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Faculteit Bedrijfseconomische Wetenschappen

master in de toegepaste economische wetenschappen

Masterthesis

Foreign Direct Investments and Financial constraints

Jolien Van den Rul
Scriptie ingediend tot het behalen van de graad van master in de toegepaste economische wetenschappen, afstudeerrichting accountancy en financiering

PROMOTOR :
Prof. dr. Sigrid VANDEMAELE

COPROMOTOR :
Prof. dr. Mark VANCAUTEREN

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Foreword

During my master programme "Accountancy en Financiering: Finance track" with my general study domain "Toegepaste economische wetenschappen', I got the chance to research the effects of financial constraints on Foreign Direct Investment (FDI).

In order to research this, I used several different scientific research papers, which I was able to get via the databases of the university of Hasselt (UHasselt). Because of this, I want to thank the UHasselt for putting these extensive databases at the disposal of students. I was able to scientifically substantiate my research because of the availability.

I also want to express my gratitude to my promotors, prof. dr. Vandemaele and prof. dr. Vancauteren for their feedback and their guidance during my thesis. You were always available when I had questions, which I appreciated a lot. With your support, I was able to lift this thesis to a higher level.

Lastly, I want to thank my family and friends for their support. They were always right behind me to lighten my mood when I was down. I also want to express my gratitude towards my work colleagues. They were always there for me and were so understanding when I had prioritised my thesis above my work.

Samenvatting

Binnen deze masterproef heb ik onderzoek gevoerd naar het effect van financiële beperkingen op Belgische ondernemingen die beschouwd kunnen worden als multinationals. Ik kon afleiden dat er dankzij de vermindering van handelsrestricties, steeds meer internationale handel gedreven wordt. Door de groei van internationale handel is het voor bedrijven ook steeds meer mogelijk om hun productie zo te organiseren dat ze gebruik kunnen maken van verschillen tussen landen. Doordat bedrijven hun productie efficiënter organiseren tussen landen of regio's kunnen ze bestempeld worden als multinational. Multinationals zijn omwille van hun efficiëntie een interessante groep om te onderzoeken. Ze blijken productiever te zijn dan bedrijven die puur actief zijn in hun moederland. Uit onderzoeken blijkt ook dat multinationals vaak hogere interne fondsen genereren en aanhouden, en dat ze lagere lange termijn schulden hebben ten opzichte van hun totale schuld. Multinationals blijken gezonder te zijn dan bedrijven die niet internationaal actief zijn. In dit onderzoek beschouw ik multinationals als bedrijven die internationaal actief zijn dankzij buitenlandse directe investeringen, oftewel bedrijven die minstens één buitenlandse moeder of dochter onderneming hebben en zo een internationationale group vormen. Ik stelde me de volgende onderzoeksvraag:

> *Wat zijn de effecten van financiële beperkingen op Belgische bedrijven die deel uitmaken van een internationale groep ten opzichte van bedrijven die enkel binnen België actief zijn?*

Aan de hand van deze onderzoeksvraag en mijn literatuurstudie stelde ik twee grote hypotheses op die ik wilde beantwoorden met mijn onderzoek:

- *Belgische bedrijven die deel uitmaken van een internationale groep hebben minder externe fondsen ter beschikking ten opzichte van bedrijven die enkel binnen België actief zijn;*

- *Belgische bedrijven die deel uitmaken van een internationale groep hebben meer interne fondsen ter beschikking ten opzichte van bedrijven die enkel binnen België actief zijn;*

Deze hypotheses heb ik aan de hand van een veldexperiment onderzocht. De universiteit van Hasselt stelde mij toegang tot de Belfirst Database ter beschikking waaruit ik mijn steekproef heb kunnen trekken. Mijn onderzoek focuste op bedrijven die actief waren in de productie sector en die minstens 11 werknemers tewerkstelden. Vervolgens heb ik de financiële gegevens van deze bedrijven vergeleken met elkaar.

In mijn onderzoek maakte ik een onderscheid tussen drie groepen. Als eerste waren er bedrijven die enkel actief waren in België, dit was mijn controle groep. Vervolgens maakte ik een groep van bedrijven die minstens één buitenlandse moederonderneming hadden. Als laatste maakte ik een groep van bedrijven die minstens één buitenlandse dochteronderneming hadden, maar die geen moederondernemingen hadden.

In de univariate analyse keek ik naar de debt ratio als indicatie voor de financiële gezondheid van de drie groepen. Uit de literatuur bleek dat een debt ratio die kleiner is dan 0.60 een goede financiële gezondheid van een bedrijf kon weerspiegelen. Er was echter ook literatuur die aangaf dat vanuit een risico perspectief een debt ratio lager dan 0.40 aan te raden was. Wanneer er gekeken werd naar een maximum van 0.60 dan waren 13% van de dochter bedrijven financieel gezond, 43% van de moeder bedrijven, en slechts 4% van de bedrijven die enkel actief waren in België. Bij een maximum van 0.40 waren 6% van de dochterondernemingen financieel gezond, 20% van de moederbedrijven en slechts 1% van de bedrijven die enkel actief waren in België.

Vervolgens voerde ik ook een densiteitsanalyse uit waaruit ik opmerkte dat Belgische dochterondernemingen meer cash flow konden genereren en lagere debt ratios hadden. Verder bleek ook dat deze bedrijven lagere vaste activa hadden ten opzichte van hun totaal actief in vergelijking met bedrijven die enkel in België actief waren. Deze verschillen waren in mindere mate aanwezig bij Belgische moederondernemingen.

Vervolgens voerde ik regressieanalyses uit om meer inzicht te krijgen in de causale effecten die mogelijks aanwezig waren tussen mijn variabelen. Mijn regressies heb ik geschat aan de hand van de 'Ordinary Least Squares' (OLS) schattingstechniek. Tijdens het uitvoeren van mijn regressies, heb ik mijn regressies eenmaal met en eenmaal zonder uitschieter-controle uitgevoerd. Een controle voor uitschieters is belangrijk wanneer deze aanwezig zijn aangezien ze het geschatte effect sterk zullen doen afwijken van het werkelijke effect dat zou geschat worden indien de uitschieters niet aanwezig waren. De data werd door de controle voor uitschieters gewogen. Door dit te doen kon ik de uitschieters in mijn dataset houden, maar werd aan deze datapunten minder gewicht toegekend dan aan datapunten die zich meer zoals het gemiddelde gedragen.

In mijn eerste regressie keek ik naar de debt ratio voor multinationals ten opzichte van niet-multinationals. Voor Belgische dochterondernemingen bleek dat ze significant lagere debt ratios hadden ten opzichte van niet-multinationals, tot ik de ratio van vast actief over totaal actief toevoegde. Door het toevoegen van de ratio werd de impact van het zijn van een Belgische dochteronderneming op de debt ratio insignificant. Deze ratio gaf een indicatie van de hoeveelheid onderpand die de onderneming had en kon garant staan om een lening te bemachtigen. Wanneer ik deze samen bekeek bleek dat de debt ratio sterk afhankelijk was van de hoeveelheid mogelijk onderpand dat de dochteronderneming had. De ratio vast actief over totaal actief was dan weer lager wanneer het bedrijf een dochteronderneming was. Deze effecten waren niet aanwezig voor Belgische moederondernemingen. Ze waren niet significant verschillend van niet-multinationals.

Wanneer ik keek naar korte termijn schulden, bleek ook dat Belgische dochterondernemingen hogere current solvency ratios hadden. Ze hadden meer korte termijn activa dan korte termijn passiva in vergelijking met niet-multinationals. Dit effect was niet aanwezig voor Belgische moederondernemingen. Ze waren weer niet significant verschillend van niet-multinationals. Hierbij kon ik mijn eerste hypothese bevestigen, met de nuance dat Belgische dochterondernemingen minder externe fondsen ter beschikking hadden ten opzichte van bedrijven die enkel binnen België actief zijn.

Vervolgens testte ik mijn tweede hypothese. Hierbij vergeleek ik de kasstromen van de groepen. Hieruit bleek dat Belgische dochterondernemingen meer kasstromen konden genereren dan niet-multinationals. Dit effect was ook aanwezig bij Belgische moederondernemingen, maar enkel indien ik niet controleerde voor uitschieters. Dat de kasstromen hoger waren voor de Belgische dochterondernemingen lag in lijn met mijn verwachtingen uit mijn literatuur onderzoek. Multinationals konden vaak minder beroep doen op externe fondsen voor hun internationale investeringsprojecten omdat banken deze projecten als meer risicovol ervaarden. Daarbij kwam ook nog eens dat het mogelijk onderpand niet altijd door de banken aanvaard werd. Hierdoor moesten multinationals meer beroep doen op intern gegenereerd fondsen om hun investeringsprojecten te financieren. Hierbij kon ik dus ook opmerken dat Belgische dochterondernemingen de onzekere aanwezigheid van externe financieringsbronnen opvingen door meer interne financiering te genereren. Bijgevolg kon ik de tweede hypothese ook met meer nuance accepteren, Belgische

dochterondernemingen hebben meer interne fondsen ter beschikking ten opzichte van bedrijven die enkel binnen België actief zijn.

Dat deze effecten aanwezig waren voor Belgische dochterondernemingen toonde aan dat de financiële beperkingen wel degelijk een rol spelen in het huidige internationale klimaat. Aangezien internationalisatie positieve effecten kan hebben op alle landen die betrokken zijn, is het belangrijk om deze financiële beperkingen te verminderen. Vele onderzoeken tonen aan dat er positieve sneeuwbal effecten aanwezig zijn wanneer multinationals investeren in een land, aangezien er ruimte wordt gemaakt voor onder andere kennis en technologie overdracht.

Mijn onderzoek kent echter ook enkele beperkingen. Enerzijds is de data afkomstig van de financiële data van 2020. In België waren de COVID-19 maatregelen toen erg ingrijpend. Veel bedrijven moesten de deuren sluiten en werknemers moesten verplicht thuiswerken. De impact van deze maatregelen zal dus sowieso weerspiegeld zijn in deze data. Bovendien kent een OLS schatting ook nadelen. De OLS schatting is gebaseerd op assumpties die niet allemaal goed na te komen zijn. Zo mag de foutterm niet gecorreleerd zijn met een onafhankelijke variabele en de afhankelijke variabele, wat kan opgelost worden door controle variabelen op te nemen. Daarbij schatte de regressie niet altijd even goed mijn afhankelijke variabele. Hierdoor kan ik de aanwezigheid van deze correlatie niet volledig uitsluiten.

Concluderend kan ik mijn onderzoeksvraag "*Wat zijn de effecten van financiële beperkingen op Belgische bedrijven die deel uitmaken van een internationale groep ten opzichte van bedrijven die enkel binnen België actief zijn?*" het best als volgt beantwoorden: Belgische dochterondernemingen van een internationale moeder ervaren meer moeilijkheden met het verkrijgen van externe financieringsbronnen en dienen hierdoor meer te vertrouwen op intern gegenereerde fondsen dan bedrijven die enkel binnen België actief zijn. Hierdoor kunnen deze bedrijven als meer financieel gezond beschouwd worden.

Index

Table on contents

List of graphs

List of figures

List of tables

Research plan

Problem definition

In the sixteenth and seventeenth century, it was advocated that countries should export more than import. By doing so, they would have a positive net increase the monetary flow that came to the country enriching it. Big economists prove in their respective works that allocating production between countries is beneficial for all parties involved, keeping in mind that the country that was the most productive in producing X compared to Y and Z would produce X. The country that was the most productive in producing Y would produce Y etc. Hence, the gains from the gain in productivity and output would be divided between the countries. This idea of a better allocation of resources to the most productive counterpart, lies at the basis of this thesis (Hill & Hult, 2019; Reinert, 2012).

Multinational firms often try to benefit from this idea. Firstly, a company can opt to go for an international expansion to get access to certain resources that are not or little present in the home country. This resource can be any resource going from specially trained labour or inexpensive labour to minerals and timber. In the current area, the idea of locating production solely based on wage considerations is outdated. Secondly, a company can try to grow internationally to seek new markets. Then the expansion can be needed because the product has to be adapted to the new market, making it more easily to adapt on site. It can also be easier to effectively deliver the product when the company produces internationally. Moreover, it can be easier to supply intermediate products to final producers when expanding internationally. The company can also opt for overall efficiency, seeking economies of scale and scope. By producing similar products in one spot, additional machinery costs, employment costs etc. can be avoided. By opting to produce closer to resources or using resources smarter overall, productivity can rise (Reinert, 2012).

Scientific research looking at multinationals substantiates this idea. Research of Buch, Kesternich, Lipponer, and Schnitzer (2014), among others, has shown that multinational German firms are more productive than non-multinational firms. It was also found that their added value was higher and that they paid higher wages to their workers. They would also spend more capital per worker and employ more skilled workers. When looking at characteristics of size patterns, they are often explained by differences in productivity. Hence, in this line of thinking, internationalisation patterns reflect real constraints since only productive firms can bear the fixed posts of market entry. Other research by Yan, Zhang, Shen, and Han (2018) showed that the level of productivity is used by firms to determine whether they should exit the market, produce domestically, export, or set up affiliates abroad. However, this implicitly implies that firms finance their foreign operations internally and/or externally without an additional premium cost. Moreover, a lot of the theoretical literature focuses more on productivity and just includes financial constraints as a variable, similar to Foreign Direct Investment (FDI). They consider financial constraints to be of lesser importance.

Whilst the data of Buch et al. (2014) confirms that multinational firms are more productive, multinationals seem to differ in other aspects as well. Multinationals seem to have lower debt ratios and higher cash ratios showing that they seem to rely more on internal than on external financial funds. This seems to be related to the fact that obtaining external financial funds for foreign expansion has been proven to be more difficult for a multitude of reasons. Firstly, banks often fear additional risks when they lend funds for foreign expansion. Moreover, they fear limited enforceability of the contract and they are aware of the fact that it is more difficult to control what happens with the funds once the deal has been closed. In addition, when funds are granted to the firm looking to expand internationally, it is notable that the funds that are being

granted often bring about additional costs such as higher collateral requirements and higher interest rates to be paid on the debt.

Given that external debt is hard to obtain and costly once obtained, most firms first look at their internal funds to finance their foreign expansion plans. However, internal funds are limited and dependent on the productivity of the firm. Moreover, if all internal funds go towards the financing of the foreign expansion, then there are little to no funds left for good, value increasing investment opportunities. Given the possible severe effects of financial constraints on the financial health of the firm looking to expand internationally, I wanted to research if this is also noticeable in Belgian mother firms with foreign daughters or with Belgian daughter firms with foreign mothers. The purpose of my thesis thus lies in assessing the importance of these financial constraints for the cross-border expansion of firms. I focus on Belgian mother and daughter firms and determine if they can be considered financially healthier than their non-FDI counterparts.

Research questions

Scientific research of Buch et al. (2014) conducted in Germany showed that the most productive firms with foreign entry strategies are hampered by financial constraints the most. They note that lowering financial constraints might be just as important as productivity since productive firms are still hampered by financial constraints in their internationalisation strategy. Hence, I wondered if these financial constraints are also present for Belgian mother firms with foreign daughters and Belgian daughter firms with foreign mothers. The central question that follows from this is the following:

What are the effects of financial constraints on Belgian FDI firms compared to Belgian non-FDI firms?

By using more detailed and focused sub questions, I will formulate an answer on my central research question at the end of this thesis. The drafted subquestions will be shortly illustrated in the following part of the section. The goal of the first subquestion is to get a general idea about the internationalisation of the economy. Hence, the sub question is thus formulated:

What does internationalisation entail?

In the first chapter of this thesis I will look at the internationalisation of local economies. Firstly, will look at internationalisation data. Then I will look at why internationalisation exists, and for this I will look at major trade theories that have been developed in the past. Lastly, I will look at the different ways in which a company can expand internationally. In the second subquestion I will focus on the numbers related to foreign direct investment (FDI). Hence, the second subquestion is thus formulated:

How is foreign direct investment distributed around the world and in Belgium?

In this second chapter of my thesis, I will look at the data surrounding FDI. Mainly focussing on which countries export FDI and which countries import FDI. I will also look at FDI data in Belgium. Furthermore, I will look at the advantages and disadvantages that are connected to FDI. The third subquestion is the following:

What are the theories around FDI and financial constraints?

In the third chapter, I will focus on determining why foreign direct investment is an interesting path for a firm to take. I will look at the theories that lead firms to opt for FDI. I will also look how FDI can be organised. Furthermore, I will look at financial constraints. I will focus on the two types of financial constraints and why they might be present. In this chapter I will also mention the results of the scientific studies I relied on for this chapter. The fourth subquestion marks the start of the empirical part of this thesis. The fourth subquestion is the following:

How did I organise my scientific research?

In this chapter I will illustrate my performed study. I will explain why I made certain choices for the research. I will also indicate how it compares to other research. In the fifth and last subquestion I will focus on the effect of financial constraints on Belgian mother firms with foreign daughters.

What is the effect of foreign constraints on Belgian daughter firms with a foreign mother, on Belgian mother firms with foreign daughters and on non-FDI firms in Belgium, and how do they compare?

Within this last part of the thesis, I will illustrate the results of the performed study. Specifically, I will look for the answer on the central research question and hence, I will look if my data shows that Belgian firms who are part of an international group experience more financial constraints and hence are financially healthier than non-FDI firms in Belgium. I hypothesis that Belgian firms who are part of an international group are more financially healthy than non-FDI firms in Belgium since they can experience difficulties in attracting external financing for international expansion. The last chapter of my thesis will give a conclusion of all chapters written.

Research approach

In order to be able to answer the fore mentioned central research question and the corresponding sub-questions, I split my study in two parts. Firstly, I focussed on writing a literature review in the first three chapters of this thesis. The insights I got from the literature review, will be used as the basis for the second part of the study, being the empirical part. In this part, I will use data from the Belfirst database provided by the UHasselt.

Firstly, I analysed the economic environment in the first chapter. Then I focussed on FDI in the second chapter. In the third chapter I looked into scientific research that exists around FDI and financial constraints.

I searched for scientific research papers to gain more insights in the existing literature. I limited my search to Dutch and English research papers since my language understanding of these is the best. Hence the chance of misunderstanding the research paper is limited. In order to find these articles, I used several search terms including:

- Foreign Direct Investment
- FDI
- Mother firm
- Daughter firm
- Financial constraints
- Constraints

- Economic expansion

- Globalisation

- Productivity

- Credit constraints

I combined these search terms with different online search engines that were provided by the UHasselt like Google Scholar, GoPress academic and the UHasselt Discovery. I mostly looked for scholarly and peer reviewed scientific articles since the reliability of the results is higher.

The literature review was the basis of the empirical study. The empirical study will be used to determine the effects of financial constraints on FDI on Belgian firms who are part of an international group. I used the dataset of Belfirst (Van Dijck) to get data on (non-)FDI firms that are active in Belgium. The dataset also gives information on the financial health of the firms. Since the Belfirst dataset is very extensive and contains a lot of information about a lot of firms and variables, I first defined the sample. The sample exists of FDI and non-FDI firms in order to compare the two types of firms. More detailed information about the hypothesis, sample definition, and research design can be found in chapter four. In chapter five, the research results are presented and analysed. Chapter six shows the conclusion of this thesis.

Chapter 1: International trade

The first two chapters will take a macro-economic point of view, in contrast to the rest of thesis which will focus more on the micro economic point of view. This is done to first provide the reader with the economic background upon which the thesis is based. Companies that are active internationally do so because they currently find themselves in a position which allows them to do so. This however has not always been the case. Autarky, the situation in which a country, its businesses, and its citizens will not engage international trade, is becoming rarer. It is common that countries, their businesses, and their citizens will have both import and export relationships with other countries of the world economy (Reinert, 2012). International trade entails the exchange of goods and services between countries. International trade has played an increasing role in the world economy and trade activity in recent years has increased faster than production activity. The barriers to cross-border trade and investment are declining. National economies are slowly merging into an interdependent, integrated global economic system. Continued advances in information and communications technology (ICT) greatly facilitated international trade, as did the liberalisation of markets (Hill & Hult, 2019; Reinert, 2012). Following 2020 data of World Bank (The World Bank Group, 2021a), exports of goods and services represented 29,50% of global gross domestic product (GDP). GDP represents the total monetary value of all finished goods and services produced in a country's borders within a specific time period. Export of products in the European union represented 43,90% of GDP. If we look more specifically at Belgium and the Netherlands in 2020, exports represented respectively 80% and 78,90% of GDP. This results in questions such as why do countries opt for international trade? And, how is international trade organised?

Globalisation

Historically distinct and separate national markets have merged into one huge global marketplace. Tastes and preferences of consumers are beginning to converge into some global norm, making the world a global market place. There is also a globalisation of production since goods and services are sourced from locations around the world to take advantage from national differences in the cost and quality factors of production. All with the goal of lowering their overall cost structure, improving the quality, or improving the functionality, making it easier to compete internationally. There are two macro factors underlying the trend toward greater globalisation. Firstly, there is the decline in barriers to the free flow of goods, services and capital. Secondly, there is technological change (Lipsey & Chrystal, 2015; Reinert, 2012).

A good indicator of the growth of the world economy is the change in the volume of its output or the value of the gross domestic product. Another way of looking at GDP is viewing it as the sum of added value, which is measured at constant prices by everybody operating in the economy. It includes all domestic production, whether or not it was accrued to domestic or foreign institutions. The results shown in the graphs below are the average annual GDP numbers of Belgium, the Netherlands, the United States of America (USA), the Organisation for Economic Co-operation and Development (OECD), the European Union, and the World. The OECD includes 38 countries including the USA, France and the United Kingdom (Organisation for Economic Co-operation and Development, 2021). The European Union exists of 27 countries including Belgium and the Netherlands (European Union, 2021). Since these aggregates exist of multiple countries, the GDP will in this case be the weighted average of the GDPs of the countries included. Countries with a bigger GDP will, in terms of percentage, be more included in the weighted average than countries with a smaller GDP. The growth of the aggregated GDP numbers of the OECD, the European

Union, and the world, can be calculated by weighting the average GDP of the countries included (The World Bank Group, 2021d).

Graph 1: Average annual growth rate in GDP from 1960 until 2020. a GDP of Belgium, the Netherlands, and the United States of America; b GDP of OECD, European Union, and the world
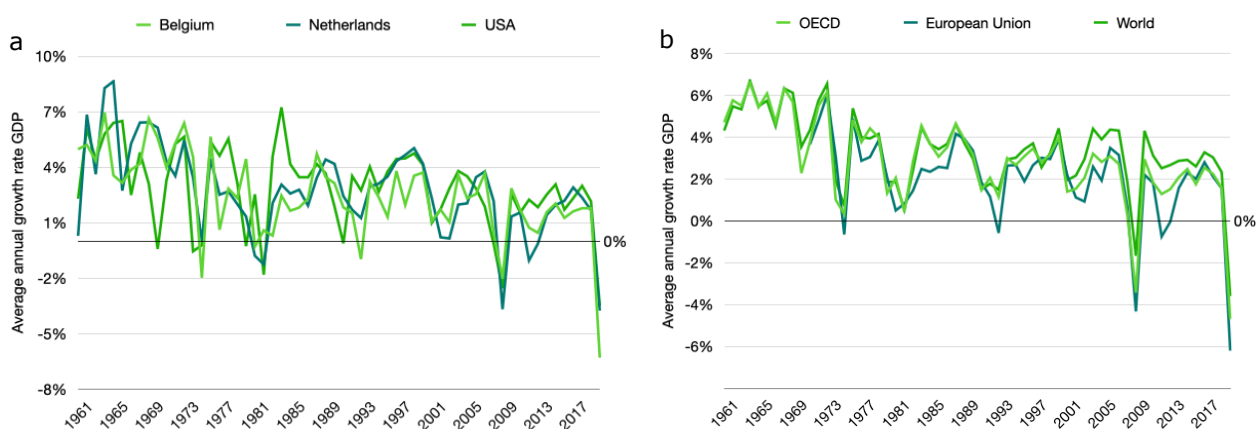
I note that the annual growth rate of GDP is not constant over time, but mostly positively evolves over time. I can also see that the changes are more stable for aggregated numbers like the average annual growth rate of the GDP for the world. The evolution of GDP growth over time for a specific country is more variable and will be more dependent on the situation that a country faces. There are some factors that impact more than one country, for example economic crises that have spread and affected bigger areas like continents or sometimes even the entire world. This then causes drops in GDP that are present in multiple countries and thus can also be noticed in the aggregated GDP numbers. Recognisable crises are the financial crisis of 2007-2008 and the COVID-19 crisis of 2020. Earlier on, we can also detect a drop around the economic recession of the early 1970s and a drop around the 1990s when the world was plagued by another economic recession. A specific country can also experience a drop in GDP growth rate without the drop also occurring (to that extreme) in other countries. A good example of this is the dotcom bubble that burst in the early 2000s. We note a big drop in the GDP growth rate for the USA, and whilst Belgium and the Netherlands also experienced a drop, it was not as big as it was for the USA. We also see that this drop is also present for aggregated numbers like the GDP growth rate of the world, OECD since the USA is included in both (The World Bank Group, 2021d).

GDP is not a perfect criterion to determine growth. It is difficult to determine the added value of technological progress, informal transactions or activities that are prohibited by law. Technical progress can also distort measures of added value and growth since it can improve the production process and the quality of products without it being accounted for in prices. Informal economic activities, in developed and in developing countries, will also pose a measurement problem since much of that economic activity will be unrecorded and thus can only be included in the official calculation by an estimate of the magnitude. Moreover, GDP alone does not give a good indication of the globalisation of the market economy. Hence, it is important to also look at other measures of world trade. I can for example look at the export numbers of the world (Hill & Hult, 2019; Lipsey & Chrystal, 2015; Reinert, 2012).

Graph 2: Total of world trade and European export in million in US$
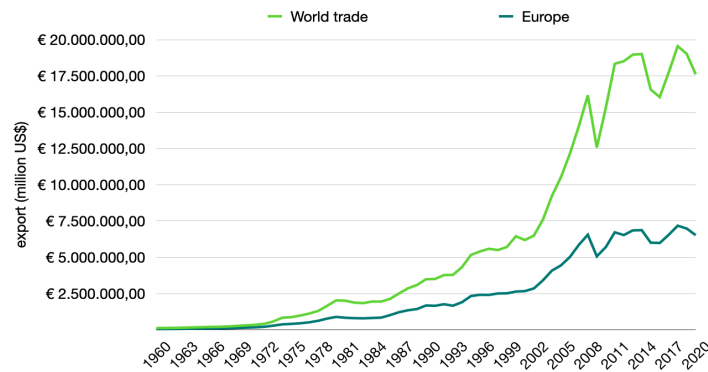
Over the years, I can note an exponential growth in export in the world underwriting the claim that the world economy is getting more interdependent. This is also present in Europe but to a lesser degree. I see the biggest rise around the beginning years of 2000 when the prices of commodities began to rise. This is then followed by a drop due to the financial crisis of 2007. Afterwards, trade rebounded rather quickly. However, since 2011 we note that the export growth has been weak. Between 2011 and 2014 the debt crisis reached its peak and geo-political tensions intensified, causing exports to slow down again. Once this stabilised, export numbers rose again, only to drop again due to the COVID-19 crisis (Statista, 2021). This shows that international trade is gaining importance and that major geo-political and economic events can have a huge impact on it.

Major international trade theories

In this section I will answer the questions: "What is international trade theory?", "Following trade theory, why would countries opt for international trade?" and "Which trade theory model is closest to the truth?". Countries seem to choose less and less for autarky and will try to engage in international trade. This must mean that they see some kind of advantage in international trade which must be bigger than the perceived disadvantages like losing sovereignty and depletion of resources. Early on, five economists, Adam Smith, David Ricardo, Eli Heckscher, Bertil Ohlin, and Wassily Leontief, showed the world in their respective books that international trade can create mutual gains for the countries involved in international trade (Hill & Hult, 2019; Lipsey & Chrystal, 2015; Reinert, 2012).

In the sixteenth and seventeenth century, mercantilism was propagated. It advocated that countries should simultaneously encourage exports and discourage imports. When countries would export goods, they would earn gold and silver. Conversely, when importing goods, countries had to face an outflow of gold and silver to the exporting countries. Hence, the mercantilist theory showed that it was in the country's best interest to export more than it would import. In other words, it should have a trade surplus. In modern days, this trade surplus or deficit can be noted in the balance-of-payment of a country. The balance-of-payments tracks the country's receipts from other countries and compares it to their payments (Hill & Hult, 2019).

By exporting more than importing, the country would accumulate gold and silver and increase national wealth. Government policies maximised exports via subsidies and minimised imports by tariffs and quotas. However, David Hume pointed out that the swell in domestic money supply wouldn't do the exporting country much good as it would generate inflation. This would result in a deterioration of the trade balance and would continue until the surplus was eliminated. Thus, a trade surplus would not be maintainable in the long run. Viewing trade as a zero-sum game in which one country loses from trade and another one

winning is flawed. Both Adam Smith and David Ricardo showed that trade is very much a positive-sum game showing that all countries involved in the trade can gain (Hill & Hult, 2019; Lipsey & Chrystal, 2015; Reinert, 2012).

In 1776, Adam Smith published his now famous Wealth of Nations in which he stated *"If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry, employed in a way in which we have some advantage"* (Smith, 1776) thus implying there may be an advantage of trade between nations. How can there be an advantage in trade when both countries are supplying the same products? Countries differ in their ability to produce goods efficiently. Two countries can produce a product at different price levels just because of different supply conditions like climate, education levels, and raw material availability. These differences will make the same product more expensive in the country with all things being equal (ceteris paribus) the less favourable supply conditions. In the case of international trade, the country that can supply a product cheaper will be the main supplier of this product. International trade will result in a price for the product that will lie somewhere in between the original prices for the products in the involved countries since demand will increase. Consumers of the importing country will gain additional consumer surplus due to a decrease in price and producers of the exporting country will gain additional producer surplus due to an increase in price. There is a net increase of welfare in both countries which is known as the gain of trade since the trade in this case can be mutually beneficial to the countries involved (Hill & Hult, 2019; Lipsey & Chrystal, 2015; Reinert, 2012).

A country with lower input prices for a certain sector will have an absolute advantage in that sector and will tend to export that sector's product. Another country with the higher input prices will have an absolute disadvantage in that sector and will have the tendency to import the sector's product and export another sector's product in which they do have an absolute advantage. Therefore, a country should never produce goods at home that it can buy at a lower cost from other countries (Hill & Hult, 2019; Lipsey & Chrystal, 2015; Reinert, 2012).

This however does not show a complete and realistic picture of the world trade situation. The concept of absolute advantage also implies that it is possible that a country could not have an absolute advantage in anything and thus will have nothing to export. This outcome is very unlikely. Trade is more sophisticated than this (Hill & Hult, 2019; Lipsey & Chrystal, 2015; Reinert, 2012).

A more realistic image of trade was introduced by David Ricardo in 1817 in a footnote of his book "Principles of Political Economy and Taxation". He stated: *"It will appear… that a country possessing very considerable advantages in machinery and skill, and which may therefore be enabled to manufacture commodities with much less labour than her neighbours, may, in return for such commodities, import a portion of its corn required for its consumption, even if its land were more fertile, and corn could be grown with less labour than in the country from which it was imported"* (Ricardo, 1817). This suggests that although a country may have an absolute advantage in everything, it may still be willing to trade internationally in order to be able to focus on producing those products in which it has comparatively the biggest advantage. This concept is known as the concept of comparative advantage in which a country will opt for specialisation in production. It will move workers from industries where they will import to industries where they will export in order to increase efficiency and profitability (Hill & Hult, 2019; Lipsey & Chrystal, 2015; Reinert, 2012).

The concept of comparative advantage will increase the consumption of all goods subjected to trade which will increase the welfare in the countries involved in the international trade. However, as with absolute advantages, not everyone will gain from international trade. Additionally, increased trade can have an impact on the environment. Empirical results show that increased trade does not have one impact on the environment and can in fact have both positive and negative effects (Hill & Hult, 2019; Lipsey & Chrystal, 2015; Reinert, 2012).

Comparative advantage gives rise to inter-industry trade where there are either imports or exports in a given sector of the economy. However, this is not the only option for which a country can choose when it comes to international trade. They can also differentiate their offered products which results in horizontal intra-industry trade. Horizontal intra-industry trade means that a country both imports and exports in a given sector of the economy and this within the same stage of processing. This means that they will for example import a certain type of wine to export it but will also make another type of wine and export it. They can also opt for fragmentation, in which case they will also import and export in a given sector but this will be at different stages of processing. They will, for example, buy raw products via import and sell semi-finished products via export. This can be, but does not have to be, a result of comparative advantage where one company can produce a certain part cheaper and better but chooses not to in order to focus on another part of the production. The result is that countries opt for international production sharing. The basic message being that potential world production is greater with unrestricted free trade than it is with restricted trade (Hill & Hult, 2019; Lipsey & Chrystal, 2015; Reinert, 2012).

The comparative advantage theory makes some unrealistic assumptions. It is simplified to the extent that there are only two goods and two countries. Moreover, this would mean that there are no transportation costs between countries and exchange rates. Furthermore, it is presumed that resources can be moved freely from the production of one good to another and that there are constant returns to scale. In reality however, both diminishing and increasing returns of specialisation exist. Also presupposed is that each resource will remain as efficient when it is moved to the production of other goods. Lastly, it is assumed that trade has no effect on the income distribution (Hill & Hult, 2019; Lipsey & Chrystal, 2015; Reinert, 2012).

Eli Heckscher and Bertil Ohlin have, separately from each other, put forward a different explanation of comparative advantage than Ricardo. Even though Heckscher came out with his theory before Ohlin, namely in 1919, it was not translated from Swedish to English until 30 years later. By then the work of Ohlin, Heckscher's student and published in 1933, was already famous. It was believed that Heckscher had helped with the writing of Ohlin's work. This could be due to Ohlin using Heckscher's work as reference and consulting Heckscher whilst writing his theorem. Thus, the theorem put forward became known as the Heckscher-Ohlin theorem. In Ohlin's work "Interregional and International Trade" he stated: "*The advantages of producing a large quantity of a single commodity instead of a little of all commodities must lead to interregional trade … To demonstrate the importance of this, assume that a number of regions are isolated from each other, and that their factor endowments and their demand are so balanced that the relative prices of factors and commodities are everywhere the same. … as the market for some articles within each region is not large enough to permit the most efficient scale of production, division of trade and labour will be profitable. Each region will specialize on some of these articles and exchange them for the rest … The tendency toward specialization because of differences in factor endowments is reinforced by the advantages of large-scale production. The location of an industry in one region and not in another might*

simply be due to chance … The conclusion that interregional trade reduces the disadvantages of indivisibility corresponds to the previous conclusion that trade mitigates the disadvantages of an unequal geographical distribution of productive agents … Thus, all interregional trade, whether due to the one cause or the other, might be regarded as a substitute for geographical mobility of productive factors" (Bertil, 1933). He argued that the advantage arises from differences in national factor endowments. Factor endowments are the extent to which a country is endowed with resources such as land, labour and capital. Nations have different factor endowments and factor costs. Countries will export those goods that make intensive use of factors that are locally abundant, while importing those goods that make intensive use of factors that are locally scarce. International trade thus is not based on differences in productivity but rather on differences in factor endowments. China has excelled in the export of labour-intensive manufacturing goods since it has relatively more low-cost labour than for example the United States (Heckscher, 1919; Hill & Hult, 2019; Reinert, 2012; The MIT Press, 2021).

However, not even the Heckscher-Ohlin theory is perfect. Wassily Leontief noted in his paper "Domestic production and foreign trade": "*Our economic relationships with other countries are supposed to be based mainly on the export of such "capital intensive" goods in exchange for foreign products which -if we were to make them at home- would require little capital but large quantities of American labour. Since the United States possesses a relatively large amount of capital … and a comparatively small amount of labour, direct domestic production of such "labour intensive" products would be uneconomical; we can much more advantageously obtain them from abroad in exchange for our capital-intensive products*". This shows he agrees with Heckscher-Ohlin's theory, but he finds "*These figures show that an average million dollars' worth of our exports embodies considerably less capital and somewhat more labour than would be required to replace from domestic production an equivalent amount of our competitive imports. America's participation in the international division of labour is based on its specialization on labour intensive, rather than capital intensive, lines of production*" (Leontief, 1953). This contradiction created the Leontief paradox and also created a dilemma for economists since they would prefer Heckscher-Ohlin based on their theoretical grounds but it being a poor predictor of real-world international-trade patterns compared to Ricardo's theory cannot be disregarded. Ricardo's theory is shown to predict trade patterns with greater accuracy. This could be the result of Heckscher-Ohlin's assumption that technologies are the same across all countries. This is not the case. The differences amongst technology may lead to differences in productivity, which drives international trade patterns (Hill & Hult, 2019).

International trade theory thus shows us why countries opt to trade internationally. It showed the general public that international trade can be beneficial to all countries involved in the trade since they can specialise the production process. By doing so they can use material and labour more effectively and save money and time, thus creating gains for the countries involved. They become more productive and can sell more products for a lower price creating more welfare. Following the discussion, all trade theory models hold some form of truth, but neither one is a perfect making it difficult to put one model forward as the best. The best conclusion that can be made is thus, international trade has a positive effect on the parties involved.

Internationally active companies

There are three broad types of economic systems that will determine how much room to operate a company has. In a market economy, all productive activities are privately owned and production is not planned by anyone. It is however planned by the interaction of supply and demand. Customers show through purchasing patterns and the price system what producers should make and in what quantity. Supply restrictions will only occur when one supplier monopolises a market and will be the sole producer of a product. They will produce less to drive up the price. Since this is not ideal for the welfare of society, the role of the government lies in encouraging free and fair competition between private producers. Opposite to that is a command economy where the government plans the goods and services that a country produces and the price and quantity of them. All businesses are state-owned so that the government can make investments there where they serve the best interests to the nation as a whole. A mixed economy can be found somewhere in between these two options. Certain sectors are left to the private ownership and the free market forces. Other sectors are faced with significant state ownership and state planning. Often, the state will take ownership over troubled firms that are vital to national interests. The liberalised sectors are free to be active wherever they want as long as they don't disrupt public order, break the law or are essential to sovereignty. Companies thus can decide to operate internationally to try to gain from international trade (Hill & Hult, 2019; Reinert, 2012). This section answers the question: "How can firms operate internationally?".

The domestic firm is a home-country firm that relies solely on its home market for sales. This domestic firm will experience competition from other domestic firms but also from internationally active firms. The internationally active firms will opt to operate in host-countries and compete with the domestic firms of the host-country. A good question to ask here is why, since the internationally active firm will face some disadvantages including language and culture barriers. The reasons to operate internationally can vary from firm to firm. Some might want to get access to a more educated work force or make technological advances, while others might want to lower production costs or get access to different resources (Hill & Hult, 2019; Reinert, 2012).

Once the decision is made and the firm wants to expand internationally, they have a menu of options to enter a foreign market. There are three grand entry modes between which a company can choose namely: exporting, contracting, and investing. Each of these modes has subcategories between which a company can choose (Hill & Hult, 2019; Reinert, 2012).

First of all, a company can choose to export its products. In this case, a firm produces goods and ships them to the receiving country to sell them there. This process can happen indirectly or directly. In case of indirect exporting the company will rely on another firm known as a sales agent or trading company to take care of the exporting transaction for them. This option is ideal if the firm had little knowledge and experience with international trade. In the case of direct exporting, the company will take on the export transaction themselves. When the firm chooses this option, it will bear all the costs relating to the research, marketing, finance and logistic requirements of the trade transaction. These costs will be higher than with indirect exporting, but will allow the firm to develop and manage their own market entry strategy (Hill & Hult, 2019; Reinert, 2012).

Secondly, a firm looking to enter a foreign country's market can choose to work via different contracts. It can choose between licensing, franchising and subcontracting. The basic idea is that the firm grants a foreign entity the right to produce and/or sell the firms product in return for a fee on every unit sold. Licensing entails that the firm allows a foreign company to use their production process in the foreign country. This means that once the licensing agreement is complete, the foreign company can use the branding, designs, logos, and trademarks of the firm that is looking to expand under the conditions listed in the agreement. When the firm looking to expand opts for franchising, it will enter into a licensing-like agreement where the firm will have more control over the production in the foreign country and will assist with the marketing to ensure consistency over the different branches. Lastly, when the firm wants to use contracting but does not prefer any of the previous options, it can operate via outsourcing. This means the firm will make a contract with a foreign firm to produce a product with pre-determined specifications (Hill & Hult, 2019; Reinert, 2012).

Lastly, a company looking to expand globally can opt for investing in a foreign country. This is more commonly known as foreign direct investment or FDI. The three main possibilities for FDI are joint ventures, mergers and acquisitions, and greenfield investments. When the firm opts for a joint venture, it will establish a separate firm in the foreign country that it owns jointly with another foreign-country firm. The firm can also buy a part (merger) or all (acquisition) of the shares of foreign-owned, already existing firm to expand in a foreign country. Furthermore the firm looking to expand can establish a brand-new facility in the foreign country that it fully owns, in other words a greenfield investment (Hill & Hult, 2019; Reinert, 2012). This thesis will focus on FDI but this does not mean that the other forms of expanding globally are not as important.

Which entry mode the firm chooses and why will depend on the firm and their specific goals and needs. Moreover, a firm can choose different modes for different countries in which they want to be active.

The choice of the entry mode

Many authors of economic literature have tried to come forward with a fully comprehensive explanation of why companies choose for a specific entry mode. Sadly, a complete explanation of the decision process has been proven to be elusive. If they were to look with a purely theoretical view, they would say that a firm will choose for the mode of entry that will provide them with the greatest risk-adjusted return on the investment made for the entry of a new market. This method however does not specify what types or the magnitudes of risk involved since it would differ from firm to firm. Neither does it show how returns differ among different choices. A more applied approach is needed, making it a better way to attack this problem by coming up with a set of possible explanations since each of these will have their own relevance to the companies involved (Reinert, 2012).

There are two approaches to expand internationally. Firstly, there is the evolutionary approach, which focusses on the home-country firm's learning process. Stating that the foreign market is unknown just as the entry process, hence making the best decision for the home-country firm to gradually develop an understanding of the environment. This approach results in slowly moving down the possibilities starting with indirect exporting and then slowly moving to greenfield FDI. However, it is not ideal for every firm and some will start further on the scale (Reinert, 2012).

Secondly, a firm can also opt for the firm-specific asset approach, which looks at the tangible and intangible resources that the firm owns that can contribute to its competitiveness over time. This may be a patent, a corporate product brand, or a corporate culture. These resources will allow a firm to be more productive than its competitors. Here is does not matter what the asset is. The presence itself is the result of the firm incurring costs to acquire it, and it provides the firm with values in enhancing its competitiveness (Reinert, 2012).

Limitations of the expansion methods

In general, issues of control, resource commitment and dissemination risk will affect the choice for a foreign market entry method. In this section, I will provide a general outline of the factors influencing the entry method.

Issues of control can influence the entry mode. When a lot of control is needed over the quality of the product, exporting or FDI are better options since they allow the parent-company to monitor the production process closely. With contracting, the parent-company will partially have to trust the subcontractor that they will produce like it is stated in the contract. When the contract is not followed they can take legal action, but the damage could have already taken place (Hill & Hult, 2019).

Resource commitment is another big factor influencing the entry mode. When opting for exporting or contracting, the resource commitment is rather limited. With exporting, it is even possible to (partially) transfer the exportation costs on to the customer. Contracting also is less costly since the main cost is the contract that will be made. The subcontractor will (partially) have to foresee in his own resource needs. When the firm opts for FDI, it will have to commit a lot of money and time to find a good acquisition/merger target firm and it will have to (partially) buy this before the process of optimisation can start to make it operate as wanted or needed. If the firms opts for a greenfield investment, it will among others have to invest in an operating location, and personnel upfront (Hill & Hult, 2019).

Moreover, knowledge capital, for example, can be present and can play an important role. Some knowledge is embedded in people rather than in firms in the form of human capital. Knowledge capital includes intellectual capital, but it is broader in scope. This makes it more difficult to trade mark or protect since it can be hard to prove what it is exactly and when it was created. It can include knowledge about effectiveness or efficiency that can easily be transferred onto other firms once employees switch employers. Important firm-specific assets like knowledge capital can lead to issues of dissemination risk. Dissemination risk refers to the risk of a foreign firm obtaining these assets and exploiting it for their own advantage. This is especially prevalent in licensing. Issues like these may force a company to favour FDI over licensing even though there is a greater degree of research and resources that have to be committed (Hill & Hult, 2019).

The firm will have to decide what factor it finds most important. If the firm wants to have a high degree of control over the production, it best chooses for a merger, an acquisition or a greenfield investment. If the firm cannot commit high levels of resources it best opts for exporting or licensing agreements. If the firm fears a high degree of dissemination risk, it best chooses for an exporting agreement or a subsidiary of their choice. Usually, there will be more than one concern so the entry mode decision is not as clear cut. If a firm has resources available and wants to avoid dissemination risk and maintain control over the output it would best opt for a subsidiary of their choice (Hill & Hult, 2019; Reinert, 2012).

Exporting physical goods can become less viable due to transportation costs. Adding transportation costs to production costs can make products become less profitable when products are shipped over a large distance. Products with low value to weight ratios are particularly vulnerable to this. Hence it is either better to choose for licensing or for FDI. Products with high value to weight ratio are usually less influenced by transportation costs making them have less impact on the relative attractiveness of exporting. Moreover, governments can try to protect their market via four measurement types: tax-like measures, cost-increasing measures, quantitative measures, and government procurement practices. Each of these aforementioned actions will impact the foreign firm negatively but will have the biggest impact on exporting firms. Tax-like measures include anti-dumping duties, countervailing duties, temporary import charges, and variable levies. The first two are taxes imposed on the exporter due to them either selling the products at a price less than their value or because the imposing government believes the exporter to be subsidised by the exporting country's government. The third tax-like measure can be imposed in case of emergency circumstances of various kinds. Variable levies are import tariffs whose size depends on the price of the imported good. Each of these measures will increase the price of the imported product and by doing so lower the demand for the good (Hill & Hult, 2019; Reinert, 2012).

Cost-increasing measures include 'standards, technical regulations (STRs) or technical barriers to trade (TBT)', sanitary and phytosanitary (SPS) requirements, prior import deposits, and customs procedures. STRs and TBT are a set of measures that among others include certification guidelines, performance mandates and testing procedures. The goal is to increase the production costs and protect customers by making sure that, for example, products perform as indicated, and environmental safety has been considered. SPS measures mainly impact the agricultural sector with the goal to protect plant, animal and human health. Prior impact deposits are non-interest-bearing deposits that the exporting firm has to place into the central bank for a certain amount of time. These deposits equal a percentage of the value of the imported good. Customs procedures are the inspection and clearance done by the customs agency and will increase the cost of the imported good. They can also cause delay (Hill & Hult, 2019; Reinert, 2012).

Quantitative measures create the most possibilities to the government and include import quotas, tariff rate quotas (TRQ), voluntary export restraint (VER), import licensing, foreign exchange controls, sanctions and embargoes, local or domestic content requirements, and import or export balancing requirements. Import quotas limit the quantity that can be imported for a particular product. TRQs result in tariffs that depend on the quota. If the level of imports is below the quota margin, a lower tariff will apply than when the level of imports is above the quota margin. VER is an exporting quota that is 'voluntarily' applied by the exporting country's government, not by the importing country's government. Import licensing requires that a license is obtained from the importing country's government before the product can be imported. Foreign exchange control entails the government allocating foreign exchange among potential imports with the goal to limit total imports. Sanctions and embargoes include export bans and trade embargoes often imposed on countries for political reasons, less so than for reasons connected to the exporting firm or the products that will be exported. Local or domestic content requirements are requirements that imported goods must contain a minimum number of intermediate products from the importing country itself. Lastly, import or export balancing requirements are those requirements that firm importing a certain number of intermediate products must export a certain amount (Hill & Hult, 2019; Reinert, 2012).

Government procurement practices are the myriad processes that they employ when they determine their contract procurements and the posture of these contracts toward imported goods. All these aforementioned measurements that a government can take in order the make importing less desirable, will in its turn increase the cost of exporting relative to FDI and licensing. Even if there are no trade barriers or measures in please yet, the possibility that they may come into play later on, can push companies towards licensing or FDI (Hill & Hult, 2019).

Contracting or licensing also has its drawbacks. Licensing can result in a firm giving away their valuable technological knowhow to a potential foreign competitor. Moreover, licensing does not allow tight control over production, marketing and strategy in a foreign country that may be required to maximise profitability. A firm may want to control the price and market strategy in order to keep a foreign competitor in check. Furthermore, as a firm you want to make sure that the entity does not damage the firm's brand. Furthermore, when a firm's competitive advantage depends on its management, marketing and manufacturing capabilities it is not amenable to license. Lastly, the contract, which is the basis of the agreement, also is not completely reliable. Building the contract is difficult since the enforceability will depend on the law system in place, being either common law or civil law. Common law requires a very detailed contract to be built with all contingencies spelled out. Contracts build under civil law are less specific since many subjects are already included in civil law and hence do not need to be specified in the contract for the firm to be able to rely on. Even then, it is difficult to have every possible scenario completely covered in the contract. Moreover, even when the scenario is covered, it has to be enforceable for the firm (Hill & Hult, 2019).

Conclusion

International trade has increased over recent years. Moreover, the barriers to cross-border trade and investments are declining. National economies are slowly merging into an interdependent system. The globalisation of markets also entails that tastes are slowly merging into a global norm. Furthermore, production is located at different places all over the world in order to take advantage of national differences. The average annual growth rate of GDP and export numbers continue to rise over time. These numbers are influenced by the same factors like global economic crises, technological change and the presence of barriers to free trade.

International trade made a rise due to international trade theories. Originally, mercantilism was the norm. Mercantilism told rulers that they should export more than import in order to obtain more gold and silver. Then Adam Smith started with the theory of absolute advantages. This theory entailed that when both countries can make a product cheaper than the other, they should provide each other with that product. By doing so, they would both gain from international trade. David Ricardo, Eli Heckscher and Bertil Ohlin further perfected this theory showing that even when one country is best in the production of all goods, by focussing on the production of the product they are best at and importing the product they are worse in, all countries involved in the trade can gain. This is the case since the countries can specialise their production.

Since firms are responsible for the international trade. Firms have different options when they want to be internationally active. The firm can opt for exporting, licensing or foreign direct investment when they want to enter the world market. The choice for the entry mode depends on what the firm finds important like the amount of resources they want to commit and the risk of a foreign firm obtaining their valuable assets.

Both exporting is not always ideal since the transportation costs can become extremely high and government measure to protect the host-economy's market may be in place. Licensing is not desirable when the firm wants to protect its generated knowledge.

Chapter 2: FDI as the be all end all?

The previous chapter showed that international trade has grown. Companies can want to take apart in international trade. They have three basic options to do so, being exporting, licensing and FDI. Given the shown limitations of exporting and licensing, does that mean that FDI is always the best option? No, for some firms, exporting or licensing is the best option and works great. However, if the limitations of exporting or licensing are severe enough that they might negatively impact the firm looking to expand globally, it may be in their best interest to consider FDI as the method for international expansion. In this chapter I will look at the distribution of FDI over the world. Moreover, I will look at the inflow and outflow of FDI for Belgium. Then I will look the advantages and disadvantages of FDI. This chapter will take a macro-economic look.

FDI in numbers

As indicated, I will start with an exploration of the usage of FDI over the world. Firstly, I will look at the biggest importers and exporters of FDI. Then I will compare Belgium and the Netherlands to the United States of America overtime. I will also compare the evolution of the aggregated FDI numbers of the European Union, the Organisation for Economic Co-operation and Development (OECD), and the world. Lastly, I will look at the available information regarding FDI for Belgium firms. This will look at Belgium firms that are controlled by a foreign mother company, and I will also look at Belgium mother companies with foreign daughter companies.

Biggest FDI importers and exporters

Historically speaking, FDI has been a flow from firms based in advanced countries towards other markets. This resulted in advanced countries being big exporters of FDI and other markets being big importers of FDI. FDI has grown more rapidly than world trade and world output. This happened because of multiple reasons. Firstly, there has been a decline in trade barriers but firms still fear protectionist measures. Thus, making firms prefer having a foreign daughter company over exporting where they could face cost increases due to a foreign government taking measures to discourage importation. Moreover, FDI has been driven up by political and economic changes towards freer markets. It is also notable that firms sometimes prefer to acquire existing assets since it is quicker to execute. Markets evolve rapidly so sometimes it is more desirable to target a company since if their firm does not target it, their competitors can (Hill & Hult, 2019).

Graph 3: Top 10 FDI outflow and inflow. a FDI exporting countries; b FDI importing countries.
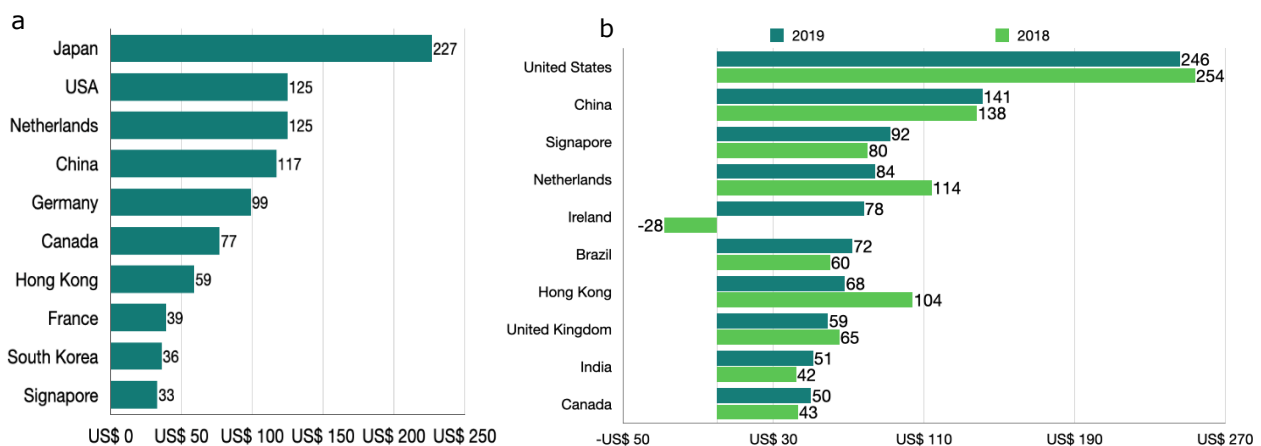
Not only firms from western countries opt for outward FDI. In the top ten FDI exporting countries, there are also eastern countries included in the list namely Japan China, Hong Kong, South Korea and Singapore. More specifically, Japan is the biggest exporter of FDI for a value of 227 billion USD. The top three is completed by western countries, namely the USA and the Netherlands. What is noticeable is that there are no Southern American or Arab countries included in the top ten. The first Arab country is the United Arab Emirates on place 19 and the first South American country is Brazil on place 20 (United Nations, 2020) (Graph 3a).

The United Nations (2020) also calculate which were the top ten host economies in billions of USD for the years 2018 and 2019. The biggest host economy, and thus receiving the most FDI inflows, is the United States of America (USA). It is the biggest importer of foreign monetary funds in order to start a business subsidiary in the USA. The USA imports almost double the amount it exports. Surprisingly, China and Singapore, two perceived developing economies, complete the top three of biggest FDI importers. Compared to the FDI outflows, China is the only country in the top three that exports and imports massive amounts of monetary funds. Singapore imports more than it exports. Further in the list, we do also see some other big exporters like Canada and the United Kingdom. It is also notable, there are some other perceived developing economies like Brazil and India that also experience a big inflow of monetary funds meant for FDI (United Nations, 2020) (Graph 3b).

Evolution over time

It should come to little surprise that the USA was the biggest FDI importer in 2019. A lot of big multinationals have their organisation registered in a country with lower business taxes, like Ireland. Their headquarters, however, are often localised in the USA. Hence causing a huge FDI inflow for the USA. However, compared to the GDP of the USA, both the inflow and the outflow of FDI are small. As seen before, the inflow of FDI is bigger than the outflow of FDI (United Nations, 2020).

Graph 4: FDI outflow as a percentage of GDP. a percentage of GDP for Belgium, the Netherlands, and the United States of America; b percentage of GDP of OECD, EU-27, and the world
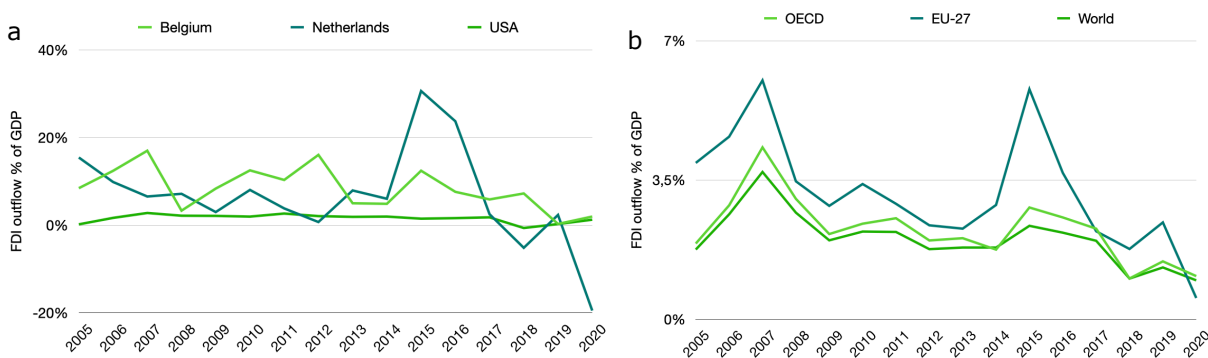
Since this thesis focusses on Belgium I will look at their FDI outflows as a percentage of GDP. The FDI outflow compared to GDP of the countries in question, vary tremendously over time. The drop the Netherlands experiences after 2014 and 2019 is not as present for Belgium. The USA, whilst being an economic giant, has a stable FDI outflow, but it barely represents five percent of their GDP. When looking at the FDI outflow on a more global level, I see that the evolution of the outflow is similar for the OECD countries and all the countries in the world. I note that the 27 countries of the EU together, have a similar evolution but their outflow usually remains higher than the world outflow. This is true for all years except

in 2020, showing that the COVID-19 crisis had a much bigger impact on European outflow than on world outflow (The World Bank Group, 2021c).

Graph 5: FDI inflow as a percentage of GDP. a percentage of GDP for Belgium, the Netherlands, and the United States of America; b percentage of GDP for OECD, EU-27, and the world.
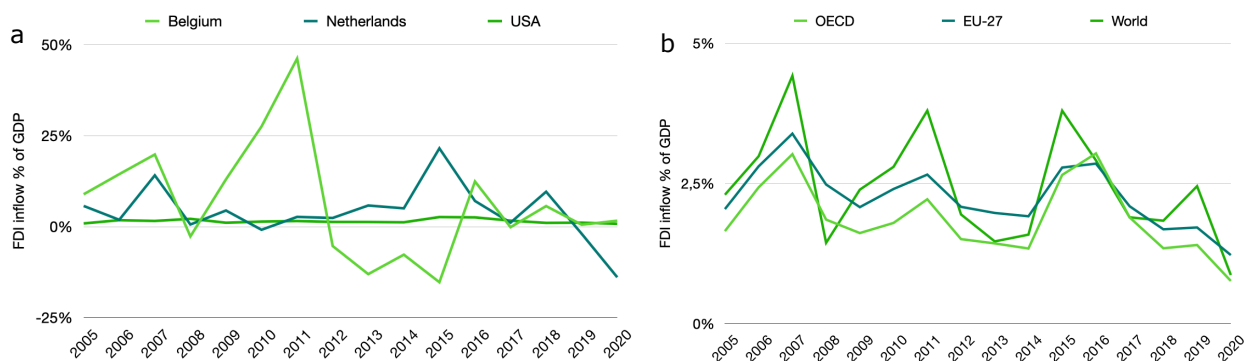
As with the FDI outflow, the FDI inflow is relatively stable for the USA. Belgium and the Netherlands experience less stable FDI inflows. I note similar drops around the financial crisis of 2007 and around the crises of 2016 and 2018 for both, but the FDI inflows as a percentage of GDP cannot really be compared. I see that the inflows are subject to the forces driving the economy. Sometimes, the forces driving one economy, can also drive another economy. The aggregated global FDI inflow as a percentage of GDP seems to evolve downwards over time. Europe and the OECD evolve rather similar, but the OECD FDI inflows usually remain below the FDI inflows of the EU. The world FDI inflow also moves together with the OECD and EU, but it has more extreme peeks and drops (The World Bank Group, 2021b).

FDI in Belgium

The national bank of Belgium (NBB) provides statistical data of all sorts of transactions. They for example provide data with regards to the GDP of Belgium but also of regions, consumer prices, and inflation. The NBB also provides statistical data of foreign direct investment (FDI) with a link to Belgium. They differentiate between FDI inflows and outflows, frequency and sector. It is also possible to differentiate between the countries of origin or receiving countries, for example the total world, Germany, Europe, and the Euro area (Nationale Bank België, 2021b).

First of all, I can look at the countries that create the biggest inflow of foreign funds in Belgium. The NBB differentiates between three forms of FDI: FDI flows, FDI stocks, and FDI income. FDI flows include all the recorded transactions during the period in question. The NBB records them for equity, other capital, and total capital for inward and outward flows. FDI stocks include the accumulated value of FDI held at the end of the reference period. Rather than looking constantly at the movements, this number will look at the value of the share of capital and reserves and net indebtedness to the parent enterprise at the end of the period. The NBB records them as well for equity, other capital, and total capital for inward and outward flows. Lastly, FDI income includes the earnings on the equity investment increased by income on debt between direct investors, direct investment enterprises, and between related enterprises. The NBB records them for debt instruments, dividends, reinvested earnings, and total income for inward and outward flows (Nationale Bank België, 2021b).

The FDI flows are variable over time. In 2021 quarter two (2021 Q2), there were ten countries of which the NBB had no data with regards to their inward FDI equity flows to Belgium including Germany, Spain and the Netherlands. The biggest inward equity FDI flows came from Luxemburg, France, and the United States of America in 2021 Q2. For the first two quarters the biggest inward equity FDI flows came from Luxemburg, France, and the Netherlands. They were also the biggest in 2020, while they actually pulled funds back in 2019. The biggest inward other capital FDI flows came from the United States of America, the Netherlands, and Hong Kong 2021 Q2. For the first two quarters the biggest inward other capital FDI flows came from Luxemburg, the United States of America and China. The biggest inward flows came from Germany, France, and the United Kingdom and from Germany, Luxemburg and the United States of America in respectively 2020 and 2019. These inward FDI flows combined created total capital FDI flows, the biggest inward FDI flows came from the United States of America, Luxemburg, and China in 2021 Q2. The biggest inward total capital flows came from Luxemburg, the United States of America and China in 2021. These were different in 2020 where the biggest inward total capital flows came from the United Kingdom, China, and the Netherlands. In 2019 the biggest inward total capital flows came from Germany, the United States of America and France. This shows that most of the inward FDI capital came from China and the Netherlands, but the United States of America and Luxembourg were also important (Nationale Bank België, 2021b).

For 2021 Q2, the biggest inward flow of FDI stock equity came from France, the Netherlands, and Luxemburg. This was exactly the same for 2021, 2020 and 2019. For inward flows of FDI stock other capital there were some changes over time. For 2021 Q2, the biggest inward flows came from Luxemburg, Italy, and China which was the same for 2021 but in 2020 Luxemburg took the lead and was followed by the Netherlands, and Italy. For 2019, Luxemburg took the lead again and was followed by Switzerland and Italy. These components, equity and other capital, combined together result in the inward flow of FDI stock for total capital. For 2021 Q2, the biggest inward flows came from France, the Netherlands, and Luxemburg which was the same for 2021 and 2020. For 2019, the Netherlands took the lead followed by France and Luxemburg. This shows that most inward FDI stock comes from the Netherlands, France, and Luxemburg (Nationale Bank België, 2021b).

While the previous forms of FDI flows meant that foreign mother firms invested money in Belgian subsidiaries, the flow resulting from FDI income shows the FDI flow of money from foreign subsidiaries towards Belgian mother firms. This is true for all forms of FDI income except for the reinvested earnings since this is the income that the Belgian subsidiary receives from their foreign mother company since they provided them with dividends that the foreign mother company wishes to reinvest in the Belgian subsidiary. The biggest inward debt instrument FDI income flows came from Luxemburg, Switzerland and Italy in 2021 Q2. They were the same for 2021 and 2020. In 2019, the biggest inward debt instrument FDI income flows came from Switzerland, the Netherlands, and Italy. The biggest inward dividend FDI income flows came from the Netherlands, the United Kingdom, and Sweden in 2021 Q2. This is the same for 2021. For 2020 and 2019, the biggest inward dividend FDI income flow also came from the Netherlands. For 2020 Luxemburg took second place and France took third place, while the roles are reversed in 2019. The biggest inward reinvested earnings FDI flows came from France, Luxemburg, and the United States of America in 2021 Q2. The first and second place were the same for 2021, but the third place was taken by the Netherlands. For 2020, the first place was also taken by France, followed by the Netherlands and the United Kingdom. For 2019, surprisingly, the United states of America, Germany, and the United Kingdom were responsible for the biggest inward flow of FDI income from reinvested earnings. The sum of the above

measures equals the total FDI income. For 2021 Q2, the Netherlands, France, and Luxemburg took the lead as contributor for FDI income flowing to Belgium. For 2021, the same order was in place. For 2020, France took the lead followed by the Netherlands and Luxemburg. For 2019, the Netherlands took the lead again, but followed by Luxemburg and France. These results show that a lot of money flow in from the Netherlands, France and Luxemburg. The biggest contributor changes yearly and quarterly but these three continue to take the lead over the past years (Nationale Bank België, 2021b).

Now, I will look at the countries to which Belgium exports the most. For the outward FDI equity flows of the second quarter of 2021 (2021 Q2), the NBB had no data for eight countries including Finland and Norway. The biggest outward equity FDI flows went to the Netherlands, Luxemburg, and the United States of America in 2021 Q2. The biggest outward FDI equity flows went to the Netherlands, Luxemburg, and the United Kingdom in 2021. The biggest outward FDI equity flows went to the United Kingdom, the Netherlands and Brazil in 2020. The biggest outward FDI equity flows went to the United States of America, the Netherlands, and Germany in 2019. The biggest outward other capital FDI flows went to Hong Kong, Germany and Denmark in 2021 Q2. The biggest outward FDI other capital flows went to Luxemburg, the United States of America, and Germany in 2021. The biggest outward FDI other capital went go to Sweden, Italy, and the United States of America in 2020. The biggest outward FDI other capital flows went to the United Kingdom, the United States of America, and Italy in 2019. These outward FDI flows combined create outward total capital FDI flows to the Netherlands, Luxemburg, and Germany in 2021 Q2. The biggest outward FDI total capital flows went to Luxemburg, the United States of America, and the Netherlands in 2021. The biggest outward FDI total capital flows went to the Netherlands, Italy, and Luxemburg in 2020. The biggest outward FDI total capital flows went to the United States of America, the Netherlands, and Spain in 2019. Throughout the past years, we see that there is a big outflow towards the United States of America and the Netherlands although other European also receive funds from Belgian funds (Nationale Bank België, 2021b).

For 2021 Q2, the biggest outward flow of FDI stock equity went to the Netherlands, Luxemburg, and the United Kingdom. This was, just as the inward flow, exactly the same for 2021, 2020, and 2019. For outward flow of FDI stock other capital, the biggest flows went to France, Italy and Spain in 2021 Q2 which was also true for 2021. For 2020, France took the lead followed by the Netherlands and Italy. For 2019, France took lead again and was followed by Luxemburg and the Netherlands. These combined result in FDI stock for total capital. For 2021 Q2, the biggest outward flows went to the Netherlands, Luxemburg, and the United Kingdom which was also true for 2021, 2020, and 2019. This shows that most flows went to the Netherlands, Luxemburg, and the United Kingdom (Nationale Bank België, 2021b).

While the previous forms of FDI flows meant that Belgian mother firms invested money in foreign subsidiaries, the flow resulting from FDI income shows the FDI flow of money from Belgian subsidiaries towards foreign mother firms. This is true for all forms of FDI income except for the reinvested earnings since this is the income that the foreign subsidiary receives from their Belgian mother company since they provided them with dividends that the Belgian mother company wishes to reinvest in the subsidiary. For 2021 Q2, most money for the payment debt instruments went to Italy, the Netherlands and Luxemburg. For 2021, these countries are the Netherlands, Italy and Luxemburg whilst the United Kingdom, Luxemburg, and the Netherlands took the lead in 2020. For 2019, the biggest outflow of money for the payment of debt instruments went to the Netherlands, Germany and France. In 2021 Q2, the biggest outward money flow from dividends went to the United Kingdom, Switzerland, and Luxemburg. For 2021,

the order remains the same whist for 2020 it changed to Luxemburg, the Netherlands, and the United Kingdom. For 2019, the Netherlands took the lead followed by Luxemburg and the United Kingdom. In 2021 Q2, Belgian mother companies reinvested dividends mostly in firms in the Netherlands, Switzerland, and the United Kingdom. For 2021, the order changed to Switzerland, the Netherlands, and the United Kingdom. In 2020, the order of the second and third place switched. For 2019, firms from France, Switzerland and the United States of America received most funds from Belgian mother firms. The sum of the above measures equals the total FDI income. For 2021 Q2, the most income went towards Switzerland, the United Kingdom and the Netherlands. This is also true for 2020, for 2021 the United Kingdom and the Netherlands switched places. For 2019, firms from the Netherlands, Luxemburg and France received most funds (Nationale Bank België, 2021b).

As stated before, the NBB also allows me to look at the inward and outward flow of FDI per economic sector, although without specification about the type of FDI. There is annual data for 2013 until 2020 for the inward and outward FDI for the economic sectors. There are nine broad sector categories of which one is split in nine subcategories (Nationale Bank België, 2021a):

- Agriculture, forestry and fishing
- Mining and quarrying
- Manufacturing
- Electricity and gas
- Water
- Construction
- Total services
  - o Wholesale and repairs
  - o Transports and storage
  - o Hotels and restaurants
  - o Information and communication
  - o Financial intermediation
  - o Real estate, renting, professional, scientific and technical activities
  - o Education
  - o Health and social work
  - o Recreational, cultural and sporting activities
- Not allocated
- Private purchases and sales of real estate.

Graph 6: FDI inflow per economic sector. a general sectors; b split for the service sector.
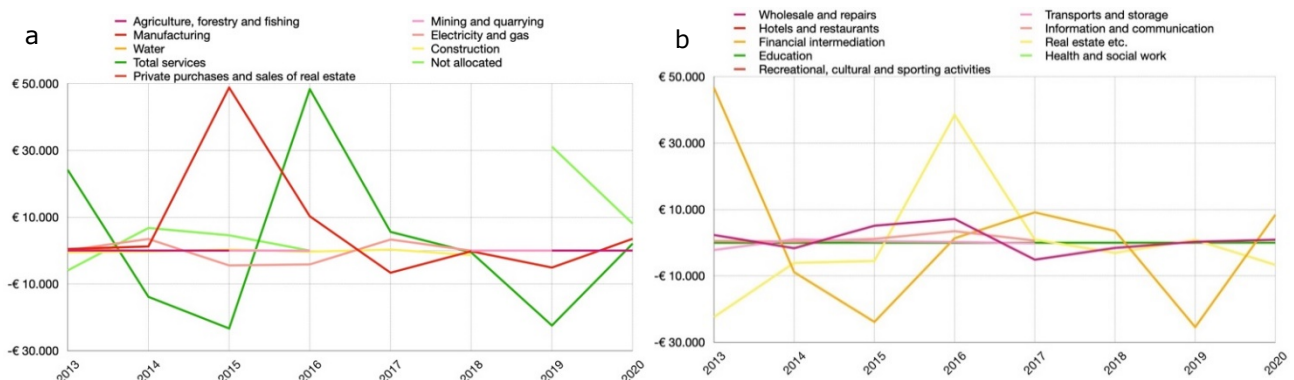
The money flow is measured in millions of euros. Over the recorded time, the inflow of FDI was very variable for most industry. There were also some sectors for which there was not always data available like the mining and quarrying and private purchases sectors. The most variable sectors were the manufacturing and the total services sectors. The not allocated category was also variable over time. Surprisingly, in 2020 when the Covid-19 crisis started the manufacturing and total services sectors received more inward FDI than the previous two years. The electricity and gas sector also received a lot of funds, and the stream of funds had been rather variable over the shown year. Since the total services sector has been rather important in the past, I will look at it in more detail. Within the total services category financial intermediation and real estate sectors were the most variable over the past years. Wholesale and repairs sector has also been variable, but less than the other two. I further noted a positive FDI inflow for financial intermediation sector in 2020 (Nationale Bank België, 2021a).

Graph 7 FDI outflow per economic sector. a general sectors; b split for the service sector.
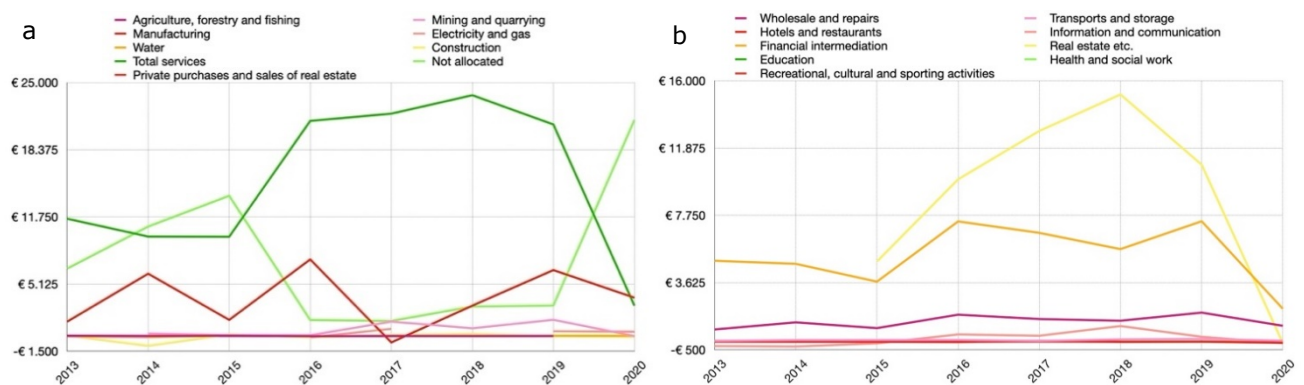
Over time, the FDI outflow to the different sectors differs for most of the industries. For some (sub-)categories the NBB was not able to receive data hence causing missing data points to be present. Only the FDI flows towards the private purchase and sales of real estate, water, and agriculture, forestry and fishing sectors were relatively stable over time. The biggest FDI outflows went to total services and manufacturing sectors in 2020. For a big part of the outward FDI flow, the NBB was not able to allocate the flow to a specific industry in 2020. It was also notable that a lot this occurred in 2019 and 2018. Belgian firms also seemed to invest a lot of money in the mining and quarrying sector since 2016, although it did fall back in 2020. In 2020, it is also notable that a bigger FDI outflow went to the electricity and gas sector. Since the total service sector has been responsible for a big part of the FDI outflow over the past few years, I will take a more detailed look at it the subcategories. Within the subcategories, real estate and financial intermediation stand out as major FDI receiving industries. The subcategory wholesale and repairs also received a lot of funds. Notable is that for most (sub-)categories the flow drops due to the start of the Covid-19 crisis in 2020 (Nationale Bank België, 2021a).

FDI advantages and disadvantages to the home and host economies

If a company chooses for FDI, it will have an impact on both the home-country where the mother country operates and on the host-country were the daughter company is active. This section will look at the economic effects for the countries involved. In the next chapter I will look at the advantages and disadvantages for the firms who opt for FDI. The section will start with an analysis for the home-country and will then focus on the host-country.

When a home country firm opts for outward FDI, it will have some negative effects on their own economic surroundings. When the firm creates a subsidiary for production in a foreign country, it is technically a substitute for domestic production, thus harming the employment rate in their home country. If the labour market is tight in the home country, this concern may not be as prevalent. However, if the home country suffers from unemployment, the effects are more noticeable. The balance-of-payments of the home country will also be affected. The balance-of-payments tracks the country's receipts from other countries and compares it to their payments. The home country balance-of-payments may be negatively influenced in three ways. First of all, the initial outflow of cash required to finance the FDI will have a negative effect. Secondly, the balance can suffer if the subsidiary is used to serve the home market with productions from a low-cost production location. Thirdly, the balance suffers if FDI is used to substitute for direct exports (Bekaert & Hodrick, 2014; Hill & Hult, 2019; Lipsey & Chrystal, 2015).

With these negative impacts in mind, it is also necessary to look at the advantages for the home countries. As a first benefit, the home country's balance-of-payments will be positively affected by the inward flow of foreign earnings. The balance-of-payments can also gain by the creation of the demand for home-country exports of capital equipment and products. If the subsidiary creates a demand for home-country goods and thus creates additional export demand, it also positively affects employment, thus creating a second benefit. The third benefit arises from the exposure to foreign markets. The exposure to foreign markets can transfer valuable skills from the host country to the home country. The home country can learn superior management techniques and product processes amongst others. When this knowledge is transferred back, it can help the home country's economic growth rate (Bekaert & Hodrick, 2014; Hill & Hult, 2019; Lipsey & Chrystal, 2015).

FDI not only influences the home country and the firm, but there are some benefits to the host countries. These benefits arise from resource-transfer effects, employment effects, balance-of-payments effects, competition effects, and economic growth (Hill & Hult, 2019).

Resource-transfer effects occur since the capital, technology and management resources will be brought to the host country. These resources will boost the economic growth, since they otherwise would not have been available. Multinationals often have more access to capital than host-country firms since they already have a reputation. This should make it easier for them to loan money from capital markets. The technological advancement can either be incorporated in the product or in the production process. Both can be valuable to the economy since the host country can lack resource and development resources and skills. The management skills that come from foreign trained managers can help improve the efficiency of operations in the host country. These skills can also be spilled over to local personnel (Hill & Hult, 2019).

The presence of FDI can also bring additional jobs to the country that would not have been created otherwise. This effect can be direct and indirect. The multinational can employ citizens directly to help with their operations. Indirect job creation can occur due to an increase in demand that local suppliers experience, making it necessary for them to employ additional personnel. Even if the multinational takes over an existing firm and some personnel is let go off, it will increase their employment base faster than their domestic rivals once the restructuring period is over (Hill & Hult, 2019).

FDI will also influence the balance-of-payments of the country. A trade deficit occurs when the country imports more goods and services than it exports. Governments prefer a surplus since a deficit can only be supported in the long run by selling assets to foreigners. Governments naturally do not like to see their

assets in the hands of other nations hands. FDI can be viewed as a substitute of importing since the products are produced locally rather than needing to be imported. FDI can also help when the subsidiary is used to further export the products to other nations (Bekaert & Hodrick, 2014; Hill & Hult, 2019; Lipsey & Chrystal, 2015).

FDI can also increase competition in the market when a firm starts a whole new subsidiary since it increases the number of players and in doing so providing the consumers with more choice. This will help drive down prices and increase the economic welfare of consumers. Additional competition usually tends to stimulate capital investments in equipment and research and development among others. Long term results can include productivity growth, product innovation and more economic growth (Hill & Hult, 2019).

FDI can also bring disadvantages for the host country. Possible disadvantages for the host country include adverse effects on competition, adverse effects on the balance-of-payment and possible effects on the nation's sovereignty and autonomy. Host countries are right to worry that subsidiaries can have greater economic power than host country competitors. The subsidiary may be able to draw funds generated elsewhere to subsidise their costs in the host country, which can drive host country competitors out of the market and in turn allows the subsidiary to monopolise the market. Once monopolised, the subsidiary can raise the prices and harm the economic welfare of the host nation. A solution may be to allow a domestic competition authority to review or block any mergers or acquisitions that they view as having a detrimental impact on competition (Bekaert & Hodrick, 2014; Hill & Hult, 2019; Lipsey & Chrystal, 2015).

FDI can have positive effects on the balance-of-payments since it can lower the need to import goods. However, the subsidiary will probably have to send back earnings to the parent company. This negatively impacts the balance-of-payments. Governments can respond by limiting the amount of earnings that can be repatriated to the home country. If the subsidiary has to import a lot of items from the home country because it does not produce the goods themselves, this will also have a negative effect on the balance-of-payments since the need for import is not replaced. Either way, for both the home and the host-country the end effect on the balance-of-payments in unknown since the magnitude of the effects is unknown (Bekaert & Hodrick, 2014; Hill & Hult, 2019; Lipsey & Chrystal, 2015).

Host countries can also worry that FDI will be accompanied by a loss of economic independence. The parent company can make (key) decisions about the subsidiary that can have effects on the host country's economy. Since the host country has no control of the subsidiary, it can only accept these possible negative effects caused by the foreign parent that has no real commitment to the host country. Since the world economy grows more interdependent, this could be outmoded thinking. Firms from advanced nations are increasingly investing in each other's markets, which makes it difficult to harm one country, without harming themselves (Hill & Hult, 2019).

Conclusion

When looking at the available data, i can see that the biggest outward FDI flow was present in Japan, whilst the biggest inflow occurred in the United States of America. In 2020, there was general drop in FDI also comparable with the drop in GDP due to the COVID-19 crisis. Overall, FDI rose just as GDP did over the recent years. The NBB also calculated specific aggregates for Belgium, showing that a lot of FDI flows were related to France, the Netherlands, Luxemburg, the United Kingdom, and the United States of America. FDI flows were also most present in the Belgian manufacturing, financial intermediation, real estate, and electricity and gas industries.

Although FDI has a lot of positive effects, it is not completely perfect. It can create employment, in the home and host country, but this is effect not guaranteed. It can even be negative for the employment in the home country since the people will be employed in another country instead of the home country. It can also be positive for knowledge transfers between the home and host country. It also has numerous effects on the balance-of-payments of the home and host-country, making the end effect on the balance-of-payments unknown.

Chapter 3: FDI and Financial constraints

Given the previous chapters that showed that FDI is important for the economy and that it can positively and negatively affect the countries involved. This chapter will focus on firms opting for FDI. I will try to find an answer to the questions "Why do firms opt for FDI?", "How can FDI be organised?", and "What are constraints to FDI?". I will also look at the scientific research surrounding FDI and financial constraints and consider the results of the relevant scientific studies for my research. The aim is to determine what the link is between FDI and financial constraints and whether or not the outcome of my study is in line with predictions from the literature. So, in short, the main goal of this chapter is to look at other scientific studies to determine the research path to be followed in this study.

FDI instead of exporting and licensing

The definition of the terms used in scientific research is important. A big part of the eventual result will be impacted by the definition that the researcher gave for the terms he or she was investigating. In general, exporting is considered to be the situation in which a firm produces its products itself and sells them, itself in another country. Licencing occurs when a firm, licensor, gives another firm, licensee, permission to operate like the licensor for a fee. The parties involved generally remain separate and do not own stakes in each other's company (Hill & Hult, 2019; Reinert, 2012). Foreign direct investment on the other hand means that the mother firms owns a stake (generally more than 25%) in other company in a different country then the country in which the mother firm operates. The company that is owned for more than 25% is the daughter company. Together these firms will form a group with the mother company at the head of the group (Agarwal, Milner, & Riano, 2013; Buch et al., 2014; De Maeseneire & Claeys, 2012).

What causes firms to opt for FDI is different for each firm. Economist John Harry Dunning researched internationalisation and created a general internalisation theory which created the eclectic paradigm. The eclectic paradigm is a business method used for analysing the attractiveness of opting for FDI. Opting for FDI puts the firm at a disadvantage compared to local firms in the host market. Some additional advantages should be present in order to offset the additional costs that the firm will incur due to conducting business internationally. Hence, the paradigm assumes that a company will be less likely to follow through on their FDI plans if the gains of internationalisation are limited. If all things can be produced internally at a lower cost internationalisation has little use. Dunning's paradigm follows the OLI framework. This consists of three tiers: ownership (O), location (L), and internalisation (I) in which the needed advantages can be found (Hill & Hult, 2019; Reinert, 2012).

The ownership advantage can also be a competitive advantage when considering FDI. If this is the case, it comes in the form of proprietorship of a valuable and unique resource that cannot be imitated or obtained easily. Hence, it is a competitive advantage against foreign competitors. Moreover, it will help explain how the tangible and intangible assets of a firm help to overcome the additional costs of doing business internationally. The foreign firm has to be able to create a cost advantage that the local firm does not have, making it easier to overcome the additional operating costs. These additional operating costs are not limited to creating a subsidiary in the host country. It is also related to the liabilities or challenges of investing in a non-native country, like language barriers and a lack of knowledge of local demand. When considering FDI, the resources will ideally include (but are not limited to) a sound reputation, a well-known brand, and notable economies of scale. Economies of scale are defined as the economic advantage that arises due to producing on a larger scale since the average costs per unit tends to decrease per additional unit that is produced. These lower production costs can be crucial for international expansion. If ownership advantages

are limited or non-existent, it may be better to remain domestic rather than export, license or invest directly abroad (Boateng, Hua, Nisar, & Wu, 2015; Cui & Jiang, 2010; Forssbæck & Oxelheim, 2008; Hill & Hult, 2019; Love & Lage-Hidalgo, 1999; Reinert, 2012).

Given that there is an ownership advantage, the firm will have to check if there are location advantages present. Where ownership looks at proprietorship, location will look at geography. More specifically, it will look if the location in the home country or countries has advantages. In general, when looking at location advantages, Porter's diamond model can best be used to evaluate the advantages. Porter's diamond looks at four categories: "firms' strategy, structure, and rivalry", "factor conditions", "demand conditions", and "related and supporting industries". Firm strategy, structure and rivalry focusses on the firm's strategy being either cost leadership (focussing on lower prices with high turnover percentages) or differentiation (focussing on higher prices with lower turnover percentages). It also looks at the rivalry between firms in the industry. More rivalry between the competitors may also influence the need to go abroad. It may be necessary to follow the competitors abroad in order to keep the market share. Factor conditions focusses on resources itself like infrastructure, labour force, and available land. Demand conditions focusses on the market as the driver for growth, innovation and quality improvement. It may be more fruitful to focus on selling in countries with a high demand or a bigger population. The category related and supporting industries show the importance of the value chain. It is easier to produce or sell in a market where there is good supporting network of related firms present. When the daughter firm produces a good it will need a way to access resources but it will also need a way to distribute the goods. A good network can make one country more desirable than another. These four factors depend on each other and will together determine the location advantages for a firm considering FDI in a specific location. However, these four factors are also influenced by the government, for example by policies and regulation, and chances like natural disasters or scientific breakthroughs. If there are no location advantages, the company can better opt for exporting because the benefits for being physically present in a country does not cause gains to the company (Forssbæck & Oxelheim, 2008; Hill & Hult, 2019; Reinert, 2012; Wang & Kafouros, 2020; Wilson & Baack, 2012).

For example, when sea freight is a main way of transportation, a country with a coast line can be more desirable than a land-locked country. However, it does not need to be limited to this. Low-cost labour, raw material access, low taxes etc. are also important location advantages that can be considered. Different countries can have different labour costs and education levels hence influencing where certain parts of the firm best be located. It is smarter to produce the products where the education levels and labour cost levels are less high. Management can then be localised where there are a lot of highly educated people present in order to create a bigger possible employee pool that will be able to help the company advance the most. It is also possible that resources are tied to a specific area that a firm considers valuable to combine them with their own assets. It is also possible that the firm opts to localise where there is a lot of knowledge concentration, thus being able to enjoy spill over effects from other companies' knowledge creation. The location that the firm decides on, will also depend on the presence of corruption, the (lack of) infrastructure, the legal costs and the additional operation costs. A firm will most likely invest in a country where the political climate is stable and reliable. Moreover, a firm will want to invest there where the macro-economic factors affecting the economy are stable and are less likely to affect the economic situation. Furthermore, a company will want to be able to trust the legal process that their copyrights are protected. Business decisions are always laced with risk, big and small, but the company will want to limit (big) risks as much as possible. If they cannot limit risks, they will for sure want to know them, and to be able to monitor them

in order to be prepared for when the risk event does occur (Forssbæck & Oxelheim, 2008; Hill & Hult, 2019; Reinert, 2012; Wang & Kafouros, 2020; Wilson & Baack, 2012).

Lastly, when there are ownership and location advantages, there also needs to be internalisation advantages present. The internalisation advantage will explain why the home country multinational chooses for FDI rather than exporting or licensing. These advantages are therefore related to the reasons why contracting may not be a viable option. These advantages are the answer to the question: "Why is it more sensible to get the value chain activities performed via outsourcing in a foreign country?". They can include (but are not limited to) better skills to perform the value chain activities, better knowledge of local markets, lower costs etc. Over the years, research has shown that a firm's research and development (R&D) spending is a great predictor of foreign direct investment. Firms in knowledge-intense sectors are more likely to opt for FDI as the way for international expansion. The network of subsidiaries in different countries will help the enterprise to absorb and deploy new ideas more effectively. They basically find themselves at the centre of global innovation. The goal of FDI is thus to internalise knowledge and resources in order to create a self-sufficient organisation. Research has also shown that firms in the same industry will often undertake FDI about the same time (Boateng et al., 2015; Forssbæck & Oxelheim, 2008; Hill & Hult, 2019).

To conclude, all three of these advantages are needed to explain the presence of FDI. If there are no ownership advantages it is not fruitful to expand internationally via FDI. If there are ownership advantages but no location advantages, it would not be reasonable to license or invest directly abroad. Hence exporting is a more desirable option. If internalising production has no advantages it is better to license than to invest directly. However, if all three are present, FDI is the way to go (Forssbæck & Oxelheim, 2008; Reinert, 2012).

The FDI decision can further be driven by the will to diversify the market that the firm is serving. Opting to serve another segment of the market can diversify the consumer base. A more diversified consumer base can benefit the firm. A drop in sales in one region due to negative economic drivers can be offset by a steady number of or an increase in sales in another region. Thus, creating a more stable revenue stream for the firm choosing for FDI. This, of course, is also true for exporting and licensing (Forssbæck & Oxelheim, 2008; Hill & Hult, 2019; Reinert, 2012).

Given that the researcher will want to research direct investments abroad, a comparison between outsourcing (licensing), exporting and FDI can also provide valuable insights for economists and corporate leaders. In this case the OLI-framework can be used to determine why a firm opts for FDI rather than exporting for example. Tomiura (2007) finds differences between FDI, exporting, and outsourcing in productivity. FDI firms are more productive than the other firms researched in the paper. Moreover, he finds that outsourcing is less capital intensive.

FDI organisation

Given that the advantages of previous section are present and FDI is proven to be the most desirable option, the firm will have to decide how it will expand internationally. Investing directly abroad can be done via a greenfield investment or a joint venture with another firm meaning that the firm starts from scratch. However, it can also be done via mergers and acquisitions meaning that the firm takes over an existing firm. Moreover, the firm will have to decide how it will organise the group. Will the group's production operate vertically or horizontally? As stated before, it is important to look at the definition of terms used when analysing scientific research. Research specifically focussed on FDI via mergers, may have different

result that may not be comparable to greenfield FDI since the context is different and the outcome will probably also differ. Hence, it can be important to define FDI and its forms, but also to look at the way studies fill in their terms.

The first option for investing abroad is greenfield FDI. Greenfield FDI means that a mother firm enters a new market or expands into the new market by starting a new foreign firm or plant referred to as the daughter firm. It involves establishing new assets and activities in the host country. In this case, a new entity is set-up without the involvement of another firm. It is believed that greenfield FDI has additional effects on the host-country since it is more likely to bring about pro-competitive effects and technology spill overs compared to mergers and acquisitions (Amoroso & Müller, 2018; Antonietti, Bronzini, & Cainelli, 2015; Calderón, Loayza, & Servén, 2004; Nagano, 2013; Raff, Ryan, & Stähler, 2019). Antonietti et al. (2015) found that inward FDI flow of service oriented daughters has a positive influence on the patenting activity in the host country for knowledge intensive service sectors. Amoroso and Müller (2018) further found that the in the short run, greenfield FDI has a positive effect in the host country if their sector is dynamic or highly R&D focussed and intensive. If this is the case the positive effects like technology transfers will outweigh the negative effects like crowding out of local businesses due to the increased competition.

A more specific form of greenfield FDI is that the firm creates a new business together with another firm or multiple other firms. This newly created daughter firm is called a joint venture. This joint venture can take the form of an investment abroad since one or multiple of the mother firms can be investing to start the daughter in another country then their own. In this case all firms involved benefits from the other firms being present. Every firm involved will chose the assets they input. When the mother firm expresses a credible threat of greenfield investment, a local firm will be more likely to support a joint venture since they will suffer less from the possible competition that follows from a greenfield investment (Gattai, 2005; Raff et al., 2019).

Another type of FDI can occur via mergers and acquisitions. Mergers and acquisitions are substantially different from greenfield investment or joint ventures since the daughter firm already exists. Although the distinction between mergers and acquisitions is economically more unclear, the legal implications are different. A merger can be considered a consolidation of two entities into one whereas an acquisition can be defined as one entity taking ownership of another entity. In either case, the resources that are needed to start up a new company are not needed. Although this may seem as a better option since it appears less costly, mergers and acquisitions bring about different costs. Merging two existing firms together requires the mother firm to reorganise the acquired daughter firm. This can include lay-off fees, communication difficulties etc. It is also possible that the mother firms pay too much in order to acquire the daughter firm. When researching mergers and acquisitions, the researcher can differentiate between full mergers/ acquisitions and partial mergers/acquisitions. By making this distinction, researchers are able to determine if certain factors and/or constraints have an effect on the choice for a specific level of foreign ownership (Alquist, Berman, Mukherjee, & Tesar, 2019; Calderón et al., 2004; Nagano, 2013; Raff et al., 2019). Alquist et al. (2019) found that when a firm wants to opt for a merger or acquisition as expansion strategy rather than a green field investment, not only the financial constraints experienced by the mother firm matter. The eventual ownership structure will balance the benefits and costs that the firms are facing in countries where low financial development and weak institutions are present, rather than it just being a matter of the financial constraints that a mother firms faces. When a mother firm experiences that

greenfield investments may be more profitable than exporting, the price they have to offer to acquire a local firm lowers making mergers and acquisitions more desirable than greenfield investments (Raff et al., 2019).

Looking into possible determinants of FDI on country-level, Raff et al. (2019) found that GDP per capita, population, and corporate tax rate influence greenfield FDI as well as cross-border merger and acquisitions. These country-level variables increase or decrease both types of FDI. They will not determine which investment type the firm will choose. Although these variables will not determine the type of FDI, it will encourage or discourage FDI in the host country. The legal environment however can influence the type of FDI. Merger and acquisition FDI is not influenced by an enhancement of protection laws whilst greenfield FDI is promoted by it. Cross-border mergers and acquisitions can lead to improved operating profits due to increases the firm's sales network capabilities. However, even though mergers and acquisitions have such desirable outcomes, greenfield FDI outnumbers cross-border mergers and acquisitions. Greenfield FDI can be more desirable since can be tailored to the host-country's market making it more flexible and hence having a higher chance of completion. Cross-border mergers and acquisitions are more ready-made. This makes it more vulnerable to unexpected environmental changes that can affect the firms immediately or soon after the transaction, making it more difficult to make the deal a success.

When looking at scientific research with regards to FDI, it is possible that the research itself does not specify the type of FDI used to form the group. In this case, the researcher will specify when a firm is considered an FDI firm and when it is considered a non-FDI firm. Buch, Kesternich, Lipponer, and Schnitzer (2009) compared financial constraints and productivities for domestic firms and multinationals in Germany. De Maeseneire and Claeys (2012) look at former small and medium-sized enterprises (SME) that wanted to expand internationally and eventually expanded internationally. They both defined a firm as a mother firm when the firm owned more than 25% of the shares in another company. This cut-off for owning at least 25% of another company is often used to determine whether a firm can be considered as mother firm. This can be the case, since international accounting standards imply that a mother firm has to include the daughter firm in their consolidated financial accounts once she owns more than 25% (Agarwal et al., 2013; De Maeseneire & Claeys, 2012).

In addition, firms will have to decide how it organises FDI. FDI can either be organised vertically or horizontally. Vertical FDI represents the situation in which the daughter company does not do the same things as the mother company. Vertical FDI can be split in two types, namely backward vertical FDI and forward vertical FDI. Backward vertical FDI can be defined as the daughter company providing inputs to their parent firm. In an organigram the material inputs like gold, metal, etc. go to the daughter company who then makes input material for the mother company and sells the inputs to them. It is then possible that the mother company uses more materials to create the final product (Alfaro & Charlton, 2007). Forward vertical FDI represents the situation in which the mother makes the products for the daughter to act as the distributor. In an organigram the (finished) material would go from the mother to the daughter company with the goal of the daughter selling the products in the host-country. Overall, the companies are related vertically.

Figure 1: Vertical FDI
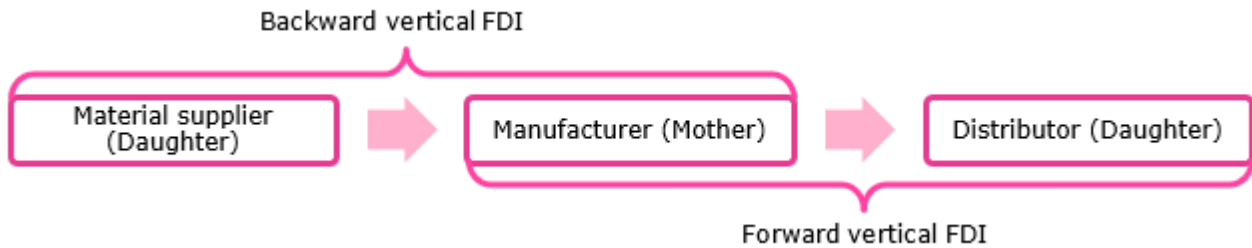
Vertical FDI makes use of the differences between the host-countries and the home country. Opting for vertical FDI, will make it possible to take advantage of cross-border factor cost differences. Hence, researching vertical FDI can provide insights on which factor cost differences are important for firms. Thus, explaining why FDI is chosen as a way of international expansion (Alfaro & Charlton, 2007; Helpman, 1984; Helpman & Krugman, 1985). The measure of vertical FDI has also been used to measure the effects of vertical FDI on productivity and spill over effects in the host country (Helpman & Krugman, 1985; Smarzynska, 2003).

With horizontal FDI, the daughter firm will produce the same (final) products in the host market as the mother firm produces in the home market. Then the daughter will sell them in the host-country's market whilst the mother focusses on selling in the home country (Alfaro & Charlton, 2007).

Figure 2: Horizontal FDI
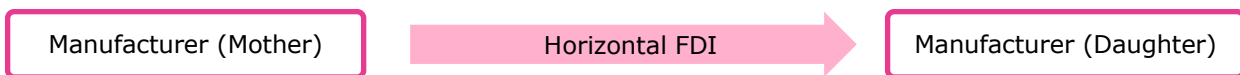
Research focussing on either type of FDI can look for their effect on productivity and (knowledge) spill overs. However, the scientific research can also compare the effects of horizontal and vertical FDI. There are studies that compare the knowledge spill overs, looking to determine whether one type of FDI organisation has a bigger impact on the host country (Gorodnichenko, Svejnar, & Terrel, 2006; Roording & de Vaal, 2010). Roording and de Vaal (2010) find that horizontal multinationals tend to transfer more advanced technology to the host country since the daughter firm will operate like the mother firm. However, this does not necessarily mean that a knowledge spill over will occur even though there a higher potential for this than with vertical FDI. Local firms may be less likely to the absorb the technology that is transferred due to local factors. Moreover, the daughter firm that is horizontally organised will try to take strong actions to prevent the spill over from occurring. Hence the stance that the host country takes regarding technology will be the biggest predictor in which type of FDI organisation will lead to higher knowledge spill overs.

It is also possible to look broader, and determine whether the growth-effects in the host-country are bigger when there is horizontal FDI is present instead of vertical FDI. Beugelsdijk, Smeets, and Zwinkels (2008) find that both horizontal and vertical FDI have significant positive effects on the growth of developed countries, but notice superior growth effects with horizontal FDI. They find no significant effect for either horizontal or vertical FDI in developing countries. It is also possible for scientific research to look if the choice for a horizontal or vertical FDI organisation is due to differences in location specific factors. Scientific research like this can explain, for example, why horizontal FDI is present in a country whilst vertical FDI is not present or present to a lesser degree in that country. Fukao and Wei (2008) found that a large market is a good determinant for horizontal FDI, whereas for vertical FDI the labour costs play a significant role in

determining the location of daughter firm. Moreover, the quality of labour only has a significant positive effect on the location decision of horizontal FDI. The study of Guerin and Manzocchi (2007) focussed on the effects of political regimes on FDI. They found that countries with an autocratic regime were relatively more likely to attract vertical FDI. Democratic countries were more likely to attract horizontal FDI inflows.

FDI research

The researcher can look at FDI in different ways depending on their research goal. Firstly, the researcher can only focus on firms that have opted for FDI. In this case FDI is a given and will not be used as a variable in the further analysis since it is true for all firms in the sample. Hence the researcher will look at the differences between FDI firms. The researcher can also look at how the firms experienced circumstances. De Maeseneire and Claeys (2012) looked at SMEs that conducted FDI in the past. They conducted interviews to get insights in the financial constraints that the firms experienced when expanding abroad. Hence, research with this type of focus enables the researcher to get more in-depth information for the specific sample that is being researched.

Secondly, the researcher can look at the effects of factors on FDI. In this case the researcher will define a factor of which they want to know their effect on FDI, like contract enforceability or financial constraints. They make sure that the factor is present for all firms in the sample that they are researching. Then they will look at the magnitude of the factor for each firm and compare the effect of the factor on the firm. In this case other variables will be of great importance as well. When taking a more macro-economic perspective in mind, Buch and Lipponer (2007) and looked at the magnitude of contract enforceability that was present in the country where FDI was conducted. When contract enforceability was larger, the chances that a mother firm was willing to acquire more of the daughter firm were higher. Buch et al. (2014) concluded that when contract enforceability was high in a country, the chance that a candidate mother firm would be willing to conduct FDI in that country was higher. Consequently, research with this focus will give a better insight in which variables are important for a firm that is willing to expand internationally.

Lastly, the researcher can compare FDI and non-FDI firms. Whether the firm is part of group or not can be a strong indicator of other factors. Scientific research has found that firms that undertake FDI are proven to be more productive than their non-FDI counterparts (Fukunari & Kiyota, 2006; Thangavelu, Findlay, & Chongvilaivan, 2012). Yan et al. (2018) used several financial factors to determine if there was a significant difference for outward FDI and non-outward FDI firms in China. They found that FDI firms were significantly more productive and had significantly higher cash ratios, profitability, and interest expenses than non-FDI firms. They also had a bigger scale. The firms that had opted for outward FDI also faced more internal and external financial constraints. Thus, this type of research will help indicate the differences between FDI and non-FDI firms.

FDI firms versus non-FDI firms

The fact that research is conducted that compares FDI firms and non-FDI, means that both types of firms are significantly different in some aspects. Hence, this section will focus on looking at the differences between FDI and non-FDI firms.

A common found result, is that the productivity levels of FDI firms and non-FDI firms are quite different. The productivity level of non FDI-firms is far from the critical level or threshold of the necessary productivity needed to opt for foreign entry. More productive firms can better compete with host-country domestic firms since they need to have some form of advantage that will offset the additional costs they will experience

from their international expansion. Hence, the productive firms are more likely to venture abroad. FDI firms are often more productive since this is a necessity for international expansion. Without the high productivity levels, the foreign expansion would lead to major losses for the mother firm instead of the intended gains (Buch et al., 2009, 2014; Yan et al., 2018). This result is even more prevalent in manufacturing sector firms than in service sector firms since the former face higher fixed costs. Higher levels of productivity are needed to cover the higher costs that international expansion brings about. Hence, if they experience that they are productive enough, they are more likely to venture abroad (Buch et al., 2014). Blalock, Gertler, and Levine (2008) researched the effects of an economic crisis in emerging markets on daughter firms that operated in emerging markets. They found that daughter firms where less negatively affected by the effects of the crisis. The daughter firms grew their added value by 44% compared to their domestic counterparts throughout and after the crisis. The daughter firms also increased their capital. They also used more material and employed more people than their non-FDI counterparts.

Agarwal et al. (2013) compared foreign owned firms and domestic owned firm operating in China. The foreign owned daughter firms had lower employment numbers. However, these firms had added more value, had more sales, and the value added per employee were significantly higher than for domestic owned firms. M. Chen and Guariglia (2013) also found that FDI firms had lower employment numbers, but more productive employees than non-FDI firms. When looking at the effects of FDI on the employees, Driffielda and Taylor (2000) found that FDI firms tend to pay higher wages than their non-FDI counterparts. They link this to the higher productivity levels of the employees. They also found that the skill level overall increased due to technological advantage transfers from the home country to the host country.

However, Onaran and Stockhammer (2006) found that this effect on wages was only present in the capital and skill intensive sectors, whilst for others sectors this effect was negative. They also found that the net effect of export and import on trade was negative over the long-term. Hale and Long (2008) found comparable effects. The wages of skilled workers were higher, but not these of production workers. Moreover, this was only true for daughter firms of which the mother firm was a private owned firm.

When looking further into the competitiveness of FDI firms and non-FDI firms, Buch et al. (2014) found that FDI firms were bigger and more cost efficient. However, they also found that cost efficiency had a significant negative value for multinationals and manufacturing firms meaning that firms with higher costs are more likely to invest abroad. This can reflect that international expansion in and of itself is costly, making the measurement more negative than it actually is. In this case, home country firms are only more cost efficient because multinationals and manufacturing firms operating abroad have experienced additional costs due to the move to host-countries. Moreover, cost reduction considerations could have driven these firms to operate abroad. It can be that these firms moved their production abroad because their costs would have even been higher if they only operated domestically. International expansion could in this case have helped them organising their production more effectively, lowering the costs per product produced.

Blalock et al. (2008) found that daughter firms experienced the effects of a crisis in an emerging market differently. The liquidity constraints that domestic, less productive firms faced weighted less heavily on the FDI daughter firms. More interestingly, during the crisis the average domestic-owned firm lost around one-third of the value of their capital stock. Only the FDI daughter firms were able to avoid most of the decline. This can show that the FDI daughter firms could the dependent on their mother firm for additional funds and their relatively higher financial health. M. Chen and Guariglia (2013) found that a bigger part of the sales were exported and that the firms were financially healthier with lower leverage ratios and higher

cover and liquidity ratios than their non-FDI counterparts. They also faced lower debt ratios than non-FDI firms. The lower debt ratios imply that the FDI firms rely more on internally generated funds. Guariglia, Liu, and Song (2011) noted that the growth and investments of FDI firms were severely affected by the internal finance available, whilst this is not the case for non-FDI firms. However, they continue that due to their high productivity and abundance of cash flow, they are able to grow at a fast rate even though they are being discriminated against. Overall, FDI firms seemed more financially healthy.

Financial constraints

FDI firms are often financially healthier. Often, for these financially healthier firms, there were constraints present that limited the firm's ability to lend money on financial markets. Hence, it could have also stopped the firms from pursuing international expansion since they would have to had generated the funds for the expansion internally. In this section I will look deeper into this issue (Buch et al., 2009, 2014; De Maeseneire & Claeys, 2012).

Financial constraints are constraints that come forward from the financial situation the firm faces, and these constraints limit the actions that the firm can take. They can hinder FDI firms in their international expansion journey since the lack of funds limits their possibilities of international expansion. This issue seems to affect more productive firms more than less productive firms. This could be due to them having additional, higher financing needs than their less productive counterparts who do not face additional start-up costs next to their costs for growth. As stated earlier, FDI firms are more likely to be productive than non-FDI firms. The following items are, among others, also important for the faced financial constraints: the customer structure, the probability of an adverse demand shock, the quality of management, the magnitude of adverse information, and the distance between to home and host country which can include physical distance and cultural distance. With a large fixed cost of entry and a low productivity, the firm looking to expand will experience larger "real barriers" for entering a foreign market (Buch et al., 2009, 2014).

Firms can finance their foreign expansions via two fund streams, external financial institution credit and internally generated funds. Both forms of financing can have their own constraints, moreover the constraints can differ between firms as well due to the internal organisation. I will first explain external credit constraints since this will help in explaining why internal constraints also matter.

With regards to external financing constraints, two constraints are of importance. One being the inability to attract sufficient external funds, whilst the other one is related to excessive external financing costs. The inability to attract external funds means that firms wanting to expand internationally face difficulties attracting external funds. The inability to attract sufficient external funds has multiple reasons most of them relating to risk. Generally speaking, when looking at risk, there are three broad profiles: risk loving, risk neutral, and risk averse which refer to the ratio of certainty to uncertainty. Financial institutions are often risk averse when it comes to lending since they will want a minimum return on the investment. When facing the same monetary outcome, the bank will choose the outcome were less risk is involved.

Given that financial institutions are risk averse and less willing to lend money when risks are high, why does it seem to be more prevalent for foreign expansion? Firstly, financial institutions are less likely to lend money for international expansion since they fear additional risks. In this case, the fear that the internationalisation might not work. Hence, if the foreign expansion fails, firms can also face more difficulties getting the required return on the money they lend from the financial institution. Given this,

financial institutions will be less willing to lend money for foreign expansion. Moreover, they fear that they have less control on mother firms spending abroad. Since the physical distance between the financial institution and the daughter firm can be larger, the financial institution will fear that they have less control over the investment. Financial institutions may also not be familiar with the foreign market and hence also lower their expectations for the chances of success (Agarwal et al., 2013; Buch et al., 2014; Héricourt & Poncet, 2009).

In addition, attracting external finance goes hand in hand with financial contracts. Financial contracts will suffer from inefficiencies. When creating a contract, the parties involved in the process will want to ensure that the goals and rules are clear. However, when creating a contract, it will be difficult – if not impossible – to include all possible scenarios in the contract. Since it is not possible to include all scenarios in the contract, both parties will experience uncertainty. Moreover, even if it were possible to include all possible scenarios in the contract, the financial institution still does not know what the company will actually do with the granted funds. This will cause constraints since the inefficiencies will force financial institutions to lend less money. Moreover, the financial contracts created between financial institutions and firms may suffer from other inefficiencies like limited enforceability. The enforceability of contracts differs across countries and can be linked to the development of the financial market as well as the presence of home countries' financial institutions in the host country. With the risks involved with foreign expansion, financial institutions will be less willing to lend money since the difference between the uncertainty value and certainty equivalent will be higher. Moreover, the uncertainty level may occur with limited probability. Hence, financial institutions will be less willing to lend money when they experience the foreign expansion plans as too risky (Berger & Udell, 1990, 1995; Hill & Hult, 2019).

Given this, it is possible that the financial institution is willing to lend money when they believe that the foreign expansion risk levels fits in the financial institutions risk profile or if the expansion has high chances of success. Even if this is the case, the issue with external financing constraints is not over. Guariglia and Yang (2016) showed that, even if the financial institution is willing to lend funds to the firm looking to expand internationally, the imperfection of the capital market will lead to an additional cost premium. The imperfection of the capital market is the result of asymmetric information and moral hazard. Asymmetric information is known as the imperfect information that the financial institution has about the customer. Since the financial institution does not have access to all information, they might fear that the firm holds back important information. The firm can take advantage of this and present the situation as more desirable than it actually is. If this is the case, the risks relating to project are higher than the ones presented to the financial institution. Since financial institutions are aware of this issue, they can raise the costs relating to the funds they lend. Moreover, there is the issue of moral hazard. Moral hazard is the situation in which the firm can increase the risks of investment since they themselves do not bear all the risks involved with the investment. In doing so, they also increase the risks the financial institution faces without the knowledge of the financial institution. Since financial instituions are not willing to face additional risks without their knowledge, they can increase the costs relating to the funds they lend. When financial institution increases the costs of lending, they try to increase the certainty that they get a positive return on their investment (Berk & DeMarzo, 2017; Lipsey & Chrystal, 2015).

Hence, when funds are provided, they can still be relatively more expensive than funds that are granted for expansion in the home country. Financial institutions can increase the cost of the lending via two ways. Firstly, they can directly increase the costs by requiring higher interest payments on the funds that they

lend to the firm, compared to when the funds would be used for investing in the home country. Furthermore, financial institutions can request collateral. Collateral is something that the lender provides as insurance to the financial institution that the financial institution can monetise when the lender defaults on the loan. When lending money for a house for example, financial institutions will prefer the house as the collateral since they can sell it when the lender defaults on the loan granting them their return on their investment that otherwise would have been lost (Benmelech & Bergman, 2009; Berk & DeMarzo, 2017; Lipsey & Chrystal, 2015). Benmelech and Bergman (2009) found that re-deployable collateral can lower the price and amount of debt. Thus, lowering the experienced financing constraints.

However, given the higher level of uncertainty, the financial institutions will be looking for a bigger value of collateral which may be harder to provide. A strong financial contract can ease the financial institutions mind with regards to the collateral. However, as indicated before strong financial contracts are hard to set up. Moreover, when the contract has (more) limited enforceability, (more) collateral may be required before the firm can obtain credit financing. This collateral will increase the fixed costs needed to start abroad. If the firm does not have the collateral, the price and amount of debt can rise. If the firm has collateral, it might not be sufficient or valuable enough to cover the amount that the bank requires (Buch et al., 2014; Y. Chen, Hua, & Boateng, 2017).

The problem of the collateral is even more prevalent with small and medium sized enterprises (SMEs). When they want to expand internationally, they often have to rely on external credit financing since this is most viable way of attracting sufficient funds for the foreign expansion. However, since financial institutions will require more collateral, it is more difficult for them to attract the external funds. They have little high-value collateral which they can promise to banks. Hence, their chances for attracting sufficient funds for foreign expansion are small, making their FDI plans less likely to occur (Y. Chen et al., 2017; De Maeseneire & Claeys, 2012). Moreover, De Maeseneire and Claeys (2012) found that 18,8% of the interviewed managers of SMEs indicated that foreign host country banks sometimes refused to accept domestic collateral. The collateral issue also carries through to the domestic home market of the mother firm. Half of the respondents indicated that their foreign assets were not always accepted as collateral by the domestic bank. They also indicated that domestic banks required further (personal) collateral. These are limited by nature can already be exhausted. Hence making the overall effects of collateral on financial constraints uncertain.

De Maeseneire and Claeys (2012) found that 78,3% of the SMEs have used external financing for their FDI projects. Bank financing is the most popular source of external financing. 39,1% of the firms obtained their bank finance via a local bank in the host country, whilst 65,2% went for domestic bank finance. When going for local bank finance, 42,9% of the respondents indicated that interest charges where higher. Moreover, 47,4% indicated that the collateral requirements were higher. 36,8% or respondents indicated that the bank sector was not well enough designed. Long term loans for assets like buildings may not be available. Furthermore, leasing sometimes does not exist in the host country. When looking at domestic bank finance, 31,6% of the respondents indicated that when they requested funds from the domestic bank for the daughter firm, the bank would only provide it to the parent firm to shift the risk to the parent firm. 28,6% of the respondents further indicated that domestic banks saw issues with the limited equity position of the firms. Raising equity for family-owned SMEs is not always feasible. 31,6% of the respondents also indicated that domestic banks are often not interested in FDI since they appear to have a more domestic

focus. 38,1% of the respondents indicated that this could be due to monitoring issues and 25% further also thought that this was due to the banks not being able to assess the risks.

The availability and/or the costs of external finance will force firms to (also) rely on internal finance, like retained earnings. More so, often firms looking to expand internationally will prefer internal finance over external finance (Guariglia & Yang, 2016). Since firms face differences in customer structure, quality of management, ability to provide information to lenders, etc. they also face different financial constraints. Hence, financial constraints tend to be firm-specific and will not merely reflect differences that exist across firms with regard to their productivity (Buch et al., 2009; De Maeseneire & Claeys, 2012; Guariglia & Yang, 2016).

When looking at internal finance, internally generated funds are of great importance. Internally generated funds are the funds that the firm has to its disposal because of its operations. FDI firms often hold more cash than their non-FDI counterparts since value increasing projects can only be taken on when the company has sufficient funds. Having low cash flows and hence low funds leads to internal financial constraints which can hinder growth. Moreover, the internal funds are of great importance for international expansion since external funds can be costlier (Buch et al., 2009; De Maeseneire & Claeys, 2012; Guariglia & Yang, 2016).

Given the costliness of external funds, internal funds have to be available for international expansion because there is a general financial barrier that has to be crossed. The barrier takes the form of a cash-in-advance constraint. This can be seen as the cost of entry since start-up costs have to be paid before the production starts and thus also before revenues are being generated (Guariglia & Yang, 2016; Yan et al., 2018). If the internal funds are not enough to cover the start-up costs, additional credit has to be found from institutions. These additional required funds are costlier and can be difficult to get. Researchers have used the lack of these internal funds to show the importance of them for FDI (Buch et al., 2009; De Maeseneire & Claeys, 2012; Guariglia & Yang, 2016).

The firms will have to collect all their internal funds for the international expansion. The problem that can arise as a consequence lies in the fact that the firms will have to put aside good investment projects in order to have sufficient funds for the expansion. This will cause under-investments due to the lack of external funds. If the cash-in-advance constraint is of a too big magnitude, the firm will lose potential future growth. If all of the earnings have to go to international expansion, the firm will not be able to invest in current good investment projects. If they would have internal funds for good investment projects they could use the gains that come with the growth to further finance the international expansion whose gains follow later on. However, this is often not the case. This leads to limited current growth and it will weigh hard on the firm in the long run. Effects like these are less researched, but are also important to assess and keep in mind when looking at FDI (Guariglia & Yang, 2016).

The problem of under-investment can also occur when too much external funds are present. In this case, the managers of a firm, acting on behalf of the equity holders, can believe that the benefits of the investment go more to the debt holders than the equity holders. If there is no benefit for the equity holders, there is little incentive to invest since they will not benefit from the investment. A specific form of under-investment is debt overhang. In this case the firm has such a large debt level that they cannot borrow from financial institutions. The debt burden has such an extent that all earnings of the company will go to paying off the existing debt instead of going to new investment projects which could create more earnings since

the debt weighs that hard on the firm. Hence the growth of the firm will be limited. They under-invest which will makes the shareholders lose to creditors now and to potential future growth (Berk & DeMarzo, 2017)

De Maeseneire and Claeys (2012) went more in dept via interviews. In these interviews 42,9% of their respondent managers indicated that their last FDI project was entirely funded by their internally generated funds. None of the respondents totally disagreed with the statement that without sufficient funds they would have a difficult time financing their FDI project. Both of these statements indicate the importance of internally generated funds. Half of the respondents indicated that most of the funding for the their most recent FDI project was internally generated. Furthermore, many SMEs believe that they would experience difficulties raising funds for FDI projects when there are insufficient internal funds. 26,3 % of respondents also indicated that they for sure experienced a larger wedge between external and internal costs for their FDI projects. Only 5,3% of the respondents totally disagreed, and did not believe that they experienced a larger wedge. Hence, around 70% of the respondents believed they might have experienced a larger wedge. 38,1% of the respondents indicated that when comparing FDI projects and domestic projects, they relied more on internal funds for the international projects than for domestic projects.

Given that the firm does not have enough internally generated funds for international expansion, it will have to rely on other funds. Not having access to debt financing or debt financing increasing the costs significantly will make firms favour equity financing once the borrowing costs cross some threshold. But even equity financing is not ideal either. Raising cash through stock offerings also has its own costs that are to be kept in mind. When firms issue new stock, it will have a negative impact on the stock price and the sentiment of the original owners. When the firm just increases their capital and expands their shareholder base, the ownership share of the original shareholders goes down. This concept is known as dilution. Due to the presence of the new shareholders, the original shareholders will receive less of the generated profits. Although the stock offering brings in the needed additional funds for growth, the fact the original owners have fewer voting rights and ownership rights over earnings, can create discomfort with the original shareholders. Hence firms can first ask the original owners if they want to increase their input, keeping the distribution as it is. Dilution is only absent if the price of the new shares equals the fundamental value of the old shares when the new shares are issued. For this, an agio can be used. In this case the agio will represent the difference between the old stock price that the original owner paid for the share, and the price that the new owner will pay for the share. By working with agios, the company can ensure that the old shares have the same value as the new shares, hence not putting the original shareholders at a disadvantages compared to the new shareholders when increasing capital (Jorissen, Lybaert, & Vanneste, 2016; Van den Bossche & Chiau, 2018).

If the firm does not keep this in mind, shareholders and definitely minority shareholders will lose their power. It is important to protect the already present shareholders if adequate capital wants to be raised and kept. This is the case since without the protection, equity valuations will be low and owner-managers will need to hand over cash flow rights in order to raise substantial funds (Danzman, 2019). De Maeseneire and Claeys (2012) also found that 28,6% of respondents indicated that they totally agreed with raising equity from shareholders as their last financing option to consider. 14,3% of the respondents indicated that they totally disagreed with raising equity from shareholders as their last financing option they would consider.

Given this, I can conclude that productive firms alone are not enough for FDI to occur. Lowering the financial constraints faced by firms can be just as important since even large and productive firms will be hampered by these financial constraints when creating their internationalisation strategy (Buch et al., 2009, 2014). The FDI firms seem healthier since they have to work around the (external) constraints (Buch et al., 2009, 2014; Yan et al., 2018). This can also be derived from the accounting data of multinationals. Multinationals often face lower debt ratios and higher cash flows than their non-FDI counterparts, showing that they rely less on external financing funds (Buch et al., 2014).

Conclusion

What causes firms to opt for FDI is different for each firm. It could for example be due to the need to preserve knowledge in the firm or due to the desire to keep up with the competition. It has however been shown that benefits have to be present before a firm opts for FDI, being: ownership, location and internalisation advantages. Otherwise, the foreign firm would be at a disadvantage compared to the local firm. Moreover, FDI can be organised in different ways. The firm looking to expand internationally can opt to acquire a local firm, taking over all the shares or assets and making the local firm legally theirs. The firm could also think about combining forces with a local firm and linking them to make one entity. And lastly, the firm can start from scratch in the form of a greenfield investment. They will probably be plagued by financial constraints when opting to expand internationally via FDI. Research has shown that getting funds for international expansion is more difficult hence making it more difficult for most companies to start their international expansion journey via FDI.

Firstly, looking at the definitions used, FDI is often defined as firms that want to become or already are multinationals. Hence, their results can be compared to the results of domestic firms. Thus, looking at firms that want to go international, will provide insights on which constraints will impact the choice of going international. It is also possible to look ex post what difference is between the FDI and non-FDI firms. It is also possible to differentiate between vertical and horizontal FDI. When looking at financial constraints, it is possible to differentiate between internal constraints and external constraints. Internal constraints are the constraints that relate with the internal finance being present like cash flow. External constraints relate to the constraints that come from external finance like debt. Both of these can be important when looking at financial constraints that a firm experiences.

Chapter 4: Organisation empirical research

Whilst the previous chapters focussed on the theoretical framework and literature surrounding FDI and financial constraints, this chapter will mark start of the empirical part this thesis. With the knowledge gained in the previous chapters I will start this chapter of by making hypotheses about FDI and financial constraints for Belgian mother firms with foreign daughters and Belgian daughter firms with foreign mothers. Then I will further explain how I will organise my research and why I make certain choices with regards to my research design.

Hypothesis with regards to FDI and financial constraints

Firstly, I will start my empirical research with drafting my hypotheses. I will do this on the basis of the literature review discussed in the previous chapter of this thesis.

When researching financial constraints, two constraints are of importance. Firstly, there are external financial constraints and secondly there are internal financial constraints. External financial constraints are related to the lack of external funds being present for the firm. Research of De Maeseneire and Claeys (2012) showed that FDI firms themselves indicated that they had difficulties getting funds from home and host country banks. Moreover, they also had difficulties providing sufficient collateral. Buch et al. (2014) found that firms with higher leverage ratios were less likely invest abroad. They also found that FDI firms had lower debt ratios. They argued that having higher debt ratios resulted in lesser funds being granted to the FDI firm. When firms have higher debt ratios, they often have fewer assets available that can serve as collateral. Moreover, these firms often have lower debt ratios because they do not get the same access to these funds as non-FDI firms. Thus, leading to the following hypothesis:

> **H1.** *Belgian FDI firms have lesser external funds to their disposal than Belgian non-FDI firms.*

Next to external constraints, there are also internal constraints that can hamper the expansion possibilities of the firm. Internal constraints are related to the lack of internal funds present in the firm. The research of De Maeseneire and Claeys (2012) showed that many FDI firms indicated the importance of the internally generated funds for the FDI firm in general. Specially, FDI firms rely at least party on internal finance for their expansion strategy. Buch et al. (2014) found that higher cash flows had a positive effect on the foreign expansion strategy. Internal funds are crucial for foreign expansion when external funds are limited. Hence, the second hypothesis is the following:

> **H2.** *Belgian FDI firms have more internal funds to their disposal than Belgian non-FDI firms.*

Furthermore, there were also differences between FDI and non-FDI firms when looking at employment records. Research of Driffielda and Taylor (2000) and of Onaran and Stockhammer (2006) has shown that FDI firms are more likely to pay higher wages to higher skilled employees. The overall skill level also increased due to technological advantages. Moreover, Agarwal et al. (2013) found that FDI firms employed lesser amounts of workers. The employees also added more net value and the net value added per employee were significantly higher than their non-FDI firms. This leads to the following hypothesis:

> **H3.** *The value added per employee is higher for Belgian FDI firms than for Belgian non-FDI firms.*

Research design

The research design of the study for which the researcher opts has an impact on the results of the study. Furthermore, it also has an impact on the interpretation of the results. There are different routes I could take for the research design of my thesis. In this section, I will focus on the research design I opted for and how this might have impacted the results.

When a researcher wants to determine the effects of financial constraints on FDI, they will have to draw up their research strategy. This research strategy consists of three components being the research design, the research methodology, and the research methods. The research strategy helps the researcher with answering their research questions. It guides the general direction that the research will go in. The choices made for one of the three components will influence the other components (Saunders, Lewis, & Thornhill, 2015; Sekaran & Bougie, 2016).

The research design for which a researcher will choose, will have to fit the research questions and hypotheses the researcher wants to answer. Since my hypotheses focus on the amounts of internal and external funds and the added value per employee, and quantitative research design is needed to test these hypotheses. Moreover, my research has to goal to look at the differences between FDI and non-FDI firms. The comparative, quantitative research design leads itself more towards an experimental research method (Saunders et al., 2015; Sekaran & Bougie, 2016).

The general goal of an experimental research method is to determine if there is a causal relationship between the variables that are being researched. A causal relationship is a relationship in which one variable will directly influence another variable without the interference of another factor. A researcher can for example notice that when ice cream sales rise at coastal cities, the number of drownings in sea also increases. The drowning of people is not directly influenced by the increase in ice cream sales. Both are however influenced by the weather conditions. Better weather conditions can cause both a rise in ice cream sales and in drownings. Hence the relationship between ice cream sales and drownings is not a causal one. For my study the goal is to determine if financial constraints have affected firms who have opted for foreign expansion. Hence, I am trying to determine the effect of financial constraints on firms. More specifically, I am trying to determine if external/internal financial constraints are more/less present for FDI firms than for non-FDI firms. For example, FDI firms can have lower internal financial constraints than their non-FDI counterparts (Saunders et al., 2015; Sekaran & Bougie, 2016).

An experimental method can be either a field experiment or a laboratory experiment. When the researcher opts for a laboratory experimental research method, they will assign their intervention manually to the researched object. Since I am not able to alter the foreign investment decisions of the firms, this experimental research method is not possible. In a field experiment, the researcher will observe the data as is, with as little intervention as possible. Many studies have opted for field experiments to determine the effect of financial constraints on FDI. My study will also follow the field experiment research method. Whether a firm expands internationally via FDI or not, is a given situation that I cannot control myself (Saunders et al., 2015; Sekaran & Bougie, 2016). Buch et al. (2014) used a field experiment to determine the effects of financial constraints on firms wanting to opt for FDI. They found that financial constraints matter to firms wanting to opt for FDI and can hinder them in their expansion strategy.

Using a field experiment as the research method has implications on the data interpretation. When opting for a field experiment, the external validity of the results is higher than they would be for, for example, a laboratory experiment. This means that the researcher can generalise the results of the study with more certainty and reliability. Hence, field experiments can for example show government officials which policy decisions are best to be taken. They can also inform management what actions are to be taken or what to look out for (Saunders et al., 2015; Sekaran & Bougie, 2016). Buch et al. (2014) found that lowering financial constraints is not only important for less productive firms but also for more productive firms. The financial constraints hamper the more productive firms in their expansion strategy. I also prefer to opt for a field experiment since they have higher external validity. The generalisability of the results makes this method more desirable for my research design.

However, with high external validity comes low internal validity. Since the researcher cannot intervene, it is more difficult to assign a difference in outcome to a certain change in the variables that are being measured. The actions of a firm are also influenced by external factors like government interventions or policies and the economic climate which is something the researcher cannot control. Hence it is important to include relevant control variables to the analysis (Saunders et al., 2015; Sekaran & Bougie, 2016).

Once the research method is chosen, the researcher has to keep in the mind the research design. The researcher can compare the results between groups or within groups. In a within-subjects research design, one subject can be exposed to different situations. I can for example compare the effects within the same group like FDI firms. My research design will also focus on the between-subject design. In this research design, a subject can only be exposed to one situation. In this design, the results of one group of subjects will be compared to the results of other groups of subjects. Since I want to compare to the results of FDI firms and non-FDI firms, the main part of my research will focus on the between-subjects design (Saunders et al., 2015; Sekaran & Bougie, 2016).

Sample and data

When the researcher has chosen their research method, they will have to determine the sample from which they are going to distract the data. The sample is taken from the population which consists of all the units that are viable to get data from. When wanting to compare the effects of financial constraints on FDI and non-FDI firms, the target population for my research are all operational companies with a connection to Belgium. Since the research compares Belgian FDI firms and Belgian non-FDI firms, all active firms belong in the population and not just firms who have conducted FDI at some time in the past. This is irrespective of how old the firm is, or how much assets the firm holds. Given that the database consists accounting information of firms who operate in Belgium my accessible population are firms that are operational in Belgium. This can either be Belgian firms with no links to other companies, or a Belgian mother/daughter firm with a foreign daughter/mother firm. Since it is impractical to research the entire population because of data access restrictions, a sample has to be drawn from the population (Saunders et al., 2015; Sekaran & Bougie, 2016).

Given the broad population, I decided to refine it to manufacturing firms. The data in chapter 2 indicated that the biggest inflow of FDI in Belgium comes from firms investing in the manufacturing sector. Moreover, the article of Buch et al. (2014) found significant differences between manufacturing and service focused firms. They found that whilst the manufacturing and service firms were of similar size, the debt ratio was only statistically significant at the 10% level for the service sector firms whilst for manufacturing sector

firms the debt ratio was statistically significant at the 1% level. This could be due to the fact that manufacturing sector firms have higher fixed costs. Since, manufacturing focused firms are more likely to venture abroad, the probability that the financial constraints are binding for the firms is higher. Given that firms in the banking sector look at FDI differently, I excluded them from the population as well. This could lead to sampling bias when generalising the results. Sampling bias occurs when the sample is not representative of the population. Hence, when I generalise my results I will generalise toward manufacturing firms in general, but not all firms that are operative when I conduct my research.

When drawing the sample from the population, it is important to draw the sample as randomly as possible from the relevant population in order to avoid that the sample differs too much in characteristics from the population. This difference could be due to selection bias. If the sample only existed of SMEs, whilst the population exists of larger manufacturing corporations as well, the outcome would not be reliable when generalised. The goal is to have a sample that is comparable to the population (Saunders et al., 2015; Sekaran & Bougie, 2016).

My sample will consist of three groups. Firstly, a subsample consists of domestic firms only. Since I want to compare the effects of financial constraints on Belgian FDI-firms, I will have to include a comparison group with which I can compare the effects of financial constraints on Belgian FDI-firms. Otherwise the found effects could relate to Belgian non-FDI firms as well. Secondly, my sample will consist of Belgian firms that have conducted FDI but are not part of bigger, internationally active, corporate group. Thus, this subsample of firms will consist of Belgian mother firms with at least one foreign daughter firm. The third and last group consists of Belgian FDI firms who are part of a bigger, internationally active, corporate group. Thus, this subsample of firms will consist of Belgian daughter FDI firms who are part of a bigger corporate group. These Belgian daughter firms can have a foreign daughter themselves. Lastly, I want to exclude firms from all subsamples that have less than or ten employees to avoid outliers. These are data points that differ substantially from the average, thus causing the average outcome the be skewed away from the actual average.

Alfaro and Charlton (2007) made an important note on the differentiation between horizontal and vertical FDI. Often, it is difficult to differentiate between vertical and horizontal FDI since daughter companies that produce for the mother company or sell for their mother company operate in the same industry. This is especially true when researchers look at the two-digit Standard Industrial Classification (SIC) code. When looking at the two-digit SIC code, they appear to operate horizontally since the researchers are looking at a broad industry. The more specific differentiation occurs on the four-digit level, vertical FDI can be mistaken for horizontal FDI when only looking at the two-digit level. If the parent produces electronical equipment like computers and the daughter produces a specific component like a memory board or wiring both of them operate in the same industry but are not horizontally structured. Hence, if the researcher does not go into enough detail in the code list, the researcher might mistake horizontal FDI for vertical FDI and vice versa. In order to avoid this issue, I am going to be looking at FDI in general without specifying the organisation form a firm chooses for them and their subsidiaries.

To estimate the effect of financial constraints on FDI, I will use data from the Belfirst database. The university of Hasselt grants access to this database which is compiled by Bureau van Dijk. This a firm that compiles data of private companies to make efficient decision making easier. Their databases among other things provide insights in ownership structures, activities, and merger activities of companies. The Belfirst database allows me to get information on parent level like the presence of financial constraints and the

number of employees. Moreover, the Belfirst database also gives information on where the daughter firm is located and how many daughter firms a mother firm holds.

The Belfirst database contains data of 657 464 active Belgian companies. Of these 657 464 companies, 82 201 are active in the manufacturing sectors like, food product manufacturing, beverage manufacturing, and textile manufacturing. Moreover, I indicated that I would focus on firms who employee at least 11 people. Since this was not reported for all firms, the number of firms in the sample shrank significantly. I focussed on this subset of the database. Overall, my main sample exists of 6 743 firms.

As stated before, I will differentiate between firms that have no FDI connection and firms that are active internationally. There are 2 369 non-FDI firms in the sample. The financial data of these firms was checked. 132 companies of these 2 369 had a foreign connection somehow. Since it was unclear if the firms actually belonged to a corporate group, these companies were be taken out for the general analysis in order to not bias the results. Hence leaving me with a subsample of 2 237 non-FDI firms.

Then I focussed on obtaining a subsample containing data for FDI firms who had foreign daughter firms. Overall, there are also 8 023 active Belgian mother companies who have at least a 50% share in a foreign daughter firms present in Belgium in the entire database. If I apply this condition to the previous condition, a total sample of 785 active Belgian mother companies remain. The other companies are not active in the manufacturing and/or employ less than 11 employees. There are 8 999 active Belgian mother companies who have at least a 25% share in a foreign daughter firms present in Belgium. If I apply this condition, a total of 809 active Belgian mother companies remain when I also consider the other conditions. Overall, about 11.5% of the sample have foreign subsidiaries. These 809 active Belgian mother firms will be included in the second subsample. Of these 809 active Belgian mother companies, 159 are the ultimate mother company of the international group. Which means that 650 Belgian mother companies have at least one daughter firm registered but are themselves a daughter of a foreign mother company. When running my regression analyses, I will focus on the 159 ultimate mother companies since these are Belgian firms with foreign daughters but no mothers above them who can provide additional funds.

Lastly, I focussed on obtaining data from FDI firms who had a foreign mother company. There were 4 215 firms that were certainly part of an international corporate group. This subsample also included the data from the 650 active Belgian mother companies with foreign daughter companies.

Dependent variable
Once the sample has been chosen, the researcher will have to determine which data points they want to collect from the sample. These data points will take the form of variables, for example the number of employees per firm, the sales per firm, or the assets per firm. When the researcher wants to determine if there is a causal relationship between two variables, they will look at the effect of a change in one variable X on the other variable Y. The variable that changes, X, is the independent variable. The variable that is effected due to a change in the independent variable, Y, is the dependent variable (Stock & Watson, 2015).

The dependent variable is a numerical variable which models the financial constraints experienced by a particular firm. Since there are two types of financial constraints, internal and external financial constraints, two dependent variables will be estimated in two different regressions. Firstly, I will discuss the variable for internal financial constraints, and then I will discuss the variable for external financial constraints.

For internal financing constraints, it is important to differentiate between the liquidity of the assets a firm holds. Cash and funds on a current account with a bank are more liquid than the fixed assets a firm holds, like their building, their office supplies, and their fleet. The latter are much harder to convert into cash quickly and when converting, loss of value is a likely possibility. Hence, when looking at internal financial constraints, I differentiate between liquid funds and liquid collateral. The logarithm of the parents' cash flow will be used to determine the internal funds that are available for the financing of investment projects. I will run an additional analysis with the fixed over total assets ratio as an indicator of the available collateral of the firm (Buch et al., 2014).

For external financing constraints, I will focus on the debt ratio of the parent firm. The debt ratio is the ratio between the total liabilities and the total assets and measures the leverage of a firm. When firms are highly leveraged, their debt is greater than equity. The high debt ratio will cause difficulties for the firm to get access to external capital for their expansion. However, it is also possible that the firms are highly leveraged, due to them having taken out a loan to finance their expansion (Buch et al., 2014). This is important to keep in mind. Hence, I will also have a look at the current solvency, or the ratio between the current assets and the current liabilities of the firms.

Independent variable
When determining their dependent variable, the researcher will also determine the independent variable. The independent variable will change and this change will have an effect on the dependent variable (Stock & Watson, 2015). In this thesis, the independent variable is a dummy variable which indicates whether a firm has opted for FDI in the past, or remained a home country which is only domestically active.

As stated, FDI is a dummy variable. A dummy variable can only take two values being zero and one. What takes the value zero and what takes the value one is to be determined by the researcher. Generally speaking, zero will mostly be assigned to the scenario in which the variable is not present. Here that would be the case when the firm has not opted for FDI in the past and is only active domestically. Hence, one will be assigned to the scenario in which the variable is present or when the firm has opted for FDI in the past and is active internationally (Stock & Watson, 2015). A firm is either involved in FDI or it is not.

The overall goal is to determine the effect of FDI on the financial health of the firm that conducted FDI. With research showing that FDI firms are financially healthier than their non-FDI counterparts, I will see if a change from non-FDI firm to FDI firm has an impact on the financial health of the firm. In doing this, I will see if they are less dependent on external funds and more dependent on internally generated funds.

Other explanatory variables
After the independent and dependent variable have been identified, the researcher will also have to look if there are other variables that could explain changes in the dependent variable next to the independent variable.

Explanatory variables could, when excluded from the regression, cause an over- or underestimation of the effect of the independent variable on the dependent variable. This issue is commonly referred to as omitted variable bias and occurs when relevant variables are excluded from the regression. In my thesis for example, the GDP of the country is not relevant since I will only look at the accounts from Belgian firms. The GDP is the same for all companies in the sample. However, if I were to look at data from several countries, the GDP is an important explanatory variable that should be included in the analysis. The GDP

could for the example influence the cash flow of the company since it gives an indication of the economic climate in the country in which the firm is active. The explanatory variables that I will use are defined as follows:

Number of employees Several other studies have indicated that firms that have conducted FDI in the past tend to employ less people and that these firms are more productive than for non-FDI firms. Hence, I will also include this variable in my regressions. I will also check if the employees of FDI firms are more productive than their non-FDI counterparts. To research this, I will make a ratio of the net added value and the number of employees of the firm and compare this for FDI and non-FDI firms.

Age Moreover, I will include the age of the company in my regression as well to see if the age of a firm has an impact on the internal and external financial constraints the firm faces.

Profit/loss Furthermore, I will include the profit or loss the firm experienced in 2020 in my regression to determine if the profit or loss of a firm has an impact on the internal and external financial constraints the firm faces.

Sector of firm Since sector precedents can cause differences in the data per sector, sector dummies will be added to account for these differences.

Financial health Since the general financial health of the firm can cause differences in the ratios, a financial health dummy will be added to account for these differences.

Fixed assets ratio Lastly, I will also include a fixed asset ratio which is the ratio between the fixed assets the firm has and the total assets the firm has. This will provide an indication of the collateral the firm could provide if asked for the obtaining external debt.

Limitations of studies

Lastly, I will look at the limitations of my study since scientific research is an imperfect process. The limitations of my study are important to place the results of my study into context and to interpret the validity of the outcome. These limitations are limitations that go further than systematic errors and validity issues. There are inherent risk related to scientific research like human errors, data gathering limitations, and limited resources.

Not all scientific papers mentioned the limitations of their study. De Maeseneire and Claeys (2012) did and noted that for their research the experienced limited availability of public data which required them to rely on the self-reported data of the interviewees. Hence, there could be bias present, which could have caused results to be represented differently than in real life. They noted that they only looked at firms that have succeeded in their FDI plans. Comparative analysis with firms who received funding but did not succeed was thus not possible. Lastly, they state that their limited sample size made an in dept statistical sample analysis not possible.

The study of De Maeseneire and Claeys (2012) also only focussed on Belgium which may make broad generalisation less reliable. This is also a limitation that will also be present in my study. The generalisability of the outcomes is less reliable when generalising the data over multiple countries. Since this research focusses on firms with Belgium mother companies, due to data availability limitations, the generalisability is limited. The outcome of my study can be a guideline for a researcher looking to examine non-Belgian

FDI firms, but the results will be less reliable than a comparable study executed in the country where the researchers' sample is located.

Conclusion

After the literature review, I started my empirical research journey with listing my hypotheses. I did this on the basis of my literature review. I listed three hypotheses:

- Belgian FDI firms have lesser external funds to their disposal than Belgian non-FDI firms
- Belgian FDI firms have more internal funds to their disposal than Belgian non-FDI firms
- The value added per employee is higher for Belgian FDI firms than for Belgian non-FDI firms.

In order to determine whether or not these hypotheses are correct, I set up a research design. I set up a field experiment in which I will observe the data as is, and interpret the results. Due to the field experiment, I will only be able to generalise the results of my study. I will not be able to address changes the results due to specific changes in the data.

Furthermore, I looked into the population of firms and picked my sample. I will be researching manufacturing firms with at least 11 employees. I got my data from the Belfirst database, for which I was granted access by UHasselt. From the data available, I concluded that there were 159 active Belgian mother firms, who are not part of a bigger group with a foreign mother. There were 2 237 firms who were not part of a corporate group, hence these firms are the non-FDI firms for my research. Lastly, there were 4 215 firms were part of a bigger international corporate group.

Depending on the hypothesis I will be testing, I will use a different dependent variable. My independent variable will indicate whether a firm has conducted FDI in the past and hence is internationally active. In addition to the dependent and independent variable, I will include other explanatory variables that can explain the change in the dependent variable. An important limitation of my study is the focus on Belgian firms, which causes the generalisability of the outcomes over several countries less reliable.

Chapter 5: Empirical research results

The previous chapter explained the hypotheses I will be testing and the design of my empirical study. In order to obtain data for the analysis, I used the access granted by the university of Hasselt to the Belfirst database. The useful data of Belfirst was exported and uploaded in the Stata-software. In this chapter, I will look at the results of my study. Firstly, I will look at the descriptive statistics. Afterwards, I will focus on the empirical model that I have used for my study and the results of the model. Lastly, I will discuss the results and compare them to the results of the consulted scientific research papers.

Descriptive statistics

In chapter four, I explained how I constructed my sample. The most complete data comes from 2020 so I will be using the financial data from 2020. The Belfirst database existed of 6 743 active Belgian companies with at least 11 employees. Of the 6 743 active firms, 4 215 firms daughter firms in a corporate group. Specifically, 650 active Belgian mother companies have a foreign mother company for the corporate group and are thus considered daughter firms. Hence, leaving 2 237 active Belgian firms who are not part of a corporate-group. The remaining 159 firms are Belgian mother companies who are not owned by a foreign mother company.

To prepare the data for the analysis I also excluded possible other outliers. There were 265 firms who were indicated as not being part of a corporate group, but after further analysis were excluded due to them probably belonging to a corporate group. Since their presence in either sample can bias the outcome of the results, I have excluded them from the sample.

I looked at the division between financial health and the subsamples I created being, FDI mother firms, FDI daughter firms, and non-FDI firms. An FDI mother firm in my study is a Belgian firm who has at least one foreign subsidiary but is not part of a larger international corporate group. An FDI daughter firm, is a Belgian firm who is part of a larger international corporate group who might have foreign subsidiaries. A non-FDI firm is a firm who is not part of a larger international corporate group and has no foreign subsidiaries. The debt ratio was used as a measure for the financial health. The debt ratio is the ratio of the total liabilities and the total assets. If the debt ratio is over 0.50, the firm has more debt than it has shareholder equity. When the debt ratio is too high, it can lead to difficulties obtaining additional external funds. Berk and DeMarzo (2017) indicated that when a firm has a debt ratio of 0.6 or higher, it experiences more difficulties in obtaining finance. From a risk perspective, a debt ratio of 0.4 or lower is more desirable. Hence if the debt ratio is lower than 0.60, the firm is considered financially healthy. I calculated the financial health dummy three times with a cut-off at 0.40, 0.50 or the mean of the two extremes, and a cut-off at 0.60.

6.43% of the FDI daughter firms were considered to be financially healthy with the cut-off at 0.40. For FDI mother firms, this was 20.13% This was only 1.61% for non-FDI firms. 9.70% of FDI daughter firms, and 31.45% of FDI mother firms were financially healthy, whilst 2.68% of non-FDI firms were financially healthy when considering a cut-off of the debt ratio at 0.50. 13.00% of the FDI daughter firms were considered financially healthy compared to 43.40% of the FDI mother firms and 3.89% of the non-FDI firms when the cut-off was at 0.60.

Table 1: The division of the financial health dummy over FDI firms an non-FDI firms for the three different cut-off points

	Debt ratio <0.40		Debt ratio <0.50		Debt ratio <0.60	
	Financially Healthy	Non-Financially Healthy	Financially Healthy	Non-Financially Healthy	Financially Healthy	Non-Financially Healthy
FDI mother	271	3 944	409	3 806	548	3 667
FDI daughter	32	127	50	109	69	90
Non-FDI	36	2 201	60	2 177	87	2 150

Furthermore, I looked at the descriptive statistics of my variables. When data was missing or not present they were replaced by missing values in the Stata-software. For example, for Belgian non-FDI firms the location dummy was filled in by missing values to not bias the ratio. If a zero would be filled in rather than a missing value, it would lower the mean of the variable indicating the location. If I had not done this, it would have biased the results and possibly lowering the impact of the variable. I made two tables, one for the regressions where only Belgian daughter firms are included (Table 24), and one for the regressions where only Belgian mother firms are included (Table 25). These tables can be consulted in the appendix together with a list of variables in Table 23.

Before I go forward, I will plot the firm level variables to detect the differences between Belgian daughter firms and domestic firms. Firstly, I looked at the density of the average number of employees of Belgian daughter firms and Belgian non-FDI firms. It appears that Belgian non-FDI employ less employees. However, the tail of Belgian non-FDI firms extends longer than for Belgian daughter firms. Then, I looked at the difference between Belgian daughter firms and Belgian non-FDI firms with regards to the logarithm of cash flow. The logarithm of cash flow appears lower for Belgian non-FDI firms but has longer tails than the logarithm of cash flow of Belgian daughter firms. Next, I looked at the difference for the debt ratio. There appear large outliers with regards to the debt ratio for FDI daughter firms since the tail is rather large. There appears a larger density of higher debt ratios for Belgian non-FDI firms even though the tail does not extend that far out. Furthermore, the current solvency ratio for Belgian daughter firms is more stretched out. A lot of Belgian non-FDI firms have a current solvency closer to zero. Lastly, I looked at the share of fixed assets compared to the total assets since it gives an idea of the possible collateral. For Belgian daughter firms there is a bump in density around 10%. This bump could lead to difficulties obtaining external finance when collateral is required. For Belgian non-FDI firms there appear bumps around the 10% and 40% mark.

When looking at the other sample including Belgian mother firms, the graphs seem to differ slightly. The density of the average number of employees seems comparable, but the bump at the start of the graph is higher for Belgian mother firms than for Belgian daughter firms. The difference in the logarithm of cash flow between Belgian non-FDI firms and Belgian mother firms seems smaller than the difference between Belgian non-FDI firms and Belgian daughter firms, but the difference is still noticeable. The density of the debt ratio seems comparable for Belgian mother firms and Belgian non-FDI firms, but the Belgian non-FDI firm line has a longer tail. The bump in the current solvency ratio is higher for Belgian mother firms than for Belgian daughter firms. The fixed asset ratio also seems to differ significantly. Where there was one big bump around 0.10 for Belgian daughter firms, there are two bumps, around 0.2 and 0.6, for Belgian mother

firms. From this superficial analysis, there seem to be some differences between Belgian mother, Belgian daughter, and Belgian non-FDI firms. This difference will be further examined the following section.

Graph 8: Firm characteristics by FDI status. The graphs show the Kernel density plots of the respective variables for Belgian FDI daughter firms versus Belgian non-FDI firms.
a average number of employees 2020, b logarithm of cash flow 2020, c debt ratio 2020, d current solvency ratio 2020, e fixed asset ratio 2020
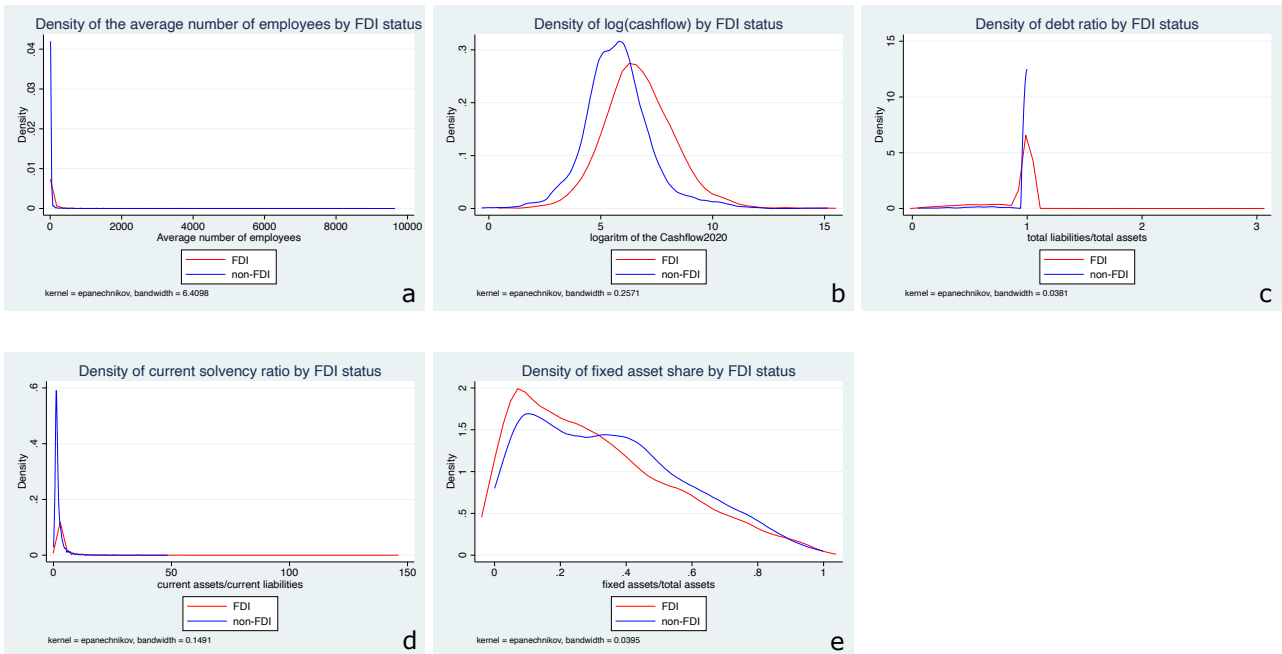
Graph 9: Firm characteristics by FDI status. The graphs show the Kernel density plots of the respective variables for Belgian FDI mother firms versus Belgian non-FDI firms.
a average number of employees 2020, b logarithm of cash flow 2020, c debt ratio 2020, d current solvency ratio 2020, e fixed asset ratio 2020
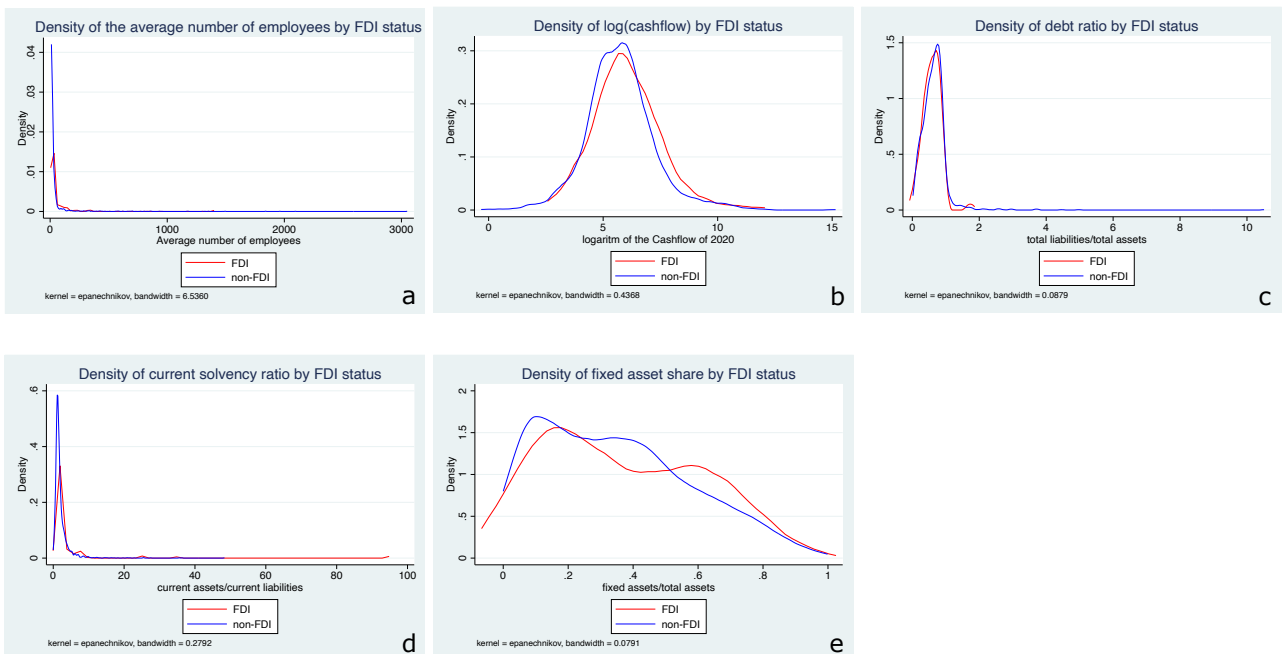
Afterwards, I followed my tests by taking a closer look at the data of my entire sample. This data can be seen in the following table, Table 2. It gives an overview of the general descriptive statistics for my entire sample. Moreover, in order to determine if there were statistically significant differences between my subsamples, I ran ANOVA tests. I also included these results of my ANOVA testing in the table.

Table 2: Descriptive statistics for the entire sample with ANOVA test results for subsample comparison

						ANOVA results	
	Count	Mean	SD	Min	Max	F-test	Sign.
Mother	6 611	.1461	.3533	0	1		
Daughter	6 611	.6376	.4807	0	1		
Log Employment	6 611	3.5083	.9901	2.3979	9.1749	196.9800	.0000
Age	6 611	32.7760	19.1138	1.5359	158.2615	26.7200	.0000
logPL2020	5 102	5.6321	1.9670	-5.5215	15.1478	168.5900	.0000
Sector 10	6 593	.1599	.3665	0	1	8.6500	.0002
Sector 11	6 593	.0140	.1173	0	1	1.8000	.1659
Sector 12	6 593	.0018	.0426	0	1	1.0300	.3574
Sector 13	6 593	.0355	.1850	0	1	1.0200	.3610
Sector 14	6 593	.0143	.1186	0	1	7.0200	.0009
Sector 15	6 593	.0021	.0460	0	1	6.6000	.0014
Sector 16	6 593	.0499	.2178	0	1	12.7600	.0000
Sector 17	6 593	.0215	.1452	0	1	2.8700	.0570
Sector 18	6 593	.0366	.1877	0	1	.0700	.9356
Sector 19	6 593	.0018	.0426	0	1	2.0300	.1309
Sector 20	6 593	.0525	.2230	0	1	25.5600	.0000
Sector 21	6 593	.0164	.1269	0	1	9.3400	.0001
Sector 22	6 593	.0558	.2296	0	1	4.6600	.0095
Sector 23	6 593	.0625	.2421	0	1	1.1400	.3186
Sector 24	6 593	.0253	.1571	0	1	2.2800	.1027
Sector 25	6 593	.2092	.4067	0	1	2.7700	.0630
Sector 26	6 593	.0358	.1858	0	1	3.2800	.0376
Sector 27	6 593	.0369	.1884	0	1	.9100	.4035
Sector 28	6 593	.0417	.1999	0	1	.8600	.4232
Sector 29	6 593	.0267	.1612	0	1	2.2600	.1045
Sector 30	6 593	.0089	.0942	0	1	.1800	.8346
Sector 31	6 593	.0449	.2071	0	1	9.9900	.0000
Sector 32	6 593	.0174	.1309	0	1	3.0000	.0497
Log Cash flow	5 776	6.3727	1.6197	-.3243	15.2536	253.2500	.0000
Debt ratio	6 588	.9132	.2073	.0085	3.0279	283.4100	.0000
Current solvency	6 611	2.1945	3.4978	.0065	146.0308	4.2700	.0140
Net value added	6 610	92.4696	118.1092	-1 179.7030	3 906.0000	43.9800	.0000
Fixed asset ratio	6 564	.3253	.2331	.0000	.9988	19.9100	.0000
Financial health 0.4	6 611	.0785	.2690	0	1	116.4000	.0000
Financial health 0.5	6 611	.0513	.2206	0	1	74.1600	.0000
Financial Health 0.6	6 611	.1065	.3085	0	1	163.1800	.0000

In order to the test whether the means of the variables in my analysis were statistically significantly different, I ran a one-way ANOVA test on all of the variables. My one-way ANOVA test compared the means of, for example the variable debt ratio for my subsamples containing either daughter firm, mother firm, or non-FDI firms. In this example I tested whether the mean debt ratio of daughter firms equalled the mean debt ratio of mother firms and also equalled the mean value of non-FDI firms (Anderson, Sweeney, Williams, Freeman, & Shoesmith, 2015; Stock & Watson, 2015). Generally, the hypothesis takes the following form:

$$H_0: \mu_{daughter} = \mu_{mother} = \mu_{non-FDI}$$

In this example, I had to reject the null-hypothesis and except the alternative hypothesis; at least one of the subsample means was statistically significantly different from the other subsample means.

An ANOVA test does rely on three assumptions:

- The dependent variable which is being tested, has to be normally distributed in each group that is being compared.
- The variances must be homogeneous. In other words, the variables must be equal.
- The observations must be independent.

Not all of these assumptions are easily followed. The first assumption, for example, can cause bias in the results in this study. The results from for the different in the fixed assets over total assets ratio for example might be biased since the density functions already indicated that the distribution is positively skewed rather than symmetrically skewed like the logarithm of cash flow is in the density functions. Moreover, the variance might be different for the three subsamples. In the following tables containing the descriptive statistics for the subsamples. The latter two tables include the results for respectively daughter and mother firms. The data for these subsamples will be compared to the data of non-FDI firms, presented in the following table, by t-tests. These t-tests allow me to control for differences in variance of the variable that is being compared for the two groups (Anderson et al., 2015; Stock & Watson, 2015). The t-test will test one of the following hypotheses:

$$H_0: \mu_{daughter} = \mu_{non-FDI}$$

$$H_0: \mu_{mother} = \mu_{non-FDI}$$

I will reject this hypothesis when the means of the subsamples are statistically significantly different. A t-test operates under the following assumptions (Anderson et al., 2015; Stock & Watson, 2015):

- The data has to be independent
- The data must be obtained from a random sample
- The data are normally distributed within one subsample
- The data are continuous

These assumptions are mostly met. Since the data has to be continuous, I will not run t-tests on the dummy variables since their data is not continuous. Moreover, normally the variances of the two groups must be equal, however, I can control for this in STATA by the command "unequal". By adding this command, the software knows that the variances are unequal and will work around this assumption.

Table 3: Descriptive statistics for the non-FDI subsample

	Count	Mean	SD	Min	Max
Log Employment	2 237	3.1875	.8687	2.3979	9.1749
Age	2 237	30.3933	19.1936	1.6920	158.2615
logPL2020	1 726	4.9606	1.8346	-5.5215	15.1478
Sector 10	223	.1861	.3893	0	1
Sector 11	223	.0108	.1032	0	1
Sector 12	223	.0009	.0299	0	1
Sector 13	223	.0309	.1732	0	1
Sector 14	223	.0193	.1375	0	1
Sector 15	223	.0036	.0598	0	1
Sector 16	223	.0682	.2521	0	1
Sector 17	223	.0161	.1261	0	1
Sector 18	223	.0377	.1904	0	1
Sector 19	223	.0004	.0212	0	1
Sector 20	223	.0256	.1579	0	1
Sector 21	223	.0085	.0919	0	1
Sector 22	223	.0444	.2060	0	1
Sector 23	223	.0565	.2309	0	1
Sector 24	223	.0206	.1422	0	1
Sector 25	223	.2251	.4177	0	1
Sector 26	223	.0283	.1657	0	1
Sector 27	223	.0336	.1803	0	1
Sector 28	223	.0395	.1947	0	1
Sector 29	223	.0211	.1437	0	1
Sector 30	223	.0094	.0966	0	1
Sector 31	223	.0605	.2385	0	1
Sector 32	223	.0202	.1406	0	1
Log Cash flow	1 974	5.7509	1.5018	-.3243	15.1487
Debt ratio	2 237	.9674	.1292	.0471	1
Current solvency	2 237	2.1427	2.6377	.0076	48.3277
Net value added	2 237	73.8855	68.5064	-127.3324	1 400.1650
Fixed asset ratio	2 214	.3474	.2315	.0001	.9988
Financial health 0.4	2 237	.0268	.1616	0	1
Financial health 0.5	2 237	.0161	.1257	0	1
Financial Health 0.6	2 237	.0389	.1934	0	1

Table 4: Descriptive statistics for the daughter firms subsample with t-test results for the comparison with non-FDI firms

	Count	Mean	SD	Min	Max	t-test results	
						t-test	Sign.
Log Employment	4 215	3.6843	1.0113	2.3979	9.0772	-15.0199	.0000
Age	4 215	33.9557	1.9066	1.5359	132.5366	-5.1459	.0000
logPL2020	3 260	5.9979	19.3948	-4.9618	14.6066	-13.8000	.0000
Sector 10	4 204	.1465	.3537	0	1		
Sector 11	4 204	.0152	.1225	0	1		
Sector 12	4 204	.0024	.0487	0	1		
Sector 13	4 204	.0378	.1908	0	1		
Sector 14	4 204	.0107	.1029	0	1		
Sector 15	4 204	.0010	.0308	0	1		
Sector 16	4 204	.0397	.1953	0	1		
Sector 17	4 204	.0247	.1553	0	1		
Sector 18	4 204	.0359	.1861	0	1		
Sector 19	4 204	.0026	.0511	0	1		
Sector 20	4 204	.0671	.2502	0	1		
Sector 21	4 204	.0195	.1383	0	1		
Sector 22	4 204	.0623	.2418	0	1		
Sector 23	4 204	.0659	.2481	0	1		
Sector 24	4 204	.0283	.1657	0	1		
Sector 25	4 204	.2017	.4013	0	1		
Sector 26	4 204	.0402	.1965	0	1		
Sector 27	4 204	.0390	.1936	0	1		
Sector 28	4 204	.0435	.2041	0	1		
Sector 29	4 204	.0293	.1685	0	1		
Sector 30	4 204	.0086	.0922	0	1		
Sector 31	4 204	.0364	.1873	0	1		
Sector 32	4 204	.0152	.1225	0	1		
Log Cash flow	3 655	6.7212	1.5834	.6755	15.2536	-17.4249	.0000
Debt ratio	4 214	.8950	.2249	.0184	3.0279	10.8198	.0000
Current solvency	4 215	2.1923	3.5994	.0065	146.0308	0.0812	.9353
Net value added	4 214	102.5890	137.3615	-1 179.7030	3 906.0000	-9.5067	.0000
Fixed asset ratio	4 191	.3119	.2325	.0000	.9983	7.8462	.0000
Financial health 0.4	4 215	.0970	.2960	0	1		
Financial health 0.5	4 215	.0643	.2453	0	1		
Financial Health 0.6	4 215	.1300	.3364	0	1		

Note: The t-test analysis compares the results of the non-FDI firms and the daughter firms. The differences are calculated by subtracting the results of the daughter firms from the results of the non-FDI firms.

Table 5: Descriptive statistics for the mother firms subsample with t-test results for the comparison with non-FDI firms

	Count	Mean	SD	Min	Max	t-test results	
						t-test	Sign.
Log Employment	159	3.3542	.8634	2.3979	7.2392	-2.3506	.0198
Age	159	35.0278	15.9039	3.1896	95.8084	-3.4979	.0006
logPL2020	116	5.3447	1.9728	-.4510	11.4283	-2.0384	.0436
Sector 10	159	.1447	.3529	0	1		
Sector 11	159	.0252	.1571	0	1		
Sector 12	159	0	0	0	0		
Sector 13	159	.0377	.1912	0	1		
Sector 14	159	.0377	.1912	0	1		
Sector 15	159	.0126	.1118	0	1		
Sector 16	159	.0629	.2435	0	1		
Sector 17	159	.0126	.1118	0	1		
Sector 18	159	.0377	.1912	0	1		
Sector 19	159	0	0	0	0		
Sector 20	159	.0440	.2059	0	1		
Sector 21	159	.0440	.2059	0	1		
Sector 22	159	.0440	.2058	0	1		
Sector 23	159	.0566	.2318	0	1		
Sector 24	159	.0126	.1118	0	1		
Sector 25	159	.1824	.3874	0	1		
Sector 26	159	.0252	.1571	0	1		
Sector 27	159	.0252	.1571	0	1		
Sector 28	159	.0252	.1571	0	1		
Sector 29	159	.0377	.1912	0	1		
Sector 30	159	.0126	.1118	0	1		
Sector 31	159	.0503	.2193	0	1		
Sector 32	159	.0377	.1912	0	1		
Log Cash flow	147	6.0564	1.4756	3.0069	11.6287	-2.4191	.0166
Debt ratio	137	.5882	.2739	.0085	1.7747	16.0950	.0000
Current solvency	159	2.9812	8.1961	.2495	94.5225	-1.2854	.2005
Net value added	159	85.7357	79.4469	-39.7231	742.8373	-1.8330	.0685
Fixed asset ratio	159	.3696	.2423	.0125	.9456	-1.1208	.2639
Financial health 0.4	159	.3145	.4658	0	1		
Financial health 0.5	159	.2013	.4022	0	1		
Financial Health 0.6	159	.4340	.4972	0	1		

Note: The t-test analysis compares the results of the non-FDI firms and the mother firms. The differences are calculated by subtracting the results of the mother firms from the results of the non-FDI firms.

Empirical model

After a first sample analysis, I continue my empirical analysis by analysing if there is a difference in the financial health of Belgian FDI and Belgian non-FDI firms. For this is will use regression models. The coefficients of the regression models will be estimated via an ordinary-least squares estimation. An OLS estimation estimates the coefficient of the regression with the goal to estimate a regression line that lies as close as possible to the observed data. The difference between an observation and the estimated regression line is the error term. OLS has the general goal to minimize this error term (Stock & Watson, 2015).

OLS estimates occur frequently, but the OLS-technique is linked to strong assumptions. OLS estimates with multiple independent variables and/or control variables are based on four assumptions. Although the assumptions are key, some of the assumptions are harder to follow. One of these assumptions indicates that the average of the error term has to equal zero. Moreover, the total sum of the deviation of the regression line from the observed data points should equal zero. Furthermore, the error term contains all the variables that were not included in the regression and could have an impact on the outcome of the estimate. When the error term is correlated with the dependent and an independent variable, bias will occur. The effect that is estimated by OLS will not equal the actual effect present. The estimated causal effect will thus be either an over- or an underestimation of the actual effect. This can be avoided if these variables are included in the regression estimation as additional control variables. By doing so, the error term will no longer be correlated to the dependent variable and an independent variable (Stock & Watson, 2015).

Whether or not a control variable has to be put in the regression can be determined by looking at the R^2-statistic that is given when conducting an OLS estimate. The closer the R^2-statistic is to one, the more a change in the independent variable will explain a change in the dependent variable (Stock & Watson, 2015). Over all the regressions I have estimated, the R^2-statistic laid between 0.0020 and 0.9174. This means that the estimated models are a moderately good estimator of the effect. However, there is still room for improvement if I had more data of possible variables to my disposal that I could have pulled out of the error term and put into the regression. There is also a big difference between the regressions with regards to the value of the R^2-statistic.

The second one of these assumptions entails that all the variables are randomly and independently identically distributed. Since this sample has been randomly pulled from the population, it can be assumed that this assumption is followed in this research. The third assumption means that large outliers are improbable. The assumption regarding the outliers will be considered in the regression analysis. The fourth and last assumption is that perfect multicollinearity cannot be present. Perfect multicollinearity means that there is a correlation of (-)1 between one or more variables (Stock & Watson, 2015). In relation to this issue, I have added two correlation tables in the addendum, namely Table 26 and Table 27.

In order to analyse if there is a difference in the financial health of Belgian FDI and Belgian non-FDI firms I made different regression models. In the fourth chapter I listed three hypotheses which I will test via four regression models. For the first hypothesis, Belgian FDI firms have lesser external funds to their disposal than Belgian non-FDI firms, I will use two regression models. The first model will focus on the presence of long-term external funds:

$$Debtratio_i = \beta_0 + \beta_1 FDI_i + \beta_2 C_i + \varepsilon_i$$

$Debtratio_i$ is the ratio of the total liabilities and the total assets of firm i in 2020. FDI_i is a dummy variable which indicates whether firm i is part of an international corporate group. C_i includes firm level control variables for firm i. The second model will focus on the presence of short-term external funds:

$$Current\ solvency_i = \ \beta_0 + \beta_1 FDI_i + \beta_2 C_i + \varepsilon_i$$

$Current\ solvency_i$ is the ratio of the current assets and the current liabilities of firm i in 2020. FDI_i is a dummy variable which indicates whether firm i is part of an international corporate group. C_i includes firm level control variables for firm i. For the second hypothesis, Belgian FDI firms have more internal funds to their disposal than Belgian non-FDI firms, I will use the following regression model:

$$Log\ Cashflow_i = \ \beta_0 + \beta_1 FDI_i + \beta_2 C_i + \varepsilon_i$$

$Log\ Cashflow_i$ is the logarithm of the cash flow firm i in 2020. FDI_i is a dummy variable which indicates whether firm i is part of an international corporate group. C_i includes firm level control variables for firm i. For the third and last hypothesis, the value added per employee is higher for Belgian FDI firms than for Belgian non-FDI firms, I will use the following regression model:

$$Net\ added\ value\ per\ employee_i = \ \beta_0 + \beta_1 FDI_i + \beta_2 C_i + \varepsilon_i$$

$Net\ added\ value\ per\ employee_i$ is the ratio of the net added value and the average number of employees of firm i in 2020. FDI_i is a dummy variable which indicates whether firm i is part of an international corporate group. C_i includes firm level control variables for firm i.

As stated earlier in this section, outliers in the data of the variables will cause the estimated effects to be biased. An outlier will in this case be an extremely high or low value of a data point compared to the other data points. Hence the error or distance between the average line and the data point is high. Since OLS estimates the regression so that the error term is minimised to zero, this large error will pull the estimated regression line towards the outlier. In other words, the effects that the regressions show, will not be equal to the real effect that should be estimated. When the outlier has an extremely high value compared to the average, it will cause the estimated effect to be overestimated or too high. When the data point is extremely low compared to the average, it will cause the estimated effect to be too low or underestimated. In STATA, it is possible to let the software control for outliers itself when running the regressions. I do this by adding a ', robust' after the regression that I want to run. By doing so, I can keep the observations with outliers in my dataset and use their relevant data in my analysis, yet I do not have to treat these observations equally to the average observations. The robust command gives the software program the order to weigh the observations or data differently based on how well they fit the average norm. Outliers will have less weight provided to them and average data points will have more weight provided to them in order to give an indication that the outlier is a less probable outcome.

External financing funds

In the following tables I have listed the results of the executed regressions. Firstly, I regressed only FDI and the logarithm of employment on the debt ratio. Afterwards I slowly added other control variables. In the first round I added the age of the firm and the logarithm of the profit or loss variable in order to have an indication of the productivity. Lastly, I added the fixed assets the over total assets ratio as an indicator of collateral. For the regression model focussing on current solvency, I also added a dummy for financial health. Since the dummy for financial health is based on the debt ratio, I will not use this dummy variable

for the regression model focussing on the debt ratio. As stated before, the lower the debt ratio of the firm, the more financially healthier the firm is considered to be. The complete regression took the following form with the debt ratio as the dependent variable:

$$Debtratio_i = \beta_0 + \beta_1 FDI_i + \beta_2 logEmployment_i + \beta_3 Age_i + \beta_4 logP/L_i + \beta_5 Sector\ Control_i + \beta_6 Fixed\ asset\ ratio_i + \varepsilon_i$$

Table 6: Regression results for the debt ratio of Belgian daughter companies compared to non-FDI firms.

	Stage 1	Stage 2	Stage 3	Stage 4
	No outlier control			
Constant	1.3148***	1.3997***	1.3819***	1.3778***
	(.0077)	(.0092)	(.0103)	(.0107)
FDI	-.0183***	-.0080	-.0076	-.0062
	(.0045)	(.0051)	(.0051)	(.0052)
LogEmploy	-.1090***	-.0900***	-.0873***	-.0885***
	(.0022)	(.0029)	(.0029)	(.0029)
Age		-.0005***	-.0005***	-.0005***
		(.0001)	(.0001)	(.0001)
logPL2020		-.0273***	-.0257***	-.0259***
		(.0014)	(.0014)	(.0015)
Fixed assets/total assets				.0277**
				(.0107)
Sector Controls			Yes	Yes
Number of observations	6 451	4 985	4 976	4 938
R2	0.3056	0.3839	0.4080	0.4094
	Outlier control			
Constant	1.3148***	1.3997***	1.3819***	1.3778***
	(.0088)	(.0104)	(.0115)	(.0119)
FDI	-.0183***	-.0080*	-.0076*	-.0062
	(.0038)	(.0043)	(.0043)	(.0043)
LogEmploy	-.1090***	-.0900***	-.0873***	-.0885***
	(.0029)	(.0037)	(.0036)	(.0036)
Age		-.0005***	-.0005***	-.0005***
		(.0002)	(.0002)	(.0002)
logPL2020		-.0273***	-.0257***	-.0259***
		(.0016)	(.0016)	(.0016)
Fixed assets/total assets				.0277**
				(.0116)
Sector Controls			Yes	Yes
Number of observations	6 451	4 985	4 976	4 938
R2	0.3056	0.3839	0.4080	0.4094

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *. The complete regression results can be found in Table 28 in the appendix. This table also contains the results for the sector control variables.

I ran this general regression twice. Firstly, I ran it in stages for Belgian daughter firms of foreign mother companies. Afterwards I ran it in stages for Belgian mother firms with foreign daughter companies. Firstly, focussing on the debt ratio of Belgian daughter firms, I have compiled the results in the above table. I found that FDI had a statistically significant negative effect on the debt ratio when only looking at the effect of FDI and the logarithm of employment on the debt ratio. Changes in the two variables FDI and the logarithm of employment already explained a big part of the changes in the debt ratio. When taking into account the possibility of outliers and controlling for them, the effects remain the same. When I included age and the logarithm of the profit or loss, the effect of FDI on the debt ratio was statistically insignificant

when I did not control for outliers. However, when considering outliers, FDI was statistically significant on the 10% level. In both regressions, with and without outlier controls, the other variables all had a statically significant negative impact on the debt ratio at the 1% level except for the constant. Most of the changes in debt ratio were explained when I also add the sector dummies in the regressions. When adding the sector dummies and not controlling for outliers, the effect of FDI on the debt ratio was statistically insignificant. However, as with the stage two regression, the effect of FDI on the debt ratio was statistically significant on the 10% level when I control for outliers. As with the stage two regression, the logarithm of employment, age, and the logarithm of profit or loss remained statistically significant at the 1% whether or not I controlled for outliers. In a last stage I added the fixed over total assets ratio. By adding this, FDI became statistically insignificant. The ratio was statistically significant at the 1% level without outlier control and at the 5% level with outlier control.

Table 7: Regression results for the debt ratio of Belgian mother companies compared to non-FDI firms.

	Stage 1	Stage 2	Stage 3	Stage 4
	No outlier control			
Constant	.7776***	.8566***	.8626***	.8219***
	(.0389)	(.0416)	(.0450)	(.0459)
FDI	-.0512	-.0115	-.0092	-.0124
	(.0362)	(.0367)	(.0370)	(.0369)
LogEmploy	-.0429***	.0340**	.0342**	.0332**
	(.0123)	(.0137)	(.0138)	(.0138)
Age		-.0039***	-.0037***	-.0036***
		(.0005)	(.0005)	(.0005)
logPL2020		-.0514***	-.0507***	-.0521***
		(.0053)	(.0054)	(.0054)
Fixed assets/total assets				.1499***
				(.0409)
Sector Controls			Yes	Yes
Number of observations	2 227	1 715	1 715	1 715
R2	0.0066	0.0933	0.1041	0.1124
	Outlier control			
Constant	.7776***	.8566***	.8626***	.8219***
	(.0311)	(.0365)	(.0355)	(.0365)
FDI	-.0512**	-.0115	-.0092	-.0124
	(.0253)	(.0221)	(.0224)	(.0223)
LogEmploy	-.0429***	.0340***	.0342***	.0332***
	(.0090)	(.0100)	(.0100)	(.0101)
Age		-.0039***	-.0037***	-.0036***
		(.0004)	(.0004)	(.0004)
logPL2020		-.0514***	-.0507***	-.0521***
		(.0057)	(.0056)	(.0057)
Fixed assets/total assets				.1499***
				(.0347)
Sector Controls			Yes	Yes
Number of observations	2 227	1 715	1 715	1 715
R2	0.0066	0.0933	0.1041	0.1124

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *. The complete regression results can be found in Table 29 in the appendix. This table also contains the results for the sector control variables.

When considering Belgian mother firms, I have compiled their information in the table above. In the first stage, I found that FDI did not have a statistically significant effect on the debt ratio when I did not control for outliers. However, when I controlled for outliers, the effect was statistically significant at the 5% level. The logarithm of employment was also significant at this stage with or without outlier control at the 1% level. In the second stage, I added the age of the firm and the logarithm of the profit or loss of the firm. FDI did not have a statistically significant effect on the debt ratio with or without outlier control. The logarithm of employment had a statistically significant effect at the 5% without outlier control, but at the 1% level with outlier control. The firm's age and logarithm of profit or loss had statistically significant effect on the debt ratio at the 1% level. In the third stage, I added sector dummies to represent the sectors the firms were active in. The effects of FDI, logarithm of employment, age and the logarithm of profit or loss remained similar. In the last stage I added the ratio of fixed over total assets, these had a statistically significant effect on the debt ratio at the 1% level with or without outlier control.

I also looked at the external financing funds on short-term. For this, I focussed on the current solvency of the firm. Where the debt ratio was the ratio of the total liabilities and the total assets, the current solvency is the ratio of the current assets and the current liabilities. Where I would see a lower debt ratio as financially healthier, I see a higher current solvency as financially healthier since it indicates that the firm has enough short-term assets to fulfil their short-term debt obligations. The complete regression took the following form with current solvency as the dependent variable:

$$Current\ solvency_i$$
$$= \beta_0 + \beta_1 FDI_i + \beta_2 logEmployment_i + \beta_3 Age_i + \beta_4 logP/L_i + \beta_5 Sector\ Control_i + \beta_6 Financial\ Health_i + \beta_7 Fixed\ asset\ ratio_i + \varepsilon_i$$

Table 8: Regression results for the current solvency ratio of Belgian daughter companies compared to non-FDI firms.

	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
			No outlier control			
Constant	2.6435***	1.9816***	2.0700***	2.9991***	3.0732***	2.9189***
	(.1525)	(.1565)	(.1773)	(.1878)	(.1841)	(.1928)
FDI	.1277	-.0721	-.0877	-.1923**	-.1909**	-.1903**
	(.0887)	(.0871)	(.0875)	(.0865)	(.0860)	(.0868)
LogEmploy	-.1571***	-.5125***	-.5078***	-.5171***	-.5181***	-.5030***
	(.0425)	(.0494)	(.0497)	(.0507)	(.0497)	(.0518)
Age		.0158***	.0150***	.0119***	.0114***	.0121***
		(.0022)	(.0022)	(.0022)	(.0022)	(.0022)
logPL2020		.2876***	.2823***	.2513***	.2426***	.2584***
		(.0244)	(.0247)	(.0248)	(.0246)	(.0250)
Fixed assets/total assets				-2.3800***	-2.3809***	-2.3949***
				(.1798)	(.1788)	(.1804)
Financial health <0.40				1.1355***		
				(.1577)		
Financial health <0.50					1.8903***	
					(.1842)	
Financial health <0.60						.6863***
						(.1459)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	6 452	4 986	4 976	4 938	4 938	4 938
R2	0.0022	0.0409	0.0526	0.0961	0.1057	0.0906

			Outlier control			
Constant	2.6435***	1.9816***	2.0700***	2.9991***	3.0732***	2.9189***
	(.1537)	(.1279)	(.1596)	(.1534)	(.1523)	(.1572)
FDI	.1277	-.0721	-.0877	-.1923**	-.1909**	-.1903**
	(.0888)	(.0885)	(.0886)	(.0879)	(.0875)	(.0881)
LogEmploy	-.1571***	-.5125***	-.5078***	-.5171***	-.5181***	-.5030***
	(.0435)	(.0621)	(.0610)	(.0598)	(.0595)	(.0602)
Age		.0158***	.0150***	.0119***	.0114***	.0121***
		(.0023)	(.0024)	(.0023)	(.0023)	(.0023)
logPL2020		.2876***	.2823***	.2513***	.2426***	.2584***
		(.0319)	(.0318)	(.0312)	(.0307)	(.0316)
Fixed assets/total assets				-2.3800***	-2.3809***	-2.3949***
				(.1752)	(.1744)	(.1759)
Financial health <0.40				1.1355***		
				(.1767)		
Financial health <0.50					1.8903***	
					(.2414)	
Financial health <0.60						.6863***
						(.1476)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	6 452	4 986	4 976	4 938	4 938	4 938
R2	0.0022	0.0409	0.0526	0.0961	0.1057	0.0906

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *. The complete regression results can be found in Table 30 in the appendix. This table also contains the results for the sector control variables.

The table containing the results from this regression is shown above. From the first stage regression, I found that FDI had a positive effect on the current solvency ratio, however this effect was not statistically significant. When controlling for possible outliers, the effect remained insignificant. The logarithm of the employment had a significant negative effect on the solvency ratio at the 1% whether or not I controlled for outliers. Moreover, changes in FDI and the logarithm of employment hardly explained changes in the current solvency ratio. By adding the age and logarithm of profit or loss, more changes were explained, but the R^2-measure remained low. The coefficients of age and the logarithm of profit or loss both had a statistically significant positive effect on the current solvency ratio at the 1% level, whether or not I controlled for outliers. For the third stage regression, the effects of stage two remained similar. FDI still did not have a statistically significant effect on the current solvency ratio. The logarithm of employment had a statistically significant negative effect on the ratio on the 1% level whilst age and the logarithm of profit or loss had a statistically significant positive effect on the ratio with or with controlling for outliers. When adding the fixed assets over the total assets ratio and the financial health dummies, FDI had a significantly significant negative effect on the current solvency ratio at the 5% level with or without outlier control. The fixed assets over total assets ratio had a statistically significant negative effect at the 1% level whether or not I controlled for outliers. The financial health dummies had statistically significant positive effects on current solvency ratio at the 1% level whether or not controlling for outliers.

Table 9: Regression results for the current solvency ratio of Belgian mother companies compared to non-FDI firms.

	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
	No outlier control					
Constant	2.4660***	1.5337***	1.3997***	1.4217***	1.2240***	1.1172***
	(.2622)	(.3336)	(.3715)	(.3527)	(.3649)	(.3766)
FDI	.8534***	.8041**	.7657**	.9440***	.8527***	.8409***
	(.2727)	(.3281)	(.3293)	(.3036)	(.3117)	(.3177)
LogEmploy	-.1008	-.5690***	-.5827***	-.3291***	-.2955***	-.3106***
	(.0793)	(.1114)	(.1123)	(.1051)	(.1087)	(.1114)
Age		.0292***	.0266***	.0102**	.0136***	.0153***
		(.0046)	(.0046)	(.0044)	(.0045)	(.0046)
logPL2020		.3326***	.3285***	.2177***	.2164***	.2421***
		(.0484)	(.0493)	(.0464)	(.0480)	(.0489)
Fixed assets/total assets				-1.6843***	-1.7141***	-1.9003***
				(.3527)	(.3636)	(.3703)
Financial health <0.40				3.1250***		
				(.1868)		
Financial health <0.50					2.2354***	
					(.1703)	
Financial health <0.60						1.6625***
						(.1659)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	2 358	1 818	1 818	1 800	1 800	1 800
R2	0.0047	0.0538	0.0753	0.2215	0.1785	0.1469
	Outlier control					
Constant	2.4660***	1.5337***	1.3997***	1.4217***	1.2240***	1.1172***
	(.2431)	(.2403)	(.2367)	(.2308)	(.2291)	(.2268)
FDI	.8534	.8041***	.7657	.9440	.8527	.8409
	(.6574)	(.8338)	(.8355)	(.8190)	(.8246)	(.8314)
LogEmploy	-.1008	-.5690***	-.5827***	-.3291**	-.2955*	-.3106*
	(.0713)	(.1677)	(.1679)	(.1485)	(.1534)	(.1616)
Age		.0292***	.0266***	.0102	.0136*	.0153**
		(.0071)	(.0074)	(.0066)	(.0070)	(.0074)
logPL2020		.3326***	.3285***	.2177***	.2164***	.2421***
		(.0624)	(.0629)	(.0527)	(.0565)	(.0603)
Fixed assets/total assets				-1.6843***	-1.714***	-1.9003***
				(.2642)	(.2665)	(.2681)
Financial health <0.40				3.1250***		
				(.2862)		
Financial health <0.50					2.2354***	
					(.1780)	
Financial health <0.60						1.6625***
						(.1321)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	2 358	1 818	1 818	1 800	1 800	1 800
R2	0.0047	0.0538	0.0753	0.2215	0.1785	0.1469

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *. The complete regression results can be found in Table 31 in the appendix. This table also contains the results for the sector control variables.

The regression results of considering Belgian mother firms with foreign daughters as FDI firms can be found in the table above. In the first stage regression, FDI only had a statistically significant positive effect at the 1% level when no outlier control was added on the current solvency of the firm. The logarithm of the average number of employees employed did not have a significant effect on the current solvency ratio. After adding age and the logarithm of profit or loss in the second stage, FDI had a statistically significant effect at the 5%, but only when I did not control for outliers. The logarithm of the average number of employees however was statistically significant at the 1% whether or not I controlled for outliers. Age was statistically significant at the 1% as well with or without outlier control, as was the logarithm of the profit or loss of the firm. When adding the sector dummies in the next stage, the logarithm of the employment, the logarithm of profit or loss, and age remained statistically significant at the 1% with or without outlier control. FDI had a statistically significant effect at the 5% without outlier control, with outlier control however the effect became statistically insignificant. In the last stage I added the financial health dummies and the fixed over total assets ratio. The financial health dummy was statistically significant at the 1% no matter the cut-off or whether or not I controlled for outliers. The same applies to the fixed over total assets ratio. In this stage, FDI had a statistically significant positive effect at the 1% level only when I did not control for outliers. When I did control for outliers, the effect was statistically insignificant.

Log cash flow

Like for the external financing funds analysis, I have listed the results of the executed regressions in the following tables. When running the regression, I went down the same path. Firstly, I regressed only FDI and the logarithm of employment on the logarithm of cash flow. Afterwards I added other control variables, being the age of the firm and the logarithm of the profit or loss variable. Then I added the sector dummies. Lastly, I added the financial health dummies and the fixed assets over total assets ratio. The complete regression took the following form with the logarithm of cash flow as the dependent variable:

$$Log\ Cashflow_i = \beta_0 + \beta_1 FDI_i + \beta_2 logEmployment_i + \beta_3 Age_i + \beta_4 logP/L_i + \beta_5 Sector\ Control_i + \beta_6 Financial\ Health_i + \beta_7 Fixed\ asset\ ratio_i + \varepsilon_i$$

Table 10: Regression results for the logarithm of cash flow of Belgian daughter companies compared to non-FDI firms.

	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
			No outlier control			
Constant	2.4066***	1.5841***	1.5633***	1.4333***	1.4155*** (.0371)	1.4644***
	(.0587)	(.0341)	(.0378)	(.0376)		(.0384)
FDI	.4135***	.1252***	.1209***	.1648***	.1655*** (.0173)	.1645***
	(.0342)	(.0190)	(.0187)	(.0173)		(.0173)
LogEmploy	1.0532***	.4905***	.4844***	.4303***	.4359*** (.0100)	.4226***
	(.0165)	(.0108)	(.0106)	(.0102)		(.0103)
Age		.0009*	.0007	.0017***	.0017*** (.0004)	.0017***
		(.0005)	(.0005)	(.0004)		(.0004)
logPL2020		.5509***	.5420***	.5367***	.5376*** (.0050)	.5340***
		(.0053)	(.0053)	(.0050)		(.0050)
Fixed assets/total assets				1.0205***	1.0181***	1.0199***
				(.0361)	(.0361)	(.0361)
Financial health <0.40				.2289***		
				(.0315)		
Financial health <0.50					.2545***	
					(.0370)	

Financial health <0.60						.2354*** (.0290)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	5 629	4 929	4 919	4 914	4 914	4 914
R2	0.4680	0.8472	0.8563	0.8775	0.8774	0.8778
			Outlier control			
Constant	2.4066*** (.0635)	1.5841*** (.0414)	1.5633*** (.0459)	1.4333*** (.0465)	1.4155*** (.0454)	1.4644*** (.0483)
FDI	.4135*** (.0350)	.1252*** (.0202)	.1209*** (.0198)	.1648*** (.0187)	.1655*** (.0187)	.1645*** (.0187)
LogEmploy	1.0532*** (.0186)	.4905*** (.0137)	.4844*** (.0134)	.4302*** (.0129)	.4359*** (.0128)	.4226*** (.0128)
Age		.0009* (.0005)	.0007 (.0005)	.0017*** (.0004)	.0017*** (.0004)	.0017*** (.0004)
logPL2020		.5509*** (.0107)	.5420*** (.0107)	.5367*** (.0105)	.5376*** (.0104)	.5346*** (.0105)
Fixed assets/total assets				1.0205*** (.0417)	1.0181*** (.0418)	1.0199*** (.0417)
Financial health <0.40				.2289*** (.0290)		
Financial health <0.50					.2545*** (.0333)	
Financial health <0.60						.2354*** (.0276)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	5 629	4 929	4 919	4 914	4 914	4 914
R2	0.4680	0.8472	0.8563	0.8775	0.8774	0.8778

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *. The complete regression results can be found in Table 32 in the appendix. This table also contains the results for the sector control variables.

The results of this regression can be found in the table above, which can be consulted in the appendix. After running the first stage regression, I noted that FDI had a statistically significant effect on the 1% level on the logarithm of cash flow. The logarithm of employment also had a statistically significant effect at the 1% level. Both had a positive effect on the logarithm of cash flow and this remained true when controlling for outliers. When adding age and the logarithm of profit or loss, the effect of FDI and the logarithm of employment remained statistically significant at the 1% level whether or not I controlled for outliers. Moreover, the effect of the logarithm was positive. The effect of age on the logarithm of cash flow is positive, but was only statistically significant at the 10% whether or not I controlled for outliers. The effect of the logarithm of profit or loss was positive and statistically significant at the 1% level whether or not I controlled for outliers. When adding the sector dummies and not controlling for outliers, only the effect of age became statistically insignificant whether or not I controlled for outliers. When adding the dummy for the financial health and the ratio of fixed to total assets, the general effects remained the same, but even age became statistically significant at the 10% level whether or not I controlled for outliers. The fixed assets over total assets ratio had a statistically significant positive effect on the logarithm of cash flow whether or not I control for outliers. All three financial health dummies had statistically significant positive effects on the logarithm of cash flow at the 10% level even when controlling for outliers.

Table 11: Regression results for the logarithm of cash flow of Belgian mother companies compared to non-FDI firms.

	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
	No outlier control					
Constant	2.4595***	1.5210***	1.4927***	1.2834***	1.2796***	1.2891***
	(.1042)	(.0606)	(.0667)	(.0639)	(.0644)	(.0652)
FDI	.1466	.0813	.0777	.0677	.0672	.0665
	(.1040)	(.0594)	(.0589)	(.0550)	(.0550)	(.0550)
LogEmploy	1.0354***	.4863***	.4887***	.4592***	.4602***	.4572***
	(.3164)	(.0202)	(.0202)	(.0190)	(.0192)	(.0193)
Age		.0017**	.0013	.0023***	.0023***	.0025***
		(.0008)	(.0008)	(.0008)	(.0008)	(.0008)
logPL2020		.5612***	.5535***	.5494***	.5490***	.5506***
		(.0088)	(.0089)	(.0084)	(.0085)	(.0085)
Fixed assets/total assets				1.0262***	1.0284***	1.0187***
				(.0640)	(.0643)	(.0642)
Financial health <0.40				.0250		
				(.0338)		
Financial health <0.50					.0249	
					(.0301)	
Financial health <0.60						-.0034
						(.0287)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	2 087	1 798	1 798	1 797	1 797	1 797
R2	0.3413	0.8091	0.8179	0.8412	0.8412	0.8412
	Outlier control					
Constant	2.4595***	1.5210***	1.4927***	1.2834***	1.2796***	1.2891***
	(.1100)	(.0729)	(.0766)	(.0750)	(.0755)	(.0766)
FDI	.1466	.0813	.0777	.0677	.0672	.0665
	(.1094)	(.0644)	(.0652)	(.0640)	(.0640)	(.0640)
LogEmploy	1.0354***	.4863***	.4887***	.4592***	.4602***	.4572***
	(.0344)	(.0273)	(.0274)	(.0281)	(.0284)	(.0286)
Age		.0017**	.0013	.0023***	.0023***	.0025***
		(.0009)	(.0008)	(.0008)	(.0008)	(.0008)
logPL2020		.5612***	.5535***	.5494***	.5490***	.5506***
		(.0175)	(.0176)	(.0176)	(.0177)	(.0177)
Fixed assets/total assets				1.0262***	1.0284***	1.0187***
				(.0707)	(.0712)	(.0711)
Financial health <0.40				.0250		
				(.0361)		
Financial health <0.50					.0249	
					(.0315)	
Financial health <0.60						-.0034
						(.0302)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	2 087	1 798	1 798	1 797	1 797	1 797
R2	0.3413	0.8091	0.8179	0.8412	0.8412	0.8412

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *. The complete regression results can be found in Table 33 in the appendix. This table also contains the results for the sector control variables.

When looking at the FDI from the other perspective and making the dummy variable equal one if the firm is a Belgian mother firm with foreign daughter firms, different effects are noticeable. The results of this regression can be consulted in the table above. I also ran this regression in different stages. FDI did not a have a statistically significant effect on the logarithm of cash flow in all of the stages, even when controlling for the outliers. The logarithm of average number of employees, however, had a statistically significant positive effect on the logarithm of cash flow at the 1% level in all of the regressions. Age had a statistically significant effect at the 5% level, even when controlling for outliers, in the second stage regression when I added age and the logarithm of profit and loss. This effect became insignificant when adding the sector dummies, also when I controlled for outliers. The logarithm of profit and loss had a statistically significant positive effect on the logarithm of cash flow at the 1% in all the regressions it was included in. In the last stage, I added the fixed over total assets ratio and the financial health dummies. The fixed over total assets ratio had a statistically significant positive effect on the logarithm of cash flow at the 1% whether or not I control for outliers. No matter the cut-off, the financial health dummy had a statistically insignificant effect on the logarithm of cash flow.

Net value added per employee

Like for the financing funds analysis, I have listed the results of the executed regressions in the following tables. When running the regression, I went down the same path. Firstly, I regressed only FDI. Unlike the previous regressions, I excluded the logarithm of employment since it will be highly correlated with the net added value per employee. Afterwards I added other control variables, the age of the firm and the logarithm of the profit or loss variable. Then I added the sector dummies, continued by adding the dummy for financial health and the fixed assets over total assets ratio. The complete regression took the following form with the net added value per employee as the dependent variable:

$$Net\ added\ value\ per\ employee_i$$
$$= \beta_0 + \beta_1 FDI_i + \beta_2 Age_i + \beta_3 logP/L_i + \beta_4 Sector\ Control_i + \beta_5 Financial\ Health_i + \beta_6 Fixed\ asset\ ratio_i$$
$$+ \varepsilon_i$$

Table 12: Regression results for the net added value per employee of Belgian daughter companies compared to non-FDI firms.

	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
	No outlier control					
Constant	73.8855***	-35.3995***	-14.1531**	-7.9057	-7.4428	-8.3581
	(2.4975)	(5.310)	(6.2082)	(6.7661)	(6.7305)	(6.8376)
FDI	28.7035***	10.5332***	8.4679**	7.7182**	7.7806**	7.7566**
	(3.0901)	(3.4654)	(3.4378)	(3.4776)	(3.4743)	(3.4805)
Age		-.0326	-.0379	-.0675	-.0707	-.0642
		(.0877)	(.0867)	(.0877)	(.0877)	(.0878)
logPL2020		23.4359***	21.4914***	20.9426***	20.9138***	21.0181***
		(.8509)	(.8628)	(.9177)	(.9041)	(.9373)
Fixed assets/total assets				-10.9502	-10.9529	-11.0989
				(7.2376)	(7.2349)	(7.2410)
Financial health <0.40				16.1814***		
				(6.2176)		
Financial health <0.50					23.8773***	
					(7.4006)	
Financial health <0.60						-11.0989*
						(7.2411)

Sector Controls			Yes	Yes	Yes	Yes
Number of observations	6 451	4 985	4 975	4 937	4 937	4 937
R2	0.0132	0.1512	0.1887	0.1897	0.1903	0.1892
			Outlier control			
Constant	73.8855***	-35.3995***	-14.1531**	-7.9057	-7.4428	-8.3581
	(1.4483)	(8.2421)	(6.7380)	(6.1973)	(6.2555)	(6.4675)
FDI	28.7035***	10.5332***	8.4679***	7.7182***	7.7806***	7.7566***
	(2.5643)	(2.2871)	(2.1862)	(2.3611)	(2.3370)	(2.3686)
Age		-.0326	-.0379	-.0675	-.0707	-.0642
		(.1391)	(.1289)	(.1342)	(.1334)	(.1346)
logPL2020		23.4359***	21.4914***	20.9426***	20.9138***	21.0181***
		(1.4215)	(1.1866)	(1.2595)	(1.2662)	(1.3153)
Fixed assets/total assets				-10.9502	-10.9529	-11.0989
				(9.1831)	(9.1733)	(9.2172)
Financial health <0.40				16.1814*		
				(9.3454)		
Financial health <0.50					23.8773**	
					(12.0600)	
Financial health <0.60						10.9744
						(8.4488)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	6 451	4 985	4 975	4 937	4 937	4 937
R2	0.0132	0.1512	0.1887	0.1897	0.1903	0.1892

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *. The complete regression results can be found in Table 34 in the appendix. This table also contains the results for the sector control variables.

The results from this regression are represented in the table above. The regression results show that FDI had a statistically significant positive effect on the net added value per employee at the 1% level in all but two of the regressions. In one regression I included age, the logarithm of profit or loss and the sector dummies but did not control for outliers. In the other regression, I additionally included the financial health dummy and did not control for outliers. As a result, FDI had statistically significant positive effect on the net added value per employee at the 5% level. When adding age and the logarithm of profit or loss in the second stage I noticed that age had negative but statistically insignificant effect on the net added value per employee. The effect of the logarithm of profit or loss on the net added value per employee was positive and statistically significant at the 1% level. When adding the sector dummies, the negative effect age remained insignificant and the positive effect of the logarithm of profit or loss remained statistically significant at the 1% level. When adding the fixed assets over total assets ratio, it had an insignificant effect on the net added value. FDI became significant at the 5% when not controlling for outliers, and at the 1% level when controlling for outliers. In this stage I also added the financial health dummies. When the financial health dummy with cut-off of 0.4 was added, it had a statistically significant positive effect at the 1% when not controlling for outliers, and at the 5% when controlling for outliers. The financial health dummy with cut-off at 0.5 had a statistically significant positive effect at the 1% level when not controlling for outliers and at the 10% when controlling for outliers. The financial health dummy with a cut-off of 0.60 was only statistically significant at the 5% level when not controlling for outliers.

Table 13: Regression results for the net added value per employee of Belgian mother companies compared to non-FDI firms.

	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
	No outlier control					
Constant	73.4505***	-3.2281	2.2477	5.1095	5.2273	5.9331
	(1.4781)	(3.7669)	(4.4732)	(4.7929)	(4.8018)	(4.8288)
FDI	12.2852**	10.2904**	9.1324*	9.1930	9.2005	9.1334*
	(5.6922)	(4.9652)	(4.9684)	(4.9870)	(4.9852)	(4.9828)
Age		-.0229	-.0285	-0.0335	-0.0321	-.0226
		(0.0673)	(0.0679)	(0.0694)	(0.0691)	(0.0692)
logPL2020		16.8266***	16.2000***	16.4103***	16.4349***	16.5200***
		(0.6705)	(0.6843)	(0.6978)	(0.6999)	(0.6986)
Fixed assets/total assets				-12.5184**	-12.7623**	-13.6502**
				(5.7717)	(5.7986)	(5.7933)
Financial health <0.40				-.8737		
				(3.0503)		
Financial health <0.50					-1.2921	
					(2.6879)	
Financial health <0.60						-3.5430
						(2.5545)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	2 358	1 818	1 818	1 800	1 800	1 800
R2	0.0020	0.2671	0.2883	0.2898	0.2899	0.2906
	Outlier control					
Constant	73.4505***	-3.2281	2.2477	5.1095	5.2273	5.9331
	(1.4616)	(6.7655)	7.5038)	(6.6785)	(6.5575)	(6.3333)
FDI	12.2852*	10.2904	9.1324	9.1930	9.2005	9.1334
	(6.4511)	(7.3515)	(6.5285)	(6.5143)	(6.5065)	(6.4914)
Age		-.0229	-.0285	-0.0335	-0.0321	-.0226
		(0.0793)	(0.0877)	(0.0907)	(0.0922)	(0.0927)
logPL2020		16.8266***	16.2000***	16.4103***	16.4349***	16.5200***
		(1.3853)	(1.4081)	(1.5006)	(1.5063)	(1.5159)
Fixed assets/total assets				-12.5184	-12.7623	-13.6502
				(10.0431)	(10.3015)	(10.3020)
Financial health <0.40				-.8737		
				(3.6848)		
Financial health <0.50					-1.2921	
					(3.5352)	
Financial health <0.60						-3.5430
						(3.4196)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	2 358	1 818	1 818	1 800	1 800	1 800
R2	0.0020	0.2671	0.2883	0.2898	0.2899	0.2906

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *. The complete regression results can be found in Table 35 in the appendix. This table also contains the results for the sector control variables.

The regression results for Belgian FDI mother firms can be found in the table above. FDI under this definition often had a statistically significant effect on the net added value per employee when not controlling for outliers. When outlier control was added, the significance lowered or was lost. In the first stage regression FDI had a statistically significant effect at the 5% when not controlling for outliers and at

the 10% when controlling for outliers. When adding the age and the logarithm of the profit or loss of the firm, the effect had the same significance when not controlling for outliers. When controlling for outliers, the effect was statistically insignificant. Age was statistically insignificant with or without controlling for outliers. The effect of the logarithm of the profit or loss on the value added per employee was statistically significant at the 1% in both cases. FDI was statistically significant at the 10% when adding the sector dummies and not controlling for outliers, but insignificant when adding the outlier control. When adding the fixed over total asset ratio and the financial health dummies, the latter did not have a statistically significant effect on the net added value per employee whether or not I controlled for outliers. The financial health dummies cut-off points did not have different statistical significances. The fixed over total asset ratio had a statistically significant effect at the 5% without outlier control. The effect was not statistically significant with outlier control.

Additional analyses

In addition to the first regressions, I conducted additional analyses to gain further insights in the effects of financial constraints on FDI. Firstly, I wanted to run a regression focusing on the difference in the fixed assets over total assets ratio. Then I also ran my previous regressions differentiating between FDI mother firms who have subsidiaries in the European Union and outside of the European Union.

The fixed assets over total assets ratio could give an indication of the availability of collateral. The greater the availability, the lower the cost of external finance. The lower the cost of external finance, the more external finance might be granted. Hence, the fixed assets over total assets ratio will certainly have an effect on the debt ratio. The section focusing on the debt ratio also indicated that the fixed over total assets ratio had a statistically significant effect at the 1% level on the debt ratio. Moreover, from Graph 8 there appeared to be a difference in the density functions of FDI daughter firms and non-FDI firms. In order to assess if FDI firms also have statistically significant lower fixed over total assets ratios, I ran additional regressions. The general regression had the following form and was ran in different stages:

$$fixed\ assets/total\ assets_i$$
$$= \beta_0 + \beta_1 FDI_i + \beta_2 logEmployment_i + \beta_3 Age_i + \beta_4 logP/L_i + \beta_5 Sector\ Control_i + \beta_6 Debt\ ratio_i$$
$$+ \beta_7 Financial\ Health_i + \varepsilon_i$$

$fixed\ assets/total\ assets_i$ is the ratio of the fixed assets and the total assets of firm i in 2020. FDI_i is a dummy variable which indicates whether firm i is part of an international corporate group. The other variables are firm level control variables for firm i.

Table 14: Regression results for the fixed over total assets ratio of Belgian daughter companies compared to non-FDI firms.

	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
			No outlier control			
Constant	.2514***	.2467***	.2172***	.1315***	.1286***	.0991**
	(.0107)	(.0126)	(.0139)	(.0411)	(.0367)	(.0439)
FDI	-.0505***	-.0510***	-.0446***	-.0442***	-.0442***	-.0442***
	(.0062)	(.0070)	(.0068)	(.0068)	(.0068)	(.0068)
LogEmploy	.0301***	.0384***	.0354***	.0401***	.0404***	.0402***
	(.0030)	(.0040)	(.0039)	(.0043)	(.0043)	(.0042)
Age		-.0011***	-.0011***	-.0010***	-.0010***	-.0010***
		(.0002)	(.0002)	(.0002)	(.0002)	(.0002)

logPL2020		-.0006	-.0015	-.0002	-.0002	-.0002
		(.0020)	(.0019)	(.0020)	(.0020)	(.0020)
Debt ratio				.0656***	.0679**	.0976***
				(.0324)	(.0272)	(.0365)
Financial health <0.40				.0134		
				(.0214)		
Financial health <0.50					.0203	
					(.0211)	
Financial health <0.60						.0345
						(.0222)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	6 405	4 948	4 938	4 938	4 938	4 938
R2	0.0209	0.0314	0.1035	0.1048	0.1049	0.1052
			Outlier control			
Constant	.2514***	.2467***	.2172***	.1315***	.1286***	.0991**
	(.0111)	(.0135)	(.0148)	(.0438)	(.0391)	(.0470)
FDI	-.0505***	-.0510***	-.0446***	-.0442***	-.0442***	-.0442***
	(.0062)	(.0070)	(.0068)	(.0067)	(.0067)	(.0067)
LogEmploy	.0301***	.0384***	.0354***	.0401***	.0403***	.0402***
	(.0031)	(.0041)	(.0041)	(.0045)	(.0046)	(.0045)
Age		-.0011***	-.0011***	-.0010***	-.0010***	-.0010***
		(.0002)	(.0002)	(.0002)	(.0002)	(.0002)
logPL2020		-.0006	-.0015	-.0002	-.0002	-.0002
		(.0021)	(.0021)	(.0022)	(.0022)	(.0021)
Debt ratio				.0656*	.0679**	.0976**
				(.0341)	(.0286)	(.0394)
Financial health <0.40				.0134		
				(.0221)		
Financial health <0.50					.0203	
					(.0224)	
Financial health <0.60						.0345
						(.0233)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	6 405	4 948	4 938	4 938	4 938	4 938
R2	0.0209	0.0314	0.1035	0.1048	0.1049	0.1052

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *. The complete regression results can be found in Table 36 in the appendix. This table also contains the results for the sector control variables.

The above table represents the results for Belgian daughter firms with foreign mother firms. In the first stage I ran the effect of FDI and the logarithm of employment on the fixed over total assets ratio. Both variables had a statistically significant effect on the ratio at the 1% level, even when I controlled for outliers. In the second stage I added variables age and the logarithm of the profit or loss the firm experienced in 2020. FDI, the logarithm of employment and age had a statistically significant effect at the 1%, with or without outlier control. The logarithm of the profit or loss the firm had a statistically insignificant effect on the fixed over total assets ratio. In the third stage, I added the sector dummies. The effect of the variables from the previous stage remained similar. All variables, except for the logarithm of the profit or loss the firm, had statistically significant effects on the fixed over total assets ratio on the 1% level, with or without outlier control. Additionally, I added the debt ratio. The debt ratio had a statistically significant effect at the 5% level without outlier control, and at the 10% level with outlier control when the financial health

dummy had a cut-off of 0.50. With a cut-off of 0.40, the effect of the debt ratio was statistically significant at the 5% level with or without outlier control. With a cut-off of 0.60, the effect of the debt ratio was statistically significant at the 1% level without outlier control, and at the 5% level with outlier control. The effect of FDI remains statistically significant at the 1% level with or without outliers.

Table 15: Regression results for the fixed over total assets ratio of Belgian mother companies compared to non-FDI firms.

	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
			No outlier control			
Constant	.2533***	.2549***	.2095***	.2057***	.2253***	.2344***
	(.0183)	(.0219)	(.0234)	(.0299)	(.0302)	(.0306)
FDI	.0179	.0040	.0098	.0147	.0172	.0179
	(.0190)	(.0215)	(.0206)	(.0218)	(.0217)	(.0217)
LogEmploy	.0293***	.0360***	.0309***	.0221***	.0197**	.0189**
	(.0055)	(.0073)	(.0071)	(.0082)	(.0082)	(.0082)
Age		-.0014***	-.0011***	-.0006**	-.0006*	-.0006*
		(.0003)	(.0003)	(.0003)	(.0003)	(.0003)
logPL2020		.0013	.0022	.0078**	.0092***	.0095***
		(.0032)	(.0031)	(.0033)	(.0033)	(.0033)
Debt ratio				.0160	-.0000	-.0002
				(.0164)	(.0167)	(.0168)
Financial health <0.40				-.0686***		
				(.0143)		
Financial health <0.50					-.0807***	
					(.0130)	
Financial health <0.60						-.0775***
						(.0127)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	2 335	1 800	1 800	1 800	1 800	1 800
R2	0.0126	0.0223	0.1256	0.1523	0.1599	0.1594
			Outlier control			
Constant	.2533***	.2549***	.2095***	.2057***	.2253***	.2344***
	(.0181)	(.0227)	(.0238)	(.0294)	(.0286)	(.0291)
FDI	.0179	.0040	.00981	.0147	.0172	.0179
	(.0193)	(.0219)	(.0220)	(.0235)	(.0234)	(.0231)
LogEmploy	.0293***	.0360***	.0309***	.0221***	.0197**	.0189**
	(.0054)	(.0072)	(.0072)	(.0084)	(.0084)	(.0084)
Age		-.0014***	-.0011***	-.0006**	-.0006*	-.0006*
		(.0003)	(.0003)	(.0003)	(.0003)	(.0003)
logPL2020		.0013	.0022	.0078**	.0092**	.0095***
		(.0036)	(.0035)	(.0036)	(.0036)	(.0036)
Debt ratio				.0160	-.0000	-.0002
				(.0163)	(.0132)	(.0132)
Financial health <0.40				-.0686***		
				(.0133)		
Financial health <0.50					-.0807***	
					(.0116)	
Financial health <0.60						-.0775***
						(.0119)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	2 335	1 800	1 800	1 800	1 800	1 800

R2	0.0126	0.0223	0.1256	0.1523	0.1599	0.1594

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *. The complete regression results can be found in Table 37 in the appendix. This table also contains the results for the sector control variables.

The above table shows the results for Belgian mother firms with foreign daughters. In the first stage, FDI already had a statistically insignificant effect on the fixed assets over total assets ratio. The logarithm of employment had a statistically significant effect at the 1% level with or without outlier control. In the second stage, the effect was comparable. FDI had a statistically insignificant effect, just as the logarithm of the profit or loss. The age and the logarithm of employment had statistically significant effects at the 1% level with or without outlier control. In the third stage, the effect remained similar. FDI had a statistically insignificant effect. The financial health dummies had statistically significant effects at the 1% with or without outlier control. The debt ratio had a statistically insignificant effect.

As scientific literature indicated that the lack of collateral could lead to higher financial costs and lower debt access to external data, scientific literature also indicated that a longer distance between the mother firm and the daughter firm could lead to higher financial costs. Since, banks are experiencing more risks when a firm wants to lend money in order to invest in a country that is further away from the home country. Hence, I made a subsample consisting of all Belgian mother firms and indicated if they invested outside of Europe. Hence, I looked at the data of 809 Belgian mother firms with foreign daughter firms. Since I have detailed information about the countries I which the mother firms have a subsidiary, I made a dummy variable Europe which indicated whether a firm had a daughter firm in Europe. The specific countries included in all this variable are indicated in Table 23: Variable definition. The following tables give an indication of the subsamples I will be considering for this section, being mother firms with (a) non-European daughter(s) firm(s) and mother firms with (a) European daughter(s) firm(s). The latter table also gives an indication if the subsample of European daughter firms is different from the subsample of non-European daughter firms via a t-test estimation.

Table 16: Descriptive statistics for the 'mother firms with non-European daughter firms' subsample

	Count	Mean	SD	Min	Max
Log Employment	168	3.9946	1.0420	2.3979	6.7878
Age	168	35.2520	19.7804	4.6762	116.2793
logPL2020	130	6.7638	1.8895	-2.6736	10.4671
Sector 10	166	.0545	.2278	0	1
Sector 11	166	.0182	.1340	0	1
Sector 12	166	0	0	0	0
Sector 13	166	.0485	.2154	0	1
Sector 14	166	.0182	.1340	0	1
Sector 15	166	.0061	.0778	0	1
Sector 16	166	.0242	.1543	0	1
Sector 17	166	.0121	.1098	0	1
Sector 18	166	.0182	.1340	0	1
Sector 19	166	0	0	0	0
Sector 20	166	.1818	.3869	0	1
Sector 21	166	.0182	.1340	0	1

Sector 22	166	.1152	.3202	0	1
Sector 23	166	.0545	.2278	0	1
Sector 24	166	.0303	.1719	0	1
Sector 25	166	.1273	.3343	0	1
Sector 26	166	.1212	.3274	0	1
Sector 27	166	.0545	.2278	0	1
Sector 28	166	.0545	.2278	0	1
Sector 29	166	.0182	.1340	0	1
Sector 30	166	.0061	.0778	0	1
Sector 31	166	.0242	.1543	0	1
Sector 32	166	.0061	.0778	0	1
Log Cash flow	142	7.3702	1.5280	1.7618	10.6848
Debt ratio	167	.8285	.2569	.1048	1
Current solvency	168	2.5651	3.1743	.0843	19.2496
Value added	168	107.9669	128.8180	-1 179.7030	440.5966
Fixed asset ratio	168	.2762	.2053	.0000	.9415
Financial health 0.4	168	.1557	.3637	0	1
Financial health 0.5	168	.0838	.2780	0	1
Financial Health 0.6	168	.2216	.4165	0	1

Table 17: Descriptive statistics for the 'mother firms with European daughter firms' subsample with t-test results for the comparison with 'mother firms with non-European daughter firms' subsample

	Count	Mean	SD	Min	Max	t-test results	
						T-test	Sign.
Europe	639	4.3223	1.2302	2.3979	9.0772		
Log Employment	639	38.4882	21.0504	1.5359	132.5366	-3.4797	.0006
Age	476	7.2142	2.0500	-.5551	14.6066	-1.8572	.0644
logPL2020	639	.1362	.3432	0	1	-2.3576	.0193
Sector 10	639	.0250	.1564	0	1		
Sector 11	639	.0047	.0684	0	1		
Sector 12	639	.0423	.2013	0	1		
Sector 13	639	.0219	.1465	0	1		
Sector 14	639	.0016	.0396	0	1		
Sector 15	639	.0250	.1564	0	1		
Sector 16	639	.0282	.1656	0	1		
Sector 17	639	.0266	.1610	0	1		
Sector 18	639	.0047	.0684	0	1		
Sector 19	639	.0829	.2760	0	1		
Sector 20	639	.0188	.1359	0	1		
Sector 21	639	.0689	.2534	0	1		

Sector 22	639	.0516	.2215	0	1	
Sector 23	639	.0329	.1784	0	1	
Sector 24	639	.1596	.3665	0	1	
Sector 25	639	.0782	.2688	0	1	
Sector 26	639	.0610	.2396	0	1	
Sector 27	639	.0595	.2367	0	1	
Sector 28	639	.0297	.1700	0	1	
Sector 29	639	.0094	.0965	0	1	
Sector 30	639	.0203	.1413	0	1	
Sector 31	639	.0250	.1564	0	1	
Sector 32	541	7.7453	1.7584	3.1084	15.2536	
Log Cash flow	639	.7805	.2875	.0184	1.8283	-2.5129	.0126
Debt ratio	639	2.3251	3.7871	.0639	53.5264	2.0885	.0376
Current solvency	639	131.7193	226.3816	-372.7536	3 906.0000	.8344	.4047
Value added	639	.3943	.2465	.0059	.9843	-1.7725	.0770
Fixed asset ratio	639	.2097	.4074	0	1	-6.3365	.0000
Financial health 0.4	639	.1471	.3545	0	1		
Financial health 0.5	639	.2754	.4471	0	1		
Financial Health 0.6	639	4.322.269	1.230.204	2.397.895	9.077.152		

Note: The t-test analysis compares the results of mother firms with European daughter firms and mother firms with non-European daughter firms. The differences are calculated by subtracting the results of mother firms with European daughter firms from the results of mother firms with non-European daughter firms.

After the initial analysis of the data, I ran the same regressions as discussed in the previous section. I started with the following regression:

$$Debt\ ratio_i = \beta_0 + \beta_1 Europe_i + \beta_2 logEmployment_i + \beta_3 Age_i + \beta_4 logP/L_i + \beta_5 Sector\ Control_i + \beta_6 Financial\ Health_i + \beta_7 Fixed\ asset\ ratio_i + \varepsilon_i$$

Table 18: Regression results for the debt ratio of Belgian mother companies with European daughters.

	Stage 1	Stage 2	Stage 3	Stage 4
		No outlier control		
Constant	1.3149	1.4579***	1.4444***	1.4435***
	(.0340)	(.0423)	(.0476)	(.0478)
Europe	-.0070***	-.0154	-.0135	-.0145
	(.0211)	(.0235)	(.0237)	(.0243)
LogEmploy	-.1220***	-.0816***	-.0872***	-.0875***
	(.0071)	(.0103)	(.0105)	(.0106)
Age		-.0008	-.0007	-.0007
		(.0005)	(.0005)	(.0005)
logPL2020		-.0426***	-.0383***	-.0383***
		(.0060)	(.0061)	(.0061)
Fixed assets/total assets				.0094
				(.0417)
Sector Controls			Yes	Yes

Number of observations	805	604	604	604
R2	0.2711	0.3503	0.3909	0.3910
		Outlier control		
Constant	1.3149	1.4579***	1.4444	1.4435***
	(.0303)	(.0374)	(.0476)	(.0487)
Europe	-.0070***	-.0154	-.0135	-.0145
	(.0198)	(.0219)	(.0227)	(.0232)
LogEmploy	-.1220***	-.0816***	-.0872***	-.0875***
	(.0067)	(.0107)	(.0105)	(.0105)
Age		-.0008	-.0007	-.0007
		(.0005)	(.0005)	(.0005)
logPL2020		-.0426***	-.0383***	-.0383***
		(.0063)	(.0062)	(.0062)
Fixed assets/total assets				.0091
				(.0458)
Sector Controls			Yes	Yes
Number of observations	805	604	604	604
R2	0.2711	0.3503	0.3909	0.3910

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *. The complete regression results can be found inTable 39 in the appendix. This table also contains the results for the sector control variables.

The results from this regression analysis can be found in above table. As before, I ran the regression in different stages, but I will focus on the last stage regression including all variables. The Europe dummy did not have a statistically significant effect on the debt ratio of the firm whether or not I controlled for outliers. As, with the previous analysis, other variables, like the logarithm of employment, some sector dummies, and the logarithm of profit or loss have a statistically significant effect on the debt ratio with or without outlier control. Noticeable, is that for this sample, the fixed assets over total assets ratio does not have a statistically significant effect on the debt ratio with or without outlier control, which was the case in the previous analysis. Next, I had a look at the other regressions I tested previously, starting with current solvency:

$$Current\ solvency_i$$
$$= \beta_0 + \beta_1 Europe_i + \beta_2 logEmployment_i + \beta_3 Age_i + \beta_4 logP/L_i + \beta_5 Sector\ Control_i$$
$$+ \beta_6 Financial\ Health_i + \beta_7 Fixed\ asset\ ratio_i + \varepsilon_i$$

Table 19: Regression results for the current solvency ratio of Belgian mother companies with European daughters.

	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
			No outlier control			
Constant	3.8970***	2.8598***	3.2092***	3.9465***	4.1738***	3.8931***
	(.5150)	(.6130)	(.6887)	(.6948)	(.6894)	(.7096)
Europe	-.1308***	-.2758	-.0984	.1066	.0356	.1231
	(.3192)	(.3393)	(.3453)	(.3449)	(.3421)	(.3468)
LogEmploy	-.3334	-.7108***	-.6708***	-.7004***	-.6928***	-.7011***
	(.1078)	(.1489)	(.1519)	(.1518)	(.1493)	(.1545)
Age		.0096	.0112	.0076	.0073	.0084
		(.0071)	(.0072)	(.0071)	(.0070)	(.0071)
logPL2020		.3484***	.3196***	.2770***	.2526***	.2883***
		(.0864)	(.0884)	(.0882)	(.0875)	(.0891)

	(1)	(2)	(3)	(4)	(5)	(6)
Fixed assets/total assets				-2.0398***	-2.1431***	-2.0790***
				(.5917)	(.5862)	(.5949)
Financial health <0.40				1.2469***		
				(.3531)		
Financial health <0.50					1.9574***	
					(.4005)	
Financial health <0.60						.8309**
						(.3371)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	806	605	604	604	604	604
R2	0.0320	0.0416	0.0744	0.1125	0.1294	0.1027
			Outlier control			
Constant	3.8970***	2.8598***	3.2092***	3.9467***	4.1738***	3.8931***
	(.6514)	(.6216)	(.9210)	(.8135)	(.7966)	(.8182)
Europe	-.1308***	-.2758	-.0984	.1066	.0356	.1231
	(.2924)	(.3156)	(.2952)	(.2833)	(.2758)	(.2868)
LogEmploy	-.3334	-.7108***	-.6708***	-.7004***	-.6928***	-.7011***
	(.1393)	(.2026)	(.2027)	(.2027)	(.2036)	(.2020)
Age		.0096	.0112*	.0076	.0073	.0084
		(.0064)	(.0064)	(.0067)	(.0067)	(.0067)
logPL2020		.3484***	.3196***	.2770***	.2528***	.2883***
		(.0741)	(.0714)	(.0720)	(.0710)	(.0731)
Fixed assets/total assets				-2.0398***	-2.1431***	-2.0790***
				(.7076)	(.7132)	(.7161)
Financial health <0.40				1.2469***		
				(.2982)		
Financial health <0.50					1.9574***	
					(.4139)	
Financial health <0.60						.8309***
						(.2491)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	806	605	604	604	604	604
R2	0.0320	0.0416	0.0744	0.1125	0.1294	0.1027

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *. The complete regression results can be found in Table 40 in the appendix. This table also contains the results for the sector control variables.

The results from this regression analysis can be found in the above table. In this regression as well, the dummy that indicated whether or not a firm had subsidiaries in Europe, was statistically insignificant with or without outlier control. Here as well, the logarithm of employment, some sector dummies, and the logarithm of profit or loss had statistically significant effects on the current solvency. In this sample, the fixed assets ratio had a statistically significant effect at the 1% level on the current solvency ratio with or without outlier control. The financial health dummies had a statistically significant effect at the 1% with or without outlier control except for the financial health dummy with cut-off at 0.60 without outlier control. This variable had a statistically significant effect at the 5% level. I followed-up with running the logarithm of cash flow regression.

$$Log\ Cashflow_i = \beta_0 + \beta_1 Europe_i + \beta_2 logEmployment_i + \beta_3 Age_i + \beta_4 logP/L_i + \beta_5 Sector\ Control_i$$
$$+ \beta_6 Financial\ Health_i + \beta_7 Fixed\ asset\ ratio_i + \varepsilon_i$$

Table 20: Regression results for the logarithm of cashflow of Belgian mother companies with European daughters.

	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
			No outlier control			
Constant	3.2934	1.8690***	1.8656***	1.8513***	1.8598***	1.8845***
	(.1922)	(.0963)	(.1068)	(.1032)	(.1033)	(.1045)
Europe	.0942***	-.0477***	-.0480	-.1295**	-.1351***	-.1283**
	(.1171)	(.0533)	(.0535)	(.0512)	(.0512)	(.0511)
LogEmploy	.9997***	.4083	.4051***	.3763***	.3786***	.3695***
	(.0397)	(.0234)	(.0236)	(.0226)	(.0224)	(.0228)
Age		.0003	-.0001	.0004	.0004	.0004
		(.0011)	(.0011)	(.0011)	(.0011)	(.0011)
logPL2020		.5963***	.5849***	.5747***	.5738***	.5723***
		(.0135)	(.0137)	(.0131)	(.0131)	(.0131)
Fixed assets/total assets				.7445***	.7352***	.7397***
				(.0878)	(.0877)	(.0876)
Financial health <0.40				.1273**		
				(.0523)		
Financial health <0.50					.1623***	
					(.0598)	
Financial health <0.60						.1512***
						(.0495)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	682	602	601	601	601	601
R2	0.4875	0.8965	0.9057	0.9169	0.9171	0.9174
			Outlier control			
Constant	3.2934	1.8690***	1.8656***	1.8513***	1.8598***	1.8845***
	(.2258)	(.1706)	(.1768)	(.1601)	(.1611)	(.1620)
Europe	.0942***	-.0477***	-.0480	-.1295**	-.1351**	-.1283**
	(.1144)	(.0575)	(.0597)	(.0618)	(.0620)	(.0612)
LogEmploy	.9997***	.4083	.4051***	.3763***	.3786***	.3695***
	(.0497)	(.0337)	(.0321)	(.0280)	(.0279)	(.0279)
Age		.0003	-.0001	.0004	.0004	.0004
		(.0011)	(.0010)	(.0010)	(.0010)	(.0010)
logPL2020		.5963***	.5849***	.5747***	.5738***	.5723***
		(.0332)	(.0334)	(.0317)	(.0318)	(.0317)
Fixed assets/total assets				.7445***	.7352***	.7397***
				(.1278)	(.1269)	(.1272)
Financial health <0.40				.1273***		
				(.0467)		
Financial health <0.50					.1623***	
					(.0538)	
Financial health <0.60						.1512***
						(.0443)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	682	602	601	601	601	601
R2	0.4875	0.8965	0.9057	0.9169	0.9171	0.9174

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *. The complete regression results can be found in Table 41 in the appendix. This table also contains the results for the sector control variables.

The results from this regression analysis can be found in the above table. Unlike the previous regressions, the Europe dummy did have a statistically significant effect at the 1% level or 5% level depending on the financial health dummy's cut-off. The effect is statistically significant at the 1% when the cut-off is at 0.40

without outlier control. In the other cases, the Europe dummy has a statistically significant effect at the 5% level on the logarithm of cash flow. As before, the logarithm of employment, some sector dummies, and the logarithm of profit or loss had statistically significant effects on the logarithm of cash flow. The fixed assets ratio had a statistically significant effect at the 1% level. Depending on the cut-off and the outlier control, the financial health dummies had a statistically significant effect at the 1% or 5% level. Next up, I ran the regression focusing on the net added value per employee:

$$Net\ added\ value\ per\ employee_i$$
$$= \beta_0 + \beta_1 Europe_i + \beta_2 logEmployment_i + \beta_3 Age_i + \beta_4 logP/L_i + \beta_5 Sector\ Control_i$$
$$+ \beta_6 Financial\ Health_i + \beta_7 Fixed\ asset\ ratio_i + \varepsilon_i$$

Table 21: Regression results for the net added value per employee of Belgian mother companies with European daughters.

	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
			No outlier control			
Constant	107.9669***	-98.2434***	-17.1436	-23.0761	-24.0431	-26.6607
	(16.2491)	(36.2440)	(38.5512)	(39.5378)	(39.7421)	(39.8359)
Europe	23.7525	1.2767	1.2657	.5656	1.1271	.4394
	(18.2493)	(21.3573)	(20.4309)	(20.8354)	(20.8632)	(20.8239)
Age		.4991	.3399	.3750	.3704	.3861
		(.4408)	(.4185)	(.4219)	(.4211)	(.4216)
logPL2020		31.3538***	25.1424***	25.9587***	25.9289***	26.6619***
		(4.3805)	(4.3018)	(4.5619)	(4.5313)	(4.6635)
Fixed assets/total assets				8.6244	9.4875	9.5816
				(35.5411)	(35.5634)	(35.5417)
Financial health <0.40				-14.1889		
				(21.0584)		
Financial health <0.50					-17.0971	
					(24.2856)	
Financial health <0.60						-19.0245
						(19.7271)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	806	605	604	604	604	604
R2	0.0021	0.0877	0.2465	0.2472	0.2473	0.2478
			Outlier control			
Constant	107.9669***	-98.24337*	-17.1436	-23.0761	-24.0431	-26.6607
	(9.9507)	(50.8068)	(38.6767)	(32.8892)	(34.2052)	(32.7167)
Europe	23.7525*	1.2767	1.2657	.5656	1.1271	.4394
	(13.3900)	(10.9069)	(11.8545)	(10.6381)	(10.8429)	(10.7425)
Age		.4991	.33992	.3750	.3704	.38611
		(.6707)	(.4442)	(.4908)	(.4771)	(.4881)
logPL2020		31.3538***	25.1424***	25.9587***	25.9289***	26.6619***
		(5.5480)	(3.6987)	(4.0299)	(4.4305)	(4.1198)
Fixed assets/total assets				8.6244	9.4875	9.5816
				(39.8214)	(40.0069)	(40.2335)
Financial health <0.40				-14.1889		
				(19.7556)		
Financial health <0.50					-17.0971	
					(22.8653)	
Financial health <0.60						-19.0245
						(17.7373)

			Yes	Yes	Yes	Yes
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	806	605	604	604	604	604
R2	0.0021	0.0877	0.2465	0.2472	0.2473	0.2478

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *. The complete regression results can be found in Table 42 in the appendix. This table also contains the results for the sector control variables.

The results from this regression analysis can be found in the table above. The Europe dummy had a statistically insignificant effect on the net added value per employee, as did the logarithm of employment and the age with or without outlier control. As before the logarithm of profit or loss, and some sectors had statistically significant effects on the net added value per employee with or without outlier control. The fixed assets ratio and the financial health dummies had statistically insignificant effects on the net added value per employee. Next up, I ran the regression focusing on the fixed over total assets ratio:

$$Fixed\ assets\ ratio_i$$
$$= \beta_0 + \beta_1 Europe_i + \beta_2 logEmployment_i + \beta_3 Age_i + \beta_4 logP/L_i + \beta_5 Sector\ Control_i$$
$$+ \beta_6 Financial\ Health_i + \beta_7 Fixed\ asset\ ratio_i + \varepsilon_i$$

Table 22: Regression results for the fixed over total assets ratio of Belgian mother companies with European daughters.

	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
			No outlier control			
Constant	.1627***	.1305***	.0954**	.1040	.0260	.0334
	(.0333)	(.0426)	(.0475)	(.1034)	(.0912)	(.1080)
Europe	.1088***	.1136***	.1093***	.1094***	.1077***	.1099***
	(.0207)	(.0236)	(.0238)	(.0239)	(.0239)	(.0239)
LogEmploy	.0284***	.0297***	.0268**	.0268**	.0302***	.0285**
	(.0070)	(.0103)	(.0105)	(.0114)	(.0113)	(.0112)
Age		-.0008	-.0009*	-.0009*	-.0009*	-.0009*
		(.0005)	(.0005)	(.0005)	(.0005)	(.0005)
logPL2020		.0060	.0062	.0064	.0066	.0067
		(.0060)	(.0061)	(.0063)	(.0063)	(.0063)
Debt ratio				-.0101	.0610	.0552
				(.0741)	(.0618)	(.0829)
Financial health <0.40				-.0138		
				(.0443)		
Financial health <0.50					.0481	
					(.0422)	
Financial health <0.60						.0302
						(.0470)
Sector Controls			Yes	Yes	Yes	Yes
Number of observations	806	605	604	604	604	604
R2	0.0582	0.0781	0.1399	0.1401	0.1419	0.1406
			Outlier control			
Constant	.1627***	.13050***	.0954*	.1040	.0260	.0334
	(.0348)	(.0475)	(.0542)	(.1167)	(.1014)	(.1121)
Europe	.1088***	.1136***	.1094***	.1094***	.1077***	.1099***
	(.0185)	(.0201)	(.0202)	(.0202)	(.0203)	(.0202)
LogEmploy	.0284***	.0297**	.0269**	.0268**	.0302**	.0285**
	(.0074)	(.0120)	(.0120)	(.0130)	(.0131)	(.0128)

Age	-.0008	-.0009*	-.0009*	-.0009*	-.0009*
	(.0005)	(.0005)	(.0005)	(.0005)	(.0005)
logPL2020	.0060	.0062	.0064	.0066	.0067
	(.0077)	(.0079)	(.0082)	(.0082)	(.0082)
Debt ratio			-.0101	.0610	.0552
			(.0797)	(.0634)	(.0838)
Financial health <0.40			-.0138		
			(.0450)		
Financial health <0.50				.0481	
				(.0424)	
Financial health <0.60					.0302
					(.0462)
Sector Controls		Yes	Yes	Yes	Yes
Number of observations	806	605	604	604	604	604
R2	0.0582	0.0781	0.1399	0.1401	0.1419	0.1406

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *. The complete regression results can be found in Table 43 in the appendix. This table also contains the results for the sector control variables.

The results from this regression analysis can be found in the table above. Unlike the previous regressions, the Europe dummy did have a statistically significant effect at the 1% level. As before, the logarithm of employment, some sector dummies had statistically significant effects on the fixed assets ratio. However, in these regressions, age also had statistically significant effect, but the logarithm of the profit or loss did not. The debt ratio and the financial health dummies had statistically insignificant effects on the fixed assets ratio. I wanted to conduct a similar analysis for all daughter firms with foreign mother firms, but the country of the actual headquarter of the group was only reported for two firms. Hence, I was unable to conduct a similar analysis to this for daughter firms.

Discussion

In this last section, I will discuss my results. Firstly, I will compare the results of my study with the findings of the studies of my literature review. Afterwards, I will look at the weaknesses of this thesis. Lastly, I will look at possible policy implications and indicate possibilities for follow-up research. As stated in the fourth chapter, the external validity of my research is high. However, the internal validity will be low. Given the specific focus on a sample of Belgian firms, the external validity of the results is high for Belgian firms and maybe even for firms close to the Belgian boarder. However, the more the distance between the firm's location and Belgium widens, the harder it is to generalise the results reliably. There could be specific factors of the Belgian economy that are not be present in other countries. Moreover, since I could not interfere, it is impossible for me to assess the impact of singular changes in an independent variable on the dependent variable.

This generalisability of the results is important to keep in mind whilst interpreting the results. Overall, my research design had the goal to determine whether FDI firms experienced more financial constraints than non-FDI firms and could be considered more financially healthy. From my literature review, I set up three hypotheses:

- Belgian FDI firms have lesser external funds to their disposal than Belgian non-FDI firms
- Belgian FDI firms have more internal funds to their disposal than Belgian non-FDI firms

- The value added per employee is higher for Belgian FDI firms than for Belgian non-FDI firms.

With regards to the first hypothesis, FDI firms have lesser external funds to their disposal non-FDI firms, I split up my research into two parts. Firstly, I looked at the presence of access to long-term external funds. For this I calculated the debt ratio, or the total liabilities of the firm divided by the total assets of a firm. These total liabilities consisted of long-term and short-term liabilities. A higher debt ratio means higher liabilities compared to the total assets. Higher liabilities can indicate more dependence on external finance and can be an indicator of the financial health of a firm. When the debt ratio becomes too high, banks are often less willing to lend money. I noticed that Belgian daughter firms had statistically significant lower debt ratios than Belgian non-FDI firms on the 10% level when I did not include the fixed assets over total assets ratio. When I added this ratio, the effect of being a Belgian daughter firm on the debt ratio became insignificant. However, the fixed assets of total assets can be an indicator of the presence of collateral in the firm.

These results could be expected following the theory around debt set out in chapter three. Banks appear to fear the additional risks that are a result of international expansion, and might want to set up stronger financial contracts. These contracts will suffer from inefficiencies. Since it will be difficult – if not impossible – to include all possible scenarios in the contract, both parties will experience uncertainty. Since the banks would prefer certainty over uncertainty given that all else remains the same, they can create more certainty by demanding the firm to make higher interest payments or to provide collateral.

When I ran additional analyses, it became clear that Belgian daughter firms did have a statistically significant lower fixed assets over total assets ratios. When a firm was a Belgian daughter firm, the firm would have a lower fixed assets over total assets ratio, indicating that less collateral could be present. Since less collateral leads to statistically significant lower debt ratios, it can be said that the interdependence in these variables can lead to lower debt ratios. This in turn would mean that there are constraints present that lead to lower debt ratios and higher external financing constraints. De Maeseneire and Claeys (2012) indicated that, among others, the lack of collateral lead to more difficulties in financing international expansion, since it made it more difficult to obtain external finance. I find indications that this finding is probably true for Belgian daughter firms.

When looking at Belgian mother firms, it appeared as though Belgian mother firms did not have statistically significant different debt ratios from Belgian non-FDI firms. Moreover, Belgian mother firms did not have statistically significantly different fixed assets over total assets ratios. Moreover, for these mother firms, it was possible to determine the effect of the mother firm opting for subsidiaries closer to home. Having a subsidiary closer to the home country, could lead to lesser external financing constraints since banks believe they experience lower risks when funding the internationalisation journey of the firm compared to the firm investing in a country that is more distant. However, for this regression, I also had to conclude that there was no statistically significant difference in the debt ratio of Belgian mother firms who had subsidiaries in Europe or outside of Europe.

Overall, the results for the debt ratio are mixed. They are comparable to the results of Buch et al. (2014) who found that external financing constraints, measured through the debt ratio, matter more for manufacturing firm more interested in expanding abroad. However, for this dataset it seems to be the case that Belgian daughter firms with foreign mothers experience statistically significant lower debt ratios than

Belgian non-FDI firms probably caused by the lesser amount of collateral that the Belgian daughter firms had to their disposal compared to Belgian non-FDI firms in the manufacturing industry.

Secondly, I had a look at the current solvency ratio as a measure of access to short-term external funds. The effect of the firm being a Belgian daughter on the current solvency was not statistically significantly different from the effect of Belgian non-FDI firms. This the absence of differences in access to short term financing funds between Belgian daughter firms and Belgian non-FDI firms could be natural, and thus could mean that suppliers will not give different payment terms. Moreover, it could mean that short-term loans are less present or only account for a small fraction of the overall short-term liabilities.

When looking at Belgian mother firms, there did appear to be a statistically significant effect present of the firm being a Belgian mother firm. The positive effect of the firm being a Belgian mother firm on the current solvency ratio caused for the firm to have higher current solvency ratios indicating that the Belgian mother firms had more short-term assets than short-term liabilities than Belgian non-FDI firms when I did not control for outliers. It is however noticeable that the effect changes from being statistically significant at the 1% to becoming statistically insignificant when controlling for outliers. Moreover, Belgian mother firms with subsidiaries in countries part of the European Union did not appear to have difference current solvency ratios from Belgian mother firms with subsidiaries outside of the European Union. Hence, I will not rely too heavily on the significance of this result.

Given these results, I can only accept the first hypothesis with more nuance. FDI firms have lesser long-term external funds to their disposal than Belgian non-FDI firms when considering Belgian daughter firms active in the manufacturing sector. Moreover, this effect will partially be led by the fact that the FDI firms had lower fixed assets compared to their total assets than Belgian non-FDI firms leading to lesser possibilities for collateral. These constraints on the presence of collateral will lead to lower debt ratios. These lower debt ratios can be an indication of financially healthier firms. This effect did not seem present for Belgian mother firms active in the manufacturing sector.

After my first hypothesis, I considered my second hypothesis, FDI firms have more internal funds to their disposal than Belgian non-FDI firms. For this analysis I considered the logarithm of the cash flow as an indication of the internal funds that the firm had to their disposal. Since the cash flow is a good indicator of the funds the firm has to their disposal for investment projects I opted to use this variable to use for the analysis. Moreover, Guariglia and Yang (2016) also used the cash flow as an indication of internal funds. I decided to use the logarithm of the cash flow as my actual variable in order to lower the magnitude and the skewness of the variable cash flow. When considering Belgian daughter firms, I can find proof for the hypothesis. The Belgian daughter firms had statistically significant higher cash flows than Belgian non-FDI firms. The effect of the firm being a Belgian daughter firm was statistically significant at the 1% level.

However, I cannot find the same results for Belgian mother firms. Their effect on the logarithm of cash flow was statistically insignificant. It appears that Belgian mother firms have similar cash flows than Belgian non-FDI firms. When I looked at the division between Belgian mother firms with daughters in or outside of the European Union, I did find that Belgian mother firms with daughters in the European Union had statistically significant lower cash flows than Belgian other firms with daughters outside of the European Union. Indicating that a foreign subsidiary further away from the home country might cause the mother firm to rely more on internally generated funds.

Overall, the results are again mixed. But I do find similar results than other scientific papers when I focus on Belgian daughter firms. Research of Guariglia and Yang (2016) indicated that due to the absence or lack of external financing, FDI firms would rely, at least partially, more on internal financing. Since funds are necessary to take part in value increasing projects, and externally provided funds are difficult to obtain, it would appear logical that FDI firms hold or generate more cash than their non-FDI counterpart. Moreover, De Maeseneire and Claeys (2012) indicated that managers of SMEs believed that they relied at least partially on internally generated funds for their internationalisation journey since the external finance that was provided was insufficient to cover all costs. Given that I found that Belgian daughter firms had lower debt ratios and higher internal funds I can find prove for this reasoning. It is indeed probable that Belgian daughter firms rely more on internally generated funds than on externally obtained funds since the external funds are harder to obtain. If firms want to expand or invest, it will be more costly for them to obtain external funds since they have lower collateral available. Since external funds are harder to obtain, the internal funds will become more important for the firm. Their investment and internationalisation possibilities will more heavily rely on the presence of internally generated funds because they are relatively easier and less costly to obtain. Moreover, it is possible that one or more firms in the group have lower cash flows. For corporate groups, there is also is the possibility that funds are being moved around between firms within the same corporate group. A daughter might be able to lend funds, cheaper, from another daughter in the group that has funds in excess. This can bias the interpretation of the results when this is not kept in mind.

Given the obtained results, I can only accept the second hypothesis with more nuance. FDI firms have more internal funds to their disposal than Belgian non-FDI firms when considering Belgian daughter firms active in the manufacturing sector. Given the external financing constraints that are present, it is probable that the Belgian daughter firms rely more on internally generated funds to meet their funding needs. Higher cash flows can also be an indication of financially healthier firms. This effect did not seem present for Belgian mother firms active in the manufacturing sector. However, it was noticeable that Belgian mother firms with daughters outside of the European Union had higher cash flows than Belgian mother firms with daughters operational in the European Union.

In a couple of scientific studies, it was also indicated that the personnel of FDI firms added more net value than the personnel of non-FDI firms. Agarwal et al. (2013) found that employees working in a foreign owned firm added more value per employee than employees working for a domestic owned firm in China. This could be due to productivity-enhancing knowledge spill-overs that are more often present in FDI firms. These can be transferred to other (non-FDI) firms interacting with the FDI firm, but this need not be the case. Given this, I hypothesised that the value added per employee is higher for FDI firms than for non-FDI firms. As Agarwal, I also found that the net value that is being added per employee is higher for Belgian daughter firms than for Belgian non-FDI firms. When considering Belgian mother firms, the effect of the firm being a mother firm instead of a non-FDI firms was statistically significant as well. However, there did not appear to be a difference in the net added value per employee between Belgian mother firms with subsidiaries in the European Union and Belgian mother firms with subsidiaries outside of the European Union. Hence, I can accept my third and last hypothesis, the employees of Belgian FDI firms add more net value than the employees of Belgian non-FDI firms.

As expected some sector dummies also had a statistically significant impact on the debt ratio, the current solvency ratio, the internal funds ratio, the net added value per employee ratio, and the fixed over total asset ratio that have been examined. Buch et al. (2014) indicated there was a difference in the significance of the debt ratio for manufacturing and service sector firms. They assumed this was due to them having different cost structures like higher fixed costs. Since the subsectors themselves might also be very different from each other as well, it is logical that the effect of a firm belonging in a specific sector can have an effect on the debt ratio the firm will likely experience. As they further indicated, it is possible that the firm's financial conditions can be correlated with their sectors'. Hence it is also likely that the sector in which the firm operates has a basic influence on the other ratios, being the current solvency ratio, the internal funds ratio and the net added value per employee ratio. Moreover, it comes a little surprise that age has a statistically significant on debt ratio, current solvency ratio, and the internal funds ratio. As Buch et al. (2014) indicated, older firms tend to be less financially dependent. Hence age will play a role in the amount of funds a firm has to its disposal for their foreign expansion.

That being said, it is probable that the research results were impacted by the COVID-19 health crisis. In Belgium, businesses were forced to have their employees work from home. Restaurants, hotels and bars were closed by the government during most of 2020. Even though the government provided financial aid and gave possibilities to carry over losses of 2020 due to the COVID-19 crisis to following years, it is unmistakable that economic losses were present. These might have influenced the data in the dataset and hence also influenced the results of the regression analyses. Firstly, firms who were part of a group could have relied on the financial means of the group. However, the government also incentivised banks to provide cheaper loans to suffering firms. Hence, the total effect of this crisis on the results is unclear, but probably present.

Moreover, the estimate of the regression also had its weaknesses. As mentioned before, the Ordinary Least Square estimate has weaknesses when it comes to the error term. The error term that is included in the regression, contains all non-included variables that can have an impact on the results of the estimation. If the error term is correlated with an independent and the dependent variable, the results will be biased since the real causal effect will no longer be estimated by OLS. As stated before, the R^2-measure gives an indication of the explanatory power of the regression. If the R^2 -measure is closer to one, changes in the independent and control variables explain more of the changes in the dependent variable. Several of the estimated regressions had low R^2-measures. Hence, it can be expected that more variables, which were not included in the regression, will have an impact on the dependent variables, namely the debt ratio, current solvency, internal funds ratio, and the net added value per employee.

With these results and weaknesses in mind, I look at possible policy implications. I agree with the research of Buch et al with regards to policy implications. They indicated that lowering financial constraints might be just as important as productivity for international expansion. As many scientific papers have indicated that there is a minimum of productivity needed for foreign expansion, once this level is reached, firm are still impacted by financial constraints. I would advise for assistance or guidelines related to providing external finance for internationalisation purposes. As many research papers have indicated that FDI has positive spill-over effects on both the home and the host country and on innovation, aiding these firms via external financing can have positive benefits on the firms and the economies involved.

With regards to follow-up research, I would firstly advise more studies in the form of the study of De Maeseneire and Claeys (2012). They conducted surveys and interviews in Belgian SMEs in order to assess the impact of financial constraints on their international expansions journey. Qualitative research like this could provide additional insights in the "why" of financial constraints. When both firms and financing institutions would be researched, it could give an interesting mix in answers about the financial constraints that play a role in the foreign expansion journey. This could also provide additional information about the found quantitative results.

Lastly, I would advise to conduct more research about this subject specifically focussed in the banking sector. Buch et al. (2014) had conducted research about this issue in the banking and provided valuable insights about the behaviour banks with regards to this issue. More research in this area could provide additional information as to why banks behave the way they do. Additionally, it could provide insights in possible solutions for the issue of financial constraints caused by the lack of access to externally provided funds for internationalisation.

Chapter 6: Conclusion

Research of Buch et al. (2014), had shown that multinational German firms are more productive than non-multinational firms. Moreover, the net added value was higher per employee and they paid higher wages. Several studies show that multinational firms are more productive, but these multinationals also seem have lower debt ratios and higher cash ratios showing that they seem to rely more on internal than on external financial funds. This appears to be related to difficulties in obtaining financial funds for foreign expansion. Given that external debt is hard to obtain and costly once obtained, most firms first look at their internal funds to finance their foreign expansion plans. However, internal funds are limited and dependent on the productivity of the firm. Overall, this can be summarised to, FDI firms appear more financially healthy due to them experiencing more financial constraints for their international expansion journey. Hence, in this thesis, I wondered if these financial constraints are present for Belgian FDI firms and if these FDI firms are more financially healthy. The goal was to compare the effects for Belgian daughter firms with foreign mothers and for Belgian mother firms with foreign mothers to the effects experienced by non-FDI firms. The central question I asked was the following:

> *What are the effects of financial constraints on Belgian FDI firms compared to Belgian non-FDI firms?*

Firstly, I wondered what internationalisation and international trade entails. My general goal was to get an idea about the internationalisation of the economy. I found that international trade had increased over the recent years and that the barriers to cross-border trade and investments were declining. It has also been found that production is located at different places all over the world with the goal to take advantage of national differences. The growth in international trade has been brought by several international trade theories. Originally mercantilism told rulers that they should export more than import in order to gain from international trade. Then the theory of absolute advantages came to a rise. This theory entailed that when two countries can make a product cheaper than the other, they should provide each other with the product they can produce the cheapest. Three other scientists, David Ricardo, Eli Heckscher and Bertil Ohlin, perfected this theory so that the country does not need to be the absolute best, it just needs to be relatively the best in producing that product. When countries import the product they are worst in producing, they can all gain from trade by specialising their production on products they can produce more efficiently. Firms who want to be internationally active have multiple options. They can become internationally active by exporting, licencing or investing directly abroad.

Next, I wondered how much firms invest directly abroad. In order to have an idea about the numbers around foreign direct investment, I looked at the available data. I noticed that the biggest outward FDI flow comes from Japan, which flows towards several countries in the world. The biggest inflow of FDI funds occurs in the United States of America. They receive funds from all over the world. In 2020, general drop in FDI was noticeable, probably due to the COVID-19 crisis. Overall, FDI flows increased over the recent years. The NBB calculated specifically for Belgium that a lot of FDI flows are coming from firms located in France, the Netherlands, Luxemburg, the United Kingdom, and the United States of America. FDI flows are also most present Belgian sectors focussing on manufacturing, financial intermediation, real estate, and electricity and gas sectors. I learned that FDI has several positive effects on the economy, but it is not guaranteed that they are present and that they outweigh the possible negative effects. Possible positive effects include that FDI can create employment and knowledge. Possible negative effects include skilled

people are being employed in neighbouring countries and negative effects on the balance of payments of the countries.

Following up on this information, I wondered what causes firms to opt for FDI since FDI can be a big part of the GDP of a country. What causes one firm to opt for FDI is often different from other firms. It can, among others, be due to a need for knowledge preservation, a need to keep up competition, or a need to lower costs. Overall, three advantages need to be present before FDI is the best option for internationalisation. Firstly, ownership needs to be an advantage, otherwise the firm could just as well export or not expand internationally. Secondly, there have be advantages related to being physically present at the location the firm will invest in, otherwise the firm better export. Thirdly, there have to be advantages to keep the processes internal, otherwise the firm can just as well license. Since FDI is costly, it would put the firm at a disadvantage if these three would not be present and if the firm was not productive.

If the firm opts for FDI, it can organise its' companies in different ways and can obtain the host country firm in different ways. It can buy or merge with a local firm, or start from scratch. Each of these methods has its advantages and disadvantages. Depending on this method, the financial constraints will also differ. Greenfield investment can be the costliest since the firm needs to start from zero. The firm will experience a lot of fixed start-up costs for which sufficient funds need to be present to overcome these and start production. Access to these (start-up) funds can be limited or constrained and thus lead to the firm experiencing financial constraints. However, these constraints can also be present when the firms chooses for a merger or acquisition.

constraints. Internal constraints relate to the internal funds that the firm has to its disposal for Financial constraints can be split up in internal and external internationalisation, like cash flow. External constraints relate to the external funds the firm can access like (long-term) debt. Both of these constraints are important to the firm and can limit its international expansion. The interaction of these constraints will determine how financially constraint the firm is, since research has shown that purely relying on either internal or external funds is difficult. Due to the lack of external funds, the firm will for example have to rely at least partially on their internally generated funds. Research has also found that FDI firms tend to experience more of these constraints than their non-FDI counterparts. It appears that these constraints lead to financially healthier firms, since these firms rely less on external debt, hence lowering the debt ratio and rely more on internally generated cash. Firms with lower debt ratios are commonly defined as healthier. Growing or steady cash flows are also an important indicator of financial health.

After I had obtained this knowledge, I used the consulted scientific papers to organise my own research. From the scientific papers I learned that FDI firms appeared to be less/more dependent on externally/internally generated funds. Thus, I listed two hypotheses:

- Belgian FDI firms have lesser external funds to their disposal than Belgian non-FDI firms
- Belgian FDI firms have more internal funds to their disposal than Belgian non-FDI firms

Furthermore, I observed that several studies found that employees of FDI firms appeared to be more productive than employees who do not work for a multinational. Hence, I hypothesised that the value added per employee is higher for Belgian FDI firms than for Belgian non-FDI firms. To test these hypotheses, I used a field experiment with data obtained from the Belfirst database. Generally, results from a field experiment are more generalisable than results from laboratory experiment. However, when conducting a

field experiment, it is not possible to link changes in the results to specific small changes in the data. With field experiments, a lot of the data moves together so attributing changes to one change in one variable is more difficult.

When looking at the data I wanted to examine, I looked into the population of firms and picked my sample. I decided to focus my research on manufacturing firms with at least 11 employees since other scientific papers indicated that the consequences of FDI were most noticeable on manufacturing firms. Moreover, the data from chapter 2 indicated that the biggest inflow of funds went into the manufacturing sector. From the data available, there were 2 358 firms who were not part of a corporate group, hence these firms are the non-FDI firms for my research. There were 4384 Belgian firms who had a foreign mother firm. These firms were included as the FDI firms for my research. Their financial data will be compared to the financial data of the non-FDI firms.

In order to test my hypotheses, I used four different general regressions. My dependent variable differed depending on my hypothesis I tested. For example, in order to test the hypothesis regarding internal funds, I used an internal funds variable as my dependent variable. My independent variable indicated whether a firm was the daughter firm of a foreign mother. I also included other explanatory variables, such as the firms age, average employment, and the logarithm of the profit or loss the firm experienced in 2020.

My fifth and final chapter focussed on the actual data analysis. This chapter eventually provided me with the results needed to answer my central research question. As stated before the generalisability of the results is important to keep in mind whilst interpreting the results. Overall, my research design had the goal to determine whether or not Belgian FDI firms experienced more financial constraints than Belgian non-FDI firms and could be considered more financially healthy. Hence the results of my study will be most generalisable or trustworthy for firms in Belgium or close to the effects of the Belgian economy. The further the firms are located; the more caution is needed when solely rely on the results of my study to give an indication of the situation in that location.

In my study, I differentiated between Belgian daughter firms with a foreign mother, Belgian mother firms with foreign daughters, and Belgian non-FDI firms. I ran different regressions in which I compared the effects of Belgian daughter firms compared to Belgian non-FDI firms, and Belgian mother firms compared to non-FDI firms. Firstly, I tested my first hypothesis with regards to the presence of access to external funds. I found that Belgian daughter firms had significantly lower debt ratios when I did not include the fixed assets over total assets ratio, an indicator of available collateral, which can imply that they have significantly lower access long-term external debt. I also looked if there was a difference in the fixed assets ratio for Belgian daughter firms and Belgian non-FD firms. Belgian daughter firms had lesser fixed assets compared to their total assets which can indicate a lower presence of collateral. This follows the theories I had set out in the third chapter. This however was not true for Belgian mother firms with foreign daughters. Their access to long term debt did not seem to differ from that of Belgian non-FDI firms. There also did not appear to be a difference present between Belgian mother firms with daughters in the European Union, versus Belgian mother firms with daughters outside the European Union

Secondly, I found that Belgian daughter firms had significantly different access to short-term external funds when using the current solvency ratio. The Belgian daughter firms had significantly more short-term assets compared to their short-term debt than Belgian non-FDI firms. This was also true for Belgian mother firms when I did not control for outliers. Since the statistical significance changed drastically when adding outlier

control, I decided not to rely heavily on the significance of this effect without outlier control. Thus, I concluded that Belgian daughter firms have lesser external funds than Belgian non-FDI firms. I cannot conclude the same for Belgian mother firms with foreign daughters.

Then, I tested my second hypothesis with regards to the presence of internal funds. I was unable to prove that Belgian mother firms had more internal funds to their disposal than their Belgian non-FDI counterparts. However, I could prove that Belgian mother firms with daughters in the European Union, had higher cash flows than Belgian mother firms with daughters outside of the European Union. I was however, able to prove that Belgian daughter firms had more access to internally generated funds. As indicated by other research, I agreed that it is plausible that the lower debt ratios and higher presence of internally generated funds go hand in hand for these firms. The lack of access to external finance, will case the Belgian daughter firms to rely more on their internally generated funds.

Lastly, I focussed on the net added value that the employees of Belgian firms created. I found that personnel of Belgian FDI firms added more net value than their counterparts of Belgian non-FDI firms. This was true for the Belgian daughter firms and the Belgian mother firms.

I did make the nuance that it is possible that the research results were impacted by the COVID-19 health crisis since the data used came from 2020. Moreover, there are some assumptions related to the used regression estimation technique, Ordinary Least Squares. These assumptions have to be kept in mind.

With regards to possible policy implications, I concluded that lowering financial constraints might be just as important as productivity for international expansion. Even though there is a minimum amount of productivity needed for international expansion, financial constraints will hinder firms wanting to expand internationally in the next step of the internationalisation journey. I advised that assistance or guidelines might be useful when they are related to providing external finance for internationalisation purposes. I would further also advise follow-up research in the form of qualitative research, since that could provide additional insights in the why of financial constraints. Moreover, I would advise to focus some research on the banking sector as well with regards to this issue in order to gain insights from their points of view.

In conclusion, I can best answer my central research question as follows: Belgian daughter firms with a foreign mother firm, experience financial constraints in the form of having less access to long-term external funds than their Belgian non-FDI counterparts. This lack of access to long-term external funds is probably compensated by higher internally generated funds. Moreover, these Belgian daughter firms also had higher short-term assets compared to short-term liabilities than their Belgian non-FDI counterparts. These effects were not present for Belgian mother firms. This is given that the firm is a manufacturing firm that employees at least 11 employees, with financial data from 2020. The consulted scientific research also finds that FDI firms have less access to external and internal funds. The Belgian daughter firms can be considered more financially healthy since they have significantly lower debt ratios and significantly higher internally generated funds. They also have higher short-term assets compared to short-term liabilities.

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Appendix

Table 23: Variable definition

Variable	Definition	Form
FDI daughter	Independent variable that indicates whether a firm is a Belgian daughter of a foreign mother firm. It equals one when the firm is a Belgian daughter of a foreign mother firm. It equals zero when the firm is not part of an international group. Belgian FDI firms who have foreign daughters were excluded from this sample.	Dummy
FDI mother	Independent variable that indicates whether a firm is a Belgian mother of a foreign daughter firm. It equals one when the firm is a Belgian mother of a foreign daughter firm. It equals zero when the firm is not part of an international group. Belgian FDI firms who have foreign mothers were excluded from this sample.	Dummy
Europe	Independent variable that indicated whether a Belgian mother firm had a subsidiary in a country located in Europe. Subsidiaries had to be located in one of the following countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain or Sweden.	Dummy
Log employment	This variable represents the logarithm of the average number of employees a firm employed in 2020.	Continuous variable
Age	This variable represents the age of the firm on the 1st of April 2022. It is this date minus the date of incorporation.	Continuous variable
logPL2020	This variable represents the logarithm of the profit or loss the firm experienced in 2020.	Continuous variable
Sector 10	This variable represents a dummy that indicates whether the firm is active in sector 10 following the NACEBEL 2008 classification. Sector 10 stands for the manufacturing of food products.	Dummy
Sector 11	This variable represents a dummy that indicates whether the firm is active in sector 11 following the NACEBEL 2008 classification. Sector 11 stands for the manufacturing of beverages.	Dummy
Sector 12	This variable represents a dummy that indicates whether the firm is active in sector 12 following the NACEBEL 2008 classification. Sector 12 stands for the manufacturing of tobacco products.	Dummy
Sector 13	This variable represents a dummy that indicates whether the firm is active in sector 13 following the NACEBEL 2008 classification. Sector 13 stands for the manufacturing of textiles.	Dummy
Sector 14	This variable represents a dummy that indicates whether the firm is active in sector 14 following the NACEBEL 2008 classification. Sector 14 stands for the manufacturing of wearing apparel.	Dummy

Sector 15	This variable represents a dummy that indicates whether the firm is active in sector 15 following the NACEBEL 2008 classification. Sector 15 stands for the manufacturing of leather and related products.	Dummy
Sector 16	This variable represents a dummy that indicates whether the firm is active in sector 16 following the NACEBEL 2008 classification. Sector 16 stands for the manufacturing of wood and of products of wood and cork, except furniture; the manufacturing of articles of straw and plaiting materials.	Dummy
Sector 17	This variable represents a dummy that indicates whether the firm is active in sector 17 following the NACEBEL 2008 classification. Sector 17 stands for the manufacturing of paper and paper products.	Dummy
Sector 18	This variable represents a dummy that indicates whether the firm is active in sector 18 following the NACEBEL 2008 classification. Sector 18 stands for the printing and reproduction of recorded media.	Dummy
Sector 19	This variable represents a dummy that indicates whether the firm is active in sector 19 following the NACEBEL 2008 classification. Sector 19 stands for the manufacturing of coke and refined petroleum products.	Dummy
Sector 20	This variable represents a dummy that indicates whether the firm is active in sector 20 following the NACEBEL 2008 classification. Sector 20 stands for the manufacturing of chemicals and chemical products.	Dummy
Sector 21	This variable represents a dummy that indicates whether the firm is active in sector 21 following the NACEBEL 2008 classification. Sector 21 stands for the manufacturing of basic pharmaceutical products and pharmaceutical preparations.	Dummy
Sector 22	This variable represents a dummy that indicates whether the firm is active in sector 22 following the NACEBEL 2008 classification. Sector 22 stands for the manufacturing of rubber products.	Dummy
Sector 23	This variable represents a dummy that indicates whether the firm is active in sector 23 following the NACEBEL 2008 classification. Sector 23 stands for the manufacturing of other non-metallic mineral products.	Dummy
Sector 24	This variable represents a dummy that indicates whether the firm is active in sector 24 following the NACEBEL 2008 classification. Sector 24 stands for the manufacturing of basic metals	Dummy
Sector 25	This variable represents a dummy that indicates whether the firm is active in sector 25 following the NACEBEL 2008 classification. Sector 25 stands for the manufacturing of fabricated metal products, except machinery and equipment.	Dummy

Sector 26	This variable represents a dummy that indicates whether the firm is active in sector 26 following the NACEBEL 2008 classification. Sector 26 stands for the manufacturing of computer, electronic and optical products.	Dummy
Sector 27	This variable represents a dummy that indicates whether the firm is active in sector 27 following the NACEBEL 2008 classification. Sector 27 stands for the manufacturing of electrical equipment.	Dummy
Sector 28	This variable represents a dummy that indicates whether the firm is active in sector 28 following the NACEBEL 2008 classification. Sector 28 stands for the manufacturing of machinery and equipment n.e.c.	Dummy
Sector 29	This variable represents a dummy that indicates whether the firm is active in sector 29 following the NACEBEL 2008 classification. Sector 29 stands for the manufacturing of motor vehicles, trailers and semi-trailers.	Dummy
Sector 30	This variable represents a dummy that indicates whether the firm is active in sector 30 following the NACEBEL 2008 classification. Sector 30 stands for the manufacturing of other transport equipment.	Dummy
Sector 31	This variable represents a dummy that indicates whether the firm is active in sector 31 following the NACEBEL 2008 classification. Sector 31 stands for the manufacturing of furniture.	Dummy
Sector 32	This variable represents a dummy that indicates whether the firm is active in sector 32 following the NACEBEL 2008 classification. Sector 32 stands for other manufacturing.	Dummy
Europe	This variable represents a dummy that indicates whether the firm has a mother/daughter(s) outside of Europe.	Dummy
Log Cash flow	The variable is a dependent variable that is the logarithm of the cash flow of the firm of 2020.	Continuous variable
Debt ratio	This variable is a dependent variable that is the ratio of the liabilities of the firm of 2020 over the total liabilities of the firm of 2020.	Continuous variable
Current Solvency	This variable is a dependent variable that is the ratio of the short term/current assets of the firm of 2020 over the short term/current liabilities of the firm of 2020.	Continuous variable
Value added	This variable is a dependent variable that is the ratio of the ned added value of the firm of 2020 over the average number of employees the firm of 2020.	Continuous variable
Fixed assets ratio	This variable is a (in)dependent variable that is the ratio of the fixed assets of the firm of 2020 over the total assets of the firm of 2020.	Continuous variable
Financial Health 0.40	This variable represents a dummy that indicates whether the debt ratio of the firm is lower than 0.40.	Dummy

Financial Health 0.50	This variable represents a dummy that indicates whether the debt ratio of the firm is lower than 0.50.	Dummy
Financial Health 0.60	This variable represents a dummy that indicates whether the debt ratio of the firm is lower than 0.60.	Dummy

Table 24: Descriptive statistics for regression where the FDI firm is a daughter firm

	Count	Mean	SD	Min	Max
FDI	6 452	.6533	.4760	0	1
Log Employment	6 452	3.5121	.9928	2.3979	9.1749
Age	6 452	32.7205	19.1838	1.5359	158.2615
logPL2020	4 986	5.6388	1.9666	-5.5215	15.1478
Sector 10	6 434	.1602	.3669	0	1
Sector 11	6 434	.0137	.1162	0	1
Sector 12	6 434	.0019	.0431	0	1
Sector 13	6 434	.0354	.1849	0	1
Sector 14	6 434	.0137	.1162	0	1
Sector 15	6 434	.0019	.0431	0	1
Sector 16	6 434	.0496	.2171	0	1
Sector 17	6 434	.0216	.1459	0	1
Sector 18	6 434	.0365	.1876	0	1
Sector 19	6 434	.0019	.0431	0	1
Sector 20	6 434	.0527	.2234	0	1
Sector 21	6 434	.0157	.1243	0	1
Sector 22	6 434	.0561	.2301	0	1
Sector 23	6 434	.0626	.2423	0	1
Sector 24	6 434	.0256	.1581	0	1
Sector 25	6 434	.2098	.4072	0	1
Sector 26	6 434	.0361	.1865	0	1
Sector 27	6 434	.0371	.1891	0	1
Sector 28	6 434	.0421	.2009	0	1
Sector 29	6 434	.0264	.1604	0	1
Sector 30	6 434	.0089	.0937	0	1
Sector 31	6 434	.0448	.2068	0	1
Sector 32	6 434	.0169	.1291	0	1
Log Cash flow	5 629	-.0067	1.5922	-107.2897	6.1315
Debt ratio	6 451	.9201	.2000	.0184	3.0279
Current solvency	6 452	2.1751	3.2978	.0065	146.0308
Net value added	6 451	92.6356	118.9029	-1 179.7030	3 906.0000
Fixed asset ratio	6 405	.3242	.2327	.0000	.9988
Financial health 0.4	6 452	.0476	.2129	0	1
Financial health 0.5	6 452	.0728	.2596	0	1
Financial Health 0.6	6 452	.0984	.2980	0	1

Table 25: Descriptive statistics for regression where the FDI firm is a mother firm

	Count	Mean	SD	Min	Max
FDI	2 358	.0674	.2509	0	1
Log Employment	2 358	3.1972	.8631	2.3979	8.0226
Age	2 358	30.6815	19.0145	1.6920	1 582.6150
logPL2020	1 818	4.9762	1.8416	-5.5215	15.1478
Sector 10	2 358	.1849	.3883	0	1
Sector 11	2 358	.0119	.1083	0	1
Sector 12	2 358	.0008	.0291	0	1
Sector 13	2 358	.0318	.1755	0	1
Sector 14	2 358	.0204	.1412	0	1
Sector 15	2 358	.0042	.0650	0	1
Sector 16	2 358	.0674	.2508	0	1
Sector 17	2 358	.0165	.1276	0	1
Sector 18	2 358	.0382	.1916	0	1
Sector 19	2 358	.0004	.0206	0	1
Sector 20	2 358	.0267	.1613	0	1
Sector 21	2 358	.0102	.1004	0	1
Sector 22	2 358	.0458	.2091	0	1
Sector 23	2 358	.0564	.2307	0	1
Sector 24	2 358	.0199	.1398	0	1
Sector 25	2 358	.2214	.4153	0	1
Sector 26	2 358	.0284	.1662	0	1
Sector 27	2 358	.0327	.1778	0	1
Sector 28	2 358	.0386	.1927	0	1
Sector 29	2 358	.0216	.1455	0	1
Sector 30	2 358	.0093	.0962	0	1
Sector 31	2 358	.0602	.2379	0	1
Sector 32	2 358	.0208	.1427	0	1
Log Cash flow	2 087	5.7689	1.4958	-.3243	15.1487
Debt ratio	2 227	.6419	.4114	.0085	10.5104
Current solvency	2 358	2.2012	3.3232	.0076	94.5225
Net value added	2 358	74.2789	69.3681	-127.3324	1 400.1650
Fixed asset ratio	2 335	.3484	.2320	.0001	.9988
Financial health 0.4	2 358	.2040	.4030	0	1
Financial health 0.5	2 358	.3113	.4631	0	1
Financial Health 0.6	2 358	.4275	.4948	0	1

Table 26: Correlation table for FDI daughter firms

	FDI	Log Employment	Age	Log PL2020	Log Cash flow	Debt ratio	Current solvency	Value added	Fixed assets ratio
FDI	1.0000								
Log Employment	0.2382 (0.0000)	1.0000							
Age	0.0884 (0.0000)	0.2579 (0.0000)	1.0000						
Log PL2020	0.2510 (0.0000)	0.5480 (0.0000)	0.1966 (0.0000)	1.0000					
Log Cash flow	0.2854 (0.0000)	0.6739 (0.0000)	0.2037 (0.0000)	0.8794 (0.0000)	1.0000				
Debt ratio	-0.1722 (0.0000)	-0.5512 (0.0000)	-0.1820 (0.0000)	-0.4997 (0.0000)	-0.5638 (0.0000)	1.0000			
Current Solvency	0.0072 (0.0000)	-0.0429 (0.0000)	0.0934 (0.0000)	0.1181 (0.0000)	0.0727 (0.0000)	-0.0799 (0.0000)	1.0000		
Value added	0.1149 (0.0000)	0.1269 (0.0000)	0.0611 (0.0000)	0.3868 (0.0000)	0.4651 (0.0000)	-0.2642 (0.0000)	0.1317 (0.0000)	1.0000	
Fixed assets ratio	-0.0726 (0.0000)	0.1040 (0.0000)	-0.0518 (0.0000)	0.0426 (0.0027)	0.1782 (0.0000)	-0.0414 (0.0000)	-0.1850 (0.0000)	-0.0003 (0.9798)	1.0000
Financial Health 0.40	0.1078 (0.0000)	0.3081 (0.0000)	0.1328 (0.0000)	0.3230 (0.0000)	0.3531 (0.0000)	-0.7431 (0.0000)	0.1330 (0.0000)	0.1964 (0.0000)	0.0202 (0.1060)
Financial Health 0.50	0.1287 (0.0000)	0.3831 (0.0000)	0.1501 (0.0000)	0.3739 (0.0000)	0.4097 (0.0000)	-0.8339 (0.0000)	0.0969 (0.0000)	0.2024 (0.0000)	0.0243 (0.0513)
Financial Health 0.60	0.1456 (0.0000)	0.4553 (0.0000)	0.1593 (0.0000)	0.4302 (0.0000)	0.4724 (0.0000)	-0.8859 (0.0000)	0.0681 (0.0000)	0.2130 (0.0000)	0.0365 (0.0035)

Table 27: Correlation table for FDI mother firms

	FDI	Log Employment	Age	Log PL2020	Log Cash flow	Debt ratio	Current solvency	Value added	Fixed assets ratio
FDI	1.0000								
Log Employment	0.0489								
	(0.0179)	1.0000							
Age	0.0615	0.3149							
	(0.0028)	(0.0000)	1.0000						
Log PL2020	0.0522	0.4361	0.1904						
	(0.0259)	(0.0000)	(0.0000)	1.0000					
Log Cash flow	0.0529	0.5837	0.2262	0.8603					
	(0.0156)	(0.0000)	(0.0000)	(0.0000)	1.0000				
Debt ratio	-0.0334	-0.0754	-0.2110	-0.2462	-0.2333				
	(0.1152)	(0.0004)	(0.0000)	(0.0000)	(0.0000)	1.0000			
Current Solvency	0.0631	-0.0230	0.1302	0.1486	0.1120	-0.3373			
	(0.0022)	(0.2635)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	1.0000		
Value added	0.0444	0.0962	0.0696	0.5151	0.5186	-0.1887	0.1135		
	(0.0310)	(0.0000)	(0.0007)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	1.0000	
Fixed assets ratio	0.0248	0.1105	-0.0488	0.0475	0.1803	0.1129	-0.1930	0.0041	
	(0.2319)	(0.0000)	(0.0183)	(0.0440)	(0.0000)	(0.0000)	(0.0000)	(0.8429)	1.0000
Financial Health 0.40	-0.0018	-0.0009	0.1891	0.1449	0.0988	-0.5056	0.4408	0.0718	-0.1582
	(0.9296)	(0.9669)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0005)	(0.0000)
Financial Health 0.50	0.0018	-0.0315	0.1850	0.1650	0.0963	-0.5555	0.3841	0.0821	-0.2015
	(0.9285)	(0.1267)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0001)	(0.0000)
Financial Health 0.60	0.0035	-0.0602	0.1868	0.1541	0.0777	-0.5788	0.3265	0.0644	-0.1999
	(0.8642)	(0.0035)	(0.0000)	(0.0000)	(0.0004)	(0.0000)	(0.0000)	(0.0017)	(0.0000)

Table 28: Complete regression results for the debt ratio for FDI daughter firms.

	Non-robust regression estimation				Robust regression estimation			
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 1	Stage 2	Stage 3	Stage 4
Constant	1.3148***	1.3997***	1.3819***	1.3778***	1.3148***	1.3997***	1.3819***	1.3778***
	(.0077)	(.0092)	(.0103)	(.0107)	(.0088)	(.0104)	(.0115)	(.0119)
FDI	-.0183***	-.0080	-.0076	-.0062	-.0183***	-.0080*	-.0076*	-.0062
	(.0045)	(.0051)	(.0051)	(.0052)	(.0038)	(.0043)	(.0043)	(.0043)
LogEmploy	-.1090***	-.0900***	-.0873***	-.0885***	-.1090***	-.0900***	-.0873***	-.0885***
	(.0022)	(.0029)	(.0029)	(.0029)	(.0029)	(.0037)	(.0036)	(.0036)
Age		-.0005***	-.0005***	-.0005***		-.0005***	-.0005***	-.0005***
		(.0001)	(.0001)	(.0001)		(.0002)	(.0002)	(.0002)
logPL2020		-.0273***	-.0257***	-.0259***		-.0273***	-.0257***	-.0259***
		(.0014)	(.0014)	(.0015)		(.0016)	(.0016)	(.0016)
Sector 10			-.0378***	-.0416***			-.0378***	-.0416***
			(.0077)	(.0079)			(.0083)	(.0087)
Sector 11			.0172	.0127			.0172	.0127
			(.0217)	(.0218)			(.0265)	(.0264)
Sector 12			-.4353***	-.4355***			-.4353***	-.4355***
			(.0516)	(.0517)			(.0805)	(.0808)
Sector 13			.0048	.0049			.0048	.0049
			(.0131)	(.0131)			(.0135)	(.0136)
Sector 14			-.0038	-.0034			-.0038	-.0034
			(.0219)	(.0223)			(.0217)	(.0225)
Sector 15			.0296	.0272			.0296	.0272
			(.0576)	(.0578)			(.0349)	(.0361)
Sector 16			.0131	.0118			.0131	.0118
			(.0109)	(.0110)			(.0090)	(.0091)
Sector 17			-.0116	-.0144			-.0116	-.0144
			(.0164)	(.0165)			(.0199)	(.0199)
Sector 18			.0408***	.0391***			.0408**	.0391**
			(.0141)	(.0142)			(.0174)	(.0175)
Sector 19			-.1640***	-.1635***			-.1640*	-.1635*
			(.0545)	(.0546)			(.0932)	(.0936)
Sector 20			-.0432***	-.0451***			-.0432***	-.0451***
			(.0108)	(.0108)			(.0136)	(.0136)
Sector 21			-.0170	-.0178			-.0170	-.0178

			(.0202)	(.0202)			(.0293)	(.0292)
Sector 22			.0025	.0012			.0025	.0012
			(.0104)	(.0104)			(.0110)	(.0110)
Sector 23			.0202**	.0189*			.0202**	.0189**
			(.0103)	(.0104)			(.0088)	(.0089)
Sector 24			-.0381**	-.0370**			-.0381**	-.0370*
			(.0156)	(.0157)			(.0192)	(.0195)
Sector 25			.0215***	.0215***			.0216***	.0215***
			(.0068)	(.0068)			(.0058)	(.0058)
Sector 26			.0242*	.0248*			.0242*	.0248*
			(.0128)	(.0128)			(.0132)	(.0133)
Sector 27			-.0014	.0002			-.0014	.0002
			(.0127)	(.0127)			(.0130)	(.0131)
Sector 28			.0263**	.0272*			.0263***	.0272***
			(.0116)	(.0117)			(.0100)	(.0101)
Sector 29			.0025	.0040			.0024	.0040
			(.0146)	(.0147)			(.0145)	(.0145)
Sector 30			-.0009	.0052			-.0009	.0052
			(.0285)	(.0290)			(.0297)	(.0301)
Sector 31			.0186	.0174			.0186**	.0174*
			(.0119)	(.0119)			(.0090)	(.0091)
Sector 32			.0033	.0005			.0033	.0005
			(.0184)	(.0185)			(.0165)	(.0165)
Fixed assets/total assets				.0277**				.0277**
				(.0107)				(.0116)
Number of observations	6 451	4 985	4 976	4 938	6 451	4 985	4 976	4 938
R2	0.3056	0.3839	0.4080	0.4094	0.3056	0.3839	0.4080	0.4094

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *.

Table 29: Complete regression results for the debt ratio for FDI mother firms.

	Non-robust regression estimation				Robust regression estimation			
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 1	Stage 2	Stage 3	Stage 4
c	.7776***	.8566***	.8626***	.8219***	.7776***	.8566***	.8626***	.8219***
	(.0389)	(.0416)	(.0450)	(.0459)	(.0311)	(.0365)	(.0355)	(.0365)
FDI	-.0512	-.0115	-.0092	-.0124	-.0512**	-.0115	-.0092	-.0124
	(.0362)	(.0367)	(.0370)	(.0369)	(.0253)	(.0221)	(.0224)	(.0223)
LogEmploy	-.0429***	.0340**	.0342**	.0332**	-.0429***	.0340***	.0342***	.0332***
	(.0123)	(.0137)	(.0138)	(.0138)	(.0090)	(.0100)	(.0100)	(.0101)
Age		-.0039***	-.0037***	-.0036***		-.0039***	-.0037***	-.0036***
		(.0005)	(.0005)	(.0005)		(.0004)	(.0004)	(.0004)
logPL2020		-.0514***	-.0507***	-.0521***		-.0514***	-.0507***	-.0521***
		(.0053)	(.0054)	(.0054)		(.0057)	(.0056)	(.0057)
Sector 10			.0406	.0154			.0406	.0154
			(.0275)	(.0285)			(.0249)	(.0272)
Sector 11			.0589	.0350			.0589	.0350
			(.0815)	(.0815)			(.0404)	(.0379)
Sector 12								
Sector 13			-.0939	-.0916			-.0939**	-.0916*
			(.0601)	(.0605)			(.0451)	(.0468)
Sector 14			.0027	.0143			.0027	.0143
			(.0488)	(.0491)			(.0345)	(.0347)
Sector 15			-.0002	-.0059			-.0002	-.0059
			(.1192)	(.1186)			(.1200)	(.1179)
Sector 16			-.0464	-.0484			-.0464**	-.0484**
			(.0351)	(.0350)			(.0235)	(.0235)
Sector 17			-.0096	-.0230			-.0096	-.0230
			(.0725)	(.0723)			(.0468)	(.0463)
Sector 18			-.0679	-.0736			-.0679**	-.0736**
			(.0508)	(.0506)			(.0337)	(.0322)
Sector 19								
Sector 20			-.0252	-.0215			-.0252	-.0215
			(.0578)	(.0575)			(.0367)	(.0349)
Sector 21			-.0339	-.0305			-.0339	-.0305
			(.1146)	(.1140)			(.0996)	(.0916)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Sector 22			-.0348	-.0387			-.0348	-.0387
			(.0431)	(.0432)			(.0274)	(.0267)
Sector 23			-.0522	-.0507			-.0522*	-.0507*
			(.0397)	(.0398)			(.0285)	(.0278)
Sector 24			-.0135	-.0060			-.0135	-.0060
			(.0694)	(.0704)			(.0533)	(.0538)
Sector 25			-.0212	-.0118			-.0212	-.0118
			(.0244)	(.0245)			(.0270)	(.0273)
Sector 26			-.0369	-.0316			-.0369	-.0316
			(.0536)	(.0534)			(.0333)	(.0335)
Sector 27			-.0974*	-.0861*			-.0974***	-.0861***
			(.0497)	(.0499)			(.0292)	(.0289)
Sector 28			-.0162	-.0117			-.0162	-.0117
			(.0427)	(.0428)			(.0274)	(.0276)
Sector 29			-.0449	-.0367			-.0449	-.0367
			(.0647)	(.0645)			(.0418)	(.0420)
Sector 30			.0287	.0350			.0287	.0350
			(.1032)	(.1027)			(.0590)	(.0562)
Sector 31			-.0259	-.0265			-.0259	-.0265
			(.0384)	(.0383)			(.0247)	(.0246)
Sector 32			.0080	.0015			.0080	.0015
			(.0598)	(.0595)			(.0401)	(.0405)
Fixed assets/total assets				.1499***				.1499***
				(.0409)				(.0347)
Number of observations	2 227	1 715	1 715	1 715	2 227	1 715	1 715	1 715
R2	0.0066	0.0933	0.1041	0.1124	0.0066	0.0933	0.1041	0.1124

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *.

Table 30: Complete regression results for the current solvency ratio for FDI daughter firms

	Non-robust regression estimation						Robust regression estimation					
	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
Constant	2.6435***	1.9816***	2.0700***	2.9991***	3.0732***	2.9189***	2.6435***	1.9816***	2.0700***	2.9991***	3.0732***	2.9189***
	(.1525)	(.1565)	(.1773)	(.1878)	(.1841)	(.1928)	(.1537)	(.1279)	(.1596)	(.1534)	(.1523)	(.1572)
FDI	.1277	-.0721	-.0877	-.1923**	-.1909**	-.1903**	.1277	-.0721	-.0877	-.1923**	-.1909**	-.1903**
	(.0887)	(.0871)	(.0875)	(.0865)	(.0860)	(.0868)	(.0888)	(.0885)	(.0886)	(.0879)	(.0875)	(.0881)
LogEmploy	-.1571***	-.5125***	-.5078***	-.5171***	-.5181***	-.5030***	-.1571***	-.5125***	-.5078***	-.5171***	-.5181***	-.5030***
	(.0425)	(.0494)	(.0497)	(.0507)	(.0497)	(.0518)	(.0435)	(.0621)	(.0610)	(.0598)	(.0595)	(.0602)
Age		.0158***	.0150***	.0119***	.0114***	.0121***		.0158***	.0150***	.0119***	.0114***	.0121***
		(.0022)	(.0022)	(.0022)	(.0022)	(.0022)		(.0023)	(.0024)	(.0023)	(.0023)	(.0023)
logPL2020		.2876***	.2823***	.2513***	.2426***	.2584***		.2876***	.2823***	.2513***	.2426***	.2584***
		(.0244)	(.0247)	(.0248)	(.0246)	(.0250)		(.0319)	(.0318)	(.0312)	(.0307)	(.0316)
Sector 10			-.4441***	-.1493	-.1699	-.1343			-.4441***	-.1493	-.1699	-.1343
			(.1320)	(.1324)	(.1316)	(.1328)			(.1211)	(.1234)	(.1228)	(.1237)
Sector 11			-.6249*	-.2192	-.2097	-.2003			-.6249***	-.2192	-.2097	-.2003
			(.3726)	(.3663)	(.3643)	(.3674)			(.2063)	(.1888)	(.1800)	(.1928)
Sector 12			2.6862***	2.0360**	1.4459*	2.3569***			2.6862	2.0360	1.4459	2.3569
			(.8860)	(.8732)	(.8722)	(.8741)			(1.7163)	(1.6501)	(1.6290)	(1.6657)
Sector 13			.0026	-.0142	-.0464	-.0047			.0026	-.0142	-.0464	-.0047
			(.2240)	(.2202)	(.2190)	(.2208)			(.1704)	(.1684)	(.1697)	(.1682)
Sector 14			.5470	.4963	.4368	.5176			.5470*	.4963	.4369	.5176
			(.3752)	(.3738)	(.3718)	(.3749)			(.3033)	(.3171)	(.3204)	(.3163)
Sector 15			.5889	.8329	.8254	.8351			.5889	.8329	.8254	.8351
			(.9892)	(.9689)	(.9637)	(.9718)			(.6179)	(.5746)	(.5785)	(.5685)
Sector 16			.1815	.2824	.2740	.2730			.1815	.2824	.2740	.2730
			(.1866)	(.1838)	(.1828)	(.1844)			(.2283)	(.2272)	(.2253)	(.2276)
Sector 17			.2575	.4812*	.4531	.5091*			.2575	.4812	.4531	.5091
			(.2815)	(.2765)	(.2750)	(.2773)			(.3444)	(.3266)	(.3246)	(.3279)
Sector 18			-.0822	.0670	.0697	.0644			-.0823	.0670	.0697	.0644
			(.2423)	(.2376)	(.2364)	(.2384)			(.1814)	(.1747)	(.1739)	(.1746)
Sector 19			-.0910	-.3138	-.6968	-.2184			-.0910	-.3138	-.6968	-.2184
			(.9348)	(.9161)	(.9127)	(.9188)			(.7153)	(.6217)	(.5813)	(.6828)
Sector 20			-.0510	.0612	.0500	.0916			-.0510	.0612	.0500	.0916
			(.1847)	(.1817)	(.1807)	(.1822)			(.1927)	(.1891)	(.1870)	(.1893)

Sector 21			-.1304	-.0224	-.0995	-.0254			-.1304	-.0224	-.0995	-.0254
			(.3458)	(.3389)	(.3371)	(.3399)			(.3314)	(.3117)	(.3073)	(.3153)
Sector 22			.3857**	.4670***	.4376**	.4667***			.3857**	.4670*	.4376**	.4667**
			(.1776)	(.1744)	(.1735)	(.1749)			(.1967)	(.1924)	(.1927)	(.1929)
Sector 23			-.1800	.0165	.0118	.0036			-.1800	.0165	.0118	.0036
			(.1763)	(.1741)	(.1731)	(.1746)			(.1409)	(.1388)	(.1384)	(.1386)
Sector 24			.2989	.1686	.1883	.2320			.2989	.1686	.1883	.2320
			(.2679)	(.2640)	(.2623)	(.2647)			(.2725)	(.2728)	(.2717)	(.2705)
Sector 25			-.1417	-.1105	-.1258	-.1123			-.1417	-.1105	-.1258	-.1123
			(.1161)	(.1143)	(.1137)	(.1147)			(.1130)	(.1131)	(.1129)	(.1133)
Sector 26			.3910*	.3671*	.3310	.3547			.3910	.3671	.3310	.3547
			(.2197)	(.2154)	(.2142)	(.2160)			(.2739)	(.2694)	(.2653)	(.2710)
Sector 27			-.0982	-.2116	-.2388	-.2141			-.0982	-.2116	-.2388*	-.2141
			(.2173)	(.2136)	(.2125)	(.2142)			(.1444)	(.1401)	(.1407)	(.1418)
Sector 28			-.0290	-.0822	-.0762	-.0758			-.0290	-.0822	-.0762	-.0758
			(.1994)	(.1962)	(.1951)	(.1968)			(.2018)	(.2012)	(.2000)	(.2014)
Sector 29			-.0859	-.1986	-.1844	-.2072			-.0859	-.1986	-.1844	-.2072
			(.2507)	(.2458)	(.2445)	(.2466)			(.1609)	(.1563)	(.1546)	(.1576)
Sector 30			1.1994**	1.0560**	1.0820**	1.0677**			1.1994	1.0560	1.0820	1.0678
			(.4892)	(.4868)	(.4842)	(.4882)			(1.3114)	(1.3428)	(1.3442)	(1.3418)
Sector 31			.2813	.3621*	.3402*	.3628*			.2813	.3621	.3402	.3628
			(.2038)	(.2002)	(.1991)	(.2008)			(.2403)	(.2381)	(.2379)	(.2384)
Sector 32			.0855	.1955	.1786	.1612			.0855	.1955	.1786	.1612
			(.3152)	(.3106)	(.3090)	(.3116)			(.3420)	(.3291)	(.3212)	(.3333)
Fixed assets/total assets				-2.3800***	-2.3809***	-2.3949***				-2.3800***	-2.3809***	-2.3949***
				(.1798)	(.1788)	(.1804)				(.1752)	(.1744)	(.1759)
Financial health <0.40				1.1355***						1.1355***		
				(.1577)						(.1767)		
Financial health <0.50					1.8903***						1.8903***	
					(.1842)						(.2414)	
Financial health <0.60						.6863***						.6863***
						(.1459)						(.1476)
Number of observations	6 452	4 986	4 976	4 938	4 938	4 938	6 452	4 986	4 976	4 938	4 938	4 938
R2	0.0022	0.0409	0.0526	0.0961	0.1057	0.0906	0.0022	0.0409	0.0526	0.0961	0.1057	0.0906

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *.

Table 31: Complete regression results for the current solvency ratio for FDI mother firms

	Non-robust regression estimation						Robust regression estimation					
	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
Constant	2.4660***	1.5337***	1.3997***	1.4217***	1.2240***	1.1172***	2.4660***	1.5337***	1.3997***	1.4217***	1.2240***	1.1172***
	(.2622)	(.3336)	(.3715)	(.3527)	(.3649)	(.3766)	(.2431)	(.2403)	(.2367)	(.2308)	(.2291)	(.2268)
FDI	.8534***	.8041**	.7657**	.9440***	.8527***	.8409***	.8534	.8041***	.7657	.9440	.8527	.8409
	(.2727)	(.3281)	(.3293)	(.3036)	(.3117)	(.3177)	(.6574)	(.8338)	(.8355)	(.8190)	(.8246)	(.8314)
LogEmploy	-.1008	-.5690***	-.5827***	-.3291***	-.2955***	-.3106***	-.1008	-.5690***	-.5827***	-.3291**	-.2955*	-.3106*
	(.0793)	(.1114)	(.1123)	(.1051)	(.1087)	(.1114)	(.0713)	(.1677)	(.1679)	(.1485)	(.1534)	(.1616)
Age		.0292***	.0266***	.0102**	.0136***	.0153***		.0292***	.0266***	.0102	.0136*	.0153**
		(.0046)	(.0046)	(.0044)	(.0045)	(.0046)		(.0071)	(.0074)	(.0066)	(.0070)	(.0074)
logPL2020		.3326***	.3285***	.2177***	.2164***	.2421***		.3326***	.3285***	.2177***	.2164***	.2421***
		(.0484)	(.0493)	(.0464)	(.0480)	(.0489)		(.0624)	(.0629)	(.0527)	(.0565)	(.0603)
Sector 10			-.1845	.2580	.2175	.2612			-.1845	.2580	.2175	.2612
			(.2554)	(.2444)	(.2511)	(.2558)			(.2270)	(.2071)	(.2097)	(.2154)
Sector 11			-.7906	-.0108	-.31570	-.2515			-.7906***	-.0108	-.3157	-.2515
			(.7635)	(.7069)	(.7259)	(.7398)			(.2990)	(.2030)	(.2897)	(.27599)
Sector 12			1.0694	1.9001	1.7437	1.7208			1.0694***	1.9001***	1.7437***	1.7208***
			(3.4037)	(3136)	(3.2210)	(3.2826)			(.2755)	(.3066)	(.2909)	(.2852)
Sector 13			.7420	.3561	.5642	.5116			.7450*	.3561	.5642*	.5116
			(.5682)	(.5305)	(.5446)	(.5553)			(.3880)	(.2706)	(.2971)	(.3579)
Sector 14			-.1172	.0548	-.1607	-.1307			-.1172	.0548	-.1607	-.1307
			(.4478)	(.4164)	(.4276)	(.4357)			(.2217)	(.1672)	(.1866)	(.1979)
Sector 15			.6066	.4675	.4964	.5972			.6066	.4675	.4964	.5972
			(1.1434)	(1.0537)	(1.0824)	(1.1029)			(.5683)	(.4450)	(.5058)	(.4591)
Sector 16			.3405	.2901	.2789	.3419			.3405	.2901	.2789	.3419
			(.3284)	(.3031)	(.3114)	(.3173)			(.2908)	(.2715)	(.2783)	(.2821)
Sector 17			1.1686*	1.3358**	1.3092**	1.4888**			1.1686	1.3358**	1.3092*	1.4888**
			(.6594)	(.6084)	(.6250)	(.6370)			(.7970)	(.7276)	(.7412)	(.7467)
Sector 18			.5268	.2799	.4818	.4929			.5268	.2799	.4818*	.4929*
			(.4786)	(.4421)	(.4537)	(.4625)			(.3590)	(.2492)	(.2707)	(.2990)
Sector 19												
Sector 20			-.1656	-.2306	-.1700	-.1099			-.1656	-.2306	-.1700	-.1099
			(.5060)	(.4664)	(.4791)	(.4882)			(.3175)	(.2663)	(.2702)	(.2775)
Sector 21			2.2725**	2.3798***	2.3061***	2.5140***			2.2725	2.3798	2.3061	2.5140
			(.8809)	(.81170)	(.8338)	(.8498)			(2.1792)	(1.9067)	(2.0000)	(2.0275)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Sector 22			1.6175***	1.8152***	1.7337***	1.6446***			1.6175	1.8152	1.7337	1.6446
			(.3992)	(.3700)	(.3800)	(.3873)			(1.2177)	(1.1868)	(1.2039)	(1.2155)
Sector 23			.2829	.2115	.1405	.2342			.2829	.2115	.1405	.2342
			(.3716)	(.3448)	(.3545)	(.3610)			(.2605)	(.2082)	(.2233)	(.2314)
Sector 24			.4844	.6243	.5894	.5377			.4844	.6243	.5894	.5377
			(.6340)	(.5943)	(.6105)	(.6220)			(.7496)	(.6098)	(.6714)	(.7091)
Sector 25			.4794**	.4318**	.3523	.3532			.4794	.4318	.3523	.3532
			(.2299)	(.2137)	(.2196)	(.2239)			(.3480)	(.3345)	(.3364)	(.3429)
Sector 26			-.2822	-.1804	-.3285	-.4149			-.2822	-.1804	-.3285*	-.4149**
			(.4917)	(.4532)	(.4656)	(.4747)			(.2276)	(.2092)	(.1957)	(.1943)
Sector 27			.4674	.0721	-.0732	.0244			.4674**	.0721	-.0732	.0244
			(.4686)	(.4360)	(.4486)	(.4571)			(.2331)	(.2045)	(.2074)	(.2213)
Sector 28			-.1178	-.0795	-.1932	-.1637			-.1178	-.0795	-.1932	-.1637
			(.4086)	(.3788)	(.3891)	(.3965)			(.2138)	(.1606)	(.1752)	(.1845)
Sector 29			-.0089	-.1063	-.2238	-.1564			-.0089	-.1063	-.2238	-.1564
			(.5955)	(.5487)	(.5638)	(.5745)			(.2582)	(.2156)	(.1973)	(.2045)
Sector 30			.6738	1.0043	.6225	.6990			.6738	1.0043	.6225	.6990
			(.9517)	(.8772)	(.9007)	(.9180)			(1.0575)	(.8797)	(.9856)	(1.0140)
Sector 31			.4403	.5227	.3929	.4157			.4403	.5227**	.3929	.4157
			(.3664)	(.3380)	(.3473)	(.3539)			(.3010)	(.2597)	(.2745)	(.2832)
Sector 32			-.1406	-.0649	.0669	.0540			-.1406	-.0649	.0669	.0541
			(.5658)	(.5217)	(.5360)	(.5462)			(.3092)	(.2279)	(.2438)	(.2728)
Fixed assets/total assets				-1.6843***	-1.7141***	-1.9003***				-1.6843***	-1.714***	-1.9003***
				(.3527)	(.3636)	(.3703)				(.2642)	(.2665)	(.2681)
Financial health <0.40				3.1250***						3.1250***		
				(.1868)						(.2862)		
Financial health <0.50					2.2354***						2.2354***	
					(.1703)						(.1780)	
Financial health <0.60						1.6625***						1.6625***
						(.1659)						(.1321)
Number of observations	2 358	1 818	1 818	1 800	1 800	1,800	2 358	1 818	1 818	1 800	1 800	1 800
R2	0.0047	0.0538	0.0753	0.2215	0.1785	0.1469	0.0047	0.0538	0.0753	0.2215	0.1785	0.1469

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *.

Table 32: Complete regression results for the logarithm of cash flow of FDI daughter firms

	Non-robust regression estimation						Robust regression estimation					
	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
Constant	2.4066***	1.5841***	1.5633***	1.4333***	1.4155***	1.4644***	2.4066***	1.5841***	1.5633***	1.4333***	1.4155***	1.4644***
	(.0587)	(.0341)	(.0378)	(.0376)	(.0371)	(.0384)	(.0635)	(.0414)	(.0459)	(.0465)	(.0454)	(.0483)
FDI	.4135***	.1252***	.1209***	.1648***	.1655***	.1645***	.4135***	.1252***	.1209***	.1648***	.1655***	.1645***
	(.0342)	(.0190)	(.0187)	(.0173)	(.0173)	(.0173)	(.0350)	(.0202)	(.0198)	(.0187)	(.0187)	(.0187)
LogEmploy	1.0532***	.4905***	.4844***	.4303***	.4359***	.4226***	1.0532***	.4905***	.4844***	.4302***	.4359***	.4226***
	(.0165)	(.0108)	(.0106)	(.0102)	(.0100)	(.0103)	(.0186)	(.0137)	(.0134)	(.0129)	(.0128)	(.0128)
Age		.0009*	.0007	.0017***	.0017***	.0017***		.0009*	.0007	.0017***	.0017***	.0017***
		(.0005)	(.0005)	(.0004)	(.0004)	(.0004)		(.0005)	(.0005)	(.0004)	(.0004)	(.0004)
logPL2020		.5509***	.5420***	.5367***	.5376***	.5340***		.5509***	.5420***	.5367***	.5376***	.5346***
		(.0053)	(.0053)	(.0050)	(.0050)	(.0050)		(.0107)	(.0107)	(.0105)	(.0104)	(.0105)
Sector 10			.1990***	.0402	.0409	.0381			.1990***	.0402	.0409	.0381
			(.0281)	(.0265)	(.0265)	(.0265)			(.0290)	(.0284)	(.0285)	(.0284)
Sector 11			.6930***	.5168***	.5183***	.5228***			.6930***	.5168***	.5183***	.5228***
			(.0789)	(.0731)	(.0731)	(.0730)			(.0929)	(.0858)	(.0850)	(.0859)
Sector 12			.4751**	.3056*	.2733	.3161*			.4751***	.3056*	.2733	.3161*
			(.1876)	(.1742)	(.1751)	(.1736)			(.1800)	(.1729)	(.1743)	(.1714)
Sector 13			-.0047	-.0109	-.0147	-.0088			-.0047	-.0109	-.0147	-.0088
			(.0476)	(.0439)	(.0440)	(.0439)			(.0446)	(.0419)	(.0420)	(.0420)
Sector 14			-.0827	-.0484	-.0552	-.0437			-.0827	-.0484	-.0552	-.0437
			(.0808)	(.0752)	(.0753)	(.0751)			(.0737)	(.0665)	(.0667)	(.0664)
Sector 15			.0962	.0062	.0039	.0098			.0962	.0062	.0039	.0098
			(.2095)	(.1933)	(.1934)	(.1930)			(.1209)	(.1363)	(.1354)	(.1375)
Sector 16			.02938	.0079	.0057	.0069			.0294	.0079	.0057	.0069
			(.0397)	(.0368)	(.0368)	(.0367)			(.0341)	(.0306)	(.0307)	(.0304)
Sector 17			.1520**	.0380	.0368	.0421			.1520***	.0380	.0368	.0421
			(.0599)	(.0554)	(.0555)	(.0553)			(.0518)	(.0497)	(.0493)	(.0496)
Sector 18			.1438***	.0865*	.0858*	.0878*			.1438**	.0865**	.0858	.0878
			(.0515)	(.0476)	(.0476)	(.0475)			(.0645)	(.0590)	(.0588)	(.0588)
Sector 19			.5872***	.5228***	.4880***	.5201***			.5872**	.5228**	.4880**	.5201**
			(.1979)	(.1828)	(.1832)	(.1825)			(.2539)	(.2197)	(.2205)	(.2202)
Sector 20			.3372***	.2448***	.2478***	.2456***			.3372***	.2448***	.2478***	.2456***
			(.0391)	(.0363)	(.0363)	(.0362)			(.0383)	(.0352)	(.0354)	(.0354)

Sector 21			.1715**	.1144*	.1044	.1122*			.1715***	.1144*	.1044	.1122*
			(.0738)	(.0681)	(.0681)	(.0680)			(.0716)	(.0655)	(.0652)	(.0666)
Sector 22			.1361***	.1021***	.0981***	.1021***			.1361***	.1021***	.0981***	.1021***
			(.0377)	(.0348)	(.0348)	(.0348)			(.0370)	(.0340)	(.0340)	(.0339)
Sector 23			.2966***	.2190***	.2169***	.2176***			.2966***	.2190***	.2169***	.2176***
			(.0376)	(.0348)	(.0348)	(.0347)			(.0395)	(.0355)	(.0354)	(.0355)
Sector 24			.0093	-.0014	.0087	.0045			.0093	-.0014	.0087	.0045
			(.0570)	(.0527)	(.0527)	(.0526)			(.0494)	(.0440)	(.0431)	(.0439)
Sector 25			.0180	.0067	.0033	.0091			.0180	.0067	.0033	.0091
			(.0248)	(.0229)	(.0229)	(.0228)			(.0245)	(.0224)	(.0224)	(.0224)
Sector 26			.0872*	.1155***	.1085**	.1158***			.0872*	.1155***	.1085**	.1158***
			(.0466)	(.0430)	(.0430)	(.0429)			(.0455)	(.0425)	(.0422)	(.0425)
Sector 27			-.1473***	-.0988**	-.1029**	-.0989**			-.1473***	-.0988**	-.1029***	-.0989**
			(.0463)	(.0427)	(.0427)	(.0427)			(.0425)	(.0389)	(.0393)	(.0390)
Sector 28			.0316	.0571	.0567	.0617			.0316	.0571*	.0567*	.0617*
			(.0424)	(.0392)	(.0392)	(.0391)			(.0369)	(.0337)	(.0337)	(.0336)
Sector 29			-.0908*	-.0277	-.0275	-.0270			-.0908**	-.0277	-.0275	-.0270
			(.0531)	(.0491)	(.0491)	(.0490)			(.0453)	(.0416)	(.0413)	(.0415)
Sector 30			.1821*	.2333**	.2380**	.2348**			.1821	.2333**	.2380**	.2348**
			(.1052)	(.0971)	(.0972)	(.0970)			(.1278)	(.1173)	(.1179)	(.1173)
Sector 31			-.0694	-.0955**	-.0995**	-.0930**			-.0694*	-.0955***	-.0995***	-.0930***
			(.0432)	(.0400)	(.0400)	(.0399)			(.0374)	(.0343)	(.0344)	(.0341)
Sector 32			.1326**	.1014	.0971	.0938			.1326*	.1014	.0971	.0938
			(.0668)	(.0620)	(.0620)	(.0619)			(.0723)	(.0743)	(.0742)	(.0730)
Fixed assets/total assets				1.0205***	1.0181***	1.0199***				1.0205***	1.0181***	1.0199***
				(.0361)	(.0361)	(.0361)				(.0417)	(.0418)	(.0417)
Financial health <0.40				.2289***						.2289***		
				(.0315)						(.0290)		
Financial health <0.50					.2545***						.2545***	
					(.0370)						(.0333)	
Financial health <0.60						.2354***						.2354***
						(.0290)						(.0276)
Number of observations	5 629	4 929	4 919	4 914	4 914	4 914	5 629	4 929	4 919	4 914	4 914	4 914
R2	0.4680	0.8472	0.8563	0.8775	0.8774	0.8778	0.4680	0.8472	0.8563	0.8775	0.8774	0.8778

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *.

Table 33: Complete regression results for the logarithm of cash flow of FDI mother firms

	Non-robust regression estimation						Robust regression estimation					
	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
Constant	2.4595***	1.5210***	1.4927***	1.2834***	1.2796***	1.2891***	2.4595***	1.5210***	1.4927***	1.2834***	1.2796***	1.2891***
	(.1042)	(.0606)	(.0667)	(.0639)	(.0644)	(.0652)	(.1100)	(.0729)	(.0766)	(.0750)	(.0755)	(.0766)
FDI	.1466	.0813	.0777	.0677	.0672	.0665	.1466	.0813	.0777	.0677	.0672	.0665
	(.1040)	(.0594)	(.0589)	(.0550)	(.0550)	(.0550)	(.1094)	(.0644)	(.0652)	(.0640)	(.0640)	(.0640)
LogEmploy	1.0354***	.4863***	.4887***	.4592***	.4602***	.4572***	1.0354***	.4863***	.4887***	.4592***	.4602***	.4572***
	(.3164)	(.0202)	(.0202)	(.0190)	(.0192)	(.0193)	(.0344)	(.0273)	(.0274)	(.0281)	(.0284)	(.0286)
Age		.0017**	.0013	.0023***	.0023***	.0025***		.0017**	.0013	.0023***	.0023***	.0025***
		(.0008)	(.0008)	(.0008)	(.0008)	(.0008)		(.0009)	(.0008)	(.0008)	(.0008)	(.0008)
logPL2020		.5612***	.5535***	.5494***	.5490***	.5506***		.5612***	.5535***	.5494***	.5490***	.5506***
		(.0088)	(.0089)	(.0084)	(.0085)	(.0085)		(.0175)	(.0176)	(.0176)	(.0177)	(.0177)
Sector 10			.1007**	-.0890**	-.0896**	-.0889**			.1007**	-.0890*	-.0896*	-.0889*
			(.0459)	(.0443)	(.0443)	(.0443)			(.0489)	(.0488)	(.0489)	(.0488)
Sector 11			.7875***	.5868***	.5843***	.5842***			.7875***	.5868***	.5843***	.5842***
			(.1366)	(.1280)	(.1280)	(.1280)			(.1496)	(.1495)	(.1500)	(.1499)
Sector 12			.3440	.3919	.3930	.3830			.3440***	.3919***	.3930***	.3830***
			(.6087)	(.5679)	(.5678)	(.5680)			(.0548)	(.0529)	(.0530)	(.0535)
Sector 13			-.1139	-.1223	-.1213	-.1185			-.1139	-.1223	-.1213	-.1185
			(.1029)	(.0961)	(.0960)	(.0961)			(.0902)	(.0848)	(.0847)	(.0850)
Sector 14			-.0337	-.0250	-.0268	-.0269			-.0337	-.0250	-.0268	-.0269
			(.0808)	(.0754)	(.0754)	(.0754)			(.0751)	(.0687)	(.0687)	(.0687)
Sector 15			.0398	-.0334	-.0340	-.0306			.0398	-.0334	-.0340	-.0306
			(.2045)	(.1908)	(.1908)	(.1909)			(.1158)	(.1148)	(.1151)	(.1158)
Sector 16			-.0199	-.0519	-.0525	-.0508			-.0199	-.0519	-.0525	-.0508
			(.0588)	(.0549)	(.0549)	(.0549)			(.0495)	(.0459)	(.0459)	(.0457)
Sector 17			.3871***	.2862***	.2857**	.2866***			.3871***	.2862***	.2857***	.2866***
			(.1180)	(.1102)	(.1102)	(.1102)			(.1047)	(.1062)	(.1064)	(.1059)
Sector 18			.0738	.0160	.0170	.0193			.0738	.0160	.0170	.0193
			(.0857)	(.0801)	(.0800)	(.0800)			(.1115)	(.1049)	(.1052)	(.1050)
Sector 19												
Sector 20			.1921**	.1583*	.1585*	.1594*			.1921***	.1583**	.1585**	.1594**
			(.0905)	(.0845)	(.0845)	(.0845)			(.0722)	(.0682)	(.0682)	(.0681)
Sector 21			.2567	.2088	.2079	.2085			.2567	.2088	.2079	.2085
			(.1576)	(.1470)	(.1470)	(.1471)			(.1713)	(.1612)	(.1615)	(.1620)

Sector 22			.0974	.0644	.0638	.0638			.0974	.0644	.0638	.0639
			(.0718)	(.0670)	(.0670)	(.0670)			(.0648)	(.0590)	(.0590)	(.0594)
Sector 23			.2894***	.2236***	.2222***	.2253***			.2894***	.2236***	.2222***	.2253***
			(.0668)	(.0625)	(.0625)	(.0625)			(.0713)	(.0639)	(.0641)	(.0640)
Sector 24			-.1301	-.0894	-.0892	-.0913			-.1301	-.0894	-.0892	-.0913
			(.1153)	(.1076)	(.1076)	(.1076)			(.0870)	(.0785)	(.0784)	(.0787)
Sector 25			.0156	.0014	.0004	.0018			.0156	.0014	.0004	.0018
			(.0415)	(.0388)	(.0388)	(.0388)			(.0403)	(.0371)	(.0380)	(.0370)
Sector 26			.1058	.0950	.0935	.0946			.1058	.0950	.0935	.0946
			(.0880)	(.0821)	(.0821)	(.0822)			(.0837)	(.0781)	(.0778)	(.0778)
Sector 27			-.1015	-.0483	-.0508	-.0457			-.1015	-.0483	-.0508	-.0457
			(.0845)	(.0790)	(.0791)	(.0791)			(.0834)	(.0805)	(.0807)	(.0808)
Sector 28			.1373*	.1594**	.1583**	.1588**			.1373**	.1594***	.1583***	.1588***
			(.0735)	(.0686)	(.0686)	(.0686)			(.0572)	(.0532)	(.0529)	(.0534)
Sector 29			.0040	.0140	.0124	.0148			.0040	.0140	.0124	.0148
			(.1065)	(.0994)	(.0994)	(.0994)			(.0774)	(.0691)	(.0694)	(.0689)
Sector 30			.2858*	.3268**	.3238**	.3231**			.2858	.3268*	.3238*	.3231*
			(.1702)	(.1589)	(.1588)	(.1588)			(.2122)	(.1818)	(.1814)	(.1823)
Sector 31			-.0381	-.0664	-.0679	-.0664			-.0381	-.0664	-.0679	-.0664
			(.0656)	(.0612)	(.0612)	(.0613)			(.0555)	(.0508)	(.0509)	(.0509)
Sector 32			.1238	.0602	.0614	.0607			.1238	.0602	.0614	.0607
			(.1012)	(.0945)	(.0945)	(.0945)			(.1090)	(.1086)	(.1085)	(.1086)
Fixed assets/total assets				1.0262***	1.0284***	1.0187***				1.0262***	1.0284***	1.0187***
				(.0640)	(.0643)	(.0642)				(.0707)	(.0712)	(.0711)
Financial health <0.40				.0250						.0250		
				(.0338)						(.0361)		
Financial health <0.50					.0249						.0249	
					(.0301)						(.0315)	
Financial health <0.60						-.0034						-.0034
						(.0287)						(.0302)
Number of observations	2 087	1 798	1 798	1 797	1 797	1 797	2 087	1 798	1 798	1 797	1 797	1 797
R2	0.3413	0.8091	0.8179	0.8412	0.8412	0.8412	0.3413	0.8091	0.8179	0.8412	0.8412	0.8412

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *.

Table 34: Complete regression results for the net added value per employee of FDI daughter firms

	Non-robust regression estimation						Robust regression estimation					
	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
Constant	73.8855***	-35.3995***	-14.1531**	-7.9057	-7.4428	-8.3581	73.8855***	-35.3995***	-14.1531**	-7.9057	-7.4428	-8.3581
	(2.4975)	(5.310)	(6.2082)	(6.7661)	(6.7305)	(6.8376)	(1.4483)	(8.2421)	(6.7380)	(6.1973)	(6.2555)	(6.4675)
FDI	28.7035***	10.5332***	8.4679**	7.7182**	7.7806**	7.7566**	28.7035***	10.5332***	8.4679***	7.7182***	7.7806***	7.7566***
	(3.0901)	(3.4654)	(3.4378)	(3.4776)	(3.4743)	(3.4805)	(2.5643)	(2.2871)	(2.1862)	(2.3611)	(2.3370)	(2.3686)
Age		-.0326	-.0379	-.0675	-.0707	-.0642		-.0326	-.0379	-.0675	-.0707	-.0642
		(.0877)	(.0867)	(.0877)	(.0877)	(.0878)		(.1391)	(.1289)	(.1342)	(.1334)	(.1346)
logPL2020		23.4359***	21.4914***	20.9426***	20.9138***	21.0181***		23.4359***	21.4914***	20.9426***	20.9138***	21.0181***
		(.8509)	(.8628)	(.9177)	(.9041)	(.9373)		(1.4215)	(1.1866)	(1.2595)	(1.2662)	(1.3153)
Sector 10			-13.9154***	-13.0971**	-13.2599**	-12.9375**			-13.9154**	-13.0971**	-13.2599**	-12.9375**
			(5.2211)	(5.3711)	(5.3682)	(5.3747)			(5.7624)	(6.4750)	(6.5477)	(6.4762)
Sector 11			49.7424***	51.6245***	51.7352***	51.9118***			49.7424	51.6245	51.7352	51.9118
			(14.7754)	(14.8677)	(14.8623)	(14.8734)			(34.9901)	(35.5626)	(35.5345)	(35.5274)
Sector 12			101.3507***	91.4220**	85.1087**	95.3285***			101.3507*	91.4220*	85.1087	95.3285*
			(35.1331)	(35.4377)	(35.5769)	(35.3780)			(54.2373)	(53.8460)	(53.8434)	(53.9513)
Sector 13			-28.1951***	-28.4794***	-28.8505***	-28.3303***			-28.1951***	-28.4794***	-28.8505***	-28.3303***
			(8.8760)	(8.9331)	(8.9316)	(8.9354)			(5.1433)	(5.2122)	(5.2148)	(5.2091)
Sector 14			-20.8111	-20.4684	-21.1775	-20.1536			-20.8111**	-20.4684**	-21.1775**	-20.1536**
			(14.8786)	(15.1735)	(15.1710)	(15.1775)			(8.2126)	(8.3984)	(8.4563)	(8.3851)
Sector 15			-22.0067	-20.5607	-20.7068	-20.5011			-22.0067**	-20.5607**	-20.7068**	-20.5011**
			(39.2235)	(39.3342)	(39.3194)	(39.3466)			(9.3096)	(9.446)	(9.4031)	(9.4832)
Sector 16			-14.6031**	-13.6211*	-13.7639*	-13.7508*			-14.6031***	-13.6211***	-13.7639***	-13.7508***
			(7.3989)	(7.4620)	(7.4584)	(7.4639)			(4.4360)	(4.5990)	(4.5709)	(4.5987)
Sector 17			-24.5635**	-24.1223**	-24.3901**	-23.7292**			-24.5635***	-24.1223***	-24.3901***	-23.7292***
			(11.1517)	(11.2198)	(11.2164)	(11.2210)			(5.4380)	(5.8122)	(5.8671)	(5.8166)
Sector 18			-14.1524	-13.3548	-13.3271	-13.3593			-14.1524***	-13.3548**	-13.3271**	-13.3593**
			(9.6026)	(9.6427)	(9.6392)	(9.6456)			(5.3282)	(5.6211)	(5.6131)	(5.6127)
Sector 19			375.2529***	370.9468***	366.6009***	372.0841***			375.2529	370.9468	366.6009	372.0841
			(37.0432)	(37.1815)	(37.2281)	(37.1920)			(267.0998)	(269.5749)	(271.0761)	(269.4631)
Sector 20			27.5946***	27.2291***	27.2155***	27.6069***			27.5946*	27.2291*	27.2155*	27.6069*
			(7.3148)	(7.3756)	(7.3685)	(7.3752)			(14.6804)	(14.7611)	(14.9122)	(14.7933)
Sector 21			45.9287***	45.7648***	44.8641***	45.7383***			45.9287	45.7648	44.8641	45.7383
			(13.6758)	(13.7258)	(13.7271)	(13.7324)			(28.1241)	(27.9056)	(27.6943)	(28.0561)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Sector 22			-12.6824*	-12.3013*	-12.6658*	-12.3001*			-12.6824**	-12.3013**	-12.6658**	-12.3001**
			(7.0416)	(7.0780)	(7.0766)	(7.0802)			(6.0566)	(6.1617)	(6.0760)	(6.1628)
Sector 23			-12.2914*	-11.3193	-11.4130	-11.4877			-12.2914**	-11.3193**	-11.4130**	-11.4877**
			(6.9993)	(7.0747)	(7.0715)	(7.0763)			(5.2849)	(5.7210)	(5.6894)	(5.7129)
Sector 24			-19.2539*	-21.7165**	-21.2609**	-20.8827*			-19.2539***	-21.7165***	-21.2609***	-20.8827***
			(10.6178)	(10.7167)	(10.6980)	(10.7090)			(5.3142)	(5.3125)	(5.2590)	(5.2532)
Sector 25			-14.3699***	-14.0940***	-14.3210***	-14.0860***			-14.3700***	-14.0940***	-14.3210***	-14.0860***
			(4.6022)	(4.6422)	(4.6391)	(4.6448)			(4.0544)	(4.2045)	(4.1589)	(4.2272)
Sector 26			1.8655	2.0120	1.5146	1.8750			1.8655	2.0120	1.5146	1.8749
			(8.7122)	(8.7416)	(8.7373)	(8.7439)			(6.0400)	(6.0488)	(5.9954)	(6.0398)
Sector 27			-22.1811**	-22.9599***	-23.2827***	-22.9744***			-22.1811***	-22.9599***	-23.2827***	-22.9744***
			(8.6071)	(8.6595)	(8.6575)	(8.6626)			(4.7246)	(4.5956)	(4.6103)	(4.5824)
Sector 28			-7.8186	-7.6606	-7.6137	-7.5281			-7.8186*	-7.6606	-7.6137	-7.5282
			(7.9073)	(7.9650)	(7.9620)	(7.9693)			(4.7133)	(4.7117)	(4.6886)	(4.7488)
Sector 29			-22.2864**	-22.8010**	-22.6206***	-22.8703**			-22.2864***	-22.8010***	-22.6206***	-22.8703***
			(9.9218)	(9.9573)	(9.9537)	(9.9605)			(5.3429)	(5.2228)	(5.1981)	(5.2146)
Sector 30			26.9435	23.8637	24.2394	24.0304			26.9435	23.8637	24.2394	24.0304
			(19.3954)	(19.7604)	(19.7524)	(19.7662)			(26.0721)	(27.2520)	(27.1688)	(27.1957)
Sector 31			-21.5838***	-20.6770**	-20.9804**	-20.6393**			-21.5838***	-20.6770***	-20.9804***	-20.6393***
			(8.0821)	(8.1281)	(8.1246)	(8.1313)			(4.5812)	(4.7552)	(4.7089)	(4.7764)
Sector 32			14.5602	16.5128	16.2403	16.0094			14.5602	16.5128	16.2403	16.0094
			(12.4986)	(12.6111)	(12.6051)	(12.6133)			(16.7910)	(17.0284)	(17.0307)	(16.9129)
Fixed assets/total assets				-10.9502	-10.9529	-11.0989				-10.9502	-10.9529	-11.0989
				(7.2376)	(7.2349)	(7.2410)				(9.1831)	(9.1733)	(9.2172)
Financial health <0.40				16.1814***						16.1814*		
				(6.2176)						(9.3454)		
Financial health <0.50					23.8773***						23.8773**	
					(7.4006)						(12.0600)	
Financial health <0.60						-11.0989*						10.9744
						(7.2411)						(8.4488)
Number of observations	6 451	4 985	4 975	4 937	4 937	4 937	6 451	4 985	4 975	4 937	4 937	4 937
R2	0.0132	0.1512	0.1887	0.1897	0.1903	0.1892	0.0132	0.1512	0.1887	0.1897	0.1903	0.1892

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *.

Table 35: Complete regression results for the net added value per employee of FDI mother firms

	Non-robust regression estimation						Robust regression estimation					
	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
Constant	73.4505***	-3.2281	2.2477	5.1095	5.2273	5.9331	73.4505***	-3.2281	2.2477	5.1095	5.2273	5.9331
	(1.4781)	(3.7669)	(4.4732)	(4.7929)	(4.8018)	(4.8288)	(1.4616)	(6.7655)	7.5038)	(6.6785)	(6.5575)	(6.3333)
FDI	12.2852**	10.2904**	9.1324*	9.1930	9.2005	9.1334*	12.2852*	10.2904	9.1324	9.1930	9.2005	9.1334
	(5.6922)	(4.9652)	(4.9684)	(4.9870)	(4.9852)	(4.9828)	(6.4511)	(7.3515)	(6.5285)	(6.5143)	(6.5065)	(6.4914)
Age		-.0229	-.0285	-0.0335	-0.0321	-.0226		-.0229	-.0285	-0.0335	-0.0321	-.0226
		(0.0673)	(0.0679)	(0.0694)	(0.0691)	(0.0692)		(0.0793)	(0.0877)	(0.0907)	(0.0922)	(0.0927)
logPL2020		16.8266***	16.2000***	16.4103***	16.4349***	16.5200***		16.8266***	16.2000***	16.4103***	16.4349***	16.5200***
		(0.6705)	(0.6843)	(0.6978)	(0.6999)	(0.6986)		(1.3853)	(1.4081)	(1.5006)	(1.5063)	(1.5159)
Sector 10			-3.6390	-1.3624	-1.3419	-1.3814			-3.6390	-1.3624	-1.3419	-1.3814
			(3.8463)	(4.0129)	(4.0129)	(4.0108)			(4.9186)	(6.0403)	(6.0805)	(6.0205)
Sector 11			42.1105***	44.2631***	44.3740***	44.3436***			42.1105***	44.2631***	44.3740***	44.3436***
			(11.5091)	(11.5978)	(11.5953)	(11.5894)			(11.9890)	(12.1580)	(12.1491)	(12.1697)
Sector 12			-10.5403	-11.0866	-11.3684	-12.9128			-10.5403**	-11.0866**	-11.3684**	-12.9128**
			(51.3063)	(51.4717)	(51.4725)	(51.4558)			(4.1662)	(5.0042)	(5.1239)	(5.5307)
Sector 13			-21.4405**	-20.6631**	-20.6739**	-20.3018**			-21.4405***	-20.6631***	-20.6739***	-20.3018***
			(8.5674)	(8.7089)	(8.7029)	(8.7031)			(5.0423)	(5.0496)	(5.0589)	(5.0827)
Sector 14			-15.5643**	-15.5877**	-15.5391**	-15.6540**			-15.5643***	-15.5877***	-15.5391***	-15.6540***
			(6.7532)	(6.8391)	(6.8347)	(6.8320)			(3.5538)	(3.7089)	(3.6769)	(3.6703)
Sector 15			-15.2170	-14.3855	-14.3005	-14.0442			-15.2170**	-14.3855**	-14.3005**	-14.0442*
			(17.2486)	(17.3079)	(17.3081)	(17.2987)			(7.1030)	(7.3660)	(7.4117)	(7.6396)
Sector 16			-9.0567*	-8.7275*	-8.6841*	-8.6095*			-9.0567***	-8.7275***	-8.6841***	-8.6095**
			(4.9545)	(4.9791)	(4.9801)	(4.9763)			(3.3610)	(3.3737)	(3.4052)	(3.3878)
Sector 17			-5.9961	-4.8721	-4.8392	-5.0864			-5.9961	-4.8721	-4.8392	-5.0864
			(9.9475)	(9.9954)	(9.9953)	(9.9910)			(5.4174)	(5.3329)	(5.3343)	(5.2986)
Sector 18			-4.9087	-4.1010	-4.1215	-3.9413			-4.9087	-4.1010	-4.1215	-3.9413
			(7.2107)	(7.2524)	(7.2463)	(7.2436)			(4.3430)	(4.4174)	(4.4091)	(4.3717)
Sector 19												
Sector 20			15.6713**	15.9427**	15.9472**	15.9300**			15.6713*	15.9427*	15.9472*	15.9300*
			(7.6337)	(7.6624)	(7.6615)	(7.6574)			(8.4858)	(8.4821)	(8.4788)	(8.4706)
Sector 21			26.9337**	27.3785**	27.3805**	26.8823**			26.9337	27.3785	27.3805	26.8823
			(13.2589)	(13.3061)	(13.3054)	(13.3043)			(35.4693)	(35.2739)	(35.2671)	(35.1742)
Sector 22			-3.5289	-2.9720	-2.9585	-2.8106			-3.5289	-2.9720	-2.9585	-2.8106
			(6.0203)	(6.0767)	(6.0756)	(6.0734)			(4.4389)	(4.523444)	(4.5054)	(4.5172)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Sector 23			4.4814	4.9486	5.0514	5.2733			4.4814	4.9486	5.0514	5.2733
			(5.6026)	(5.6604)	(5.6664)	(5.6608)			(4.5536)	(4.5861)	(4.6557)	(4.6292)
Sector 24			-8.6981	-10.7149	-10.7688	-10.9748			-8.6981*	-10.7149**	-10.7688**	-10.9748**
			(9.5608)	(9.7580)	(9.7580)	(9.7530)			(4.7616)	(4.8814)	(4.9034)	(4.9446)
Sector 25			-1.5681	-1.5163	-1.4585	-1.2807			-1.5681	-1.5163	-1.4585	-1.2807
			(3.4664)	(3.5085)	(3.5110)	(3.5109)			(2.4475)	(2.5039)	(2.5554)	(2.5680)
Sector 26			11.2410	11.3171	11.3674	11.6093			11.2410	11.3171	11.3674	11.6093
			(7.4138)	(7.4427)	(7.4418)	(7.4405)			(8.1509)	(8.2815)	(8.2235)	(8.2165)
Sector 27			-9.2569	-10.1412	-9.9886	-9.6053			-9.2569**	-10.1412**	-9.9886**	-9.6053**
			(7.0687)	(7.1592)	(7.1697)	(7.1649)			(4.1258)	(4.2414)	(4.3062)	(4.2684)
Sector 28			4.6338	4.5265	4.5695	4.5643			4.6338	4.5265	4.5695	4.5643
			(6.1642)	(6.2232)	(6.2226)	(6.2195)			(5.5046)	(5.5946)	(5.5870)	(5.6209)
Sector 29			.0710	-0.1498	-0.0613	.0837			.0710	-0.1498	-0.0613	.0837
			(8.9834)	(9.0148)	(9.0169)	(9.0117)			(11.2613)	(11.4601)	(11.4826)	(11.4619)
Sector 30			13.1995	12.6662	12.7537	12.4972			13.1995	12.6662	12.7537	12.4972
			(14.3579)	(14.4106)	(14.4037)	(14.3982)			(10.6216)	(10.6683)	(10.6686)	(10.7271)
Sector 31			-7.6626	-7.3972	-7.3182	-7.1551			-7.6626**	-7.3972**	-7.3182**	-7.1551**
			(5.5236)	(5.5481)	(5.5504)	(5.5480)			(2.9934)	(3.0344)	(3.0842)	(3.0684)
Sector 32			-3.5887	-2.8749	-2.9256	-2.9743			-3.5887	-2.8749	-2.9256	-2.9743
			(8.5361)	(8.5709)	(8.5704)	(8.5663)			(9.1248)	(8.9827)	(9.0026)	(9.0015)
Fixed assets/total assets				-12.5184**	-12.7623**	-13.6502**				-12.5184	-12.7623	-13.6502
				(5.7717)	(5.7986)	(5.7933)				(10.0431)	(10.3015)	(10.3020)
Financial health <0.40				-.8737						-.8737		
				(3.0503)						(3.6848)		
Financial health <0.50					-1.2921						-1.2921	
					(2.6879)						(3.5352)	
Financial health <0.60						-3.5430						-3.5430
						(2.5545)						(3.4196)
Number of observations	2 358	1 818	1 818	1 800	1 800	1 800	2 358	1 818	1 818	1 800	1 800	1 800
R2	0.0020	0.2671	0.2883	0.2898	0.2899	0.2906	0.0020	0.2671	0.2883	0.2898	0.2899	0.2906

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *.

Table 36: Complete regression results for the fixed assets over total assets ratio for FDI daughter firms

	Non-robust regression estimation						Robust regression estimation					
	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
Constant	.2514***	.2467***	.2172***	.1315***	.1286***	.0991**	.2514***	.2467***	.2172***	.1315***	.1286***	.0991**
	(.0107)	(.0126)	(.0139)	(.0411)	(.0367)	(.0439)	(.0111)	(.0135)	(.0148)	(.0438)	(.0391)	(.0470)
FDI	-.0505***	-.0510***	-.0446***	-.0442***	-.0442***	-.0442***	-.0505***	-.0510***	-.0446***	-.0442***	-.0442***	-.0442***
	(.0062)	(.0070)	(.0068)	(.0068)	(.0068)	(.0068)	(.0062)	(.0070)	(.0068)	(.0067)	(.0067)	(.0067)
LogEmploy	.0301***	.0384***	.0354***	.0401***	.0404***	.0402***	.0301***	.0384***	.0354***	.0401***	.0403***	.0402***
	(.0030)	(.0040)	(.0039)	(.0043)	(.0043)	(.0042)	(.0031)	(.0041)	(.0041)	(.0045)	(.0046)	(.0045)
Age		-.0011***	-.0011***	-.0010***	-.0010***	-.0010***		-.0011***	-.0011***	-.0010***	-.0010***	-.0010***
		(.0002)	(.0002)	(.0002)	(.0002)	(.0002)		(.0002)	(.0002)	(.0002)	(.0002)	(.0002)
logPL2020		-.0006	-.0015	-.0002	-.0002	-.0002		-.0006	-.0015	-.0002	-.0002	-.0002
		(.0020)	(.0019)	(.0020)	(.0020)	(.0020)		(.0021)	(.0021)	(.0022)	(.0022)	(.0021)
Sector 10			.1423***	.1443***	.1442***	.1443***			.1423***	.1443***	.1441***	.1443***
			(.0103)	(.0103)	(.0103)	(.0103)			(.0110)	(.0111)	(.0111)	(.0111)
Sector 11			.1706***	.1695***	.1696***	.1698***			.1706***	.1695***	.1696***	.1698***
			(.0290)	(.0290)	(.0290)	(.0290)			(.0334)	(.0333)	(.0333)	(.0333)
Sector 12			.0250	.0452	.0406	.0482			.0250	.0452	.0406	.0482
			(.0689)	(.0694)	(.0696)	(.0693)			(.0641)	(.0656)	(.0657)	(.0656)
Sector 13			.0013	.0009	.0006	.0009			.0013	.0009	.0006	.0009
			(.0175)	(.0175)	(.0175)	(.0175)			(.0175)	(.0175)	(.0175)	(.0175)
Sector 14			-.0325	-.0324	-.0330	-.0320			-.0325	-.0324	-.0330	-.0320
			(.0297)	(.0297)	(.0297)	(.0296)			(.0225)	(.0224)	(.0224)	(.0225)
Sector 15			.0896	.0880	.0878	.0879			.0896**	.0880**	.0878**	.0879**
			(.0769)	(.0769)	(.0769)	(.0768)			(.0413)	(.0429)	(.0430)	(.0430)
Sector 16			.0293**	.0286**	.0285*	.0283*			.0293**	.0286**	.0285**	.0283**
			(.0146)	(.0146)	(.0146)	(.0146)			(.0137)	(.0137)	(.0137)	(.0137)
Sector 17			.1088***	.1091***	.1089***	.1094***			.1088***	.1091***	.1089***	.1094***
			(.0219)	(.0219)	(.0219)	(.0219)			(.0243)	(.0242)	(.0242)	(.0242)
Sector 18			.0541***	.0516***	.0515***	.0507***			.0541***	.0516***	.0515***	.0508***
			(.0188)	(.0189)	(.0189)	(.0189)			(.0185)	(.0186)	(.0186)	(.0185)
Sector 19			.0137	.0214	.0179	.0218			.0137	.0214	.0179	.0218
			(.0727)	(.0727)	(.0728)	(.0727)			(.0672)	(.0682)	(.0683)	(.0695)
Sector 20			.0762***	.0782***	.0782***	.0785***			.0762***	.0782***	.0782***	.0785***
			(.0144)	(.0144)	(.0144)	(.0144)			(.0145)	(.0145)	(.0145)	(.0145)

	1	2	3	4	5	6	7	8	9	10	11	12
Sector 21			.0487* (.0269)	.0497* (.0269)	.0490* (.0269)	.0499* (.0269)			.0487 (.0301)	.0497* (.0301)	.0490 (.0300)	.0499* (.0301)
Sector 22			.0314** (.0138)	.0312** (.0138)	.0309** (.0138)	.0312** (.0138)			.0314** (.0134)	.0312** (.0134)	.0309** (.0134)	.0312** (.0134)
Sector 23			.0797*** (.0138)	.0786*** (.0138)	.0785*** (.0138)	.0781*** (.0138)			.0797*** (.0140)	.0786*** (.0141)	.0785*** (.0141)	.0781*** (.0141)
Sector 24			-.0126 (.0209)	-.0115 (.0210)	-.0110 (.0209)	-.0114 (.0209)			-.0126 (.0207)	-.0115 (.0208)	-.0110 (.0208)	-.0114 (.0208)
Sector 25			.0118 (.0091)	.0106 (.0091)	.0104 (.0091)	.0107 (.0091)			.0118 (.0087)	.0106 (.0088)	.0104 (.0088)	.0107 (.0088)
Sector 26			-.0232 (.0171)	-.0245 (.0171)	-.0249 (.0171)	-.0246 (.0171)			-.0232 (.0166)	-.0245 (.0167)	-.0249 (.0167)	-.0246 (.0167)
Sector 27			-.0498*** (.0169)	-.0497*** (.0169)	-.0500*** (.0169)	-.0496*** (.0169)			-.0498*** (.0164)	-.0497*** (.0165)	-.0499*** (.0164)	-.0496*** (.0165)
Sector 28			-.0234 (.0156)	-.0250 (.0156)	-.0250 (.0156)	-.0248 (.0156)			-.0234 (.0148)	-.0250* (.0148)	-.0250* (.0148)	-.0248* (.0148)
Sector 29			-.0590*** (.0195)	-.0589*** (.0195)	-.0587*** (.0195)	-.0584*** (.0195)			-.0590*** (.0157)	-.0588*** (.0157)	-.0587*** (.0158)	-.0584*** (.0157)
Sector 30			-.0558 (.0386)	-.0563 (.0386)	-.0560 (.0386)	-.0565 (.0386)			-.0558 (.0354)	-.0563 (.0351)	-.0560 (.0350)	-.0565 (.0352)
Sector 31			.0260 (.0159)	.0250 (.0159)	.0247 (.0159)	.0251 (.0159)			.0260* (.0148)	.0250* (.0148)	.0247* (.0148)	.0251* (.0148)
Sector 32			.0349 (.0247)	.0352 (.0246)	.0349 (.0246)	.0345 (.0246)			.0349 (.0246)	.0352 (.0244)	.0349 (.0244)	.0345 (.0244)
Debt ratio				.0656*** (.0324)	.0679** (.0272)	.0976*** (.0365)				.0656* (.0341)	.0679** (.0286)	.0976** (.0394)
Financial health <0.40				.0134 (.0214)						.0134 (.0221)		
Financial health <0.50					.0203 (.0211)						.0203 (.0224)	
Financial health <0.60						.0345 (.0222)						.0345 (.0233)
Number of observations	6 405	4 948	4 938	4 938	4 938	4 938	6 405	4 948	4 938	4 938	4 938	4 938
R2	0.0209	0.0314	0.1035	0.1048	0.1049	0.1052	0.0209	0.0314	0.1035	0.1048	0.1049	0.1052

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *.

Table 37: Complete regression results for the fixed assets over total assets ratio for FDI mother firms

	Non-robust regression estimation						Robust regression estimation					
	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
Constant	.2533***	.2549***	.2095***	.2057***	.2253***	.2344***	.2533***	.2549***	.2095***	.2057***	.2253***	.2344***
	(.0183)	(.0219)	(.0234)	(.0299)	(.0302)	(.0306)	(.0181)	(.0227)	(.0238)	(.0294)	(.0286)	(.0291)
FDI	.0179	.0040	.0098	.0147	.0172	.0179	.0179	.0040	.00981	.0147	.0172	.0179
	(.0190)	(.0215)	(.0206)	(.0218)	(.0217)	(.0217)	(.0193)	(.0219)	(.0220)	(.0235)	(.0234)	(.0231)
LogEmploy	.0293***	.0360***	.0309***	.0221***	.0197**	.0189**	.0293***	.0360***	.0309***	.0221***	.0197**	.0189**
	(.0055)	(.0073)	(.0071)	(.0082)	(.0082)	(.0082)	(.0054)	(.0072)	(.0072)	(.0084)	(.0084)	(.0084)
Age		-.0014***	-.0011***	-.0006**	-.0006*	-.0006*		-.0014***	-.0011***	-.0006**	-.0006*	-.0006*
		(.0003)	(.0003)	(.0003)	(.0003)	(.0003)		(.0003)	(.0003)	(.0003)	(.0003)	(.0003)
logPL2020		.0013	.0022	.0078**	.0092***	.0095***		.0013	.0022	.0078**	.0092**	.0095***
		(.0032)	(.0031)	(.0033)	(.0033)	(.0033)		(.0036)	(.0035)	(.0036)	(.0036)	(.0036)
Sector 10			.1803***	.1866***	.1874***	.1862***			.1803***	.1866***	.1874***	.1862***
			(.0160)	(.0163)	(.0162)	(.0162)			(.0173)	(.0175)	(.0174)	(.0174)
Sector 11			.1943***	.1750***	.1806***	.1775***			.1943***	.1750***	.1806***	.1775***
			(.0478)	(.0481)	(.0478)	(.0478)			(.0509)	(.0510)	(.0512)	(.0494)
Sector 12			-.0458						-.0458***			
			(.2130)						(.0160)			
Sector 13			.0000	.0046	.0006	.0048			.0000	.0046	.0006	.0048
			(.0360)	(.0359)	(.0357)	(.0357)			(.0328)	(.0345)	(.0344)	(.0332)
Sector 14			-.0112	-.0222	-.0165	-.0180			-.0112	-.0222	-.0165	-.0180
			(.0283)	(.0291)	(.0289)	(.0289)			(.0285)	(.0296)	(.0294)	(.0293)
Sector 15			.0647	.0636	.0655	.0632			.0647	.0636	.0655	.0632
			(.0716)	(.0702)	(.0699)	(.0699)			(.0427)	(.0415)	(.0428)	(.0436)
Sector 16			.0262	.0309	.0323	.0307			.0262	.0309	.0323	.0307
			(.0206)	(.0207)	(.0206)	(.0206)			(.0195)	(.0199)	(.0199)	(.0202)
Sector 17			.0941**	.1087**	.1101**	.1022**			.0941**	.1087***	.1101***	.1022**
			(.0413)	(.0427)	(.0425)	(.0425)			(.0410)	(.0401)	(.0406)	(.0409)
Sector 18			.0483	.0604**	.0565*	.0577*			.0483*	.0604**	.0565**	.0577**
			(.0300)	(.0300)	(.0298)	(.0298)			(.0277)	(.0272)	(.0269)	(.0267)
Sector 19												
Sector 20			.0289	.0055	.0048	.0030			.0289	.0055	.0048	.0030
			(.0317)	(.0341)	(.0339)	(.0339)			(.0266)	(.0257)	(.0253)	(.0250)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Sector 21			.0438	.0065	.0115	-.0007			.0438	.0065	.0115	-.0007
			(.0551)	(.0675)	(.0672)	(.0672)			(.0639)	(.0775)	(.0802)	(.0800)
Sector 22			.0297	.0140	.0147	.0190			.0297	.0140	.0147	.0190
			(.0251)	(.0256)	(.0254)	(.0254)			(.0253)	(.0252)	(.0253)	(.0249)
Sector 23			.0580**	.0577**	.0617***	.0599**			.0580**	.0577**	.0617***	.0599***
			(.0234)	(.0235)	(.0234)	(.0234)			(.0224)	(.0226)	(.0226)	(.0225)
Sector 24			-.0412	-.0551	-.0565	-.0556			-.0412	-.0551	-.0565	-.0556
			(.0404)	(.0417)	(.0415)	(.0415)			(.0389)	(.0420)	(.0415)	(.0398)
Sector 25			.0091	.0062	.0090	.0100			.0091	.0062	.0090	.0100
			(.0145)	(.0145)	(.0144)	(.0144)			(.0138)	(.0137)	(.0138)	(.0138)
Sector 26			.0074	-.0169	-.0126	-.0074			.0074	-.0169	-.0126	-.0074
			(.0308)	(.0316)	(.0315)	(.0315)			(.0342)	(.0330)	(.0327)	(.0333)
Sector 27			-.0583**	-.0500*	-.0425	-.0433			-.0583**	-.0500*	-.0425	-.0433
			(.0296)	(.0295)	(.0294)	(.0295)			(.02880)	(.0295)	(.0294)	(.0289)
Sector 28			-.0243	-.0286	-.0266	-.0282			-.0243	-.0286	-.0266	-.0282
			(.0257)	(.0253)	(.0252)	(.0252)			(.0226)	(.0223)	(.0222)	(.0225)
Sector 29			-.0147	-.0332	-.0281	-.0292			-.0147	-.0332	-.0281	-.0292
			(.0373)	(.0381)	(.0380)	(.0380)			(.0337)	(.0324)	(.0330)	(.0338)
Sector 30			-.0404	-.0443	-.0351	-.0392			-.0404	-.0443	-.0351	-.0392
			(.0596)	(.0608)	(.0605)	(.0605)			(.0456)	(.0467)	(.0466)	(.0478)
Sector 31			.0230	.0205	.0241	.0240			.0230	.0205	.0241	.0240
			(.0230)	(.0227)	(.0226)	(.0226)			(.0198)	(.0194)	(.0196)	(.0200)
Sector 32			.0579	.0542	.0494	.0492			.0579	.0542	.0494	.0492
			(.0354)	(.0352)	(.0350)	(.0351)			(.0387)	(.0403)	(.0397)	(.0388)
Debt ratio				.0160	-.0000	-.0002				.0160	-.0000	-.0002
				(.0164)	(.0167)	(.0168)				(.0163)	(.0132)	(.0132)
Financial health <0.40				-.0686***						-.0686***		
				(.0143)						(.0133)		
Financial health <0.50					-.0807***						-.0807***	
					(.0130)						(.0116)	
Financial health <0.60						-.0775***						-.0775***
						(.0127)						(.0119)
Number of observations	2 335	1 800	1 800	1 800	1 800	1 800	2 335	1 800	1 800	1 800	1 800	1 800
R2	0.0126	0.0223	0.1256	0.1523	0.1599	0.1594	0.0126	0.0223	0.1256	0.1523	0.1599	0.1594

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *.

Table 38: Descriptive statistics for FDI mother for Europe dummy

	Count	Mean	SD	Min	Max
Europe	806	.7928	.4055	0	1
Log Employment	807	4.2539	1.1998	2.3979	9.0772
Age	809	37.8070	20.8123	1.5359	132.5366
logPL2020	606	7.1183	2.0221	-2.6736	14.6066
Sector 10	805	.1193	.3243	0	1
Sector 11	805	.0236	.1519	0	1
Sector 12	805	.0037	.0610	0	1
Sector 13	805	.0435	.2040	0	1
Sector 14	805	.0211	.1439	0	1
Sector 15	805	.0025	.0498	0	1
Sector 16	805	.0248	.1557	0	1
Sector 17	805	.0248	.1557	0	1
Sector 18	805	.0248	.1557	0	1
Sector 19	805	.0037	.0610	0	1
Sector 20	805	.1031	.3043	0	1
Sector 21	805	.0186	.1353	0	1
Sector 22	805	.0783	.2687	0	1
Sector 23	805	.0522	.2225	0	1
Sector 24	805	.0323	.1769	0	1
Sector 25	805	.1528	.3600	0	1
Sector 26	805	.0870	.2819	0	1
Sector 27	805	.0609	.2392	0	1
Sector 28	805	.0584	.2346	0	1
Sector 29	805	.0273	.1631	0	1
Sector 30	805	.0087	.0929	0	1
Sector 31	805	.0211	.1439	0	1
Sector 32	805	.0211	.1439	0	1
Log Cash flow	683	7.6677	1.7178	1.7618	15.2536
Debt ratio	806	.7903	.2819	.0184	1.8283
Current solvency	809	2.3736	3.6659	.0639	53.5264
Value added	809	126.8084	209.9451	-1 179.7030	3 906.0000
Fixed asset ratio	809	.3697	.2430	.0000	.9843
Financial health 0.4	809	.1983	.3989	0	1
Financial health 0.5	809	.1338	.3407	0	1
Financial Health 0.6	809	.2639	.4410	0	1

Table 39: Complete regression results for the debt ratio for FDI mother firms for the Europe dummy.

	Non-robust regression estimation				Robust regression estimation			
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 1	Stage 2	Stage 3	Stage 4
Constant	1.3149	1.4579***	1.4444***	1.4435***	1.3149	1.4579***	1.4444	1.4435***
	(.0340)	(.0423)	(.0476)	(.0478)	(.0303)	(.0374)	(.0476)	(.0487)
Europe	-.0070***	-.0154	-.0135	-.0145	-.0070***	-.0154	-.0135	-.0145
	(.0211)	(.0235)	(.0237)	(.0243)	(.0198)	(.0219)	(.0227)	(.0232)
LogEmploy	-.1220***	-.0816***	-.0872***	-.0875***	-.1220***	-.0816***	-.0872***	-.0875***
	(.0071)	(.0103)	(.0105)	(.0106)	(.0067)	(.0107)	(.0105)	(.0105)
Age		-.0008	-.0007	-.0007		-.0008	-.0007	-.0007
		(.0005)	(.0005)	(.0005)		(.0005)	(.0005)	(.0005)
logPL2020		-.0426***	-.0383***	-.0383***		-.0426***	-.0383***	-.0383***
		(.0060)	(.0061)	(.0061)		(.0063)	(.0062)	(.0062)
Sector 10			-.0515	-.0527			-.0515	-.0527
			(.0355)	(.0359)			(.0364)	(.0364)
Sector 11			.1455**	.1444**			.1455**	.1444**
			(.0722)	(.0725)			(.0613)	(.0612)
Sector 12			-.5156***	-.5170***			-.5156***	-.5170***
			(.1364)	(.1366)			(.1068)	(.1062)
Sector 13			-.0615	-.0616			-.0615	-.0616
			(.0473)	(.0474)			(.0502)	(.0501)
Sector 14			.0076	.0082			.0076	.0082
			(.0761)	(.0762)			(.0839)	(.0844)
Sector 15								
Sector 16			.0862	.0851			.0862	.0851
			(.0634)	(.0640)			(.0595)	(.0593)
Sector 17			-.0072	-.0091			-.0072	-.0091
			(.0676)	(.0683)			(.0613)	(.0618)
Sector 18			.0326	.0320			.0326	.0320
			(.0641)	(.0642)			(.0544)	(.0544)
Sector 19			-.0560	-.0555			-.0561	-.0555
			(.1652)	(.1654)			(.2413)	(.2421)
Sector 20			-.0211	-.0216			-.0211	-.0216
			(.0344)	(.0345)			(.0352)	(.0351)
Sector 21			.0263	.0256			.0263	.0256
			(.0877)	(.0878)			(.0862)	(.0862)

Sector 22			-.0308	-.0315			-.0308	-.0315
			(.0380)	(.0382)			(.0429)	(.0424)
Sector 23			.0676	.0665			.0676*	.0665*
			(.0453)	(.0456)			(.0355)	(.0353)
Sector 24			-.0520	-.0527			-.0520	-.0527
			(.0620)	(.0621)			(.0647)	(.0646)
Sector 25			.0391	.0388			.0391	.0388
			(.0313)	(.0314)			(.0302)	(.0300)
Sector 26			.0454	.0453			.0454	.0453
			(.0384)	(.0384)			(.0377)	(.0378)
Sector 27			-.0318	-.0314			-.0318	-.0314
			(.0441)	(.0442)			(.0518)	(.0522)
Sector 28			-.0112	-.0113			-.0113	-.0113
			(.0447)	(.0447)			(.0473)	(.0473)
Sector 29			-.0521	-.0520			-.0521	-.0520
			(.0588)	(.0589)			(.0712)	(.0712)
Sector 30			.1389	.1389			.1389**	.1389**
			(.1364)	(.1365)			(.0676)	(.0666)
Sector 31			-.0411	-.0419			-.0411	-.0419
			(.0605)	(.0606)			(.0686)	(.0688)
Sector 32			.0657	.0657			.0657	.0657
			(.0656)	(.0656)			(.0453)	(.0452)
Fixed assets/total assets				.0094				.0091
				(.0417)				(.0458)
Number of observations	805	604	604	604	805	604	604	604
R2	0.2711	0.3503	0.3909	0.3910	0.2711	0.3503	0.3909	0.3910

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *.

Table 40: Complete regression results for the current solvency ratio for FDI mother firms for the Europe dummy

	Non-robust regression estimation						Robust regression estimation					
	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
Constant	v	2.8598***	3.2092***	3.9465***	4.1738***	3.8931***	3.8970***	2.8598***	3.2092***	3.9467***	4.1738***	3.8931***
		(.6130)	(.6887)	(.6948)	(.6894)	(.7096)	(.6514)	(.6216)	(.9210)	(.8135)	(.7966)	(.8182)
Europe	-.1308***	-.2758	-.0984	.1066	.0356	.1231	-.1308***	-.2758	-.0984	.1066	.0356	.1231
	(.3192)	(.3393)	(.3453)	(.3449)	(.3421)	(.3468)	(.2924)	(.3156)	(.2952)	(.2833)	(.2758)	(.2868)
LogEmploy	-.3334	-.7108***	-.6708***	-.7004***	-.6928***	-.7011***	-.3334	-.7108***	-.6708***	-.7004***	-.6928***	-.7011***
	(.1078)	(.1489)	(.1519)	(.1518)	(.1493)	(.1545)	(.1393)	(.2026)	(.2027)	(.2027)	(.2036)	(.2020)
Age		.0096	.0112	.0076	.0073	.0084		.0096	.0112*	.0076	.0073	.0084
		(.0071)	(.0072)	(.0071)	(.0070)	(.0071)		(.0064)	(.0064)	(.0067)	(.0067)	(.0067)
logPL2020		.3484***	.3196***	.2770***	.2526***	.2883***		.3484***	.3196***	.2770***	.2528***	.2883***
		(.0864)	(.0884)	(.0882)	(.0875)	(.0891)		(.0741)	(.0714)	(.0720)	(.0710)	(.0731)
Sector 10			-1.1553**	-.8981*	-.8555*	-.9275*			-1.1553**	-.8981	-.8555	-.9275
			(.5135)	(.5098)	(.5049)	(.5129)			(.5616)	(.6045)	(.6021)	(.6046)
Sector 11			-1.0832	-.6015	-.4650	-.6894			-1.0832**	-.6015	-.4650	-.6894
			(1.0458)	(1.0305)	(1.0213)	(1.0356)			(.5066)	(.5750)	(.5575)	(.5757)
Sector 12			3.9732**	3.3380*	2.7166	3.6865*			3.9732	3.3380	2.7166	3.6865
			(1.9740)	(1.9565)	(1.9461)	(1.9637)			(5.2285)	(5.0199)	(5.0139)	(5.0132)
Sector 13			.0759	-.0391	-.1281	.0158			.0759	-.0391	-.1281	.0158
			(.6855)	(.6735)	(.6676)	(.6769)			(.7977)	(.7981)	(.8056)	(.7950)
Sector 14			-.6269	-.7442	-.8681	-.7269			-.6269	-.7442	-.8681	-.7269
			(1.1014)	(1.0810)	(1.0708)	(1.0870)			(.7477)	(.6951)	(.7076)	(.6902)
Sector 15												
Sector 16			-.7650	-.31005	-.3257	-.4361			-.7650	-.3101	-.3257	-.4361
			(.9174)	(.9046)	(.8951)	(.9083)			(.7086)	(.7180)	(.7207)	(.7055)
Sector 17			-1.3309	-.9530	-.9910	-.9192			-1.3309***	-.9530*	-.9910*	-.9192*
			(.9791)	(.9689)	(.9597)	(.9742)			(.5056)	(.4983)	(.5043)	(.4994)
Sector 18			-.8065	-.6010	-.4577	-.6904			-.8065	-.6010	-.4577	-.6904
			(.9278)	(.9112)	(.9033)	(.9162)			(.5291)	(.5252)	(.5310)	(.5397)
Sector 19			-1.3497	-1.5054	-1.8001	-1.3992			-1.3497*	-1.5054***	-1.8001***	-1.3992***
			(2.3921)	(2.3466)	(2.3251)	(2.3596)			(.7003)	(.4234)	(.4870)	(.4894)
Sector 20			-.6889	-.6256	-.5715	-.6358			-.6889	-.6256	-.5715	-.6358
			(.4979)	(.4898)	(.4848)	(.4929)			(.5458)	(.5598)	(.5577)	(.5605)
Sector 21			-.4750	-.3889	-.4771	-.2336			-.4750	-.3889	-.4771	-.2336
			(1.2700)	(1.2467)	(1.2351)	(1.2538)			(1.0070)	(1.0050)	(.9549)	(1.0002)

Sector 22			-.3170	-.1833	-.2600	-.2432			-.3170	-.1833	-.2600	-.2432
			(.5496)	(.5408)	(.5359)	(.5446)			(.4592)	(.4746)	(.4713)	(.4788)
Sector 23			-.8152	-.4635	-.4466	-.5383			-.8152*	-.4635	-.4466	-.5383
			(.6553)	(.6472)	(.6408)	(.6502)			(.4193)	(.4665)	(.4645)	(.4629)
Sector 24			-1.1084	-1.0675	-1.0120	-.9611			-1.1084***	-1.0675***	-1.0120**	-.9611**
			(.8973)	(.8820)	(.8730)	(.8862)			(.3627)	(.3898)	(.4212)	(.4006)
Sector 25			-.5569	-.4166	-.4111	-.4601			-.5569	-.4166	-.4111	-.4601
			(.4538)	(.4460)	(.4415)	(.4481)			(.4830)	(.4975)	(.4949)	(.4972)
Sector 26			.0350	.0932	.0910	.0886			.0350	.0932	.0910	.0886
			(.5552)	(.5448)	(.5395)	(.5480)			(.8352)	(.8235)	(.8093)	(.8312)
Sector 27			.0578	-.0862	-.2376	-.0638			.0578	-.0862	-.2376	-.0638
			(.6391)	(.6278)	(.6228)	(.6312)			(.5645)	(.5388)	(.5502)	(.5443)
Sector 28			-.0192	.0123	.0625	.0012			-.0192	.0123	.0625	.0012
			(.6464)	(.6341)	(.6281)	(.6375)			(.6588)	(.6455)	(.6277)	(.6502)
Sector 29			-.6954	-.7819	-.7574	-.7912			-.6954	-.7819*	-.7574*	-.7912*
			(.8516)	(.8356)	(.8274)	(.8405)			(.4539)	(.4379)	(.4119)	(.4403)
Sector 30			-.2667	-.4960	.4171	-.3132			-.2667	-.4960	.4171	-.3132
			(1.9739)	(1.9373)	(1.9227)	(1.9469)			(.8963)	(.5464)	(.6732)	(.5559)
Sector 31			-.7505	-.6122	-.7608	-.6062			-.7505	-.6122	-.7608	-.6062
			(.8751)	(.8604)	(.8531)	(.8653)			(.6705)	(.6135)	(.5928)	(.6226)
Sector 32			-1.3450	-1.1671	-1.1593	-1.2649			-1.3450**	-1.1671*	-1.1593*	-1.2649**
			(.9493)	(.9324)	(.9230)	(.9368)			(.6053)	(.6326)	(.6329)	(.6411)
Fixed assets/total assets				-2.0398***	-2.1431***	-2.0790***				-2.0398***	-2.1431***	-2.0790***
				(.5917)	(.5862)	(.5949)				(.7076)	(.7132)	(.7161)
Financial health <0.40				1.2469***						1.2469***		
				(.3531)						(.2982)		
Financial health <0.50					1.9574***						1.9574***	
					(.4005)						(.4139)	
Financial health <0.60						.8309**						.8309***
						(.3371)						(.2491)
Number of observations	806	605	604	604	604	604	806	605	604	604	604	604
R2	0.0320	0.0416	0.0744	0.1125	0.1294	0.1027	0.0320	0.0416	0.0744	0.1125	0.1294	0.1027

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *.

Table 41: Complete regression results for the log cash flow for FDI mother firms for the Europe dummy

	Non-robust regression estimation						Robust regression estimation					
	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
Constant	3.2934	1.8690***	1.8656***	1.8513***	1.8598***	1.8845***	3.2934	1.8690***	1.8656***	1.8513***	1.8598***	1.8845***
	(.1922)	(.0963)	(.1068)	(.1032)	(.1033)	(.1045)	(.2258)	(.1706)	(.1768)	(.1601)	(.1611)	(.1620)
Europe	.0942***	-.0477***	-.0480	-.1295**	-.1351***	-.1283**	.0942***	-.0477***	-.0480	-.1295**	-.1351**	-.1283**
	(.1171)	(.0533)	(.0535)	(.0512)	(.0512)	(.0511)	(.1144)	(.0575)	(.0597)	(.0618)	(.0620)	(.0612)
LogEmploy	.9997***	.4083	.4051***	.3763***	.3786***	.3695***	.9997***	.4083	.4051***	.3763***	.3786***	.3695***
	(.0397)	(.0234)	(.0236)	(.0226)	(.0224)	(.0228)	(.0497)	(.0337)	(.0321)	(.0280)	(.0279)	(.0279)
Age		.0003	-.0001	.0004	.0004	.0004		.0003	-.0001	.0004	.0004	.0004
		(.0011)	(.0011)	(.0011)	(.0011)	(.0011)		(.0011)	(.0010)	(.0010)	(.0010)	(.0010)
logPL2020		.5963***	.5849***	.5747***	.5738***	.5723***		.5963***	.5849***	.5747***	.5738***	.5723***
		(.0135)	(.0137)	(.0131)	(.0131)	(.0131)		(.0332)	(.0334)	(.0317)	(.0318)	(.0317)
Sector 10			.3098***	.2094***	.2133***	.2025***			.3098***	.2094**	.2133**	.2025**
			(.0799)	(.0760)	(.0759)	(.0758)			(.1026)	(.0906)	(.0906)	(.0905)
Sector 11			.5667***	.4922***	.4994***	.4935***			.5667***	.4922***	.4994***	.4935**
			(.1616)	(.1526)	(.1526)	(.1521)			(.1859)	(.1888)	(.1849)	(.1910)
Sector 12			.6750**	.4663	.4329	.4548			.6750***	.4663*	.4329*	.4548*
			(.3050)	(.2898)	(.2907)	(.2884)			(.1746)	(.2453)	(.2440)	(.2445)
Sector 13			-.0616	-.0856	-.0903	-.0866			-.0616	-.0856	-.0903	-.0866
			(.1060)	(.0998)	(.0998)	(.0995)			(.0947)	(.0902)	(.0909)	(.0892)
Sector 14			-.0479	-.0003	-.0109	.0041			-.0479	-.0003	-.0109	.0041
			(.1702)	(.1601)	(.1600)	(.1597)			(.1874)	(.1655)	(.1664)	(.1670)
Sector 15												
Sector 16			.1019	.0238	.0189	.0159			.1019	.0238	.0189	.0159
			(.1418)	(.1340)	(.1337)	(.1335)			(.1504)	(.1458)	(.1451)	(.1413)
Sector 17			.2500*	.0824	.0805	.0832			.2500	.0824	.0805	.0832
			(.1513)	(.1435)	(.1434)	(.1431)			(.1820)	(.1744)	(.1735)	(.1756)
Sector 18			.0167	-.0346	-.0238	-.0467			.0167	-.0346	-.0237	-.0467
			(.1434)	(.1350)	(.1349)	(.1346)			(.1393)	(.1278)	(.1255)	(.1229)
Sector 19			.3804	.4173	.3937	.4336			.3804***	.4173**	.3937*	.4336*
			(.3695)	(.3475)	(.3472)	(.3465)			(.1189)	(.2120)	(.2232)	(.2260)
Sector 20			.1809**	.1320*	.1375*	.1258*			.1809**	.1320*	.1375**	.1258*
			(.0770)	(.0726)	(.0725)	(.0725)			(.0746)	(.0693)	(.0696)	(.0686)
Sector 21			.6377***	.5720***	.5661***	.5945***			.6377***	.5720**	.5661**	.5945**
			(.1962)	(.1846)	(.1844)	(.1841)			(.2327)	(.2285)	(.2190)	(.2313)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Sector 22			.1080	.0523	.0463	.0403			.1080	.0523	.0463	.0403
			(.0850)	(.0802)	(.0801)	(.0800)			(.0803)	(.0794)	(.0796)	(.0782)
Sector 23			.2024**	.1270	.1263	.1224			.2024*	.1270	.1263	.1224
			(.1013)	(.0959)	(.0958)	(.0955)			(.1063)	(.0924)	(.0919)	(.0924)
Sector 24			.1323	.0618	.0687	.0716			.1323	.0618	.0687	.0716
			(.1386)	(.1306)	(.1304)	(.1302)			(.1036)	(.0880)	(.0874)	(.0885)
Sector 25			-.0372	-.0568	-.0578	-.0590			-.0372	-.0568	-.0578	-.0590
			(.0704)	(.0664)	(.0663)	(.0661)			(.0693)	(.0653)	(.0654)	(.0652)
Sector 26			.0252	.0282	.0270	.0318			.0252	.0282	.0270	.0318
			(.0859)	(.0808)	(.0806)	(.0805)			(.0807)	(.0802)	(.0800)	(.0801)
Sector 27			-.0584	-.0230	-.0348	-.0216			-.0584	-.0230	-.0349	-.0216
			(.0988)	(.0930)	(.0930)	(.0927)			(.0768)	(.0668)	(.0668)	(.0665)
Sector 28			.0859	.0829	.0866	.0825			.0859	.0829	.0866	.0825
			(.0999)	(.0940)	(.0939)	(.0936)			(.1115)	(.1065)	(.1061)	(.1061)
Sector 29			.0189	.0185	.0218	.0116			.0189	.0185	.0218	.0116
			(.1316)	(.1237)	(.1236)	(.1234)			(.0936)	(.1005)	(.0996)	(.0994)
Sector 30			.1425	.1169	.1971	.1318			.1425	.1169	.1971	.1318
			(.3050)	(.2869)	(.2871)	(.2859)			(.1142)	(.1808)	(.2077)	(.1820)
Sector 31			.0736	-.0053	-.0164	-.0091			.0736	-.0053	-.0164	-.0091
			(.1352)	(.1275)	(.1275)	(.1271)			(.0960)	(.1030)	(.1031)	(.1004)
Sector 32			.22340	.2366	.2340*	.2324*			.2240	.2366	.2340	.2324
			(.1467)	(.1382)	(.1379)	(.1376)			(.1674)	(.1488)	(.1487)	(.1458)
Fixed assets/total assets				.7445***	.7352***	.7397***				.7445***	.7352***	.7397***
				(.0878)	(.0877)	(.0876)				(.1278)	(.1269)	(.1272)
Financial health <0.40				.1273**						.1273***		
				(.0523)						(.0467)		
Financial health <0.50					.1623***						.1623***	
					(.0598)						(.0538)	
Financial health <0.60						.1512***						.1512***
						(.0495)						(.0443)
Number of observations	682	602	601	601	601	601	682	602	601	601	601	601
R2	0.4875	0.8965	0.9057	0.9169	0.9171	0.9174	0.4875	0.8965	0.9057	0.9169	0.9171	0.9174

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *.

Table 42: Complete regression results for the net added value per employee for FDI mother firms for the Europe dummy

	Non-robust regression estimation						Robust regression estimation					
	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
c	107.9669***	-98.2434***	-17.1436	-23.0761	-24.0431	-26.6607	107.9669***	-98.24337*	-17.1436	-23.0761	-24.0431	-26.6607
	(16.2491)	(36.2440)	(38.5512)	(39.5378)	(39.7421)	(39.8359)	(9.9507)	(50.8068)	(38.6767)	(32.8892)	(34.2052)	(32.7167)
Europe	23.7525	1.2767	1.2657	.5656	1.1271	.4394	23.7525*	1.2767	1.2657	.5656	1.1271	.4394
	(18.2493)	(21.3573)	(20.4309)	(20.8354)	(20.8632)	(20.8239)	(13.3900)	(10.9069)	(11.8545)	(10.6381)	(10.8429)	(10.7425)
Age		.4991	.3399	.3750	.3704	.3861		.4991	.33992	.3750	.3704	.38611
		(.4408)	(.4185)	(.4219)	(.4211)	(.4216)		(.6707)	(.4442)	(.4908)	(.4771)	(.4881)
logPL2020		31.3538***	25.1424***	25.9587***	25.9289***	26.6619***		31.3538***	25.1424***	25.9587***	25.9289***	26.6619***
		(4.3805)	(4.3018)	(4.5619)	(4.5313)	(4.6635)		(5.5480)	(3.6987)	(4.0299)	(4.4305)	(4.1198)
Sector 10			-54.9671*	-55.8179*	-56.2764*	-54.8098*			-54.9671	-55.8179	-56.2764	-54.8098
			(30.3317)	(30.7658)	(30.7614)	(30.7805)			(38.7453)	(42.7564)	(43.0999)	(42.2302)
Sector 11			-64.3550	-67.7751	-68.4559	-68.0462			-64.3550*	-67.7751	-68.4559	-68.0462
			(61.8417)	(62.1984)	(62.2460)	(62.1378)			(37.6612)	(43.3256)	(43.3870)	(43.3958)
Sector 12			236.4841**	244.9608**	248.2765**	246.5333**			23.6484**	24.4961**	24.8277**	24.6533**
			(116.2621)	(117.3262)	(117.8840)	(116.9957)			(100.8588)	(100.9854)	(100.7154)	(100.6636)
Sector 13			-49.4097	-48.0325	-47.5819	-47.8322			-49.4097	-48.0325	-47.5819	-47.8322
			(40.5440)	(40.6536)	(40.6847)	(40.6162)			(35.1152)	(34.2036)	(34.0578)	(34.3633)
Sector 14			-19.5594	-19.3476	-18.1579	-20.1507			-19.5594	-19.3476	-18.1579	-20.1507
			(65.1330)	(65.2687)	(65.2734)	(65.2510)			(46.7349)	(44.9005)	(44.2701)	(44.9996)
Sector 15												
Sector 16			-61.7259	-64.9325	-64.3185	-64.1449			-61.7259*	-64.9325	-64.3185	-64.1449
			(54.2726)	(54.6319)	(54.5826)	(54.5389)			(36.1513)	(42.0212)	(41.4473)	(41.1920)
Sector 17			-58.3745	-59.4111	-59.2809	-59.3254			-58.3750*	-59.4111*	-59.2809*	-59.3254*
			(57.9150)	(58.5267)	(58.5275)	(58.4970)			(30.0574)	(35.8697)	(35.8815)	(35.7013)
Sector 18			-54.4107	-55.5311	-56.6899	-53.9261			-54.4107	-55.5311	-56.6899	-53.9261
			(54.8758)	(55.0227)	(55.0637)	(55.0094)			(36.2897)	(39.0167)	(39.7597)	(38.0679)
Sector 19			1286.8950***	1287.8590***	1290.3170***	1285.9170***			1286.8950	1287.8590	1290.3170	1285.9170
			(141.5507)	(141.7490)	(141.8037)	(141.6968)			(914.7292)	(910.1042)	(908.9979)	(907.7326)
Sector 20			-18.2878	-18.2359	-18.8231	-17.4769			-18.2878	-18.2359	-18.8231	-17.4769
			(29.4549)	(29.5670)	(29.5560)	(29.5745)			(41.4757)	(42.3908)	(42.9810)	(41.9864)
Sector 21			285.7403***	286.3329***	28.6741***	28.4197***			285.7403**	286.3329**	286.7405**	284.1972**
			(74.9438)	(75.1423)	(75.1547)	(75.0868)			(140.2582)	(142.1740)	(142.4409)	(142.6171)
Sector 22			-42.3342	-42.7541	-42.1362	-41.1687			-42.3342	-42.7541	-42.1362	-41.1687
			(32.5166)	(32.6651)	(32.6836)	(32.7032)			(28.6742)	(30.6587)	(30.2600)	(29.8820)

Sector 23			-58.5403	-60.5491	-60.5073	-59.7618			-58.5403*	-60.5491*	-60.5073*	-59.7618*
			(38.5918)	(38.9277)	(38.9223)	(38.8879)			(31.6882)	(36.2230)	(36.1642)	(35.5898)
Sector 24			-41.4333	-40.7048	-41.5210	-41.7086			-41.4332*	-40.7048	-41.5210	-41.7086
			(53.0910)	(53.2768)	(53.2407)	(53.2152)			(24.2601)	(25.3519)	(26.2051)	(25.9961)
Sector 25			-47.3290*	-48.3416*	-48.2362*	-48.0515*			-47.3290	-48.3416	-48.2362	-48.0515
			(26.8182)	(26.9043)	(26.8965)	(26.8765)			(32.1285)	(33.8200)	(33.7004)	(33.5372)
Sector 26			-15.4797	-16.2726	-16.0475	-17.0081			-15.4797	-16.2726	-16.0475	-17.0081
			(32.7998)	(32.8654)	(32.8524)	(32.8689)			(26.8386)	(27.3141)	(27.1422)	(27.5866)
Sector 27			-59.0287	-57.7805	-56.7068	-57.3604			-59.0287**	-57.7805**	-56.7067**	-57.3604**
			(37.5095)	(37.6081)	(37.6881)	(37.5936)			(28.2212)	(26.6016)	(25.8990)	(26.5509)
Sector 28			-30.3514	-30.6349	-31.0176	-30.6237			-30.3514	-30.6349	-31.0176	-30.6237
			(38.2510)	(38.3024)	(38.3096)	(38.2859)			(31.7289)	(32.1402)	(32.4605)	(32.1086)
Sector 29			-34.3897	-33.2972	-33.7866	-31.9784			-34.3897	-33.2972	-33.7866	-31.9784
			(50.2964)	(50.3871)	(50.3666)	(50.4023)			(28.6079)	(28.2723)	(28.5932)	(27.6912)
Sector 30			-106.4408	-103.1560	-112.0052	-103.7845			-106.4408**	-103.1560**	-112.0052**	-103.7845**
			(116.5127)	(116.7820)	(116.9094)	(116.6563)			(47.8721)	(44.3303)	(52.3849)	(44.8561)
Sector 31			-33.2385	-33.4938	-32.3115	-33.0856			-33.2385	-33.4938	-32.3115	-33.0856
			(51.7715)	(51.9502)	(51.9999)	(51.9319)			(33.5961)	(35.9884)	(35.3957)	(35.9237)
Sector 32			-5.8566	-8.0359	-7.5705	-8.0414			-5.8566	-8.0359	-7.5705	-8.0414
			(56.1186)	(56.2871)	(56.2440)	(56.2151)			(49.3068)	(50.4475)	(50.1440)	(50.2954)
Fixed assets/total assets				8.6244	9.4875	9.5816				8.6244	9.4875	9.5816
				(35.5411)	(35.5634)	(35.5417)				(39.8214)	(40.0069)	(40.2335)
Financial health <0.40				-14.1889						-14.1889		
				(21.0584)						(19.7556)		
Financial health <0.50					-17.0971						-17.0971	
					(24.2856)						(22.8653)	
Financial health <0.60						-19.0245						-19.0245
						(19.7271)						(17.7373)
Number of observations	806	605	604	604	604	604	806	605	604	604	604	604
R2	0.0021	0.0877	0.2465	0.2472	0.2473	0.2478	0.0021	0.0877	0.2465	0.2472	0.2473	0.2478

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *.

Table 43: Complete regression results for the fixed assets over total assets ratio for FDI mother firms for the Europe dummy

	Non-robust regression estimation						Robust regression estimation					
	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3	Stage 1	Stage 2	Stage 3	Stage 4.1	Stage 4.2	Stage 4.3
Constant	.1627***	.1305***	.0954**	.1040	.0260	.0334	.1627***	.13050***	.0954*	.1040	.0260	.0334
	(.0333)	(.0426)	(.0475)	(.1034)	(.0912)	(.1080)	(.0348)	(.0475)	(.0542)	(.1167)	(.1014)	(.1121)
Europe	.1088***	.1136***	.1093***	.1094***	.1077***	.1099***	.1088***	.1136***	.1094***	.1094***	.1077***	.1099***
	(.0207)	(.0236)	(.0238)	(.0239)	(.0239)	(.0239)	(.0185)	(.0201)	(.0202)	(.0202)	(.0203)	(.0202)
LogEmploy	.0284***	.0297***	.0268**	.0268**	.0302***	.0285**	.0284***	.0297**	.0269**	.0268**	.0302**	.0285**
	(.0070)	(.0103)	(.0105)	(.0114)	(.0113)	(.0112)	(.0074)	(.0120)	(.0120)	(.0130)	(.0131)	(.0128)
Age		-.0008	-.0009*	-.0009*	-.0009*	-.0009*		-.0008	-.0009*	-.0009*	-.0009*	-.0009*
		(.0005)	(.0005)	(.0005)	(.0005)	(.0005)		(.0005)	(.0005)	(.0005)	(.0005)	(.0005)
logPL2020		.0060	.0062	.0064	.0066	.0067		.0060	.0062	.0064	.0066	.0067
		(.0060)	(.0061)	(.0063)	(.0063)	(.0063)		(.0077)	(.0079)	(.0082)	(.0082)	(.0082)
Sector 10			.1321***	.1317***	.1356***	.1332***			.1321***	.1317***	.1356***	.1332***
			(.0354)	(.0357)	(.0356)	(.0356)			(.0391)	(.0396)	(.0394)	(.0393)
Sector 11			.1282*	.1272*	.1278*	.1247**			.1282*	.1272*	.1276*	.1248*
			(.0722)	(.0726)	(.0725)	(.0726)			(.0721)	(.0715)	(.0713)	(.0731)
Sector 12			.1483	.1535	.1411	.1551			.1483	.1535	.1411	.1552
			(.1362)	(.1381)	(.1384)	(.1381)			(.1242)	(.1269)	(.1223)	(.1221)
Sector 13			.0112	.0121	.0094	.0116			.0112	.0121	.0094	.0116
			(.0473)	(.0475)	(.0474)	(.0474)			(.0486)	(.0489)	(.0491)	(.0488)
Sector 14			-.0645	-.0646	-.0675	-.0637			-.0645	-.0646	-.0675	-.0637
			(.0760)	(.0761)	(.0761)	(.0761)			(.0571)	(.0573)	(.0569)	(.0575)
Sector 15												
Sector 16			.1288**	.1275**	.1275**	.1262**			.1288*	.1275*	.1275*	.1262*
			(.0633)	(.0635)	(.0634)	(.0636)			(.0718)	(.0718)	(.0727)	(.0715)
Sector 17			.2150***	.2156***	.2125***	.2141***			.2150***	.2156***	.2125***	.2141***
			(.0676)	(.0677)	(.0676)	(.0677)			(.0758)	(.0762)	(.0752)	(.0756)
Sector 18			.0743	.0741	.0770	.0711			.0743	.0741	.0770	.0711
			(.0640)	(.0641)	(.0641)	(.0643)			(.0550)	(.0549)	(.0562)	(.0548)
Sector 19			-.0568	-.0569	-.0615	-.0512			-.0568	-.0569	-.0615	-.0512
			(.1651)	(.1654)	(.1653)	(.1655)			(.0678)	(.0721)	(.0611)	(.0665)
Sector 20			.0567*	.0571*	.0579*	.0555			.0567*	.0571*	.0579*	.0555*
			(.0344)	(.0344)	(.0344)	(.0345)			(.0303)	(.0303)	(.0304)	(.0303)
Sector 21			.0767	.0778	.0710	.0782			.0767	.0778	.0710	.0782
			(.0876)	(.0879)	(.0878)	(.0878)			(.0938)	(.0933)	(.0939)	(.0951)

Sector 22			.0714*	.0713*	.0710*	.0704*			.0714**	.0713**	.0710**	.0704**
			(.0379)	(.0380)	(.0380)	(.0381)			(.0329)	(.0331)	(.0328)	(.0333)
Sector 23			.1155**	.1149**	.1143**	.1131**			.1155**	.1149**	.1143**	.1131**
			(.0452)	(.0454)	(.0453)	(.0455)			(.0509)	(.0513)	(.0514)	(.0516)
Sector 24			.0778	.0786	.0793	.0802			.0778	.0786	.0793	.0802
			(.0619)	(.0621)	(.0620)	(.0621)			(.0684)	(.0690)	(.0678)	(.0683)
Sector 25			.0325	.0321	.0320	.0314			.0325	.0321	.0320	.0314
			(.0313)	(.0314)	(.0314)	(.0314)			(.0333)	(.0335)	(.0335)	(.0336)
Sector 26			.0017	.0016	.0002	.0010			.0017	.0016	.0002	.0010
			(.0383)	(.0384)	(.0384)	(.0381)			(.0334)	(.0335)	(.0338)	(.0336)
Sector 27			-.0536	-.0535	-.0561	-.0522			-.0536	-.0535	-.0561	-.0522
			(.0441)	(.0442)	(.0442)	(.0442)			(.0439)	(.0440)	(.0445)	(.0442)
Sector 28			.0052	.0049	.0076	.0062			.0052	.0049	.0076	.0062
			(.0446)	(.0447)	(.0447)	(.0447)			(.0495)	(.0496)	(.0496)	(.0496)
Sector 29			-.0100	-.0098	-.0078	-.0098			-.0100	-.0098	-.0078	-.0098
			(.0588)	(.0589)	(.0589)	(.0589)			(.0556)	(.0561)	(.0568)	(.0551)
Sector 30			.0004	.0044	.0087	-.0090			.0004	.0044	.0087	-.0060
			(.1362)	(.1376)	(.1367)	(.1371)			(.2110)	(.2108)	(.2057)	(.2141)
Sector 31			.0965	.0967	.0937	.0967			.0965*	.0967*	.0937	.0967*
			(.0604)	(.0605)	(.0605)	(.0605)			(.0580)	(.0580)	(.0582)	(.0580)
Sector 32			.0036	.0024	.0040	.0026			.0036	.0024	.0040	.0026
			(.0655)	(.0657)	(.0656)	(.0657)			(.0601)	(.0604)	(.0596)	(.0602)
Debt ratio				-.0101	.0610	.0552				-.0101	.0610	.0552
				(.0741)	(.0618)	(.0829)				(.0797)	(.0634)	(.0838)
Financial health <0.40				-.0138						-.0138		
				(.0443)						(.0450)		
Financial health <0.50					.0481						.0481	
					(.0422)						(.0424)	
Financial health <0.60						.0302						.0302
						(.0470)						(.0462)
Number of observations	806	605	604	604	604	604	806	605	604	604	604	604
R2	0.0582	0.0781	0.1399	0.1401	0.1419	0.1406	0.0582	0.0781	0.1399	0.1401	0.1419	0.1406

Note: The standard errors are included in brackets. Statistical significance on the 1%, 5%, and 10% are respectively represented as ***, **, and *.