024
- DP-IO 2/2024** Klausuren des Instituts für Organisationsökonomik
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Februar 2024
- DP-IO 1/2024** Management Tools
Alexander Dilger
Januar 2024
- DP-IO 12/2023** Rankings von Personen, Institutionen und Zeitschriften
Festvortrag zur Promotionsfeier der Wirtschaftswissenschaftlichen Fakultät am 24.
April 2013 in der Aula des Schlosses
Alexander Dilger
Dezember 2023
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Christopher Weber/Pascal Mayer
November 2023
- DP-IO 10/2023** 13. Jahresbericht des Instituts für Organisationsökonomik
Alexander Dilger/Lars Vischer
Oktober 2023
- DP-IO 9/2023** Bestimmung und Bewertung von Wachstumsfeldern im Sport
Alexander Dilger
September 2023



Herausgeber:
Prof. Dr. Alexander Dilger
Universität Münster
Institut für Organisationsökonomik
Scharnhorststr. 100
D-48151 Münster

Tel: +49-251/83-24303

Fax: +49-251/83-28429

www.wiwi.uni-muenster.de/io

