



LUND UNIVERSITY
School of Economics and Management

Home Country Tariffs and FDI in China

Master Thesis 2012
Lund University
Department of Economics

Author
Maria Ahren

Supervisor
Fredrik Sjöholm

Abstract

To date China has become one of the largest receivers of foreign direct investment (FDI) and this FDI has had an important role in China's economic growth. It is therefore important to study the determinants of FDI in China. This paper evaluates if general applied tariffs on Chinese imports in China's trading partners influence the amount of FDI to China. In previous studies this approach has not been applied as the literature mainly looks at tariffs in China as a FDI determinant and not tariffs in investing countries. The study contains of two parts, one quantitative study, where panel data is applied for FDI stock and other economic indicators, and one qualitative study, where managers for FDI receiving firms in China are interviewed. The quantitative study found that general tariffs in investing countries on Chinese imports have a weak correlation with FDI stock in China. The interviews in the qualitative study reject the correlation as well. In conclusion, the concerned tariffs do not determine the FDI stock in China. However, this study also found that non-tariff barriers, such as anti-dumping duties and other regulations, influence the investments and productivity of FDI receiving firms in China.

Keywords: China FDI, tariffs, imports, trade barriers, FDI determinants

Contents

1. Introduction	3
1.1. Study Objectives	4
2. FDI in China	5
2.1. History and Background.....	5
2.2. Attractive labor-intensive sector	7
3. FDI Theories	10
3.1. Location specific FDI.....	10
3.2. Export platform FDI.....	11
3.3. Import Tariff determined FDI.....	12
4. Previous empirical literature.....	13
5. Hypothesis.....	15
6. Method	15
6.1. The Quantitative Study	15
6.1.1. Estimation method.....	15
6.1.2. Dependent variables	16
6.1.3. Variable of interest	17
6.1.4. Control variables	18
6.1.5. Empirical results.....	21
6.2. The Qualitative Study.....	25
6.2.1. Method	25
6.2.2. Results and responses.....	26
7. Quantitative and qualitative comparison	30
7.1. Limitations.....	32
8. Concluding remarks	32
8.1. Future research.....	33
References	34
Appendix	37

1. Introduction

Foreign direct investment (FDI) has increased rapidly since the seventies and an increasing part of FDI today is targeted towards developing countries and emerging economies, led by China¹ (Watch, 2010). Comparative advantages, such as low wages and labor abundance, as well as reduced tariffs and FDI promoting policies, have turned China into one of the world's largest receivers of foreign investments. The increasing rate of FDI to China is argued to be partly due to a greater interest in using China as a supplier country. For example, it hosts 22% of the United States' outsourcing, almost twice as much as any other region (Thornton, 2009). Consequently, the investments have increased the trade flow toward China and strong world demand has strengthened the country's role in the global processing trade which has increased exports further. FDI has contributed to a considerable part of the industrial growth in China and since 1981 FDI flows and export growth have accounted for more than half of the country's growth in GDP (Srivastava, 2008). Srivastava (2008) further shows that 50 percent of the exporting companies in China are fully or partly foreign owned which highlights the correlation between exports and FDI and implies the importance of FDI in China.

As FDI has an important role for China's economic growth it is vital to understand the mechanisms behind FDI and its determinants. To date, extensive research on the topic has been carried out, although this has mainly focused on the effects that trade barriers in the host country have on FDI. Academic research has found that lower trade barriers in the host country increase the amount of FDI invested in the country. However, no previous studies have investigated the sole effects of the tariffs in the home country on FDI. This is quite remarkable as trade restrictions in the home country can be argued to have a significant influence when determining FDI. It is suggested that higher import restrictions on Chinese imports in the home country will have a negative effect on FDI as the incentive to produce in China in order to export back to the home market decreases. The potential profit would decrease as it declines with higher trade costs. Higher tariffs in other importing countries would also decrease the

¹ China, as mentioned in this study, refers to the Mainland, i.e. People's Republic of China (PRC).

² http://pwt.econ.upenn.edu/php_site/pwt_index.php

³ There have been cases where data from the National Bureau of Statistics of China has been manipulated, for example in cases with GDP accounting in 2010 (Xiaotian, 2010) and this can be a limitation to the data set.

incentives to produce in China and sell on other markets. Consequently the FDI would decrease. Therefore, tariffs on Chinese imports in the home country are assumed to have a negative correlation with FDI in China as many of the FDI receiving firms export their production and face the trade costs associated with the concerned tariffs.

Additionally, higher tariffs might lower the productivity within the FDI receiving plants, causing lower growth and exports in the sector, and resulting in lower profits and influencing operations at the firm-level in China. Operations at the firm level in China are thus assumed to be influenced by the trade barriers in the home country; however, research on this topic is very limited.

1.1. Study Objectives

This study aims to fill the current gap existing within FDI theories and provide important information regarding the determinants of FDI and the consequences at the firm level. It will also investigate the effects of import tariffs in home countries on FDI to China. In order to investigate the long run effects that tariffs on imports from China have on the FDI stock, an econometric study is conducted. The results will be important contributions to FDI literature as the study focuses on tariffs in the investing countries as opposed to previous studies which mainly look at tariffs in the host country.

The study also investigates the potential effects that the concerned tariffs in the home country have on firms in China that receive investments from the home country. The firms' operations are evaluated in order to determine if a correlation exists between the operations of the firm, the investments received and trade policies in the home country. This qualitative study takes place in China, and consists of interviews with managers at FDI receiving firms due to the large number of foreign plants locating in the country. To demonstrate the significance of the FDI saturation, one Swedish company is established in China every four days (STC, 2012). This qualitative study provides useful information regarding the relations between long term economic policies and operations at the firm level. It also makes an important contribution to the economic field as FDI literature currently lacks research on how FDI influences the

operations of firms. This study also investigates if an observable bridge between economics and business administration exists, which can potentially provide an important contribution to modern economics literature by bringing a practical element to international economics.

In summary, this study covers two main aspects of FDI; firstly, the long run effects of the home country's tariffs on imports from the host country; secondly, the effects of the concerned tariffs on operations and investments at firm-level in FDI receiving firms.

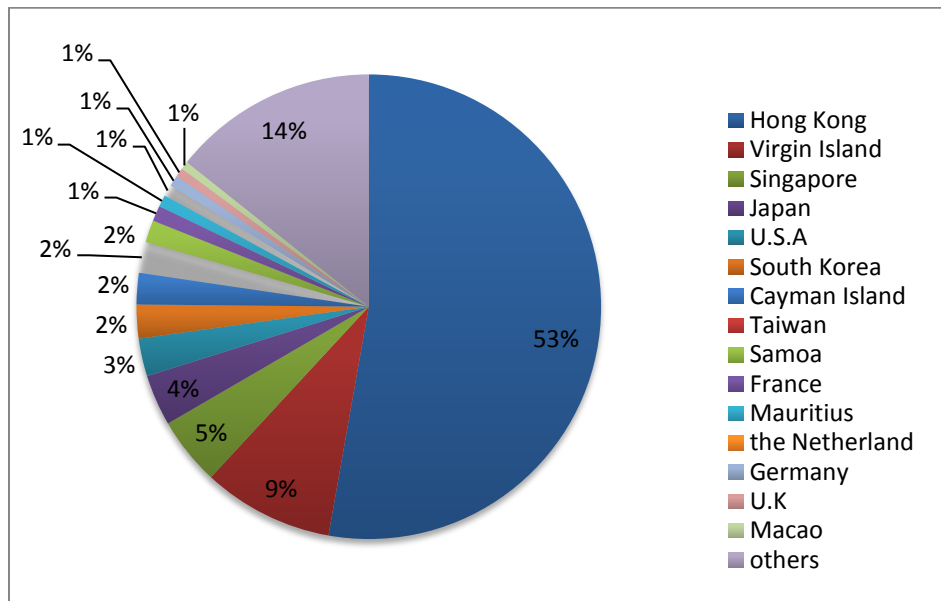
This thesis first provides some history and background on FDI in China, followed by a discussion about the main analytical framework and theories concerning FDI. Previous empirical literature related to the theories is then presented. The hypothesis of this paper is subsequently outlined, followed by the methodology and data. The results are then presented and the paper concludes with a comparison between the quantitative and the qualitative study.

2. FDI in China

2.1. History and Background

In 1979 FDI was authorized by the Chinese government as a part of an economic reform and a policy aimed to open up the country. The policy intended to increase exports as well as protect the domestic market. This policy increased the economic growth in China and turned the country into the attractive location for multinational corporations that it is today (Srivastava, 2008). Before the economic reforms were undertaken, foreign investments made in China were rare and only issued by other governments; mainly the former Soviet Union. When the country was opened up in the late seventies, most of the investments originated from Taiwan, Hong Kong and Macau, which still are major investors in China today (X. Lin & Eso, 1998) (see figure 1). A large part of this FDI to China was made by overseas Chinese who control the major economic activities in countries such as Indonesia, Singapore and Thailand (Zhang, 2006).

Figure 1, FDI by country of origin 2010



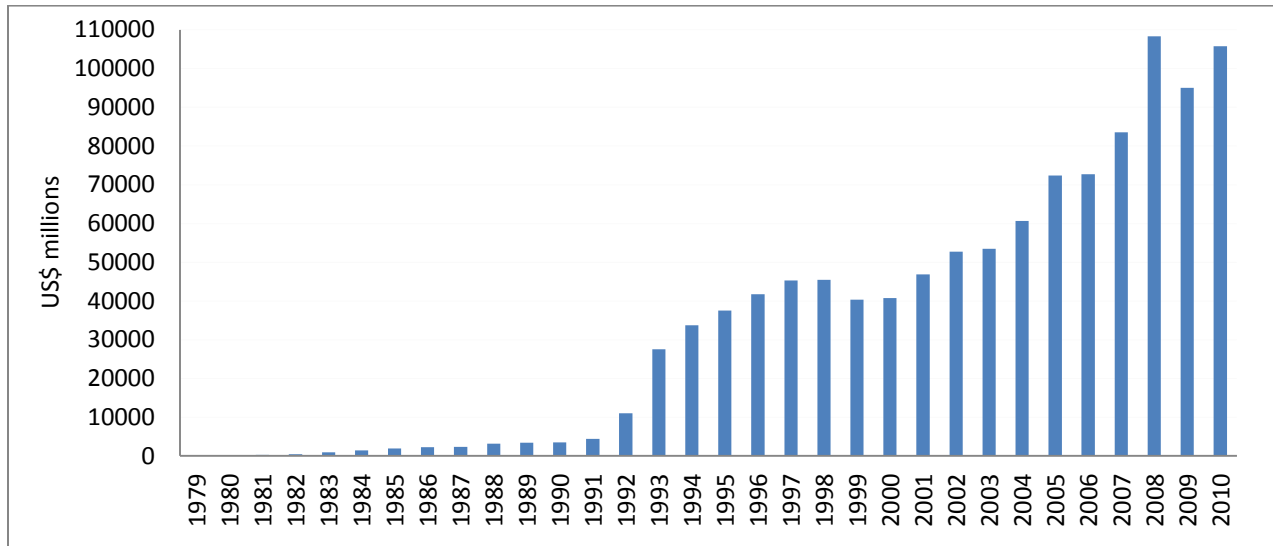
Source: www.fdi.gov.cn

Prior to 1984, foreign firms were only allowed to operate in limited areas, such as in any of the four Special Economic Zones (SEZ). The Chinese government wanted to isolate the foreign operations in order to observe and gain experience before opening up the rest of the country (X. Lin & Eso, 1998). Fourteen other cities were opened up in 1984 and two years later FDI incentives were implemented. However, the FDI in China was relatively small during these first years due to poor infrastructure and lack of experience in dealing with foreign investors (Zhang, 2006).

In 1992 FDI in China increased dramatically and China started to attract FDI on a large scale. The FDI flow in 1993 (US \$26 billion) exceeded the total FDI flow of the last thirteen years together. In addition, China began to gradually open the domestic market to Multinational Enterprises (MNEs) in 1992 (Zhang, 2006). Today the country is the largest FDI receiver amongst developing countries and the second largest receiver worldwide, after the USA. The annual inflow of FDI has been over US\$60 billion since 2004 and the importance of FDI has increased in the country. During the twentieth century FDI inflows accounted for almost 10% of gross fixed capital formation and 21% of the tax revenue in China came from MNEs. These enterprises produced

28% of the industrial output and more than half of Chinese exports were produced by MNEs (Zhang, 2006).

Figure 2, FDI in China 1979 - 2010



Source: Unctad

2.2. Attractive labor-intensive sector

The majority of FDI in China is targeted towards the labor intensive manufacturing sector, in which FDI increased by an annual average of 5% between 2003-2008, which is an average of US\$436,875 per year (China, 2006). As the wages in China are on average 50%-90% lower than in industrialized countries, obvious profits can be made by moving labor-intense production to China. Boermans, Roelfsema and Zhang (2011) demonstrate that FDI is an important growth engine in China but that there exists provincial differences in the amount of FDI received. Provinces that have lower local labor costs than the rest of the country attract more FDI. The quality of the institutions, and the transport and communication structure within the provinces also determine the location for FDI (Boermans, et al., 2011).

Table 1 - Foreign Direct Investment by Sector, 2010

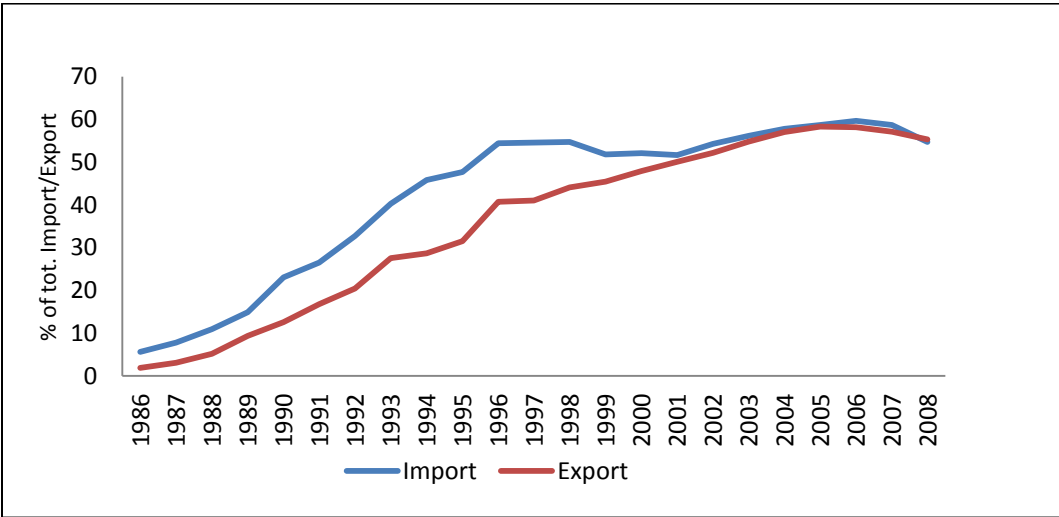
Sector	Number of projects, (units)	%	Investments, US\$ 10000	%
Total	27406	100	10573524	100
Agriculture, Forestry, Animal Husbandry and Fishery	929	3.4	191195	1.8
Mining	92	0.3	68440	0.6
Manufacturing	11047	40.3	4959058	46.9
Production and Supply of Electricity, Gas and Water	210	0.8	212477	2.0
Construction	276	1.0	146062	1.4
Transport, Storage and Post	396	1.4	224373	2.1
Information Transmission, Computer Services and Software	1046	3.8	248667	2.4
Wholesale and Retail Trades	6786	24.8	659566	6.2
Hotels and Catering Services	579	2.1	93494	0.9
Financial Intermediation	85	0.3	112347	1.1
Real Estate	689	2.5	2398556	22.7
Leasing and Business Services	3418	12.5	713023	6.7
Scientific Research	1299	4.7	196692	1.9
Management of Water Conservancy and Environment	143	0.5	90859	0.9
Services to Households and Other Services	217	0.8	205268	1.9
Education	12	0.0	818	0.0
Health, Social Security and Social Welfare	12	0.0	9017	0.1
Culture, Sports and Entertainment	168	0.6	43612	0.4

Source: China Statistical Yearbook, 2010

As shown in table 1, the majority of FDI in China is invested in the manufacturing sector, and in this sector the major part of trade takes place as well. Liu, Wang and Wei (2001) emphasize that 56.2% of FDI in China during the late 1990s was targeted towards this sector. In addition, 83.6% of imports and 88.8% of exports also took place in this sector (see figures 3 and 4). Chinese FDI

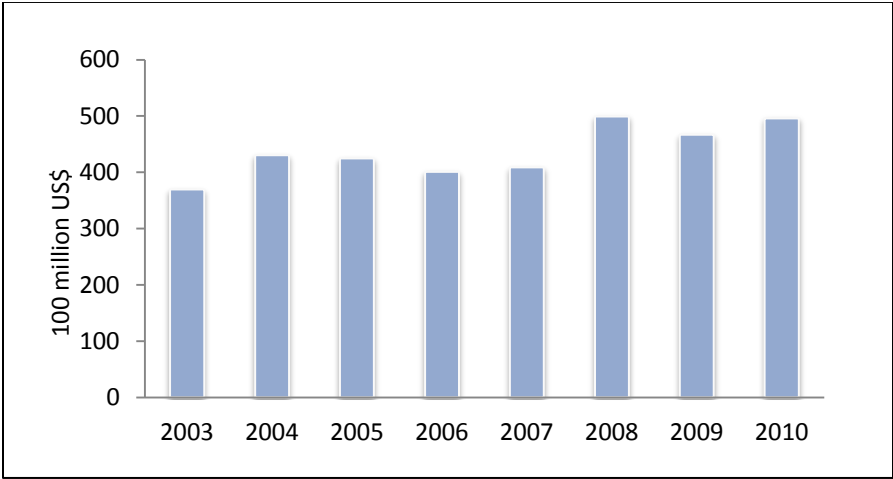
policies encourage MNEs to export their products and many foreign firms use China as an export platform. The large Chinese market, the country’s increased purchasing power, the economic growth and the easy access to the export market attract a growing amount of market-seeking FDI as well as export-platform FDI (Zheng, 2009). Xiaojuan and Yan (2001) show that along with the Chinese accession to the WTO, Chinese tariff rates have decreased and imports to China and Chinese trade with intermediate goods have dramatically increased. The authors also provide empirical evidence that FDI in China promotes its rapid development.

Figure 3, MNE's share of Chinese imports/exports



Source: National Bureau of Statistics of China

Figure 4, FDI in China's manufacturing sector 2003-2010



Source: Source: National Bureau of Statistics of China

3. FDI Theories

In this paper the effect of import tariffs in the host country on FDI will be evaluated and investigated using both a qualitative and a quantitative study. To begin with, some appropriate theories will be presented.

3.1. Location specific FDI

Location is a very important determinant of FDI and as the location used in this study is fixed (China) it is very vital to establish why a destination attracts more FDI than other countries or regions. A suitable theory for location specific FDI is the OLI-theory. Kok and Ersoy (2009) show that according to the OLI-theory, there has to be owner-specific (O) advantages, such as proprietary technology, for the home country to invest in the host country, as well as location specific advantages (L), such as low factor costs, natural resources or other local specific comparative advantages. Also, possibilities of internalization (I) of the production process abroad must exist in order for a country to carry out investments abroad.

The OLI-theory helps determine the FDI and explains the choice of host country, as the theory stresses location oriented factors like availability of local inputs, geographical location, factor prices, transport costs and to some degree the economic policy, such as trade policy (Kok & Ersoy, 2009). Hence, a country with comparative advantages in the labor intensive sector will attract FDI as the factor prices are low.

The trade costs may have ambiguous effects on location specific FDI. In serving the market in the host country, firms can avoid trade and transaction costs by undertaking FDI in the host market; referred to as horizontal FDI. FDI financed production can then be adjusted in order to fit the local preferences better and gain competitiveness (Lim, 2001). Bigger markets are in that case assumed to be associated with larger inflows of FDI than smaller markets. However, exports to the host country may take place in order to supply the production with intermediate goods and components. Tariffs in the host country would then increase the trade costs and negatively influence the FDI. If the FDI is vertical, being FDI aimed at financing production that

will be imported and sold in the home country, then tariffs in the home country are assumed to have a negative influence on FDI as the trade costs increase.

Although OLI-theory stresses the importance of location when determining FDI flows and explaining the choice of FDI destination, in this case China, the theory falls short when evaluating the import tariffs in the host country and FDI.

3.2. Export platform FDI

Export-platform FDI is a phenomenon where output of FDI financed production in the host country is mainly sold in a third country, i.e. neither in the host country nor in the home country. It is suggested that low trade barriers in the host country promote inward export-platform FDI as the transaction and trade costs are lower. Ekholm, Forslid and Markusen (2004) use a three country model with two large high-wage countries and a small low-wage country, and explain that export-platform FDI takes place if a high-wage country builds a plant in the low-wage country in order to export the output to the other high-wage country. The authors find that the two countries with high-wages have incentives to set up plants in the country with low wages due to cost advantages in the form of lower labor costs. The high-wage countries also have incentives to locate plants to the low-wage country in order to compete with other exports from the low-wage country (Ekholm, et al., 2004). High-wage countries are therefore more likely to use low-cost countries as export-platforms and export the output to a third market.

Based on the model by Ekholm (et al., 2004) it is argued that import tariffs in the third country can influence the export-platform FDI. High tariffs on imports from the country used as an export-platform in the third country can discourage FDI as trade costs will be high and the profits made when producing in the low wage country will decline. If the profits are outweighed by the costs associated with high tariffs possibly no export-platform FDI may be issued. Tariffs on imports in the importing country are therefore suggested to have a negative relationship with export-platform FDI.

Furthermore, Kulmar (1998) provides an analytical framework supporting the theory that trade liberalization makes a country a more attractive receiver of export-platform FDI. If trade barriers in the low-cost country are high, the home country will face high trade costs, and even though the production is rather cheap, it may be costly to export the output. The export-platform FDI will in that case be reduced.

3.3. Import Tariff determined FDI

Collie and Vandebussche (2005) provide a two country model showing that a domestic government can implement import tariffs that discourage firms from moving production abroad, hence reducing the outward FDI. The model used consists of two firms, one domestic and one foreign, which sell homogenous products, as well as two countries, foreign and home. The firms can locate in any of the two countries. The model focuses on the domestic market and assumes that the outward FDI is of production cost purpose. The authors allow the domestic governments to set an import tariff in order to maximize the domestic welfare and the sum of producer and consumer surplus. The authors find that if a high tariff is implemented on imports, the incentives for outward FDI may decrease due to increased trade costs (Collie & Vandebussche, 2005).

Kyrkeilis and Pantelidis (2003) provide a model showing that a country's openness is positively correlated with the degree of outward FDI, and Hiratsuka (2006) shows that FDI in regional integration areas increases when the border barriers are reduced. The theory concludes that FDI is to some degree driven by import tariffs in the home country and border barriers. A decrease in tariffs on imports in the home country should therefore increase the outward FDI flow.

The models show that tariffs on imports in the investing countries can help determine the FDI. High tariffs on imports in the home country increase the trade costs that firms face when exporting the production made in a low cost country back to the home market. These import tariffs can therefore discourage firms to move production abroad. It is suggested that if these tariffs are very high firms will choose to not relocate the production to low cost countries as the

potential profits associated with the relocation will not be large enough relative to the trade costs.

The theories above all conclude that trade barriers are important in determining FDI. However, the theories mainly highlight the importance of trade barriers in the host country and although the models imply that import tariffs can determine the FDI, the analytical frameworks display a gap in the theories. The gap could be covered by further work on the effect that import tariffs in the home country have on FDI and operations in the host country.

4. Previous empirical literature

Kumar (1998) shows that countries with low wages but sufficient industrial infrastructure and capabilities are preferred hosts for export-platform FDI. The author further shows that natural resources and export processing zones increase the attractiveness of export-platform FDI. Sufficient trade facilities and liberalization of trade regimes also have a positive relationship with the use of a country as an export-platform (Kumar, 1998). Empirical evidence of the positive relationship between export-platform FDI and low trade barriers in the host country is also provided by Ekholm (et al., 2004) which is alignment with the theory mentioned above. Leahy and Montagna (2005) also show that export-platform FDI is mainly due to labor-cost advantages.

Support for the OLI-paradigm when determining FDI is found by Feils and Rahman (2008), and the authors stress the importance of factor costs, bilateral trade and market size in their analysis. Blonigen (2005) summarizes earlier empirical literature on FDI and finds that determinants such as exchange rate, taxes, institutions, trade protection and trade affect the FDI flows. Furthermore, Birsan and Buiga (2009) argue that investors are driven by one of two goals; finding new markets or increasing efficiency in the form of low labor costs or natural resources. The authors also mention trade openness and technological absorption capacity as two of the main determinants of FDI.

Kok and Ersoy (2009) provide further empirical evidence that trade openness is positively associated with increased FDI and provides a more efficient environment that attracts foreign firms and FDI. On the contrary, investment taxes and wages have a negative effect on FDI flow and cheap labor in terms of lower wages is a main incentive for export-oriented FDI. FDI is also associated with economic growth and factors such as communication and internet access have positive impacts on FDI (Kok & Ersoy, 2009). Lin and Kwan (2011) show that a country's comparative advantage sectors attract more FDI than sectors without any comparative advantage and investments can benefit a multinational enterprise (MNE) through two channels; the enterprises can avoid competition from the own country's export sector as well as benefit from additional export possibilities.

The relationship between FDI and export sales from the host country is found to be positive, and the increase in imports by the home country associated with FDI is a permanent effect. In addition, FDI is also positively correlated with increased imports to the host country. Openness and reduced trade restrictions are shown to increase FDI and growth in the export sector in the host country (Pradhan, 2010). Cai (1999) provides more empirical evidence that liberalization of trade regimes leads to increased outward FDI. A study by Pantelidis and Kyrkilis (2005) further shows that openness has a significant impact on outward FDI and a liberal and deregulated economic system can increase the outward FDI. McDonnell (2008) provides evidence that a reduction in tariffs increases the outward FDI, and argues that decreasing protectionism will increase the incentives to source outward FDI.

As may become apparent, not many previous studies have investigated, nor provided empirical evidence, of the isolated effects that home country tariffs placed on imports from the host country have on the FDI invested. Thus, no empirical evidence can validate the outward FDI model by Collie and Vandenbussche (2005).

5. Hypothesis

The purpose of this thesis is to evaluate the effect that tariffs on Chinese imports in the investing and importing countries have on FDI to China. Based on the above mentioned theories and arguments, these tariffs should have a negative influence on the investments. The higher the tariffs on Chinese imports are the lower the investments would be. The hypothesis of this paper is as follow:

Tariffs on Chinese imports in importing countries are negatively correlated with the FDI to China.

6. Method

The method consists of two parts; one quantitative study and one qualitative study. The results provided by the two studies will be compared and evaluated in the discussion.

6.1. The Quantitative Study

To test the hypothesis of this paper the following model is formulated: $Y_i = \beta_0 + \beta_1 X_i + \text{control variables} + \varepsilon_i$. Where X_i is the home country's tariffs on Chinese imports from the manufacturing sector; i , and Y_i are the FDI received in sector i . ε denotes the error term of the model and β_0 denotes the constant (see below for complete formula extension). The cross-sectional data set used covers nine manufacturing sectors with duration of ten years, 1999 to 2009, and contains a total of 99 observations. The manufacturing sectors are all labor intensive, such as textile and construction (see appendix 1). The data will be logarithmised before running the regressions. The data is gathered from the Chinese Statistical Yearbook, TRAIN and the WTO IDB.

6.1.1. Estimation method

The method used to estimate the impact that the world's tariffs on Chinese imports have on FDI is to run two OLS regressions using LFDI_{ifa} (1) and LFDI_{iva} (2) as dependent variables with following outlines:

$$LFDIfa_{it} = \beta_0 + \beta_1 Ltariff_{it} + \beta_2 Lwage_{it} + \beta_3 Lsize_{it} + \beta_4 Lopen_{it} + \beta_5 LCh.tariff_{it} + \varepsilon_{it} \quad (1)$$

$$LFDIva_{it} = \beta_0 + \beta_1 Ltariff_{it} + \beta_2 Lwage_{it} + \beta_3 Lsize_{it} + \beta_4 Lopen_{it} + \beta_5 LCh.tariff_{it} + \varepsilon_{it} \quad (2)$$

Where $i = 1, \dots, 9$ is the sector i and $t = 1999, \dots, 2009$ represents the time.

Table 1 - Summary definition and statistics of variables

Variables	Mean	Std. Dev	Definition
LFDIfa	4.07	0.87	Annual FDI stock as value of fixed asset
LFFDIva	1.57	1.08	Annual FDI stock as value added by industry
Ltariffs	2.21	1.35	Annual tariffs on Chinese imports in trading partners
Lwage	7.35	0.5	Annual average earning
Lsize	8.39	0.97	The size of the sectors, yearly
Lopen	0.33	1.13	The openness in the sectors, yearly
LCh.tariffs	3.2	1.07	Tariffs on imports in China , yearly

6.1.2. Dependent variables

FDI

The dependent variable is the annual FDI stock in the manufacturing sectors. The FDI stock is measured as 1) value of fixed asset (FDIfa) and 2) value added by industry (FDIva). There are some crucial reasons for using FDI stock such as industrial measures, instead of financial flows. For example, the data on FDI flows is not reliable as a lot of the FDI flows don't actually originate from the locations they are stated to come from and do not enter their supposed destination either. Furthermore, even if the flows enter the supposed destination the investment might not remain in the destinations (Lipsey & Sjöholm, 2011). Lipsey and Sjöholm

(2011) clarify that these financial flows often only represent bookkeeping entries in corporate accounts but do not actually finance any economic activity. FDI stock is therefore a more reliable measure than the FDI flow.

Lipsey and Sjöholm (2011) also point out that in some developing and transitional economies, such as China, a large part of the FDI returns soon after leaving the country, is always under the control of the firm in the home country and the investments are never used outside the home country. The investments take a so called 'round trip' form and do not reflect any economic activity financed by foreign firms. As can be seen in figure 1, the second largest investor in China is the Virgin Islands, and the seventh largest investor is the Cayman Islands, which are well known tax havens. The flows from these countries are therefore likely to originate from other nations that take advantage of the tax benefits. These two countries are also the major receivers of FDI from China (Lipsey & Sjöholm, 2011). Lipsey and Sjöholm (2011) argue that the flows to these destinations would almost fully disappear if measures based on economic activity, and not financial flows, are used. It is suggested that if the flows from these destination are considered the outcome would be the same. Variables that measure the economic activity financed by foreign firms, such as the value of fixed assets or value added by industry, are therefore preferred.

Two regressions are conducted: one regression with FDI measured as a value of fixed assets as the dependent variable, and the other with FDI as value added by industry as the dependent variable. The data is retrieved from the China Statistical Yearbook.

6.1.3. Variable of interest

Tariffs on Chinese imports

The variable of interest in the regressions measures the tariffs on Chinese imports enforced in the investing countries. In the data sample tariffs on Chinese imports from the whole world are included due to data limitations. However, the data is weighted by each countries share of the world's total imports from China e.g.

*tariffs = county i's tariffs on Chinese imports * country i's share of total import from China .*

By weighting the data in this manner, tariffs in China's major trading partners will have more impact on the results than tariffs in minor trading partners. The weighting will thus provide a more reliable result.

If the hypothesis stated in this paper cannot be rejected, the variable will have a negative correlation with the dependent variable and high tariffs on Chinese imports will decrease the FDI in China. The main part of the data is retrieved from UNCTAD TRAINS but for 2002 the data originates from the WTO IDB. The tariffs used are effectively applied tariffs, AHS, and measured in percent.

6.1.4. Control variables

The independent variables included, apart from tariffs on Chinese imports in countries trading with China, can all be argued to influence the FDI stock in China and are important to include in the regressions.

Openness

Openness measures how open China is used in the sample in the different sectors. Openness is calculated as the Chinese imports and exports in each sector divided by the country's GDP, e.g.

$$openness = \frac{China's\ import\ in\ sector\ i + China's\ export\ in\ sector\ i}{China's\ GDP}$$

This measure is applied in previous studies and data banks, for example Penn World Table². The data on openness is retrieved from the China statistical yearbook and when the data was compared with data from the World Bank it was found to be compatible³. It is argued that openness can have both a negative and positive impact on the FDI as openness can encourage investors and foreign firms to set up businesses in the country. On the contrary, openness can

² http://pwt.econ.upenn.edu/php_site/pwt_index.php

³ There have been cases where data from the National Bureau of Statistics of China has been manipulated, for example in cases with GDP accounting in 2010 (Xiaotian, 2010) and this can be a limitation to the data set.

lead to increased trade and discourage investments if the investments are used as supplements for trade.

Size

Size measures the size of each sector and is calculated as the output in each sector in absolute terms. It is likely that size has a positive relation to the FDI as larger sectors tend to attract more investments. The data is gathered from the China statistical yearbook.

Wage

Wages reflect the annual average earnings in each sector. According to the theories mentioned, lower wages would increase the FDI to a specific sector. The data is retrieved from the China statistical yearbook and converted from Yuan to dollars using exchange rates downloaded from the World Bank data bank.

Chinese Tariffs

Chinese tariffs are the tariffs applied in China on imports to the specific sectors. The data for this variable is mainly gathered from Train but the data covering year 2002 is retrieved from the WTO IDB. Tariffs on imports in China are suggested to have a negative influence on inward FDI as they reflect a less prosperous trade environment and increase the trade costs for foreign firms to import components for use in production.

As a first step, log linear regressions on each individual variable and FDI_{it} and FDI_{it} as independent variables are run (see table 2). The variables for $Ltariffs$ are insignificant in both regressions implying that omitted variables should be added. However, as suggested previously $Ltariffs$ have a negative relation in both regressions. A negative relation occurs also between FDI flows and $LCh.tariffs$ as expected. $Lsize$ and $Lopen$ display positive relations to the FDI measures which imply encouraging effects on investments which is in alignment with the mentioned arguments.

Table 2 - Regression results for individual variables

Variables	FDI _{fa}	FDI _{va}
Ltariffs	-0.0708 (0.0655)	-0.0276 (0.0804)
Lwage	1.2969**** (0.1232)	1.7848**** (0.1252)
Lsize	0.8084**** (0.0408)	1.0188**** (0.0428)
Lopen	0.3244**** (0.0711)	0.3546**** (0.0887)
LCh.tariffs	-0.0872 (0.0825)	-0.0486 (0.1012)

**** denotes statistical significance at 1 % level, *** denotes statistical significance at the 2% level, ** denotes statistical significance at the 5% level, * denotes statistical significance at the 10% level. Numbers in parentheses are standard errors.

After running a Breush-Pegan test the hypothesis of heteroskedasticity cannot be rejected, so the standard errors are therefore corrected using robust standard errors. A Ramsey reset test confirms that the models are correctly specified and the data set displays normality. Furthermore, the VIF values are low so multicollinearity is assumed to not exist amongst the variables.

After running the regressions as simple log linear OLS regressions, the two regressions are run after adding 'fixed effects' on the nine sectors. The fixed regression controls for time-invariant unobservable individual characteristics which might be correlated with the independent variables (Arellano, Baltagi, & Wooldridge, 2008). In these regressions, unobservable sector specific effects are controlled for as it is suggested that effects that do not vary over time exist.

It could for instance be geographical factors or variables relating to the technology used or the competence of the management. The results are presented in the table 4 below.

6.1.5. Empirical results

The results from the log linear OLS regressions can be seen below.

Table 3, Results from OLS regression 1 and 2

Variable	1	2
Constant	-0.8322 (0.8735)	-9.9603**** (0.8663)
Ltariffs	-0.1758**** (0.0659)	-0.1835*** (0.0561)
Lwage	-0.7660**** (0.1915)	0.4283** (0.2077)
Lsize	1.3316**** (0.1042)	0.9740**** (0.1152)
Lopen	-0.3258**** (0.0571)	-0.1712*** (0.0566)
LCh.tariffs	-0.0446 (0.0924)	0.2115*** (0.0797)
R ²	0.8639	0.9080

**** denotes statistical significance at 2 % level, *** denotes statistical significance at the 2% level, ** denotes statistical significance at the 5% level, * denotes statistical significance at the 10% level. Numbers in parentheses are robust standard errors.

For the log linear regression 1 the R^2 value is 0.8636 and can be considered self explanatory. $Ltariffs$ is significant at a 1% level and has a value of -0.1758 indicating that if tariffs on Chinese imports in importing countries increase by 1% the FDI stock measured as fixed asset decreases by 0.1758%. This negative result is in alignment with the hypothesis of this paper. Furthermore, $Lsize$ is significant at a 1% level and is, as expected, positive. If the sector grows by 1% it will receive 1.33% more FDI. The $Lopen$ is negative and indicates that if China's openness grows by 1% trade will replace 0.32% of the FDI flow.

As anticipated, $Lwage$ has a negative value and is significant at 1% level. If the wages increase by 1% the FDI stock will decrease by 0.76%. Results in studies by Birsan and Buiga (2009) are in alignment with this result and show that low labor costs attract FDI. Leahy and Montagna (2005) also confirm that low labor costs are an important determinant when undertaking export-platform FDI. $LCh.tariffs$ is the only variable which is not significant but the negative value implies a negative correlation with FDI. Higher tariffs on imports to China increase the costs for firms when importing components and intermediate goods to use in their production. Firms will therefore undertake less production as well as investments. For example, Ekholm (et al., 2004) found that high tariffs in the host country discourages export-platform FDI and Kumar (1998) found that trade liberalization increases the attractiveness of FDI. Retaliation can also influence the results; countries may invest less in China due to high Chinese tariffs in retaliation to trade conflicts.

The results provided by the log linear OLS regression 2 (see table 3) show that the R^2 has a value of 0.9080. The regression has a higher explanatory value than regression 1. $Ltariffs$ is significant at a 2% level and has a negative value, a similar result to that provided by regression 1. This implies that if China's trading partners increase their tariffs on Chinese imports by 1% the FDI stock measured as value added decreases by 0.1835%. The hypothesis of this paper cannot be rejected in this case either. $Lopen$ also displays a negative value implying that a 1% increase in openness decreases the FDI flow by 0.1712%. The variable is significant at a 2% level. Surprisingly, in regression 2 $Lwage$ and $LCh.tariffs$ both have positive values. If the wage

increases by 1%, the FDI increases by 0.4293% and if the Chinese tariffs on imports rise by 1% the FDI flow will increase by 0.2115%.

These results oppose the results from regression 1 and the contradicting results are suggested to depend on which FDI measure that is used. For example, FDI as value added might be used in production aimed to sell within China and increasing the wages may lead to increased consumption and production. Furthermore, firms with high value added FDI may produce components or products subjected to high tariffs in China and benefit therefore from higher Chinese import tariffs. For example, Blonigen, Tomlin and Wilson (2004) argue that tariff-jumping FDI, whereby FDI is used in production within the destination in order to avoid trade costs, can increase the firms' profit. Evidence of this behavior was found by Blonigen (2002) as well as by Beladi, Marjit and Chakrabarti (2009) who showed that this strategy is frequently applied. Concerning the positive correlation between FDI and wages, Mutascu and Fleischer (2010) found that higher wages can attract more FDI if the sector uses more technology and demands more skilled workers. A development in technology may therefore explain the positive relationship. Ramasamy and Yeung (2012) agree with the previous authors and state that foreign firms pay higher wages than domestic firms as they require more skilled workers and that these workers have more power when negotiating the wages than workers without the demanded qualifications. The positive significant value of L_{wage} might be due to the fact that this variable captures the effect of skills.

Although there are some differences in outcomes, both regressions display a negative correlation between tariffs on Chinese imports in the rest of the world and FDI in China, and the hypotheses of this paper cannot be rejected.

The results from the regressions that include a 'fixed effect' on the different sectors will now be briefly presented (see table 4).

Table 4, Results when adding ‘fixed effects’, regression 1 and 2

Variable	1	2
constant	-4.1659** (1.3403)	-8.5855**** (0.8663)
Ltariffs	-0.0414 (0.0422)	0.0412 (0.0561)
Lwage	1.0838**** (0.227)	1.6197**** (0.2077)
Lsize	0.0454 (0.1736)	-0.1355 (0.1152)
Lopen	0.0362 (0.0795)	-0.1159 (0.0566)
LCh.tariffs	-0.009 (0.1226)	-0.2074* (0.0797)
R ²	0.9418	0.9397

**** denotes statistical significance at the 1 % level, *** denotes statistical significance at the 2% level, ** denotes statistical significance at the 5% level, * denotes statistical significance at the 10% level. Numbers in parentheses are robust standard errors.

The regression 1 provides a negative value of -0.0414 for the variable Ltariffs. However, the variable is not significant and rather small and no effect of the concerned tariffs on the FDI is found. LCh.tariffs is also negative with a value of -0.0090 and is also insignificant. Lwage is significant at a 1% level and a 1% increase in the wages will increase the FDI by 1.0838%. The other variables are all insignificant.

Ltariffs is also insignificant when running regression 2 with ‘fixed effects’, but has a positive value of 0.041. No effect of the tariffs is found in this regression either. LCh.tariffs is significant

at a 10% level and decreases the FDI flow by 0.2074% per increased percent. Lwage is significant at a 1% level and increases the FDI flow by 1.6197% if the wage increases by 1%. The rest of the variables are negative and insignificant. The R^2 values for the regressions are 0.9418 and 0.9397 respectively.

The contradiction and low number of insignificant variables when adding a 'fixed effect' on the sectors can be due to the time limitation of the sample. Observations over ten years might be too short to capture any effects. The sample may also be too conservative and not provide enough continuity. However, no significant evidence that supports the hypothesis in this paper is found when running the regressions with "fixed effects".

6.2. The Qualitative Study

The purpose of the qualitative study is to establish if the correlation between tariffs in importing countries on Chinese imports has any influence on the operations of foreign firms located in China and the investments they receive. One important aspect of the study is to investigate whether managers in the field consider the concerned tariffs important when determining the flow of investments and if they experience any relationship between the concerned tariffs and the investments.

6.2.1. Method

The qualitative study is conducted in China and covers eleven foreign firms operating in China. The firms all originate from Sweden and operate in any of the manufacturing sectors used in the quantitative study (see appendix 1). Only one of the firms in the data set is a joint venture with a Chinese firm. All the firms receive investments from abroad and export to markets in other countries. The method used consists of six survey interviews and five deep interviews with managers in charge in China. The majority of the managers involved wished to be anonymous, as they only stated their own personal reflections in the interview and not the formal guidelines of their respective companies. As such, the entire data set will be treated anonymously. No firm specific information besides the sectors in which the firms operate and

the length of time they have operated in China will be introduced in order to keep the participants as anonymous as possible.

The decision to use both in-depth qualitative interviews as well as shorter survey interviews was taken in order to provide the most objective and comprehensive data set possible given the time and logistical constraints of the data collection. Depending on the circumstances, either English or Swedish was used when carrying out the interviews. The majority of the firms export to Sweden, which is considered to be the home market and the source of investments. A greater part of the sample of firms also exports to countries within Europe but countries in Asia and the US are also major markets. Three firms also target markets in Brazil and other countries in Latin America (see table 5). The dataset covers firms that have operated in China between 1 and 15 years. This time frame increases the reliability of the dataset as it covers firms that have been established in China over a long period of time as well as firms recently established in the country.

6.2.2. Results and responses

The main question asked was if the tariffs on imports from China influenced the investments received and the operations of the firms in China (see table 5). Three of the managers (27%) answered that the tariffs on Chinese imports in other markets influenced the operations of their firm in China, whereas 9 of the managers (83%) did not consider that the tariffs had any effect on the operations. The opinion that the concerned tariffs have no influence on operations is predominant in the data sample.

Two managers pointed out that their firms operations are only affected by anti-dumping (AD) duties and not general applied tariffs, AHS, which are used in the quantitative study herein. All the firms meet the criteria to receive investments from abroad as mentioned. However, none of the managers think that this flow of investment is influenced by the tariffs in the importing markets. One of the managers stated that AD investigations and duties influence the investments received in China whereas other applied tariffs do not.

Table 5 - Main responses from the qualitative study

Firm	To which markets does the firm export to?	Do tariffs, AHS, on Chinese imports influence the operations in China?	Does your company receive investments from abroad?	Do tariffs on Chinese imports influence the investments?	Time of operating in China
1	Sweden, Norway	yes	no	no	more than 10 years
2	Sweden, Norway	no	yes	no	up to 2 years
3	Sweden, Korea, Singapore, USA	no	yes	no	≤ 5 years
4	Sweden, Finland	no	yes	no	≤ 5 years
5	USA, Australia, New Zealand, France, Sweden, Spain, Finland, Norway,	yes	yes	no	≤ 5 years
6	Italy, Russia, Turkey, USA, Brazil, Mexico, Thailand, Korea, Japan, Malaysia, India, Philippines, Australia	yes	yes	no	more than 10 years
7*	The whole world but Sweden	no	yes	no	≤ 5 years
8*	Latin America, Russia, India	no	yes	no	more than 10 years
9*	US, Europe and Australia	no (only AD duties)	yes	no	5 years
10*	Sweden, Brazil, North of Europe	no (only AD duties)	yes	no (only AD duties)	5 years
11*	Asia Pacific	no	yes	no	1 year

The * denotes firms participating in in-depth interviews.

The main arguments why the tariffs do not affect the investments are that the tariffs on Chinese imports are already so low in the importing markets and that the advantages with operating in China are greater than the trade costs. The major advantages with operating in China that the managers mentioned were the low labor costs, the infrastructure, and that it is very easy to carry out tasks in China. Another reason for operating in China is the large degree of help available when setting up and running a business. Many managers use agents and consultants working for private and public agencies, for example trade councils, when dealing with the government and undertaking legal tasks. This kind of service is very well developed and easy to access which greatly helps facilitate the operations of foreign firms in China. One manager said that without that kind of support he would not have been able to go through the legal process of registering the firm. Hence, the decision to invest in China is argued to be determined by other factors than the tariffs in the importing markets. As a few managers pointed out, the domestic market in China is growing and they all predict that China will shift from being an exporting nation to a consumption nation. Therefore, their firms focus more and more on targeting the domestic markets and using investments in production for domestic sales. The investments are in these cases not at all related to exports or trade barriers.

The investment flow received by one firm in the data sample is influenced by AD duties as many products in the sector where the firm operates are subjected to AD duties and AD investigations between China and Europe. These non-tariff trade barriers influence not only the investments received but also the firm's operations in China. The firm has moved large parts of the production to other low costs countries, such as Indonesia and Malaysia. The manager is currently considering moving further production from China to Taiwan in order to avoid further AD duties. However, this manager did not support the notion that general applied tariffs (used in this paper) have any effect on operations or investments and argues that these kinds of tariffs are unavoidable no matter where you operate and are relatively low in the countries his firm exports to.

The operations of two firms in the sample are influenced by tariffs but only by AD duties. As mentioned one manager moved some of the production abroad to other low cost countries

whereas the other manager said that his firm closed down the production targeted to the market that launched the AD investigation. The manager further explained that the investments were not affected by the ceased production as the firm is a worldwide large company targeting many markets and if trade to one market ceases, investments will be relocated into the production aimed for other markets.

The managers were also asked to estimate the level of influence that trade barriers have on the operations of firms using a scale of 1 to 5, with 1 being not at all and 5 being very much. The majority of the managers experienced a 2 on the scale, three managers reported a 3 on the scale and two managers reported a 4. The average rate is 2.6. The largest trade barriers the managers said they face are the administration and bureaucracy processes, China Compulsory Certification (CCC) regulations, safety and environment regulations. Other large trade barriers are the import duties and taxes associated with imports, which brings the results from the OLS regression 1 to mind where tariffs on imports in China have a negative correlation with investments. One manager explained that although China is a member of WTO, CCC regulations can make it very expensive to import components for production to China. The manager has experienced that these regulations became harder to meet after the Chinese accession to WTO, as the country uses regulations to protect the domestic industries. High VAT, customs handling and freight prices are also mentioned as large trade barriers. The potential risk of AD investigations is also a threat and one manager said that if his products were subjected to an AD investigation the operations of his firm and the investments received may well be influenced.

Another problem that many of the firms encounter is finding labor with the right qualifications at the right price. Most of the managers find it very hard to get staff with higher education and qualifications but during the recent years they have experienced difficulties finding low cost labor for the right price as the wages continuously increase. The respondents say that their labor force has an annual wage increase of 10-20% which is a national standard. This increase in wages can explain the positive correlation between the investments and wages shown in the log-linear OLS regression 2 (see table 3). Furthermore, some managers notice a shift from low

cost labor-intensive export industries to industries using more technology that target the domestic markets; the latter demands higher skilled labor, which can also explain the positive correlation. Even though the wages are increasing the managers still consider China a low cost country. However, some of the managers have noticed that more and more foreign firms in labour intensive sectors are starting to relocate production to cheaper countries or move the production to other parts of China where the wages still are very low. One example of such development is the recent opening of Volvo's production in Chengdu, in the Sichuan province. Chengdu is located inland in the southeast of China where the wages are lower than along the coast. Furthermore, the recent establishment of a new Swedish trade council office in Chengdu implies that more relocation of production to this area is anticipated.

None of the managers mentioned any decrease of tariffs in the importing countries when asked how the environment for foreign firms in China could be improved. Measures that were welcomed included the establishment of a consistent legal system, relaxation of the regulations, controls of foreign currency and implementation of transparency within government policies and the bureaucracy. The firms also hoped that Intellectual Property (IP) rules would be strengthened and followed up, and that CCC and other regulations could be adjusted to fit international standards. A fully convertible currency, RMB, could also improve the environment for some of the firms.

All the managers rejected the hypothesis that general applied tariffs on Chinese imports in the importing countries influence the investments. Only in three cases was the operation influenced by these kinds of tariffs whereas AD duties and investigations seem to have a larger impact on both investments and operations.

7. Quantitative and qualitative comparison

In the qualitative study no support to the theory that tariffs on Chinese imports have a negative influence on the FDI to China is given by any of the managers interviewed. On the contrary, the results from the log linear OLS regressions 1 and 2 support the existence of a correlation between tariffs on Chinese imports in importing countries and the FDI in China. However, the

regressions, after adding the “fixed effects” and controlling for unobserved time-invariant variables, show an insignificant effect of the concerned tariffs on FDI. These contradicting results in the quantitative study imply that tariffs on Chinese imports have a very modest role when determining FDI. None of the studies strongly support the hypothesis in this paper.

According to the qualitative study, tariffs on imports in China are said to be a significant trade barrier and can cause a lot of difficulties, as well as additional costs for the firms when importing components and intermediate goods. The variable for China’s tariffs on imports is negative and significant in at least one regression in the quantitative study. Tariffs on imports in China are thus important both for the FDI stock and for the foreign firms operating in China. The qualitative study provides additional trade barriers that the firms face, which are not visible in the quantitative study and not measurable with quantitative measures. These trade barriers are nonetheless just as important as measurable trade barriers and should be taken into account when investigating FDI in China.

Wage displays both a negative and a positive effect in the quantitative study, for example the log linear OLS regression 1 displays a negative value for the variable whereas the log linear OLS regression 2 displays a positive effect. The positive result can be due to the possibility of the variable capturing skills and can be related to the need and scarcity of qualified workers that the qualitative study discussed. The negative value of the variable in regression 1 may reflect that many FDI receiving firms rely on low wages in their production. This is in alignment with the responses in the qualitative study where all the participants use cheap labour in their production. However, as the wages increase, the responses in the qualitative study indicate that low wages may not be a strong advantage for China in the future and production depending on cheap labour may relocate elsewhere.

The variable measuring openness is negative in the majority of the regressions in the quantitative study. It is suggested that trade may substitute FDI as it becomes easier to export and import. Firms will face lower trade costs, so the incentive for firms to undertake FDI in order to avoid these costs decreases. The qualitative study shows interestingly that after China’s accession to the WTO in 2001, measures other than tariffs, such as regulations, were

applied in order to protect the domestic industry. This result highlights that the non-trade barriers that firms face are more significant than general tariffs, and even though China entered the WTO the trade environment is still restricted.

7.1. Limitations

One major limitation in this study is that the managers included in the dataset used in the qualitative study receive the investments but do not issue them. If the decisions within the departments of the firms that issue the investments had been investigated, the responses may have been different. Another limitation of this paper is that only one country is covered so no general conclusion can be made, and only conclusions specifically concerning China can be drawn. A limitation in the quantitative study is that the variable that measures wage may capture skills. It would therefore be suitable to include another control variable such as education in the regressions, although such a variable could not be included in the quantitative study due to unavailable data.

8. Concluding remarks

The results from the quantitative study and the qualitative study are rather interesting. In the former study, no strong evidence is found to support the hypothesis in this paper. Although the OLS regressions support the hypothesis, no significant effect of the tariffs is found in the “fixed effect” regressions. In the latter study, the hypothesis is not supported by any of the 11 managers located in China. Information and replies given by the respondents are all consistent. The managers all agree that the tariffs evaluated in this paper do not influence investments received by the firms and in only three of the cases are operations affected by the tariffs. In some cases the tariffs can have an impact on the decisions of which markets to export to, as well as the size of production, but these cases are a minority. The advantages of using China as an export-platform are larger than the costs associated with tariffs, along with the increasing importance of selling on the Chinese market.

However, AD duties seem to be more significant in the matter. If AD duties are compared to other applied tariffs they are generally larger. One manager in the dataset said that the AD duties his firm faces are twice as high as the general tariff in the EU, and for another firm the AD duty on their product is an additional 40% of the import value if trading with the US.

There is apparently some visible relation between business administration and economics when looking at general tariffs and investments. No strong support that tariffs in the importing countries have a correlation with FDI in China is found in either of the studies conducted in this paper. Moreover, other trade barriers influence, as mentioned, the operations of foreign firms in China which is an important finding both in the field of international economics as well as the field of business administration.

8.1. Future research

As the qualitative study shows that AD duties and AD investigations have an impact on operations and investments, appropriate future research would be to investigate this relationship and how the increased numbers of AD duties may affect the foreign firms in China. For example, between 2008 and 2010 the number of initiated AD investigations increased by almost 30% (EU, 2012). One manager interviewed claimed that the AD duties on products within the sector in which he operates are unfair and are only applied with the intention of protecting the European industry, and that China is not the cheapest producer anyway. It could therefore be useful to investigate the use of AD processes as a protectionist measure, the fairness of the investigations and the consequences on global trade.

Another interesting subject to consider for future research is to follow up the managers' joint prediction that China is shifting from an export-oriented country to a consumer-oriented one, and how this shift will influence the FDI and the operation of foreign firms located in China.

References

Literature:

- Arellano, M., Baltagi, B., & Wooldridge, J. (Eds.). (2008) International Encyclopedia of the Social Sciences (Vols. 3). Detroit: Macmillan Reference USA.
- Beladi, H., Marjit, S., & Chakrabarti, A. (2009). Tariff Jumping and Joint Ventures. *Southern Economic Journal* 75(4), 1256-1269.
- Birsan, M., & Buiga, A. a. (2009). FDI Determinants: Case of Romania *Transition Studies Review*, 15(4), 726-736.
- Blonigen, B. A. (2002). Tariff-jumping antidumping duties. *Journal of International Economics* 57(31-49), 31.
- Blonigen, B. A. (2005). A Review of the Empirical Literature on FDI Determinants. *Atlantic Economic Journal*, 33, 383-403.
- Blonigen, B. A., Tomlin, K., & Wilson, W. W. (2004). Tariff-jumping FDI and domestic firms' profits. *The Canadian Journal of Economics*, 37(3), 656-677.
- Boermans, M. A., Roelfsema, H., & Zhang, Y. (2011). Regional determinants of FDI in China: a factor-based approach. *Journal of Chinese Economic and Business Studies*, 9(1), 23-42.
- Cai, K. G. (1999). Outward Foreign Direct Investment: A Novel Dimension of China's Integration into the Regional and Global Economy. *The China Quarterly*, 160, 856-880.
- China, N. B. o. S. o. (2006). National Bureau of Statistics of China. Retrieved 14/01, 2012, from <http://www.stats.gov.cn/english/>
- Collie, D., & Vandenbussche, H. (2005). Can Import Tariffs Deter Outward FDI? *Open economies review* 16: 341–362,, 16, 341.
- Ekholm, K., Forslid, R., & Markusen, J. R. (2004). Export-Platform Foreign Direct Investment. *NBER Working Paper No. 9517*.
- EU. (2012). Anti Dumping statistics. Retrieved 23/6, 2012, from http://trade.ec.europa.eu/doclib/cfm/doclib_results.cfm?key=anti-dumping%20statistics
- Feils, D. J., & Rahman, M. (2008). Regional Economic Integration and Foreign Direct Investment: The Case of NAFTA. *Management International Review*, 48(2), 147-163.
- Hiratsuka, D. (2006). *Outward FDI from and Intraregional FDI in ASEAN: Trends and Drivers*. Paper presented at the ASEAN-UNCTAD Annual Seminar on Key Issues of FDI: Outward FDI from Asia.
- Kok, R., & Ersoy, B. A. (2009). Analyses of FDI determinants in developing countries. *International Journal of Social Economics*, 36(1/2), 105-123.
- Kumar, N. (1998). Multinational Enterprises, Regional Economic Integration, and Export-Platform Production

- in the Host Countries: An Empirical Analysis for the US and Japanese Corporations. *Review of World Economics*, 134(3), 450-483.
- Kyrkilis, D., & Pantelidis, P. (2003). Macroeconomic determinants of outward foreign direct investment. *International Journal of Social Economics*, 30(7), 827 - 836.
- Leahy, D., & Montagna, C. (2005). Union legislation and export platform FDI. *The Journal of International Trade & Economic Development: An International and Comparative Review*, 14(4), 437-452.
- Lim, E.-G. (2001). *Determinants of, and the Relation Between Foreign Direct Investment and Growth: A Summary of the Recent Literature*: Middle Eastern Department.
- Lin, M., & Kwan, Y. K. (2011). Sectoral Location of FDI in China. *The World Economy*, 1181-1198.
- Lin, X., & Eso, A. (1998). General Concept of FDI and China's FDI. *China Report*, 34(11), 11-46.
- Lipsey, R. E., & Sjöholm, F. (2011). South–South FDI and Development in East Asia. *Asian Development Review*, 28(2), 11-31.
- Liu, X., Wang, C., & Wei, Y. (2001). Causal links between foreign direct investment and trade in China. *China Economic Review*, 12, 190-202.
- McDonnell, A. (2008). Outward foreign direct investment and human capital development
A small country perspective. *Journal of European Industrial Training*, 32(6), 452-471.
- Mutascu, M. I., & Fleischer, A.-M. (2010). A VAR Analysis of FDI and Wages: The Romania's Case. *International Journal of Economic Sciences and Applied Research*, 3(2), 41-56.
- Pantelidis, P., & Kyrkilis, D. (2005). A cross country analysis of outward foreign direct investment patterns. *International Journal of Social Economics*, 32(6), 510-519.
- Pradhan, R. P. (2010). Trade Openness and Foreign Direct Investment in India: The Globalization Experience. *IUP Journal of Applied Finance*, 16(3), 26-48.
- Ramasamy, B., & Yeung, M. (2012). Journal of Chinese Economic and Foreign Trade Studies
Emerald Article: A causality analysis of the FDI-wages-productivity nexus in China. *Journal of Chinese Economic and Foreign Trade Studies*, 3(1), 5-23.
- Srivastava, R. K. (2008). Chinese Success with FDI: Lessons for India. *China: An International Journal*, 6(2), 316-329.
- STC. (2012). Fortsatt-stark-nyetablering-i-Kina. Retrieved 24/6, 2012, from <http://www.swedishtrade.se/sv/om-exportradet/pressrum/nyheter/Fortsatt-stark-nyetablering-i-Kina/>
- Thornton, G. (2009). *International Sourcing: Offshore or Near-shore?*
- Watch, E. (2010). Foreign Direct Investment (FDI). Retrieved 20/1, 2012, from <http://www.economywatch.com/foreign-direct-investment/>
- Xiaojuan, H., & Yan, S. (2001). The Impact of Tariff Policies on Imports of China's Intermediate Goods. *Journal of Economic Policy Reform*, 10(4), 335-341.

Xiaotian, W. (2010). GDP accounting to be consistent. Retrieved 16/01, 2012, from http://www.chinadaily.com.cn/business/2010-01/30/content_9401610.htm

Zhang, K. H. (2006). Foreign direct investment in China. *Canadian Foreign Policy Journal*, 13(2), 35-50.

Zheng, P. (2009). A comparison of FDI determinants in China and India. *Thunderbird International Business Review*, 51(3), 263-279.

Data sources:

National Bureau of Statistics (1999-2009) *China Statistical Yearbook 1999-2009*, China Statistics Press: Beijing.

UNCTAD TRAINS database, used through <http://wits.worldbank.org/wits/>

WTO IDB database, used through <http://wits.worldbank.org/wits/>

Appendix

Appendix 1, Selected sectors in the quantitative data sample and the qualitative data sample

Qualitative data sample	Quantitative data sample
Textile	Textile x 2
Textile Wearing Apparel, Footwear and caps	Contract manufacturing
Leather, Fur, Feather and Related Products	Transport Equipment x 2
Timber, Wood, Bamboo, Rattan, Palm and Straw Products	Machinery building x 2
Paper and Paper Products	Automobile components x 2
Rubber and rubber products	Construction components x 2
Plastics and plastic products	
Machinery	
Transport Equipment	