

Does legal origin affect Swedish FDI?

An empirical analysis

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Abstract

In this paper we examine the effects of legal origin as a determinant for allocation of Swedish outward FDI. The study is conducted using a panel comprising 33 countries over the years 2000 to 2011. Our results indicate a relationship between legal origin and the proportion of Swedish direct investments an economy receives. Furthermore, the study provides significant results specifying the preferences of legal origins when Swedish firms decide to invest abroad. The study implies that a larger portion of Swedish FDI flows to nations with French civil law than common law, followed by German civil law.

Key words: Foreign Direct Investment, Sweden, Legal origin, Civil law, Common law, Multinational enterprises

JEL codes: F21, F23, F36, K20

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1 Introduction

The aim of this paper is to study the impact of legal origins of foreign economies when Swedish firms invest in operations abroad. Using data on Swedish foreign direct investment¹ outflows, we examine the factors that determine the allocation of the investments with a focus on legal origins. The findings of this paper may serve as guidance for foreign economies, by what means they can improve to become more attractive in the view of Swedish corporations. The study also contributes to the growing literature investigating the determinant factors behind FDI allocations, where previous research has showed slight interest in the legal origins as a determinant of target country.

The remainder of this paper is organised as follows. Section 1.1 presents an overview on the literature covering foreign direct investments, 1.1.1, and the legal origin theory, 1.1.2, followed by our research question in section 1.2. The regression method is explained in section 2, together with the models in section 2.1. In the following section we introduce the variables beginning with the dependent variable, section 3.1, followed by our key independent variables and control variables, section 3.2.1 and 3.2.2 respectively. The regression analysis is conducted in section 4.1, accompanied with a discussion of the results in section 4.2. Criticism of this paper is presented in section 5 and the concluding remarks are found in section 6. Finally a list of references is to be found in section 7, followed by the Appendix comprising tables and figures.

1.1 Current state of knowledge

1.1.1 Foreign direct investments

The interest and activity in FDIs have increased as the world has become more globalised. With large multinational enterprises² expanding and seeking opportunities in new markets, the global volume of FDIs has increased immensely since the 80's (UNCTAD, 2012). Deregulations of markets in combination with decreasing trade barriers are also stated to be important factors behind the increase (Billington, 1999). A FDI can broadly be defined as an investment in operations made by a firm based in one country (home country) into another country (host or target country)³.

¹ Henceforth FDI

² Henceforth MNEs

³ For the definition of FDI in our data sample, see OECD Benchmark definition of foreign direct investments, 4th edition (2008).

For Sweden as a developed country with large MNEs and a relatively small population in relation to the volume of outward FDI, direct investments going into foreign countries are substantial in relative terms. In 2010 the total stock of outward investments, in other words the accumulated net outflows, accounted for 69.9% of Gross Domestic Product⁴ compared to an OECD⁵ average of 38.6% (OECD, 2013). Furthermore, the volume of outflowing Swedish FDI seems to be rather sensitive to the state of the economy, seeing historical sharp declines after the IT crisis in year 2000 and the more recent financial crisis in 2007, see Figure 2 in the Appendix. Since Sweden has a fair amount of outward FDI and with historically sufficient data availability, a decent amount of research has investigated the Swedish FDI activity. Among the work done in the area, Andersson (1993) addresses how policy changes should be implemented to retain Swedish firms' production in Sweden. Herzing et al. (2008) evaluate the effect of inward FDI on the Swedish economy. Furthermore, Braunerhjelm and Oxelheim (2000) find that the integration of the European Union⁶ increased the volume of Swedish FDI into other member countries.

To understand the mechanisms of FDI, researchers generally divide the investments into two types, vertical and horizontal (Navaretti & Venables, 2004). A third type of FDI, not as commonly recognised as the other two, is the export platform type.

Vertical FDI, also referred to as resource-seeking FDI, occurs when firms invest abroad to gain and exploit some kind of resource to be used in production, for instance raw materials, natural resources or low cost input factors. The idea behind vertical FDI is for firms to fragment their production process into countries so that each part of the production is conducted in the country where it can be achieved at the lowest cost (Aizenman & Marion, 2003). Evidence has shown that vertical FDI is most likely to occur between countries with different factor endowments (Hanson et al. 2001).

Horizontal FDI, also referred to as market-seeking FDI, occurs when firms invest abroad to serve the local market by replicating their home country's production process, and applying it in the new market. The motive for horizontal FDI is to avoid the variable costs associated with export and replacing them with the fixed costs of setting up the production locally. The investments either take place as so-called Greenfield investments, where the firm builds the

⁴ Henceforth GDP

⁵ Organisation for Economic Co-operation and Development

⁶ Henceforth EU

operational facilities from the ground up, or through mergers and acquisitions⁷. Since the outbreak of the financial crisis in 2007, the volume of M&A transactions has decreased in relation to Greenfield investments. From accounting for about half of the total FDI volume before the crisis, the proportional share of M&A transactions dropped to one third or less over the years 2008 to 2011 (UNCTAD, 2012). According to Markusen and Maskus (2001), horizontal FDIs are the most frequently occurring type of FDI. Horizontal FDI is also stated to be the possibly dominant type of FDI between high-income countries, in particular when the objective is to avoid tariffs (Navaretti & Venables, 2004).

Export platform FDIs arise when a firm's foreign affiliate output is exported to a third party country, that is neither the home nor the host country. This type of FDI has characteristics of both the horizontal and the vertical types. An example of export platform FDI is when American corporations establish headquarters in Ireland, with low corporate taxes, to gain access to the EU market. In this case the EU market represents a horizontal investment while the low taxes of Ireland represent a vertical investment (Ekholm et al., 2003).

Regarding the theoretical framework of FDI allocation determinants, Blonigen (2005) review the literature and concludes two different economic models that are prevalent, the partial equilibrium analysis and the general equilibrium analysis. The majority of research conducted in the field employ the partial equilibrium analysis that examines how exogenous factors such as taxes or trade affect firms' FDI behaviour, *ceteris paribus*. However, Blonigen argues that the model has various flaws in explaining the motives behind FDIs in general terms. Instead he advocates the practice of a general equilibrium model that takes the whole economy, with all interacting markets, into account. Foreign direct investment as a phenomenon is complex and the development of a general equilibrium model explaining FDIs is still in its infancy.

Navaretti and Venables (2004) distinguish between a vertical- and a horizontal model when analysing FDIs determinants, arguing that underlying motives for each type differs. However, in prior research the majority of studies have examined the determinant factors behind FDI allocation without taking the different types of FDIs into consideration. And at the same time, making the assumption that the effects of the both types average out. This since the available data on FDI flows seldom specifies the type of investment and the fact that the distinction between horizontal- and vertical FDI is hard to make. Both Navaretti and Venables (2004) and Blonigen (2005) suggest that the theoretical framework for studying FDI patterns is still

⁷ Henceforth M&A

not completely developed and highlights the problem for researchers to quantify empirics to fit the theoretical models. There is, simply put, no consensus regarding theoretical framework to guide empirics (Chakrabarti, 2001).

Despite the complexity of analysing FDI determinants there is a large body of empirical studies investigating the relationships. Since the conditions in terms of data samples and methodology differ, the evidences in the literature vary. Chakrabarti (2001) has conducted a sensitivity analysis evaluating the eight most common potential FDI determinants. The study shows strong support for market potential of the host country, described as GDP per capita, as an explanatory variable for FDI flows. Regarding the remaining seven variables in Chakrabarti's study⁸, the significance of explanatory power proves to be sensitive to the setting.

To conclude, given the absence of an established theoretical framework, it is hard to draw any general conclusions based on the results. This study will provide evidence for the Swedish case and the Swedish case only. Answering the question whether the evidence holds for other countries is not within our scope for this thesis. The data set employed in this study does not separate the type, vertical or horizontal, of FDI, something we have to consider when analysing the results since the motives might differ for the different types⁹.

1.1.2 Legal systems

The legal origin theory, also known as the law and finance theory, suggests that a country's legal origin is a highly important determinant for its economic development. A large body of research has been conducted in the field examining the relationship between financial- and economic factors and the legal origin. Previous research has focused mainly on how legal systems affect the local legislation and in turn the economic outcome given the laws. This approach has provided a good understanding relating to how legal systems correlate with economic parameters, such as growth and shareholder protection, on a national level.

Research in the field emerged from the works of La Porta, Lopez-de-Silanes, Schleifer and Vishny¹⁰ who published the influential paper "Law and finance" in 1998. The article introduced legal origin as a variable in an economic context and provided evidence that

⁸ Variables: Labour cost, Trade barrier, Growth rate, Openness, Trade deficit, Exchange rate, Tax.

⁹ For further overview of the literature concerning FDIs, see Navaretti and Venables (2004).

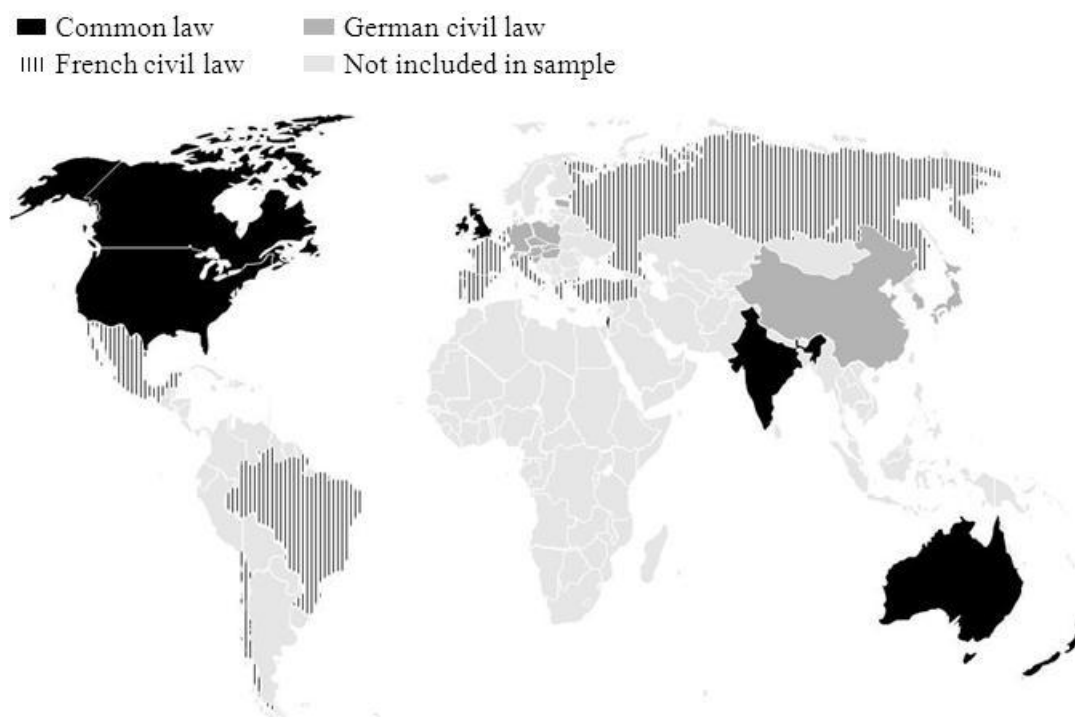
¹⁰ Henceforth LLSV

shareholder-, property- and creditor rights, as well as the development of financial markets, are linked to legal origins.

No two countries share the exact same laws, although some countries are sufficiently similar to be grouped into legal families. Legal systems are commonly divided based on their origin (also known as tradition), specifically common law and civil law. The civil law is often further divided into the following sub traditions: French, German, Scandinavian and sometimes socialist. Historically, dominant countries have spread their legal systems through, though not always, colonisation and conquest (LLSV, 1998, 2008).

Oldest and most widespread of the traditions is the civil law that roots in the laws of the Roman Empire and was later reintroduced by the Catholic Church. In civil law the primary source of law is built upon statutes and the laws are codified into a referable system. The law relies on legal scholars to legislate new statutes and hence increase the power of the state (LLSV, 1998, 2008).

Figure 1. Map of legal origins of sample countries



The French civil law emerged with the French revolution and the Napoleonic code of 1807. In consequence of the revolution, the idea was to diminish the previously high influence of

the judges. The legal system was spread across Europe by Napoleon's armies and overseas to French colonies. Other European empires, namely Portugal and Spain, were influenced by the French model and adopted similar law systems (LLSV, 1998, 2008). The code was developed so that it would be accessible to the common man, both in terms of language and structure (Berkowitz et al., 2003). There are thirteen French civil law countries in our sample, see Table 7 in the Appendix for full list of countries and legal origin classification.

When Bismarck unified Germany in 1897, a new commercial law was introduced with similarities to the French civil tradition. In contrast to the French code, the German code was not shaped to eliminate the power of the judges (Beck et al., 2003). Furthermore, the code was developed, to a greater extent than the French code, by legal scholars and as a consequence it became more technical and less accessible by the common man (Berkowitz et al., 2003). The German model influenced several of ex-Soviet states and China when modernising their legal systems. In our sample there are twelve countries with German legal origin.

Common law, also known as case law or British law, is built upon precedent court decisions and originates from the UK¹¹. The common law system relies on judges to develop the law by making decisions in the cases where precedents are unavailable. The law system spread across the globe through colonisation under the British Empire (LLSV, 1998, 2008). In our sample there are eight common law countries.

Furthermore, Scandinavian- and socialist civil origins are occurring in the literature. The Scandinavian origin has fewer similarities with the Roman law, compared to the French and German traditions. It has evolved as a combination of civil law and old customary Scandinavian laws and is hence considered a family of its own. The socialist civil origin is present in the early research of law and finance, however, it has begun to disappear since a majority of former socialist countries today have adopted new or returned to their pre-socialist legal systems. All of the former USSR¹² countries in our sample, which previously were categorised within socialist origin, have now adopted either German or French traditions (LLSV, 1998, 2008).

The law and finance theory stresses two channels, a political- and an adaptability channel. The political channel reasons that civil law systems tend to develop their institutions to a

¹¹ United Kingdom

¹² Union of Soviet Socialist Republics

greater extent than common law countries. As a consequence, this increases the power of the state with negative implications for private property rights, and in turn weaker financial development. The adaptability channel takes another approach, arguing that civil law countries develop more rigid legal systems in comparison to common law systems. With rigid systems comes an inflexibility to adjust the laws to commercial needs. Hence, an inability to adapt to changes in socioeconomic conditions has a negative impact on the economic development. Previous research indicates that the evidence for the adaptability channel is stronger than the evidence for the political channel when it comes to explaining economic development (Beck et al., 2003).

A literature overview was published by LLSV in 2008, reviewing a large body of the research conducted in the legal origins theory. The conclusion was presented into four propositions that were suggested to be correct. The four propositions follow. “First, legal rules and regulations differ between countries and these differences can be measured and quantified. Second, these differences in legal rules and regulations are accounted for to a significant extent by legal origins. Third, the basic historical divergence in the styles of legal traditions, the policy-implementing focus of civil law versus the marketing-supporting focus of common law, explains well why legal rules differ. Fourth, the measured differences in legal rules matter for economic and social outcomes” (LLSV, 2008, p. 326).

The relationship between legal origin and FDIs has been investigated in previous papers, however using different methods and data. Shapiro and Globerman (2003) analysed a cross section data set of US¹³ outward FDI, finding that common law countries attract more US FDI, other things being equal. They also found that economies with law systems originating in the civil socialist category receive less amount of FDI compared to the other legal systems, other things being equal. Guerin (2011) found evidence that investors are indifferent to property rights of target country using a cross-country data set of outflows from 18 developed countries into 24 developing countries. The paper incorporated legal origin as an explanatory variable of FDI attractiveness, although it could not establish any significance. Further, Guerin’s results showed that sharing French legal origin between home and host country has a positive impact of FDI inflows for the developing countries.

¹³ United States

1.2 Research question

As mentioned in section 1.1.2, evidence indicates that legal origin can partly explain the economic development of an economy. Now we are interested to see if legal origin further can explain why Swedish firms decide to locate their production in one country over another. Since the fundament of Swedish law is the civil Scandinavian origin, which is distinct from common law and the other civil law traditions, the preference regarding legal system for Swedish investors is uncertain. However, considering the superior protection and economic performance that common law systems have proven to provide over civil law systems, common law economies could presumably offer a more attractive investment opportunity. The intention of this paper is to investigate whether legal origin has any impact when Swedish multinational firms invest in production abroad. If it proves that legal origin explains where Swedish FDI flows, we are also interested in investigating whether the firms favour any origin over the others. Leading us to the research question of this thesis formulated as follows. *Does legal origin of a host economy affect the amount of inflowing Swedish foreign direct investment and if so, do Swedish multinational enterprises have any preferences regarding legal origins?*

2 Method

In order to investigate if the origin of legal system impacts Swedish FDI allocation we study the outflow of Swedish FDI over time. The data assessed in this paper is a balanced panel of 33 countries over the years 2000 to 2011, consequently the maximum number of observations is 396¹⁴. However, due to missing values the dataset provides 379 observations. The countries included are the members of OECD (excluding the Nordic countries¹⁵), as well as the BRIC nations¹⁶. We restrain our sample to OECD and BRIC countries due to data availability, nevertheless, the chosen sample has a wide variation in terms of both legal origin and Swedish FDI inflow. The Nordic nations are excluded since they have their own legal origin family, which is distinct from both common- and civil law, yet it is categorised as civil law. Furthermore, the Nordic economies are often perceived as an extended Swedish home market and the nations are regularly grouped as one common region (norden.org, 2013)¹⁷, thus FDI in another Nordic country is less distant compared to other nations. As a result of this the motives behind FDIs into the Nordic countries probably differ compared to the rest of the countries in our sample. In that sense, the Nordic states are outliers and we believe the study will be less biased by excluding these nations. Nonetheless, for reference we run a regression including the Nordic countries, the results are presented in Table 5 in the Appendix.

In this study we seek to find results using two models, see section 2.1 for specification. The estimation technique used is OLS¹⁸. Regarding the estimator, there are two dominant prevalent techniques when analysing panel data, random and fixed effects estimators. The fixed effects estimator allows for explanatory variables, X_{itj} , to be correlated to the unobserved effects, a_i . This since it removes the unobserved effect before the estimation, along with any time invariant explanatory variable (Wooldridge, 2009). Since our key explanatory variables are time constant dummy variables, identifying target country's legal origin, the fixed effects estimator would not provide results to answer our research question. The random effects estimator assumes that the unobserved effect, a_i , is uncorrelated with all explanatory variables, X_{itj} , and can therefore include time constant explanatory variables into the regression. The random effects further require the assumption that no perfect linear

¹⁴ 33x12

¹⁵ Denmark, Finland, Iceland and Norway

¹⁶ Brazil, Russia, India and China

¹⁷ The Nordic Council and Nordic Council of Ministers are the responsible publishers for norden.org.

¹⁸ Ordinary Least Squares

relationship exists between the explanatory variables, our sample satisfies this assumption, see Table 6 in the Appendix.

Random effects specification:

$$y_{it} = \beta_0 + \beta_k x_{itk} + a_i + u_{it}$$

$$Cov(x_{itj}, a_i) = 0$$

The Hausman specification test is commonly used to provide guidance when deciding between fixed or random effects models (Hausman, 1978). The specification test controls for significant differences in the coefficients between the fixed and random effects estimators. When running the test on our sample we are unable to reject the H_0 since the differences are not statistically significant, see Table 8 in the Appendix. This implicating that we are able to utilise both the fixed and the random effects models. Given that we want to examine the effect of time constant variables and the outcome of the Hausman specification test, we run a random effects regression.

In order to run a fixed effect regression, an alternative would have been to use a cross sectional dataset. However, that would leave out the time dimension which we find eminent in order to draw any conclusions from the study. This is since the outward volume of Swedish FDI varies to a large extent from year to year, see Figure 2 in the Appendix. Blonigen (2005) also argues that cross sectional data studies on FDIs often suffer from omitted variable bias since those studies assume that the data represents a long run FDI equilibrium, which is usually not the situation.

Another alternative estimator would have been to use the Hausman-Taylor estimator, allowing for some of the regressors to correlate with the individual effect (Hausman & Taylor, 1981). However the limitation of utilising the Hausman-Taylor estimation is the inability to control for heteroskedasticity.

In order to isolate the effect of legal origin on Swedish FDIs we have included multiple control variables in our regression. As Wooldridge (2009) highlights, controlling for time invariant variables is essential since the random effects estimator do not control for individual unobserved effects. A more detailed presentation of the variables follows in sections 3.1 and 3.2.

2.1 Models

We use two different models in the study. The dependent variable of the models is target country's share of annual total Swedish FDI outflow. In the first model we distinguish the legal origin of the target country into either common- or civil law. The second model differs in the sense that we differentiate between the legal families within civil law, namely French- and German civil law.

Model 1:

$$\frac{FDI_{it}}{FDI_t} = \beta_0 + \beta_1 * Civil\ law_i + \beta_i * Control\ variable_i$$

Model 2:

$$\frac{FDI_{it}}{FDI_t} = \beta_0 + \beta_1 * French\ civil\ law_i + \beta_2 * German\ civil\ law_i + \beta_i * Control\ variable_i$$

3 Data

All variables are listed below in Table 1 and described in detail in sections 3.1 and 3.2.

Table 1. Variables list

Variable	Description	Type	Source
FDI_{it}/FDI_t	Swedish outward FDI allocated to target country (i) at time (t) divided by total Swedish outward FDI at time (t)	Dependent	OECD
Civil law _i	Classifying origin of target country's (i) legal system as civil law	Key independent (dummy)	La Porta et al.
French civil law _i	Classifying origin of target country's (i) legal system as French civil law	Key independent (dummy)	La Porta et al.
German civil law _i	Classifying origin of target country's (i) legal system as German civil law	Key independent (dummy)	La Porta et al.
Log of GDP _{it}	Logarithm of GDP in target country (i) at time (t) in US dollar millions	Independent	World Bank
Log of GDP/capita _{it}	Logarithm of GDP per capita in target country (i) at time (t) in US dollars	Independent	World Bank
Log of geographic distance _i	Logarithm of air distance in kilometres between Sweden and target country (i)	Independent	Hengeveld
GDP growth _{it}	Five years trailing average GDP percentage growth in target country (i) at time (t)	Independent	World Bank
Log of wages _i	Logarithm of average wage rate in country (i) in US dollars in 2006	Independent	International Labour Org.
Log of bilateral trade _{it}	Logarithm of sum of exports and imports in US dollar millions between Sweden and target country (i) at time (t)	Independent	OECD
Trade openness _{it}	Sum of exports and imports as percentage of GDP in target country (i) at time (t)	Independent	UNCTAD
Corruption _{it}	Level of corruption in target country (i) at time (t)	Independent	Transparency International
Cultural difference _i	Level of cultural difference between Sweden and target country (i)	Independent	Hofstede
Corporate tax rate _{it}	Corporate tax rate in target country (i) at time (t)	Independent	KPMG
Gini _i	Gini coefficient in target country (i)	Independent	OECD & CIA World Factbook
Log of FDI position _i	Logarithm of the Swedish FDI position in target country (i) in 1999 in US dollar millions	Independent	OECD
Transition economy _i	Classifying target country (i) as a transition economy	Independent (dummy)	IMF
EU membership _{it}	Classifying target country (i) as member of EU at time (t)	Independent (dummy)	European Union
Protestant religion _i	Classifying target country's (i) primary religion as Protestant	Independent (dummy)	CIA World Factbook
Catholic religion _i	Classifying target country's (i) primary religion as Catholic	Independent (dummy)	CIA World Factbook
Other religion _i	Classifying target country's (i) primary religion as other than Protestant or Catholic	Independent (dummy)	CIA World Factbook
Germanic language _i	Classifying origin of target country's (i) national language as Germanic	Independent (dummy)	Ethnologue
Italic language _i	Classifying origin of target country's (i) national language as Italic	Independent (dummy)	Ethnologue
Slavic language _i	Classifying origin of target country's (i) national language as Slavic	Independent (dummy)	Ethnologue
Other language _i	Classifying origin of target country's (i) national language as other than Germanic, Italic or Slavic	Independent (dummy)	Ethnologue

3.1 Dependent variable

The dependent variable in our regression analysis is the share of annual Swedish total FDI net outflow received by target country. When summarising the total FDI net outflow, the source accounts for outflows where the target country is unknown. These flows have been excluded in our data¹⁹. Net outflow denotes the FDI outflow adjusted for FDI positions that were reversed during the year. The data is gathered from OECD.Stat.

3.2 Independent variables

3.2.1 Key independent variables

As we use two models in this study the key independent variable differs between the models. In Model 1 the key independent variable categorises the legal system origin as either common- or civil law. In Model 2 the key independent variable is an identifier of whether the country's legal system originates from common-, French civil- or German civil law. The source for this data is a study on legal procedures (LLSV, 2008). Globerman and Shapiro (2002) discuss a problem with the classification of nation's legal origin, namely that academics have previously classified countries differently. Specifically, the legal system in countries that formerly adopted socialist law is sometimes defined as socialist legal origin. In other times they are identified as French- or German civil law, as the countries reverted back to their original traditions after the fall of USSR. We decided to follow the classification made by LLSV (2008) as the authors are recognised within the research field and since the study was conducted relatively recently. A list of legal origin classification per country is to be found in the Appendix, see Table 5.

3.2.2 Control variables

In order to identify the effect of target country's legal tradition on Swedish FDI allocation, numerous factors have been controlled for when running the regression analysis. Our control variables are as follows.

Bilateral trade between Sweden and target country serves as a proxy for economic relation and interchange. Blonigen (2005) states that the most common argument for the relationship between trade and FDIs is that variable costs of exports can be replaced by fixed costs through local investments once the target market's demand reaches a large enough scale.

¹⁹ The differences between including or excluding unallocated flows are minor.

Hence, FDI can be considered as a substitute to trade. To control for the effect of bilateral trade we have included the logarithm of the sum of exports and imports between Sweden and target country in our regression analysis. Data on this subject is sourced from OECD.Stat.

Historical FDI flows could reasonably affect the need for future FDIs. Once a corporation has established in a foreign country, it will presumably down prioritise the country as a target for FDIs in the coming years. On the other hand, if an economy historically has received FDIs, it is probably attractive for these kinds of investments. This might inspire further MNEs to establish within the country. Hence, we find it possible that prior FDIs in a country may, both negatively and positively, affect FDI flows in the following years. We control for this by including the logarithm of Swedish FDI position in target country in 1999²⁰. OECD.Stat provided the data for this²¹.

Corruption within the target country has shown to affect FDI negatively (Habib & Zurawicki, 2002). Our study incorporates the effect of corruption by using Transparency International's Corruption Perceptions Index. The index is published annually by the non-governmental organisation Transparency International, and it ranks each country's level of corruption on a scale from zero to ten. The score is based on multiple surveys by business and country experts²². Yet a subjective measure, the index has been widely used by academics and companies since its incorporation.

Cultural difference between host and target country is a factor where the impact on FDI is uncertain. Engwall and Wallenstål (1998) did not find any support for the hypothesis that level of FDI is higher if the cultural difference is low. However, Ghemawat (2001) found that similarity of culture positively influences FDI. We control for cultural difference between Sweden and target country by using a variable where the Kogut and Singh (1988) formula is applied to Hofstede's four dimensions of culture. Hofstede's four dimensions of culture are Power distance (PDI), Individualism versus collectivism (IDV), Masculinity versus femininity (MAS) and Uncertainty avoidance (UAI). The first dimension, PDI, addresses how a society deals with inequalities within the population. In the IDV dimension, the extents to which individuals in a society are expected to take care of only themselves or if they look

²⁰ The last year prior to our sample period.

²¹ Missing values (Chile, Estonia, Israel, Slovenia), zero value (Iceland, India, New Zealand, Slovakia) and negative value (Republic of Korea) are assumed to equal the value of one, resulting in a regression value of zero as the logarithm of one equals zero.

²² In this study the scale is the inversion of the original, meaning that zero equals no corruption and ten high corruption.

after each other in exchange for loyalty is captured. MAS measures the degree of competition within the society, whether there is a competitive culture or a preference for cooperation and caring for the weak. Hofstede's fourth dimension, UAI, expresses the extent of uncomfortability the people of a society feel for uncertainty, namely how they deal with the fact that the future is unknown. Hofstede's research has been widely used by academics and the framework was one of the first empirical models of natural culture "dimensions" (Hofstede, 2013).

Other factors that we believe can serve as proxies for cultural difference, and that are not taken into account in Hofstede's four dimensions, are language and religion. To incorporate these effects, a language- and a religion variable is included in the regression analysis. The language variable identifies from what language family the target country's national language origins from, the countries are grouped into following language families: Germanic, Italic (commonly known as Latin), Slavic and Other. The data on language origin is gathered from Ethnologue, a language catalogue published by the non-profit organisation SIL International²³. The religion variable categorises the target country's primary religion, which is the most practised religion. Grouping is made into Protestant, Catholic and Other. The data is sourced from the CIA World Factbook.

Corporate tax rate is another factor where the effect on FDI is unclear. Previous literature has come up with different conclusions, namely negative-, no- or positive effect (Chakrabarti, 2001). Furthermore, nations with low tax rate, so called tax haven economies, are subject to a relatively larger portion of indirect FDI inflows. That is FDI flows that are redirected to another host country after first reaching the tax haven economy (UNCTAD, 2012). A variable showing the corporate tax rate in the target country is included in the regression analysis. The data is sourced from KPMG.

EU membership has been included since the partnership was established to foster economic cooperation and trade. We reason that a membership in the EU could influence level of FDI as Sweden is a member country. Data on member countries are fetched from the EU official website.

GDP per capita is the most widely accepted element said to affect inward FDI. The variable serves as a proxy for income level and market potential. Chakrabarti (2001) found in previous

²³ Summer Institute of Linguistics

literature that FDI would increase as GDP per capita increases. However, Globerman and Shapiro (2002) argue that per capita GDP is repeatedly either statistically insignificant or appearing with positive or negative signs. Navaretti and Venables (2004) further argue that depending on the motive of the FDI, the predicted sign of the factor in the analysis might differ. This since horizontal FDIs are seeking large market potential while vertical FDIs are seeking low cost labour, and GDP per capita is said to be a proxy for both (Chakrabarti, 2001). The factor has been controlled for in the regression analysis by a variable showing the logarithm of GDP per capita. Data on GDP per capita is gathered from the national accounts data from The World Bank.

Labour costs have appeared with varying influence on FDIs in prior literature. Studies have concluded it to be of positive influence, negative influence or insignificant (Chakrabarti, 2001). Furthermore, it might separate the labour cost portion from per capita GDP, so that per capita GDP reflects only market potential. We include a control variable showing the logarithm of the US dollar average wage rate in the host country in 2006²⁴. The data is restrained to year 2006 due to unavailability. ILO²⁵ provided the data.

Income- and wealth inequality and its relation to finance has been broadly discussed in the literature. Beck et al. (2007) and Clarke et al. (2006) concluded that financial development reduces income inequality. On the other hand, FDI and income inequality seem to relate in the opposite direction. Choi (2006) found that income inequality increases as inward FDI stocks increases. Basu and Guariglia (2006) also concluded that FDI and inequality are positively correlated. To control for income inequality we have included the mid 2000's Gini coefficient per country, sourced from OECD.Stat and CIA World Factbook²⁶. The Gini coefficient is a measure of statistical dispersion and is frequently used to measure inequality of income or wealth. The measure ranges from zero to one, where zero represents complete equality and one complete inequality, in other words a lower coefficient corresponds to a more equal distribution of income in the society. It was developed by Italian statistician Corrado Gini in 1912 and is commonly applied by academics.

²⁴ The data is reported in local currency. The yearly average exchange rates between local currency and US dollar have been applied.

²⁵ International Labour Organization

²⁶ Gini coefficient for the BRIC countries were not available from OECD.Stat. This data was sourced from CIA World Factbook and the years of the Gini coefficients correspond to 2001 (Brazil), 2007 (China), 2004 (China) and 2001 (Russia).

Geographic distance between host and target country is repeatedly used in the literature as a determinant of FDI allocation. FDI flows decrease as the geographic distance increases due to difficulties in facilitating contact, as well as transportation costs (Chakrabarti, 2001). The logarithm of air distance in kilometres has been used to capture the effect in this study. The data is sourced from “World Distance Tables, 1948-1974” (Hengeveld, 1996)²⁷.

Growth in the target country is a factor that is frequently identified by academics to affect FDI. The hypothesis maintains that a rapidly growing economy provides relatively superior opportunities than an economy growing slowly or not at all (Chakrabarti, 2001). The growth variable used in this study is the average GDP growth for the previous five years in the target country. Yearly growth rates can be volatile and sensitive to specific events, by using five year historical average the data reflects a more balanced growth rate. The national accounts data from The World Bank provided the data for this.

Size of the target country’s economy is concluded to have a positive impact on inward FDIs (Chakrabarti, 2001). As a proxy for market size we have used absolute GDP in US dollars, the logarithm of the values has been used in the regression. Data on GDP is gathered from the national accounts data from The World Bank.

Trade openness in the target country has been shown to be a relevant factor in determining level of FDI flows. The evidence shows that trade openness has a positive effect (Chakrabarti, 2001). Our regression analysis controls for this by using a variable showing sum of imports and exports as percentage of GDP in target country. This data is fetched from UNCTAD²⁸ Statistics.

Transition economies were considered risky in terms of investment allocation in the 1990’s (Kinoshita & Campos, 2003). What the effect is during our sample period is uncertain, however we control for it in our regression. Furthermore, the nations classified as transition economies in our sample were also identified as having a socialist civil law origin (Djankov et al. 2002) before they reverted to French- or German civil law (LLSV, 2008), that is former USSR and China. Classification of countries to be considered as transition economies is sourced from IMF²⁹.

²⁷ *World Distance Tables, 1948-1974* does not include distance between Sweden and Estonia, the distance between Sweden and Finland has been used as a proxy for this data point.

²⁸ United Nations Conference on Trade and Development

²⁹ International Monetary Fund

Table 2. Descriptive statistics

Variable	Obs.	Mean	Min	Max	St. Dev.
FDI_{it}/FDI_t	381	0.02	-1.18	1.00	0.13
Civil _i	396	0.76	0	1	0.43
French civil law _i	396	0.39	0	1	0.49
German civil law _i	396	0.36	0	1	0.48
GDP _{it}	396	1,248,751	5,675	14,991,300	2,327,168
GDP/capita _{it}	396	24,912	450	114,508	19,028
Geographic distance _i	396	4,331	316	17,362	4,453
GDP growth _{it}	396	0.04	-0.01	0.12	0.02
Wages _i	396	2,038	97	5,294	1,347
Bilateral trade _{it}	396	5,146,330	115,885	50,108,293	7,424,223
Trade openness _{it}	394	0.86	0.21	2.81	0.51
Corruption _{it}	396	3.81	0.40	7.90	2.03
Cultural difference _i	396	3.25	0.38	8.06	1.62
Corporate tax rate _{it}	396	0.29	0.13	0.52	0.07
Gini _i	396	0.34	0.25	0.55	0.07
FDI position _i	396	2,417	1	21,299	4,478
Transition economy _i	396	0.24	0	1	0.43
EU membership _{it}	396	0.48	0	1	0.50
Protestant religion _i	396	0.21	0	1	0.41
Catholic religion _i	396	0.58	0	1	0.49
Other religion _i	396	0.21	0	1	0.41
Germanic language _i	396	0.36	0	1	0.48
Italic language _i	396	0.21	0	1	0.41
Slavic language _i	396	0.15	0	1	0.36
Other language _i	396	0.27	0	1	0.45

Statistics above are not logarithm values.

The denominator in our dependent variable (FDI_t) is the total Swedish FDI outflow, including nations outside our sample. As we include negative flows, the minimum and maximum values for our dependent variable can exceed [1].

4 Results

The results from the random effects regressions are presented below. First we analyse the general implications of the models by looking at the coefficients for each variable. Secondly, we try to explain what the models say about legal origin influence on Swedish FDI allocation, followed by a discussion of the results. The results discussed in this section refer to the regression with our complete sample, denoted “OECD & BRIC”, see Table 7 in the Appendix. The regressions of the sub samples serve as robustness checks.

4.1 Regression analysis

Table 3. Regression results Model 1

Independent variable	Dependent variable FDI _i /FDI _{it}		
	OECD excl. Transition Economies ^a	OECD ^a	OECD & BRIC ^a
Civil law _i	0.0313 (0.0269)	0.0093 (0.0201)	-0.0043 (0.0253)
Log of GDP _{it}	0.0301 (0.0260)	0.0475** (0.0229)	0.0427** (0.0194)
Log of GDP/capita _{it}	0.0405 (0.0296)	0.0143 (0.0275)	0.0229 (0.0171)
Log of geographic distance _i	-0.0327 (0.0245)	-0.0510** (0.0239)	-0.0542* (0.0208)
GDP growth _{it}	-0.7445 (1.1188)	-0.4821 (0.8579)	-0.3050 (0.6507)
Log of wages _i	0.0138 (0.0450)	-0.0125 (0.0418)	-0.0369*** (0.0222)
Log of bilateral trade _{it}	-0.0239 (0.0273)	-0.0357 (0.0251)	-0.0280 (0.0237)
Trade openness _{it}	0.0209 (0.0406)	0.0407 (0.0365)	0.0321 (0.0296)
Corruption _{it}	-0.0122 (0.0114)	-0.0114 (0.0107)	-0.0120 (0.0097)
Cultural difference _i	-0.0054 (0.0110)	0.0019 (0.0049)	0.0039 (0.0054)
Corporate tax rate _{it}	0.3893* (0.1219)	0.2744** (0.1091)	0.2402** (0.1071)
Gini _i	1.3807* (0.4969)	0.6692** (0.3057)	0.3491** (0.1685)
Log of FDI position _i	-0.0001 (0.0059)	-0.0004 (0.0042)	-0.0015 (0.0044)
Transition economy _i	dropped	0.0222 (0.0603)	-0.0085 (0.0284)
EU membership _{it}	0.0552*** (0.0302)	0.0095 (0.0167)	-0.0019 (0.0141)
Catholic religion _i	-0.0553*** (0.0326)	-0.0650** (0.0311)	-0.0625** (0.0318)
Other religion _i	-0.1211*** (0.0664)	-0.0781 (0.0535)	-0.0764** (0.0313)
Italic language _i	-0.0517 (0.0316)	-0.0231 (0.0322)	-0.0131 (0.0336)
Slavic language _i	dropped	0.0365 (0.0693)	0.0331 (0.0550)
Other language _i	0.0727 (0.0866)	0.0051 (0.0609)	0.0112 (0.0358)
R ²	0.1110	0.0980	0.0944
No. of observations	262	331	379
Wald chi2	545.54*	51.70*	59.36*

*Significant at the 1 per cent level. **Significant at the 5 per cent level. ***Significant at the 10 per cent level

^aSee Table 7 in the Appendix for sample specification

Robust standard errors in brackets.

Regressions including variables controlling for *School enrolment*, *Internet availability*, *Stock market size* and *No. of days to set up a business* have been run to check the robustness. The variables did not change the results.

Table 4. Regression results Model 2

Independent variable	Dependent variable FDI _i /FDI _{it}		
	OECD excl. Transition Economies ^a	OECD ^a	OECD & BRIC ^a
French civil law _i	0.0813* (0.0174)	0.0798* (0.0202)	0.0500* (0.0189)
German civil law _i	-0.0749* (0.0205)	-0.0542** (0.0215)	-0.0500* (0.0186)
Log of GDP _{it}	0.0712* (0.0223)	0.0657* (0.0153)	0.0645* (0.0180)
Log of GDP/capita _{it}	0.0242 (0.0202)	0.0125 (0.0204)	0.0096 (0.0146)
Log of geographic distance _i	-0.1046* (0.0188)	-0.0800* (0.0187)	-0.0688* (0.0185)
GDP growth _{it}	-0.6768 (1.0067)	-0.7102 (0.7336)	-0.2474 (0.5660)
Log of wages _i	0.0052 (0.0194)	0.0012 (0.0262)	-0.0356** (0.0168)
Log of bilateral trade _{it}	-0.0508* (0.0165)	-0.0512* (0.0159)	-0.0424** (0.0189)
Trade openness _{it}	0.0098 (0.0241)	0.0161 (0.0240)	0.0206 (0.0209)
Corruption _{it}	-0.0324* (0.0063)	-0.0259* (0.0074)	-0.0248* (0.0082)
Cultural difference _i	0.0238* (0.0054)	0.0123* (0.0047)	0.0095*** (0.0050)
Corporate tax rate _{it}	0.2287** (0.1124)	0.1972** (0.0810)	0.2183* (0.0842)
Gini _i	0.9476* (0.2677)	0.7127* (0.2038)	0.3424* (0.1301)
Log of FDI position _i	-0.0081*** (0.0048)	-0.0019 (0.0031)	-0.0028 (0.0039)
Transition economy _i	dropped	0.0632 (0.0476)	0.0297 (0.0326)
EU membership _{it}	-0.0150 (0.0183)	-0.0113 (0.0148)	-0.0023 (0.0104)
Catholic religion _i	-0.0857* (0.0157)	-0.0802* (0.0199)	-0.0591** (0.0248)
Other religion _i	-0.2202* (0.0415)	-0.1879* (0.0484)	-0.1542* (0.0320)
Italic language _i	-0.0900* (0.0284)	-0.0728* (0.0282)	-0.0633** (0.0304)
Slavic language _i	dropped	0.0933*** (0.0558)	0.0543 (0.0449)
Other language _i	0.0710 (0.0538)	0.0756 (0.0466)	0.0702** (0.0305)
R ²	0.1418	0.1305	0.1195
No. of observations	262	331	379
Wald chi2	7,579.35*	766.06*	85.16*

*Significant at the 1 per cent level. **Significant at the 5 per cent level. ***Significant at the 10 per cent level

^aSee Table 7 in the Appendix for sample specification

Robust standard errors in brackets.

Regressions including variables controlling for *School enrolment*, *Internet availability*, *Stock market size* and *No. of days to set up a business* have been run to check the robustness. The variables did not change the results.

The regression results are presented in Tables 3 and 4. In Model 1 the legal origin has been split into common- and civil law. As for Model 2, we further separate the civil law origin into French- and German civil law. In both regressions the base cases is represented by common law as legal origin, Protestant religion as primary religion and Germanic as national language family. Both models are statistically significant³⁰. Model 1 explains 9.4% of the variance³¹ in share of Swedish outward FDIs, whereas Model 2 explains 12.0%³².

We find significance for a majority of the variables in Model 2. The model also provides an order of preference for legal system origin when Swedish firms allocate FDIs. The order is as follows: 1. French civil law, 2. common law and 3. German civil law. In section 4.2 we analyse and compare with previous literature to find explanations behind this preference order.

Fewer variables in Model 1 than in Model 2 show significant results. Since the civil law coefficient is insignificant, Model 1 gives no clarification on whether common- or civil law is preferred when Swedish MNEs make cross border direct investments. Therefore Model 1 is unable to answer our research question. Hence, the discussion below refers to Model 2, but the same logic behind the coefficients in Model 2 can be applied to the coefficients showing significant results in Model 1.

Surprisingly, the growth and per capita GDP variables are not significant in any of the models. This might be explained by the high volatility in the growth figures during our sample period due to the global financial turmoil following the crisis that erupted in late 2007. GDP per capita is also insignificant although Chakrabarti (2001) suggests it is the most accepted element of influence on FDI, serving as a proxy mainly for market potential. Since we control for absolute GDP, it is possible that the market potential effect is captured in GDP. Furthermore, as Globerman and Shapiro (2002) stated, the per capita GDP results are frequently insignificant.

In line with previous studies GDP (positive), geographic distance (negative), corruption (negative) and Gini coefficient (positive) seem to affect Swedish FDIs. These coefficients' results are at a significance level of one per cent in Model 2.

³⁰ $p > \chi^2 = 0.000$

³¹ $R^2 = 0.0944$

³² $R^2 = 0.1195$

Level of wages seems to negatively affect Swedish FDIs. The reason for this coefficient being negative could be that Swedish MNEs invest abroad in order to utilise cheap labour, a type of vertical FDI. Considering the coefficient's sample sensitivity one should not draw any definite conclusions.

The coefficient for bilateral trade between Sweden and target country is negative. This could be explained by when trade reaches a certain level, companies make direct investments within the target country instead of trading, as Blonigen (2005) states.

The coefficient for corporate tax rate in target country is positive, suggesting that a higher tax level attracts more Swedish FDIs. Even though this might seem rather contradictory, previous literature has in some cases found the same results (Chakrabarti, 2001). As we do not control for host country's infrastructure level, tax rate might serve as a proxy for this. And one possible interpretation is that a higher tax rate implies more developed infrastructure.

Unexpectedly, the coefficient for cultural difference is positive. However, the significance level of the variable decreases when expanding the sample, hence the variable's robustness might be questioned. As the primary religion in Sweden is Protestantism, it is not unexpected that Catholicism or other religions in the target country have a negative effect on FDIs. Italic language seems to affect Swedish FDI negatively as well, whereas other languages³³ impact on FDI is positive. However, this variable's result is only significant when analysing the complete sample, and is, as a consequence, not robust.

4.2 Discussion

Previous literature suggests that legal origin and finance are linked in several ways. LLSV (2008) present evidence that legal origin influences the economic outcome in terms of financial development, unemployment, investment and entry, size of unofficial economy and international trade. Primarily, the evidence show that nations where the legal system origins from common law are associated with superior economic outcomes than French civil law countries, with German civil law positioned in between. LLSV (1997, 1998) also found that investor protection is weakest and capital markets are least developed in French civil law countries and strongest in common law countries. One might expect MNEs to invest in nations with legal origins that stimulate economic performance, in other words common law nations. Our study on the other hand, places French civil law as the most favoured legal

³³ See variable *Other language_i*.

origin for Swedish FDI outflow, German civil law as the least preferred and common law origin placed in between. Below we discuss and elaborate around reasonable theories for this order of preference.

A possible explanation for French civil law being favoured by Swedish MNEs is the sample period being studied, namely our study investigating the relation between law and finance in relatively recent years. The increasing globalisation has made legal systems across countries to converge as the transfer of legal knowledge increases. Furthermore, higher globalisation leads to higher competition for FDI inflows among nations, consequently legal systems must adopt improved regulations in order to increase their relative attractiveness (LLSV, 2008). Hence, the differences between the legal origins might not be as distinct as they were before.

Previous literature also shows that nations with relatively weak investor protection, which characterises French civil law countries, more heavily rely on FDI flows than others. The logic behind this reasoning is that if the investor protection is weak, then corporations in some cases must hold an ownership stake, in contrast to for example a license agreement, in a foreign project in order to raise external funding. External investors are generally more concerned for managerial misbehaviour if the protection of investors is weak, thus an ownership claim by the initiator will incentivise the initiator to monitor the project (Antràs et al., 2009). Furthermore, mitigating this agency problem is not only in the interest of external investors, obviously, it is also in the interest of the company. Guerin (2011) argues that FDI, in contrast with other types of capital flows, can alleviate the agency problem through majority ownership and control.

As stated above there are findings in prior literature that support why our model places French civil law as preferred legal origin. These arguments evolve mainly from the fact that French civil law countries have, in general, inferior legal systems from an economic perspective. And hence, investors protect themselves by holding an ownership stake in their foreign operations, namely through FDIs. Because of this, we find it surprising that German civil law is placed last in the preference order, behind common law. The broad conclusion from academics is that common law origin has the economically leading legal system, followed by German civil law, and lastly French civil law. In line with the arguments above, one could therefore have expected German civil law to be placed before common law in the order of preference. We propose three possible contributing factors to why our study places German civil law last.

Firstly, the preference order for Swedish FDI outflow might be associated with the Hanseatic League, a trade confederation between Northern European cities during the Medieval Ages. The alliance was established by a number of prominent merchants in order to share the risks of trading, the dangers of traveling and the problems overlords could cause them. The beginning of the confederation can be traced back to the 13th century and the German city of Lübeck, which also remained at its core together with the city of Hamburg. Until its decline in the 16th century, the alliance made trade more feasible among the member cities. The Hanseatic League mainly incorporated cities in areas now known as Germany, the Netherlands and Belgium, as well as cities around the Baltic Sea (Halliday, 2009). As the core cities were located in Germany, it could be that benefits of the trade confederation have endured between Sweden and Germany. If this is the case, then there could be less need for Swedish FDI outflows targeting Germany due to the ease of trading. This reasoning might, at least, partly explain why German civil law places last when Swedish MNEs allocate their FDIs.

Secondly, as stated in section 1.1.1, the level of FDIs has increased rapidly since the 80's, especially across the OECD area. Japan however, does not fit in with this general picture and the inward FDI stock in Japan is very small³⁴ (Jansen & Stokman, 2004). Given that Japan's legal system originates from German civil law and its economic size, it is possible that Japan, in some terms, being an outlier could be an explanatory factor to why German civil law places last in the preference order.

Thirdly, as mentioned in section 1.1.2, when developed, the German civil code was more technical and less accessible than the French civil code. Because of this, MNEs might further recoil from FDIs in German civil origin nations as the legal framework is harder to interpret. However, since the majority of FDIs are made by large multinational corporations, one could expect them to hold the required legal knowledge, hence this reasoning might be weak.

When interpreting the results, a further aspect to consider is, as stated in section 1.1.1, that horizontal FDI seems to be the dominant type of FDI when investing in developed countries (Navaretti & Venables, 2004). Since our sample mainly includes developed economies, one might expect the results to be biased towards allocation of horizontal FDI.

³⁴ 1% of GDP in year 2000

5 Criticism

Our study does not tell the definite truth about the relationship between Swedish FDI outflow allocation and legal origin. We are aware of that there are flaws in our study, some of which we address in this section.

Criticism that can be raised when studying legal origin influence on finance is that legal system serves as a proxy for something else, where culture, history and politics are the most debated. Even though LLSV (2008) conclude that legal origin does not simply serve as a proxy for the above factors, our regression analysis might be more exposed to this issue. This is because LLSV seek to examine this specific matter, and hence, they control for several factors that we do not include in our study.

Our data on FDI flows does not differ between the different types of FDI. Since the motives for FDI differ between the vertical and horizontal types, the effect of our explanatory variables might as a result average out and distort the sample, leading to decreased levels of significance. For example, GDP per capita influences horizontal investments positively, as it serves as a proxy for market potential. Whereas, it affects vertical investments negatively, serving as a proxy for labour costs. When more detailed data become available we advise further research to examine the impact by separating the different types.

Examining FDI flows at country level has also received some criticism in previous literature. Academics are instead advocating FDI data on industry level, arguing that determinant factors behind FDIs are industry specific. Hence, some industries are vertically oriented in their FDI decisions, whereas others are horizontally oriented (Braunerhjelm, 2000; Shapiro, 2002). Future research taking these factors into consideration could provide a narrower analysis regarding FDI patterns.

6 Conclusion

This paper seeks to examine the influence of legal origin on Swedish FDI outflow by studying 33 countries over the period 2000 to 2011. We question if there is any preference for legal origin within a target country when Swedish investors allocate FDIs, and if so, what do they prefer. The analysis suggests two broad conclusions.

We conclude that a classification into just common- or civil law is insufficient. A separation of civil law into French- or German civil law is essential in order to find any relation between legal origin and Swedish FDI outflow. This finding is not surprising since the branches within civil law differ to a large extent.

The central conclusion to be drawn from our study suggests that nations of French civil law attract more Swedish FDI in comparison with other legal origins, other things being equal. Moreover, German civil law seems to make Swedish MNEs shy away when allocating FDIs. As presented in section 4.2, there are findings from previous literature that support why the level of FDI is higher in French civil law countries, *ceteris paribus*. The main theory is that in French civil law nations the legal system is, from an economic perspective, inferior relative common law- and German civil law countries. By making FDIs companies hold an ownership stake in the foreign operations, thus they have more control over the foreign business. As the legal system in French civil law countries in general is weaker, the investors are incentivised to hold an ownership stake in order to gain control, in other words investors expand through FDIs. This implies that Swedish MNEs allocate their FDIs towards certain countries as a consequence of the target's legal origin rather than an actual preference. Ergo, even though we refer to an order of preference for legal origin throughout this text, the allocation of FDI in relation to legal origin is more of a consequence of the law system rather than an actual preference.

If the reasoning above holds, one could expect common law origin to place last in the order of preference. This since previous literature has concluded common law to be the superior legal system from an economic perspective. However, our study places German civil law behind common law. The old tradition of trading between Sweden and Germany, which can be traced back to the Hanseatic League, could possibly alleviate the need for FDIs.

Furthermore, Japan, in relation to other economies, has an extremely small portion of inward FDI. As Japan and Germany are two of the largest economies with German civil law origin,

these two factors might partly explain why the law system places last. Also, the complexity of the German civil code might further decrease the attractiveness of FDI.

Furthermore, after reviewing the literature covering FDI allocation determinants, there is no general consensus regarding the theoretical framework to be used for a study like this. As a consequence the evidence from previous research may be contradictory, suggesting the difficulty to draw any general conclusions. The results we find should therefore be interpreted for the Swedish situation and we are careful to draw the conclusion that the results hold for other countries.

Finally, we also give some suggestions for future research. By defining the data on a more precise level regarding the types of FDIs and by industry, further understanding of the impact of legal origins on Swedish outflow FDI could possibly be established.

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Appendix

Table 5. Legal system origin per country

Country	Classification
Australia	Common law
Austria	German civil law
Belgium	French civil law
Brazil	French civil law
Canada	Common law
Chile	French civil law
China	German civil law
Czech Republic	German civil law
Estonia	German civil law
France	French civil law
Germany	German civil law
Greece	French civil law
Hungary	German civil law
India	Common law
Ireland	Common law
Israel	Common law
Italy	French civil law
Japan	German civil law
Korea, Republic of (South Korea)	German civil law
Luxembourg	French civil law
Mexico	French civil law
Netherlands	French civil law
New Zealand	Common law
Poland	German civil law
Portugal	French civil law
Russia	French civil law
Slovakia	German civil law
Slovenia	German civil law
Spain	French civil law
Switzerland	German civil law
Turkey	French civil law
United Kingdom	Common law
United States	Common law

Table 6. Correlation matrix

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1. FDI _i /FDI _{it}	1.00																								
2. Civil _i	-0.06	1.00																							
3. French civil law _i	0.00	0.46	1.00																						
4. German civil law _i	-0.06	0.43	-0.61	1.00																					
5. Log of GDP _{it}	0.15	-0.17	0.04	-0.19	1.00																				
6. Log of GDP/capita _{it}	0.08	-0.10	0.00	-0.09	0.11	1.00																			
7. Log of geo. dist. _i	-0.03	-0.38	0.01	-0.35	0.37	-0.15	1.00																		
8. GDP growth _{it}	-0.05	-0.09	-0.19	0.11	-0.16	-0.49	0.01	1.00																	
9. Log of wages _i	0.05	-0.10	-0.03	-0.06	0.07	0.91	-0.16	-0.51	1.00																
10. Log of bilateral trade _{it}	0.17	0.06	0.03	0.02	0.72	0.26	-0.28	-0.15	0.22	1.00															
11. Trade openness _{it}	-0.06	0.22	-0.07	0.27	-0.64	0.29	-0.58	0.08	0.23	-0.16	1.00														
12. Corruption _{it}	-0.06	0.35	0.19	0.12	0.00	-0.75	-0.05	0.33	-0.76	-0.11	-0.21	1.00													
13. Cultural difference _i	-0.07	0.48	0.13	0.30	-0.01	-0.31	0.06	0.03	-0.33	-0.20	-0.11	0.59	1.00												
14. Corporate tax rate _{it}	0.14	-0.15	0.11	-0.24	0.47	0.02	0.30	-0.23	0.15	0.21	-0.44	-0.11	-0.12	1.00											
15. Gini _i	-0.01	0.00	0.33	-0.33	0.24	-0.56	0.52	0.25	-0.62	-0.09	-0.52	0.45	0.14	0.03	1.00										
16. Log of FDI position _i	0.09	0.02	0.18	-0.17	0.57	0.44	-0.13	-0.33	0.45	0.68	-0.09	-0.31	-0.25	0.27	-0.10	1.00									
17. Transition economy _i	-0.02	0.32	-0.31	0.60	-0.39	-0.40	-0.45	0.38	-0.47	-0.11	0.31	0.47	0.32	-0.43	-0.08	-0.30	1.00								
18. EU membership _{it}	0.01	0.27	0.21	0.02	-0.16	0.43	-0.62	-0.19	0.38	0.32	0.45	-0.21	-0.07	-0.14	-0.50	0.33	0.02	1.00							
19. Protestant religion _i	0.17	-0.40	-0.42	0.07	0.14	0.19	0.16	-0.04	0.23	0.19	-0.14	-0.34	-0.39	0.16	-0.09	-0.06	-0.12	-0.11	1.00						
20. Catholic religion _i	-0.13	0.37	0.32	0.01	-0.27	0.21	-0.24	-0.22	0.16	-0.11	0.41	-0.10	0.06	-0.26	-0.18	0.28	0.06	0.38	-0.60	1.00					
21. Other religion _i	-0.02	-0.05	0.04	-0.08	0.19	-0.44	0.14	0.31	-0.42	-0.06	-0.36	0.46	0.31	0.16	0.31	-0.28	0.05	-0.36	-0.27	-0.60	1.00				
22. Germanic language _i	0.10	-0.45	-0.22	-0.18	0.13	0.60	0.00	-0.22	0.64	0.25	0.23	-0.78	-0.58	0.14	-0.40	0.48	-0.43	0.15	0.38	0.01	-0.39	1.00			
23. Italic language _i	-0.06	0.29	0.64	-0.39	0.16	-0.08	0.27	-0.22	-0.14	-0.01	-0.32	0.15	0.13	0.10	0.48	0.14	-0.29	0.09	-0.27	0.45	-0.27	-0.39	1.00		
24. Slavic language _i	-0.02	0.24	-0.17	0.38	-0.30	-0.22	-0.37	0.13	-0.28	-0.14	0.19	0.40	0.38	-0.32	-0.20	-0.27	0.75	0.04	-0.22	0.19	-0.01	-0.32	-0.22	1.00	
25. Other language _i	-0.04	0.03	-0.22	0.24	-0.05	-0.41	0.05	0.33	-0.34	-0.14	-0.11	0.38	0.20	0.01	0.16	-0.43	0.13	-0.28	0.02	-0.58	0.68	-0.46	-0.32	-0.26	1.00

The column numbers correspond to the numbers for each variable

Table 7. Robustness check sample classification

Country	OECD excl. Transition Economies	OECD	OECD & BRIC
Australia	X	X	X
Austria	X	X	X
Belgium	X	X	X
Brazil			X
Canada	X	X	X
Chile	X	X	X
China			X
Czech Republic		X	X
Estonia		X	X
France	X	X	X
Germany	X	X	X
Greece	X	X	X
Hungary		X	X
India			X
Ireland	X	X	X
Israel	X	X	X
Italy	X	X	X
Japan	X	X	X
Korea, Republic of (South Korea)	X	X	X
Luxembourg	X	X	X
Mexico	X	X	X
Netherlands	X	X	X
New Zealand	X	X	X
Poland		X	X
Portugal	X	X	X
Russia			X
Slovakia		X	X
Slovenia		X	X
Spain	X	X	X
Switzerland	X	X	X
Turkey	X	X	X
United Kingdom	X	X	X
United States	X	X	X

Country included in sample denoted by X

Tabel 8. Hausman specification test

	(b)	(B)	(b-B)	$\sqrt{\text{diag}(V_b - V_B)}$
Variable	FE Regression	RE Regression	Difference	Std. Error
GDP _{it}	0.2498	0.0645	0.1853	0.3289
GDP/capita _{it}	-0.1472	0.0096	-0.1568	0.3607
GDP growth _{it}	-0.2176	-0.2474	0.0298	0.4331
Bilateral trade _{it}	-0.0704	-0.0424	-0.0280	0.0393
Trade openness _{it}	0.0024	0.0206	-0.0182	0.0893
Corruption _{it}	-0.0229	-0.0248	0.0019	0.0183
Corporate tax rate _{it}	0.1981	0.2183	-0.0202	0.2336
EU membership _{it}	-0.0292	-0.0023	-0.0269	0.0352

b = consistent under H_0 and H_a

B = inconsistent under H_a , efficient under H_0

Test: H_0 : difference in coefficients not systematic

$$\chi^2(8) = (b-B)'[(V_b - V_B)^{-1}](b-B)$$

$$= 3.64$$

$$\text{Prob} > \chi^2 = 0.8880$$

Table 9. Descriptive statistics including Nordics

Variable	Obs.	Mean	Min	Max	St. Dev.
FDI _i /FDI _{it}	426	0.03	-1.18	1.41	0.16
Civil _i	444	0.78	0	1	0.41
French civil law _i	444	0.35	0	1	0.48
German civil law _i	444	0.32	0	1	0.47
Scandinavian civil law _i	444	0.11	0	1	0.31
GDP _{it}	444	1,135,002	5,675	14,991,300	2,222,113
GDP/capita _{it}	444	27,501	450	114,508	20,305
Geographic distance _i	444	3,960	316	17,362	4,345
GDP growth _{it}	444	0.03	-0.01	0.12	0.02
Wages _i	444	2,277	97	5,294	1,463
Bilateral trade _{it}	444	6,110,396	115,885	50,108,293	8,210,860
Trade openness _{it}	442	0.86	0.21	2.81	0.48
Corruption _{it}	444	3.49	0.00	7.90	2.14
Cultural difference _i	432	3.00	0.16	8.06	1.75
Corporate tax rate _{it}	444	0.29	0.13	0.52	0.07
Gini _i	444	0.33	0.23	0.55	0.08
FDI position _i	444	2,692	1	21,299	4,419
Transition economy _i	444	0.22	0	1	0.41
EU membership _{it}	444	0.49	0	1	0.50
Protestant religion _i	444	0.30	0	1	0.46
Catholic religion _i	444	0.51	0	1	0.50
Other religion _i	444	0.19	0	1	0.39
Germanic language _i	444	0.41	0	1	0.49
Italic language _i	444	0.19	0	1	0.39
Slavic language _i	444	0.14	0	1	0.34
Other language _i	444	0.27	0	1	0.44

Statistics above are not logarithm values.

The denominator in our dependent variable (FDI_i) is the total Swedish FDI outflow, including nations outside our sample. As we include negative flows, the minimum and maximum values for our dependent variable can exceed |1|.

Table 10. Regression results including Nordics

Independent variable	Dependent variable FDI _i /FDI _{it}	
	Model 1	Model 2
Civil _i	0.0001 (0.0244)	. .
French civil law _i	. .	0.0631* (0.0221)
German civil law _i	. .	-0.0515* (0.0181)
Scandinavian civil law _i	. .	0.0503*** (0.0259)
Log of GDP _{it}	0.0431*** (0.0238)	0.0762* (0.0202)
Log of GDP/capita _{it}	0.0101 (0.0214)	-0.0056 (0.0211)
Log of geographic distance _i	-0.0690* (0.0239)	-0.0866* (0.0203)
GDP growth _{it}	0.1782 (0.7385)	0.1827 (0.6651)
Log of wages _i	-0.0405*** (0.0222)	-0.0279 (0.0205)
Log of bilateral trade _{it}	-0.0383 (0.0300)	-0.0593* (0.0227)
Trade openness _{it}	0.0337 (0.0245)	0.0177 (0.0184)
Corruption _{it}	-0.0257** (0.0102)	-0.0335* (0.0081)
Cultural difference _i	0.0077 (0.0060)	0.0126** (0.0056)
Corporate tax rate _{it}	0.2694** (0.1283)	0.2356* (0.0910)
Gini _i	0.4016* (0.1557)	0.3770* (0.1253)
Log of FDI position _i	0.0052 (0.0042)	-0.0009 (0.0037)
Transition economy _i	-0.0619** (0.0278)	0.0232 (0.0291)
EU membership _{it}	-0.0047 (0.0138)	-0.0046 (0.0088)
Catholic religion _i	-0.0891* (0.0320)	-0.0701* (0.0265)
Other religion _i	-0.1120* (0.0285)	-0.1807* (0.0252)
Italic language _i	0.0169 (0.0332)	-0.0608*** (0.0320)
Slavic language _i	0.1217* (0.0443)	0.0758** (0.0329)
Other language _i	0.0690* (0.0231)	0.0862* (0.0148)
R ²	0.1083	0.1332
No. of observations	415	415
Wald chi2	376.08*	729.54*

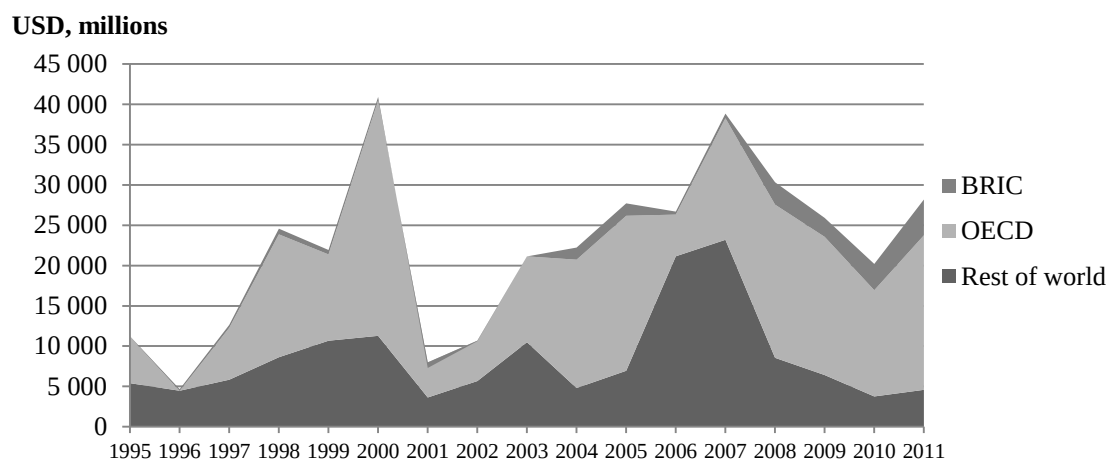
The Nordic countries are classified as civil law origin (Model 1) and Scandinavian civil law origin (Model 2)

*Significant at the 1 per cent level. **Significant at the 5 per cent level. ***Significant at the 10 per cent level

Robust standard errors in brackets.

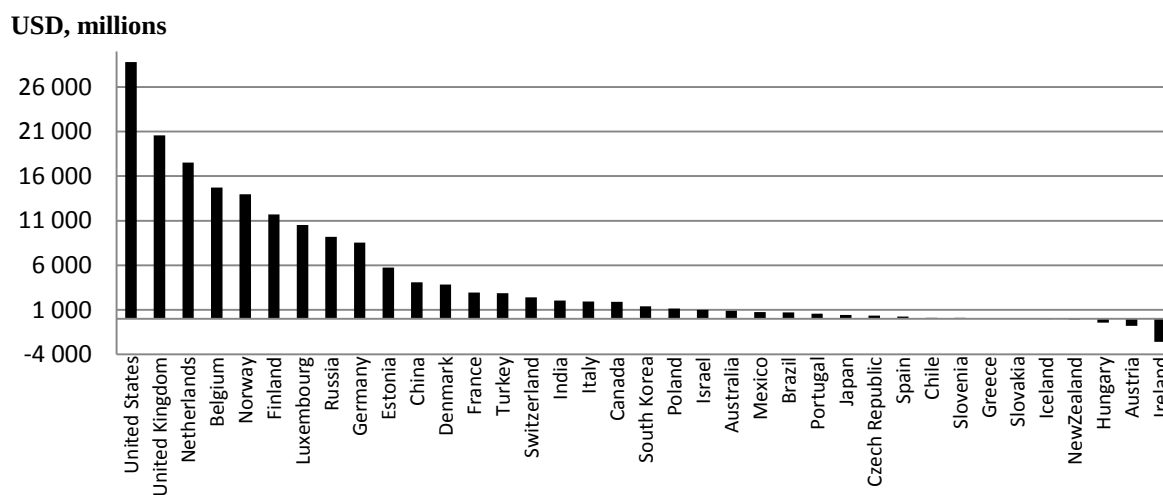
Regressions including variables controlling for *School enrolment*, *Internet availability*, *Stock market size* and *No. of days to set up a business* have been run to check the robustness. The variables did not change the results.

Figure 2. Swedish net FDI outflow, 1995-2011



Swedish FDI net outflow on aggregate level, including unallocated FDI. Source: OECD.Stat

Figure 3. Swedish net FDI outflow per country, 2000-2011



Swedish net outflow to host countries in the extended sample, including the Scandinavian countries. Source: OECD.Stat