

**Why Do Businesses Incorporate in other EU Member States?
An Empirical Analysis of the Role of Conflict of Laws Rules**

Mathias Siems, Edmund Schuster,
Carsten Gerner-Beuerle, Federico Mucciarelli

Abstract: The empirical research about corporate mobility in the EU has so far been limited in two respects: it has been focussed on the analysis of foreign companies in the UK and it has mainly been concerned with differences in the costs of incorporation such as minimum capital requirements. This paper aims to fill these gaps. It is the first paper that presents data on incorporations of non-domestic businesses in the commercial registers of each EU Member State. It is also the first one to empirically assess the impact of differences in the conflict of laws rules applicable to companies: thus, based on regression analysis, it will evaluate whether countries that have a clear-cut version of the ‘incorporation theory’ benefit in this market for incorporations, as compared to companies have retained elements of the ‘real seat theory’.

Note: this paper is part of a project, funded by the EU Commission, on the law applicable to companies with the aim of a possible harmonisation of conflict of laws rules on that matter which also includes a survey of practical problems of foreign incorporations and a comparative analysis of the laws of the Member States.

Keywords: market for incorporations, corporate mobility, conflict of laws, race to the bottom, race to the top

JEL Codes: F23, K22, K40

1. Introduction

In the EU, companies enjoy the freedom of establishment that, in principle, should enable them to operate in some form in Member States different from the Member State in which they have been incorporated.¹ But how far is this reality? More specifically, how widespread are companies that have their ‘real seat’ in a Member State different from the state of incorporation? Such companies have, in the past, given rise to controversial legal questions and attempts to restrict their activities on the part of the host state.² However, previous research on this topic is limited in at least two respects: following the ECJ case in *Centros*,³ it has been focussed on the analysis of foreign-based companies in the UK, and it has mainly been concerned with differences in the costs of incorporation such as minimum capital requirements.

This chapter aims to fill these gaps. It presents data on all incorporations of foreign businesses in the commercial registers of each Member State today, as well as time series of new incorporations from two Member States for 1990-2015. It also examines the impact of differences in the conflict of laws rules applicable to companies: based on regression analysis, it evaluates whether countries that have a clear-cut version of the ‘incorporation theory’ benefit in this market for incorporations, as compared to countries have retained elements of the ‘real seat theory’.

This chapter is structured as follows: Section 2 provides an overview of the previous empirical research on corporate mobility in the EU and explains the data collection of the present study. Section 3 presents descriptive statistics of foreign-based private companies in all Member States today, also employing tools of network analysis. Section 4 evaluates two Member States (UK and Slovakia) and more detail with time series data of new incorporations. The regression analysis of section 5 turns to the question of whether the country differences can be explained by differences in conflict of laws rules applicable to companies and/or other factors. The concluding Section 6 reflects on the implications of the findings, and the Annex in Section 7 contains further information related to the data collection.

2. Data collection

2.1 Previous research

The European study on the application of the Cross-Border Mergers Directive explained the problems of collecting statistical data on questions of company law as follows:

‘Collecting this data proved extremely challenging, as the information that the national registries keep is partial, and the commercial databases were inconsistent and

¹ See call for tender at http://ec.europa.eu/justice/newsroom/contracts/files/2014s149-267126/invitation_en.pdf

² See Part 1 of this report.

³ *Centros Ltd v Erhvervs- og Selskabsstyrelsen* (1999) C-212/97 (where two Danish citizens living in Denmark and only doing business in Denmark incorporated a UK ltd).

scarce. Indeed, previous studies on parallel topics encountered the same problems in gathering accurate and quality information'.⁴

The aim to collect data on the number of companies which operate in a Member State different from the one in which they have been incorporated or have their real seat is also a demanding task. To start with, it is therefore helpful to present an overview of the existing empirical research.

Table 1: Overview of empirical research on corporate mobility in the EU⁵

<i>Paper</i>	<i>Topic / countries and time frame</i>		<i>Methodology of data collection</i>	<i>Main empirical findings</i>
Armour (2005) ⁶	German businesses incorporating as UK ltds	1999 to 2004	<ul style="list-style-type: none"> Identified companies in the Companies House database, which had a largely German-language name and the name was ending with 'Limited' Limitations: data merely impressionistic, potentially under or over-inclusive 	<ul style="list-style-type: none"> Surge of 'German' companies incorporating in UK after <i>Überseering</i> and <i>Inspire Art</i> in 2002 and 2003 respectively

⁴ *Study on the Application of the Cross-Border Mergers Directive*, prepared by Bech-Bruun and Lexidale for DG MARKT, 2013, at p 962.

⁵ In addition, some empirical studies, not discussed here, have analysed the incorporation of businesses as a European Company (SE), see e.g. H Eidenmüller, A Engert and L Hornuf, 'How Does the Market React to the Societas Europaea?' (2010) 11 *European Business Organization Law Review* 35; Study by Ernst & Young on the operation and the impacts of the Statute for a European Company (2009), available at http://ec.europa.eu/internal_market/company/societas-europaea/history/index_en.htm

⁶ J Armour, 'Who Should Make Corporate Law? EC Legislation versus Regulatory Competition' (2005) 58 *Current Legal Problems* 369.

Becht et al. (2008) ⁷	Businesses from all Member States (as of 2006) and EEA countries incorporating as UK ltds	1997 to 2006	<ul style="list-style-type: none"> • Data obtained from the FAME database (Bureau van Dijk) • Where FAME data was incomplete, correction factors were applied (based on a comparison between FAME and Companies House databases) • Directors' residence as main criterion (with 50% and 100% thresholds) 	<ul style="list-style-type: none"> • <i>Centros</i> ruling associated with large international flows of companies into the UK and from Germany, France, the Netherlands and Norway • Increases in post-<i>Centros</i> company migration rates primarily explained by country-specific incorporation costs and minimum capital requirements • ECJ rulings are leading to regulatory competition between EU Member States to provide low-cost company law
Becht et al. (2009) ⁸	Registration of branches of UK ltds in Austria, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Poland, Sweden	2006	<ul style="list-style-type: none"> • Data obtained through field experiments with assistance from country correspondents • Country correspondents reported on their attempts to incorporate and branch back a UK ltd • Information recorded in the experiments includes the number of procedures involved, their cost and duration, as well as any obstacles encountered 	<ul style="list-style-type: none"> • Despite ECJ rulings, total cost of 'round trip' <i>Centros</i> incorporation differs substantially between Member States • Total cost differences are mainly caused by differences in the translation and certification costs; aside from financial hurdles, national idiosyncrasies may further hinder branching • Eleventh Directive should therefore be revised; endorsement of Commission's Proposals for administrative burden reductions and integration of the national registers
Braun et al. (2013) ⁹	Incorporation of private companies in Spain, France, Hungary, Germany, Poland	One year +/- law reform	<ul style="list-style-type: none"> • Most data collected from the AMADEUS database (Bureau van Dijk); for Germany and Poland, data collected directly from national company registers • Directors' residence as main criterion 	<ul style="list-style-type: none"> • Company law reforms, including reductions in registration costs, not only encourage incorporations but also more generally boost the overall entrepreneurial activity in the countries examined, irrespective of the legal form chosen for a new company

⁷ M Becht, C Mayer and H Wagner, 'Where Do Firms Incorporate? Deregulation and the Cost of Entry' (2008) 14 *Journal of Corporate Finance* 241.

⁸ M Becht, L Enriques and VE Korom, 'Centros and the Cost of Branching' (2009) 9 *Journal of Corporate Law Studies* 171. Modified version also in M Becht, L Enriques and VE Korom, 'Centros and the cost of branching', in *Perspectives in Company Law and Financial Regulation* 91 (M Tisen et al., eds., Cambridge: CUP 2009).

⁹ R Braun, H Eidenmüller, A Engert and L Hornuf, 'Does Charter Competition Foster Entrepreneurship? A Difference-in-Difference Approach to European Company Law Reforms' (2013) 51 *Journal of Common Market*

Muller et al (2013) ¹⁰	Cross-border mobility of SEs and transfers of registered office to Malta	2009 to 2011 and 2007 to 2012	<ul style="list-style-type: none"> • Regarding mobility of SEs, the European Trade Union Institute's European Company database was used together with the Orbis database (Bureau van Dijk) • Regarding mobility of other companies, national business registers were directly contacted, generally to no avail (exception of Malta); indirect data collection (matching de-registrations with new registrations, Zephyr database used to track cross-border mergers) 	<ul style="list-style-type: none"> • Increase of cross-border seat transfers of SEs (significantly) and transfers of companies' seat to Malta (slightly) • Cross-border mobility of registered offices of companies in Europe not yet achieved; legislative action recommended as administrative costs of implementation would be relatively small, while savings would be substantial
Bech-Brunn & Lexidale (2013) ¹¹	Cross-border mergers in EU	2008 to 2012	<ul style="list-style-type: none"> • Timing of reincorporation tracked through direct and indirect enquiries (Thomson Knowledge, LexisNexis, Thomson Reuters) • Further information collected from various reports and the European Trade Union Institute 	<ul style="list-style-type: none"> • Increase in cross-border mergers but at a relatively low level; mainly private companies • Companies from Germany and Luxembourg frequently involved in these mergers
Ringe (2013) ¹²	German and Austrian businesses incorporating as UK ltds	2004 to 2011	<ul style="list-style-type: none"> • Data on German and Austrian companies collected from the Companies House via FAME database • <i>Centros</i> type companies identified by three classifications: (i) company incorporated in the UK (ii) with at least one German director (iii) where the company shares its registered office with at least 100 other companies (proxy for the involvement of an incorporation agency) 	<ul style="list-style-type: none"> • Popular view that the 2008 reforms of German company law have effected a decline in UK letterbox incorporations among German entrepreneurs is unsupported by data as Austrian incorporations in UK also decreased • Instead, decline may be attributed to closing down of loopholes that previously made ltd attractive to entrepreneurs; underestimation of the costs and of compliance with disclosure obligations; reputation costs

Studies 399. Also published in L Hornuf, *Regulatory Competition in European Corporate and Capital Market Law: An Empirical Analysis* (Cambridge: Intersentia 2012).

¹⁰ P Muller, S Devnani, R Ladher and P Ramada, 'European Added Value Assessment on a Directive on the cross-border transfer of company seats (14th Company Law Directive), Annex II: Economic and Social Effects of the Requested Legislative Instrument - Research paper by London Economics' (Brussels 2013), available at www.europarl.europa.eu/RegData/etudes/etudes/join/2013/494460/IPOL-JOIN_ET%282013%29494460%28ANN02%29_EN.pdf

¹¹ See supra note 4.

¹² WG Ringe, 'Corporate Mobility in the European Union – a Flash in the Pan? An Empirical Study on the Success of Lawmaking and Regulatory Competition' (2013) 10 *European Company and Financial Law Review* 230.

Sick (2015) ¹³	German business with more than 500 employees incorporated in foreign legal form	1995 to 2014	<ul style="list-style-type: none"> • Combination of primary and secondary data sources was: Federal Gazette's company reports, previous studies, corporate websites and other corporate databases 	<ul style="list-style-type: none"> • Steady increase of foreign forms used since 2000 • As a result, tension with German codetermination system as employees no longer being able to exercise their rights; minimum European standard on codetermination laws recommended
Teichmann and Knaier (2015) ¹⁴	Austrian businesses incorporating as German GmbHs / UGs	2009 to 2012	<ul style="list-style-type: none"> • Data was derived from the German Commercial Register by the Bundesanzeiger Verlag • German 'letterbox' companies doing business in Austria were identified by two classifications: (i) in small businesses, shareholder is usually also the managing director (ii) who usually lives where the company does its main business 	<ul style="list-style-type: none"> • To a certain extent, Austrian entrepreneurs appeared to have been swayed by the new German legal form, however the counterfactual could not be established due to limited scope of the study • Incentive to avoid minimum capital (i.e. move from Austria to Germany) rapidly decreases in proportion to the distance from the border between the two countries

Methodologically, this literature suggests different proxies to identify the nationality of a company. It has been observed that the registration of branches is not strictly enforced in some Member States.¹⁵ Therefore, the most promising strategies may proceed indirectly by examining the company's filings in the state of incorporation. One possibility is to use the address of the directors as an indication of the company's real seat. The proxy can be further varied by, for example, classifying a company as formally foreign if all directors live abroad, or if the majority lives abroad.¹⁶ As far as the information is available, it can also be revealing to identify whether the managing director is also a shareholder (or even the sole shareholder).¹⁷

Alternatively, one may go further and aim to collect information about companies without any physical connection of the company to the country of incorporation. In order to identify such companies some studies have examined whether the company's registered office was shared with at least 100 other companies – i.e. it having a mere 'letterbox' in the country of incorporation. This is said to work well for the UK where registration agents use the same

¹³ S Sick, 'Der deutschen Mitbestimmung entzogen: Unternehmen mit ausländischer Rechtsform nehmen zu' *Mitbestimmungsförderung*, Report February 2015, available at www.boeckler.de/pdf/p_mbf_report_2015_8.pdf

¹⁴ C Teichmann and R Knaier, 'Experiences with the Competition of Regulators - a German Perspective', in AJ Viera González and C Teichmann (eds), *Private Company Law reform in Europe: The Race for Flexibility 209* (Cizur Menor: Aranzadi, Thomson Reuters 2015).

¹⁵ Becht et al., supra note 7, at 245.

¹⁶ Both definitions were used by Becht et al., *ibid*, and Braun et al., supra note 9.

¹⁷ As used by Teichmann and Knaier, supra note 14.

address for a large number of companies without any business activity in the state of incorporation.¹⁸

In this respect, a terminological but also substantial clarification needs to be made. In the literature, the term ‘letterbox companies’ is occasionally used for such companies that do business in one country, but are incorporated with only a ‘letterbox’ in another one.¹⁹ However, frequently, the term ‘letterbox companies’ is also equated with companies that are mere ‘special purpose entities’ (SPEs; also called ‘conduit companies’): those too merely have a ‘letterbox’ in the country of incorporation, but they only hold financial assets and are not involved in any business activity in any country, and their main purpose is to benefit from the tax advantages that can be gained by using SPEs as intermediate legal entities.²⁰ This type of letterbox companies is often associated with companies established in overseas tax havens, for example in the British Virgin Islands,²¹ but SPE regimes also exist in some EU Member States.²² Those companies are not of core interest for the present study since, due to the lack of any economic activity, they are unlikely to raise problems of conflict of laws rules applicable to companies due to a mismatch between statutory and ‘real’ seat.

2.2 *Strategic considerations of this study*

EU law requires the registration of companies in the commercial registers of the Member States²³ and, in the future, those registers will become part of an EU-wide Business Registers Interconnection System (BRIS).²⁴ At present, however, the commercial registers do not provide researchers with deep-level access to company data from all Member States. While it is possible to identify the websites of the commercial registers,²⁵ searching for data about all companies established in the EU faces various practical problems: the websites are usually only available in the official language of the country in question and its search functions are often very limited. Furthermore, deep-level access to the information that is of interest for this study, such as the nationality and addresses of directors, is not available for free but is typically charged per access to information on each individual company. It is therefore not

¹⁸ Ringe, *supra* note 12, at 247. In addition, Ringe searched whether at least one director was German.

¹⁹ Ringe, *ibid*; Teichmann and Knaier, *supra* note 14; KE Sorensen, ‘The Fight Against Letterbox Companies in the Internal Market’ (2015) 52 *Common Market Law Review* 85.

²⁰ See, e.g., Eurodad, ‘Fifty Shades of Tax Dodging. The EU’s role in supporting an unjust global tax system’ pp. 18-19 (Brussels: Eurodad 2015), available at <http://www.eurodad.org/files/pdf/5630c89596bec.pdf>; UNCTAD, ‘World Investment Report 2015: Reforming International Investment Governance’ pp. 189-190 (New York: UN 2015), available at http://unctad.org/en/PublicationsLibrary/wir2015_en.pdf.

²¹ As discussed recently following the leaked information from the Panamanian law firm Mossack Fonseca, see e.g. ‘Panama Papers: How assets are hidden and taxes dodged’ (BBC News, 3 April 2016), available at www.bbc.co.uk/news/business-35943740.

²² Eurodad, *supra* note 20, mentions Luxembourg but also Austria, Cyprus, Hungary and Spain.

²³ Directive 2009/101/EC, art. 3

²⁴ See http://ec.europa.eu/internal_market/company/business_registers/index_en.htm.

²⁵ List of register are provided at https://e-justice.europa.eu/content_business_registers_in_member_states-106-en.do and <http://www.ebr.org/index.php/member-countries/>.

feasible to compile a comprehensive dataset of European companies through the websites of the commercial registers.

For the purposes of this project, we also sought direct communication with the national commercial registers. In most Member States it was straightforward to identify the general contact email address of the commercial register.²⁶ We contacted the registers at these email addresses. In addition, in some cases, we used more specific contact details provided by the national correspondents of this project. About half of the registers responded to our inquiry. However, only two of them were able and willing to provide us with relatively comprehensive data about individual companies of their Member States. Some of the other registers provided us with general aggregate data, for example, about the types of companies established in this Member State, sometimes also indicating how many of those have foreign directors, yet, without elaborating on the home countries of these directors. Thus, overall, it has become clear that this strategy will not provide us with comparable and comprehensive information about all, or even a majority, of the Member States.

The most promising path is to make use of the commercial databases provided by Bureau van Dijk (BvD). Some of those databases cover company data for specific countries,²⁷ but, for our purposes, it is helpful that all of the national databases of European countries are integrated in the general BvD databases Amadeus and Orbis.

The company data available in Amadeus are the European data of the Orbis global dataset, but there are also some differences between those two datasets. Amadeus consists of various subsets of the European company data, for example, Amadeus Managers, Amadeus Owners, Amadeus Auditors etc. and it is possible to download the data from one of those subsets without restrictions in size. By contrast, Orbis only allows the download of a limited number of firm data (with details depending on the items included). However, overall, it seemed to us to be preferable to use Orbis. The search functions of Orbis offer more choices, in particular since it is possible to search the entire dataset without any restrictions to a particular subset. Moreover, searching for company data from 2014 and 2015, we established that Orbis is more frequently updated since many of these data are not available through Amadeus.

Since Orbis is composed of information from various domestic sources, the completeness of the information varies between countries. For example, for the UK and Ireland it is based on BvD's Fame database, which contains comprehensive information on over 9 million active and inactive companies registered in the UK and Ireland.²⁸ For almost all of the other EU Member States, the coverage of the companies included (for the precise information available see the next section) is very good, as we confirmed by way of comparing the number of companies in Orbis and the data provided by the commercial registers as well as previous research.²⁹ But there are some exceptions. The most notable one concerns the Greek data where

²⁶ Ibid.

²⁷ See <http://www.bvdinfo.com/en-gb/our-products/company-information/national>.

²⁸ See <https://fame.bvdinfo.com/>.

²⁹ Eg, E Wymeersch, 'Comparative Study of the Company Types in Selected EU States' (2009) *European Company and Financial Law Review* 71 at 73.

many companies are missing. A query to BvD confirmed that their data only cover about 5% of the active businesses in Greece.

A further limitation concerns the information about branches. In order to identify companies having their real seat, however defined, in a Member State different from the state of incorporation, we started our data collection by downloading information on EU-incorporated companies with linked branch data. Our analysis, based on the records of over 1.5 million limited company records revealed, however, that the data on registered foreign branches is not linked efficiently to the legal entities in question. This holds true even for those countries with the best data availability, such as the UK and Ireland. The most effective strategy is therefore to focus on the available company information in the country of registration, as the following will explain.

2.3 *Data collection with Orbis*

Private companies are more likely to be interested in foreign incorporations than public ones, for example, due to variations in minimum capital.³⁰ Therefore, the present analysis focuses on private companies. Orbis has a search function that allows for the search of ‘standardised legal forms’, but it is more reliable to manually choose the precise types of company for each of the Member States.³¹ This leads to a list of 14.7 million private companies incorporated in all Member States today.

Subsequently, we restricted the search to those companies where at least one director or senior manager is from a foreign country. For our purposes it makes sense to exclude someone who runs a business in another Member State but establishes a company in his or her country of nationality. In the regression analysis³² we are interested in persons who want to incorporate companies in another Member State despite having no special attachment to this country. The situation is different for nationals of this other country: for example, the control variable of a common language speaks against a businessperson from Portugal incorporating a Finnish company, but this is an argument that would not apply if it were a Finnish national who runs his or her own business in Portugal.

This search operation also reduces the number of private companies available to a manageable size of 1.1 million companies. We also had to check how far this may exclude relevant information. In total, 63% of the private companies of all Member States provide information about the nationality of directors and senior managers. For 13 of the 28 Member States, however, less than 50% of the companies include such information. But, generally speaking, for those countries any other information that may be helpful for the purposes of the present research is even less likely to be available in Orbis.³³ Thus, the best that can be done is to use

³⁰ See the study by Becht et al., *supra* note 7.

³¹ See the list in the Annex, 7 below.

³² See 5, below.

³³ The three exceptions are Belgium, Malta, and the Netherlands where the nationality of directors and managers is less readily available in Orbis than their residence.

means of extrapolation as far as the data are incomplete,³⁴ and, in the regression analysis, include control variables for the proportion of companies included in the dataset; here, as will be explained, we will also check for the robustness of any findings by way of excluding the countries where only limited data are available.

In the Orbis search results, we selected a number of fields relevant for the purpose of our research, also considering the proxies suggested by previous research.³⁵ Thus, for the main parts of the analysis, we downloaded information about (i) the address and contact details of the company, (ii) the number of current directors and managers, their nationality, place of residence and job title, and (iii) the nature of the company's shareholders, namely whether they are also the directors or senior managers of the company and whether they are natural or legal persons. With respect to the Orbis category 'directors and managers', it is not entirely clear which positions Orbis classifies under this heading. For most private companies the main persons reported here are the executive directors/managers but for some of the bigger private companies it may also include other managers with the authority to act on behalf of the company. We suggest that it is justifiable to consider all of those positions in order to identify the companies of interest in this chapter since they can be indicators of the 'real seat' of a company. For the companies established in the UK, we also filtered the search results so as only to include the companies' directors, but the actual findings were very similar – with a correlation of close to 0.99.³⁶

Some of the current empirical literature examines not the total number of incorporated companies, but the new incorporations in a particular year.³⁷ This approach can enable interesting time series evaluations. For the purposes of the present study, we aimed to identify all new foreign incorporations from 1990 to 2015. Using the 'segmentation by year' function provided by Orbis this can in principle be achieved without downloading all data. However, as will be explained in the following, sufficiently long and reliable time series data are only available for few of the Member States.³⁸

3. Descriptive statistics of private companies in all Member States today

3.1 Variations in data availability

While Orbis is a valuable resource for international information about companies, any search for specific details has to address its variations in data availability: variations between countries but also those between the relevant information about directors and senior managers (in the following the term 'managers' will be used to refer to both of those groups).

³⁴ See 3.1 below.

³⁵ See 2.1 above.

³⁶ Correlation of 0.9889 between (i) the 27 observations that count the number of ltds that have a board of directors only consisting of persons from one of the other 27 Member States and (ii) the 27 observations that count the number of ltds where all 'directors and managers' are from one of the other 27 Member States.

³⁷ E.g., Becht at al., supra note 7; Braun et al., supra note 9.

³⁸ See 4.1, below.

Table 1: Overview of relevant data as available in Orbis

	Number of private companies in Orbis	Companies with information about nationality (in %)	Companies with at least one foreign manager	For companies with at least one foreign manager:			
				Information available for at least one manager or shareholder about ...			Information available for <i>all</i> managers about their nationality
				residence of at least one manager	managers being shareholders	shareholders being natural or legal persons	
Austria	175,152	75.26%	14,097	99.51%	100.00%	83.43%	79.73%
Belgium	292,802	6.53%	8,640	99.61%	100.00%	22.99%	49.34%
Bulgaria	500,277	89.39%	12,735	8.18%	100.00%	94.38%	84.49%
Croatia	111,131	8.07%	2,804	53.14%	100.00%	91.30%	48.86%
Cyprus	246,802	24.00%	8,069	99.93%	100.00%	81.71%	36.80%
Czech Rep.	336,325	98.52%	39,200	13.55%	100.00%	93.69%	98.57%
Denmark	208,472	82.42%	6,054	99.54%	100.00%	64.29%	77.42%
Estonia	154,608	20.15%	12,712	9.32%	100.00%	94.56%	66.83%
Finland	261,689	96.84%	21,517	99.11%	100.00%	50.22%	96.56%
France	1,048,007	5.73%	20,797	37.86%	100.00%	43.70%	69.39%
Germany	1,315,368	89.98%	61,737	99.18%	99.99%	86.26%	70.09%
Greece	24,193	65.34%	3,141	86.50%	100.00%	45.65%	65.39%
Hungary	412,160	66.72%	1,354	85.97%	99.93%	76.51%	62.70%
Ireland	109,127	72.89%	13,254	99.95%	100.00%	95.72%	54.69%
Italy	958,941	95.96%	16,029	94.67%	100.00%	87.38%	76.19%
Latvia	158,468	89.22%	15,295	100.00%	100.00%	99.86%	88.46%
Lithuania	84,135	24.88%	2,806	35.71%	100.00%	21.53%	91.45%
Luxembourg	50,243	36.07%	8,406	99.99%	100.00%	97.87%	60.96%
Malta	50,343	23.68%	8,887	99.76%	100.00%	36.77%	51.27%
Netherlands	867,632	6.30%	23,448	60.10%	100.00%	71.98%	54.09%
Poland	196,818	64.91%	11,926	43.78%	100.00%	87.53%	84.78%
Portugal	284,659	51.25%	8,634	12.93%	98.99%	99.24%	30.03%
Romania	887,697	98.93%	77,344	98.74%	100.00%	96.99%	99.83%
Slovakia	231,935	62.71%	32,473	14.13%	99.68%	97.50%	88.07%
Slovenia	73,105	19.17%	1,639	84.56%	87.68%	74.56%	55.64%
Spain	1,756,652	26.87%	19,551	36.55%	99.96%	48.89%	59.22%
Sweden	505,813	10.86%	20,020	26.36%	94.83%	57.56%	38.19%
UK	3,464,781	95.42%	622,983	99.99%	100.00%	99.54%	60.47%

The first columns of Table 2 refer to the information already mentioned in the previous section: the first one shows the total number of private companies as available in Orbis, the second one shows the availability of information about the nationality of managers and the third one indicates the number of companies where at least one manager is a foreign national. This third data column has 1,097,199 companies in total, but, as the final four columns show, with some further variations in detail.

It can be seen that for ten countries less than 50% of the companies with at least one foreign manager provide information about the residence of at least one manager. In addition, even as

far as information is included in the Orbis data of a country, it is often not useful since it does not mention the private address of the manager but simply restates the company address.³⁹

Thus, instead of the residence of managers, the following will be based on their nationality. But, here, as the final column shows, it will also be necessary to consider that there is some variation in the availability of nationality data for *all* managers of a company. In addition, the regression analysis will, inter alia, need to control for migration patterns between the Member States.

The categories ‘managers being shareholders’ and ‘shareholders being natural or legal persons’ may be relevant since the foreign-incorporated companies that are of interest for this study are typically companies where natural persons are the main shareholders as well as the managers of the company.⁴⁰ From Table 2 it can be noted that the information about ‘managers being shareholders’ is particularly well reported in Orbis; thus, it will be used in the following.

3.2 Foreign-incorporated companies

Table 3 presents an extract of the results. Following on the considerations about possible proxies and data availability (see Table 2), it is based on companies with *all* managers being from one of the other Member States and the majority of those managers being shareholders.

Table 3: Top target countries of businesses incorporated in other Member States

Companies with all managers from one other Member State and majority of those being shareholders as reported in Orbis		As previous column but based on estimation of all companies		As previous column but based on estimation that excludes companies established by residents	
UK	156,087	UK	270,487	UK	227,064
Romania	31,646	Estonia	34,090	Estonia	33,524
Slovakia	16,072	Romania	32,045	Romania	30,123
Czech Republic	9,967	France	29,258	France	27,029
Germany	9,832	Slovakia	29,195	Slovakia	26,600
<i>All Member States</i>	<i>257,256</i>	<i>All Member States:</i>	<i>499,183</i>	<i>All Member States:</i>	<i>420,429</i>

The first column is based on the raw data as available in Orbis and reports the ‘top five’ target countries and the total for all Member States. But, as apparent from Table 2, the descriptive value of these figures is limited due to the discrepancies of available information between Member States. Thus, for the purposes of the second column, the target data have been extrapolated so as to estimate the total number of those companies across Member States.

³⁹ Notably this is the case in the UK.

⁴⁰ Such as in *Centros*, supra note 3. By contrast, SPEs (see 2.1, above) would often be subsidiaries of companies.

The third column considers that some of the data about incorporations by foreigners may be due to those foreigners living in another Member States. Thus, based on migration data,⁴¹ it has been estimated how many of the companies have been established by foreigners who are resident in the country of the register, a figure then deducted from the number of the second column. In order to check the robustness of this operation, these figures were also compared with those of the commercial registers that provide the most complete coverage of both nationality and residence and where the latter address seems to refer to the private addresses of the directors.⁴² Despite some variation in detail, the aggregate numbers of the two data lines are then very similar.⁴³

In substance, it follows from Table 3 that the UK is by far the most popular target country, accounting for 60% of the companies in the raw data and 52% in the two versions of the adjusted data (columns 2 and 3). In all versions of the ranking, it is then followed by three Central and Eastern European (CEE) countries as well as Germany/France. Comparing the total numbers of the second and third column, it can be seen that about 15% of the foreign incorporations are due to foreign EU citizens in the country in question.

The popularity of some CEE countries as target companies is an interesting but not implausible finding. After the fall of communism, the business laws of the CEE countries have been through various phases of reform, thus raising the potential of some of those Member States aiming to attract foreign incorporations. An internet search also confirms that there are a number of web sites that promote incorporation of businesses in Estonia, Romania and Slovakia.⁴⁴

Moreover, it is likely that the situation in the CEE countries is not only about matters of company law, but is also related to other areas of law such as a favourable tax and labour law.⁴⁵ For example, we may think about the situation of a Finnish businesswoman who registers a private company in Estonia and rents an office there, but keeps her own residence in Finland from where she manages the company.⁴⁶ Such a scenario is therefore different from the sub-category where the company has no physical connection to the country of incorporation.⁴⁷ However, such companies are also of interest for the present purposes since, for example, the Finnish businesswomen could also have incorporated the company in Finland while merely

⁴¹ See 5.2, below.

⁴² Assumed where there is a correlation of more than 0.95 between the immigration-adjusted nationality data and the residence data.

⁴³ Based on data for Denmark, Germany, Latvia, Poland and Romania, the total difference drops from 17.73% to 2.84% (while the absolute difference for each observation drops from 22.26% to 21.25%).

⁴⁴ See, eg, <http://www.estoniancompanyregistration.com/>, <http://www.companyincorporationestonia.com/>, <http://www.romania-company.com/>, <http://www.theromanianclub.com/>, <http://www.slovenskespolocnosti.sk/en>, <http://zugimpex.com/slovakia-company.html>

⁴⁵ For corporate tax law see also 5.2, below.

⁴⁶ Another example might be that of an Italian businessman who incorporates a new company in Romania in order to relocate part of its production into this latter country. Although the Italian businessman is the sole shareholder and director of the Romanian company, he just spends few days a week in Romania, thanks to cheap flight connections, and kept his official residence in his hometown, where part of the production is still situated. This situation might not be uncommon.

⁴⁷ See 2.1 above.

renting an office in Estonia. The question of how far the place of incorporation is a deliberate choice – and therefore the impact of conflict of law rules related to the freedom of incorporation – is therefore also a relevant one in this scenario.

3.3 Network presentation and clusters

To get a fuller picture of the relationship between origin and target countries, it is necessary to consider the information for all countries, namely the matrix of each country pair which leads to $28 \times 27 = 756$ observations. This information can also be presented as a network.

Figure 1: Network of businesses incorporated in other Member States with > 50 businesses

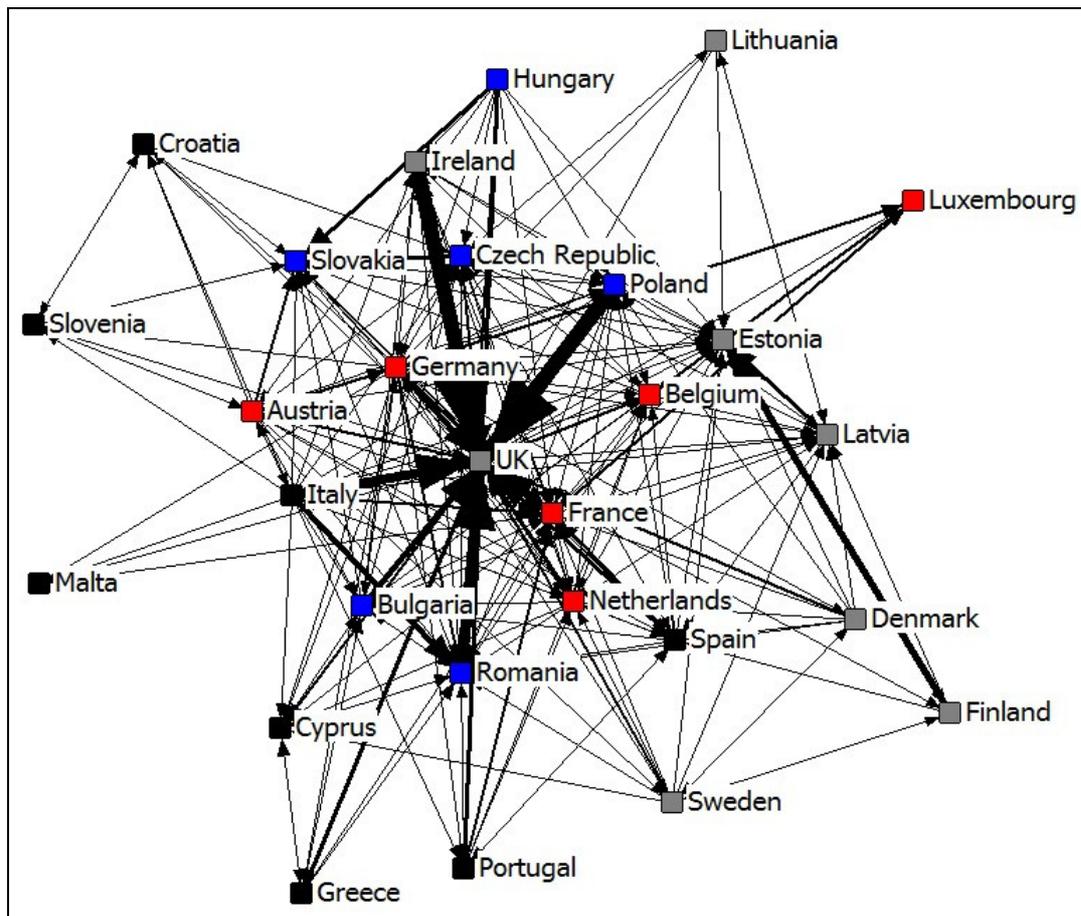


Figure 1 displays all of the country pairs that have a tie-strength of at least 50: i.e., based on the estimated figures, there are at least 50 businesses from the origin country that incorporate a company in the target one. The direction of the arrows indicates which country is the origin and which is the target country. The network analysis program was also instructed to shift the position of countries according to the strength of their relationships based on the technique of ‘spring embedding’.⁴⁸ Finally, following the classification scheme of the United Nations Statistics Division,⁴⁹ the colours of the nodes indicate the geographic classification into Eastern

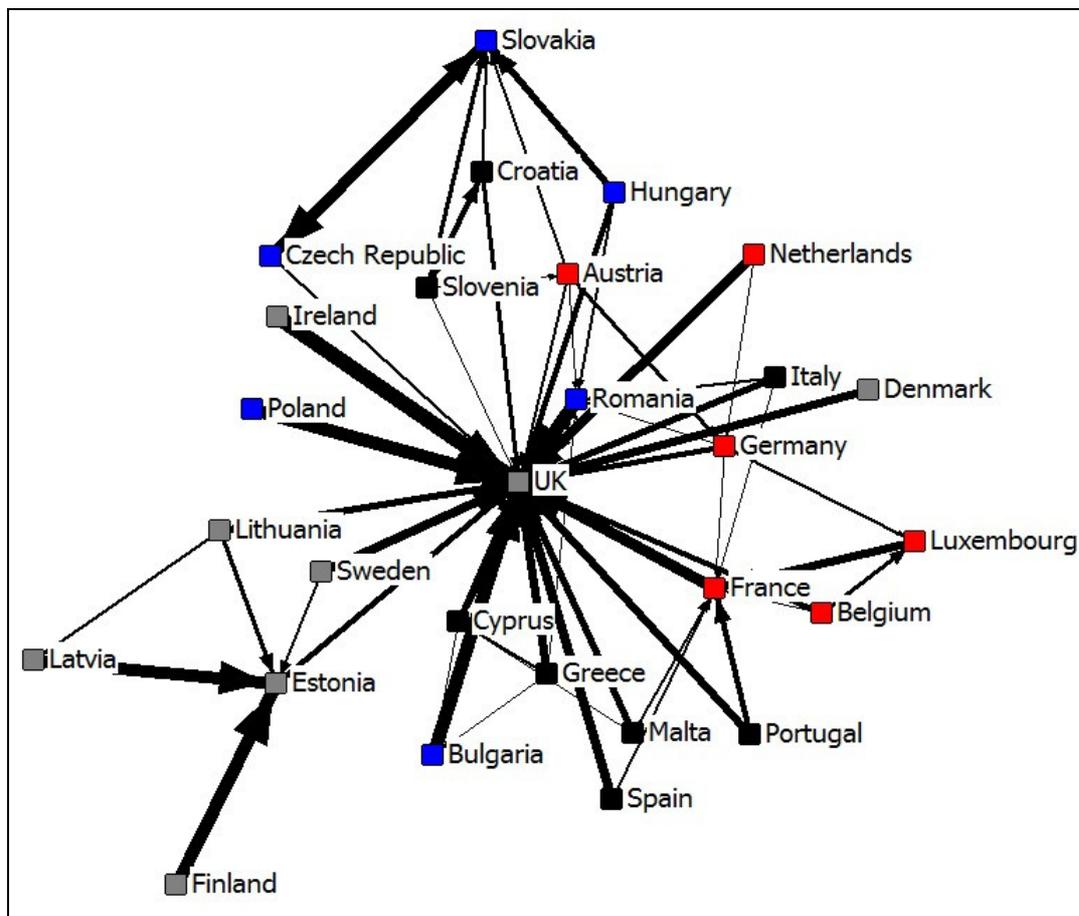
⁴⁸ See http://faculty.ucr.edu/~hanneman/nettext/C4_netdraw.html.

⁴⁹ Available at <http://unstats.un.org/unsd/methods/m49/m49regin.htm>.

European (blue), Northern European (grey), Southern Europe (black) and Western European (red) countries.

In a figure such as Figure 1 it is clear that the countries with a small population (e.g., Slovenia, Malta) are bound to have weaker ties since – regardless of any incoming incorporations – they tend to have fewer businesses that can establish a business abroad. Thus, it is also helpful to scale all countries in terms of outgoing ties to 100%. This has been done in Figure 2, below. It displays all ties that are above 10%; so a link is shown if more than 10% of the businesses from the outgoing Member State that incorporate in all other Member States do so in the incoming Member State.

Figure 2: Network of businesses incorporated in other Member States with > 10%



From both Figure 1 and Figure 2 can be seen that the UK is the centre of this mobility network. Many of the close connections appear to match geographic and linguistic similarities (e.g., Cyprus and Greece; the Czech Republic and Slovakia; Slovenia and Croatia; Sweden, Finland, Estonia, Latvia and Lithuania).

The closeness, according to these network data, can also be established more formally. Network analysis provides various tools to identify community structures.⁵⁰ Some of those tools

⁵⁰ See, e.g., A Ferligoj, P Doreian and V Batagelj ‘Positions and Roles’, in *The SAGE Handbook of Social Network Analysis* 434 (J Scott and P.J Carrington eds., London: Sage, 2011).

rely on binary data, but for a valued network – such as the current one – it is preferable to use tools that consider the full information of the dataset. One such method is to calculate ‘optimisation clusters’. This refers to a formal method that ‘optimises a cost function which measures the total distance or similarity within classes for a proximity matrix’.⁵¹

Optimisation clusters require that the researcher specifies in advance how many clusters shall be created. In Table 4 this has been done, based on the absolute number of incorporations, for up to ten clusters since, with more clusters, we would often only have meaningless clusters of only one or two countries.

Table 4: Clusters of legal systems based on foreign incorporations⁵²

Clusters	Countries													
2 ($r^2=0.053$)	AT BG CZ FR DE HU IE IT NL PL PT					BE HR CY DK EE FI EL LV LT LU MT SI RO SK ES UK								
3 ($r^2=0.101$)	AT BE CY CZ EL HU LU SK SI			HR DK EE FI LV LT MT SE				BG FR DE IE IT NL PL PT RO ES UK						
4 ($r^2=0.146$)	AT BE CZ DE HU LU SK		DK EE FI LV LT NL SE		BG FR IE IT PL RO ES UK			HR CY EL MT PT SI						
5 ($r^2=0.190$)	AT HR CZ HU SK SI		EE FI LV LT SE		FR DE IE IT PL RO UK		BG CY DK EL NL		BE LU MT PT ES					
6 ($r^2=0.232$)	FR IE IT PL RO UK		CZ HU SK SI		EE FI LV LT SE		BG HR CY EL		AT BE DE LU NL		DK MT PT ES			
7 ($r^2=0.271$)	FR IE IT PL RO UK		DK PT ES SE		EE FI LV LT		BG CY EL		HR MT SI	BE DE LU NL		AT CZ HU SK		
8 ($r^2=0.308$)	IE IT PL RO UK		CZ HU SK		BE DE LU NL		FR PT ES		BG CY EL		AT HR SI		EE FI LV LT	DK MT SE
9 ($r^2=0.346$)	HR MT SI	EE FI LV	IE IT PL RO UK		DK LT SE		FR PT ES		CZ HU SK		BG CY EL		AT DE NL	BE LU
10 ($r^2=0.375$)	EE FI LV	HR SI	LT MT	BE LU	IE IT PL RO UK		FR PT ES		CZ HU SK		BG CY EL		DK SE	AT DE NL

The table also indicates how well the respective clusters explain the entire dataset (R^2). It can be seen that this number is low for the divisions with few clusters, but that it gradually increases the more clusters are added. For example, the eight-cluster division can then be seen as a plausible one, consisting of the following clusters (in the order of the table): a mixed one, an Eastern European one, a Western European one, a South-West and a South-East European one, a Central European one, and two mainly Nordic-Baltic ones.

It is also helpful to ‘track’ the position of individual countries throughout the ten clusters. It can be seen that the following groups of countries are always in the same respective cluster:

⁵¹ Definition at <http://www.analytictech.com/ucinet/help/2cvtid.htm>.

⁵² The abbreviations follow the official EU abbreviations (see <http://publications.europa.eu/code/en/en-370100.htm>): Belgium (BE); Greece (EL); Lithuania (LT); Portugal (PT); Bulgaria (BG); Spain (ES); Luxembourg (LU); Romania (RO); Czech Republic (CZ); France (FR); Hungary (HU); Slovenia (SI); Denmark (DK); Croatia (HR); Malta (MT); Slovakia (SK); Germany (DE); Italy (IT); Netherlands (NL); Finland (FI); Estonia (EE); Cyprus (CY); Austria (AT); Sweden (SE); Ireland (IE); Latvia (LV); Poland (PL); United Kingdom (UK).

the Czech Republic, Slovakia, and Hungary; Finland, Estonia and Latvia; Poland, Romania and Italy; the UK and Ireland; Cyprus and Greece; and Belgium and Luxembourg. These groups may be seen as intuitive ones as they are those of neighbouring countries with further linguistic, social and economic similarities.⁵³ However, in the context of the present study, it may also be noted that it shows the rather limited effect of the freedom of establishment on the mobility of companies *across all* Member States.

4. Time series of new incorporations in the UK and Slovakia, 1990-2015

4.1 Data availability

It is interesting to assess how fluctuations in new foreign incorporations have evolved in the popular target countries over the last decades. In principle, Orbis enables such a search for new incorporations per year. However, for many Member States, data are not available about incorporations of companies that are not active any more – or, as far as they are available, information about the managers (their nationality and them also being shareholders) is missing. Thus, having checked the data availability of the most popular eight target countries (according to the results of the previous section), it was found that only the data from the UK and Slovakia are of good enough quality to enable an analysis of the evolution in new incorporations over the last two and a half decades.

The following is based on ‘segmentations by year’ available in the Orbis search function. The use of the Orbis search function also impacted on the way foreign businesses were identified in the analysis of this section (in some respects, deviating from the approach of the previous section). The main restriction was that we searched for firms where 100% of the directors (for UK ltds) or senior managers (for Slovak SROs) are nationals from another Member State.⁵⁴ In addition, we imposed the search restriction that all of those directors/senior managers had to be shareholders of the company (with any participation).

Similar as with the data reported in the previous section, the focus on foreign nationals means that some of them may have actually been resident in the UK or Slovakia. Thus, based on migration data published by the UN,⁵⁵ we estimated how many of the companies were established by foreigners who are resident in the UK or Slovakia at the time of incorporation, a figure then deducted from the total number. In order to check the validity of this calculation, we compared the resulting data with the residence data in the study of UK incorporations by Becht et al.⁵⁶ for the years 1997 to 2006: those are high correlated (0.986) which gives us

⁵³ For further evaluation see the regression analysis in 5., below.

⁵⁴ While Orbis only allows the search of companies with at least one director/senior manager from a particular country, it is possible to search for all companies with any directors from all countries of the world with the exception of this particular country, which can then be deducted from the total number of companies with information about the nationality of directors/senior managers.

⁵⁵ See 5.2, below.

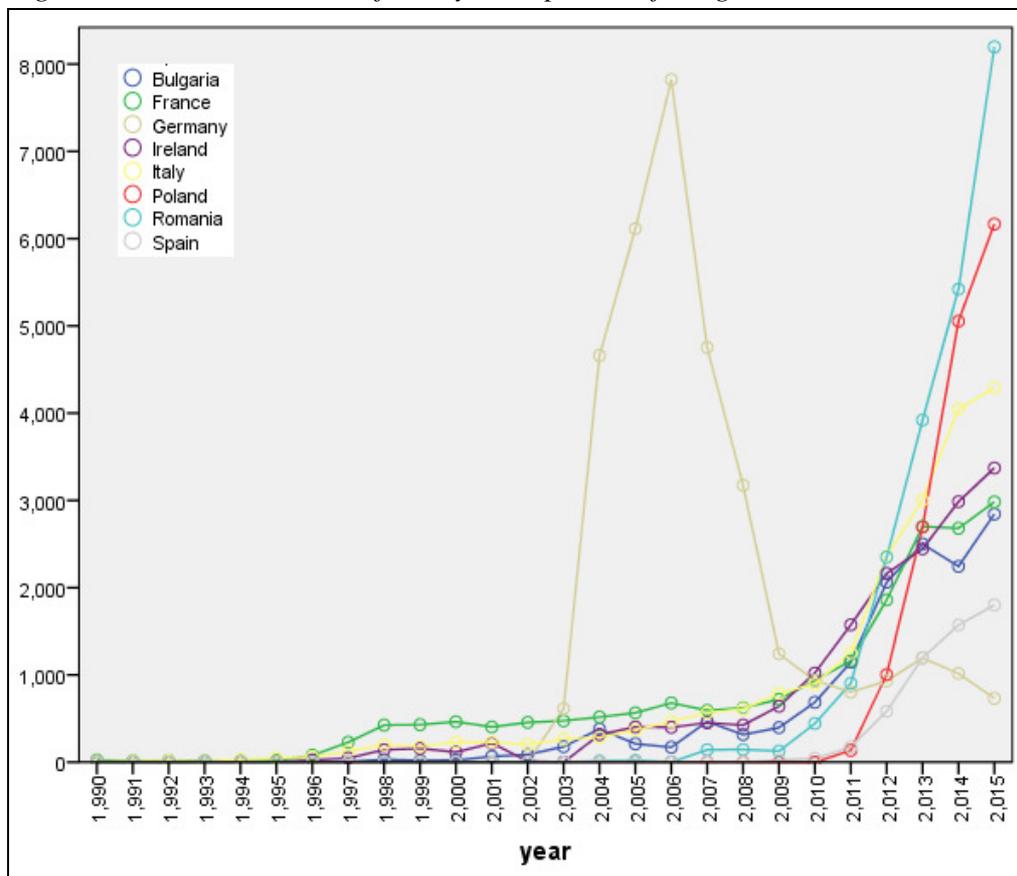
⁵⁶ Becht et al., *supra* note 7.

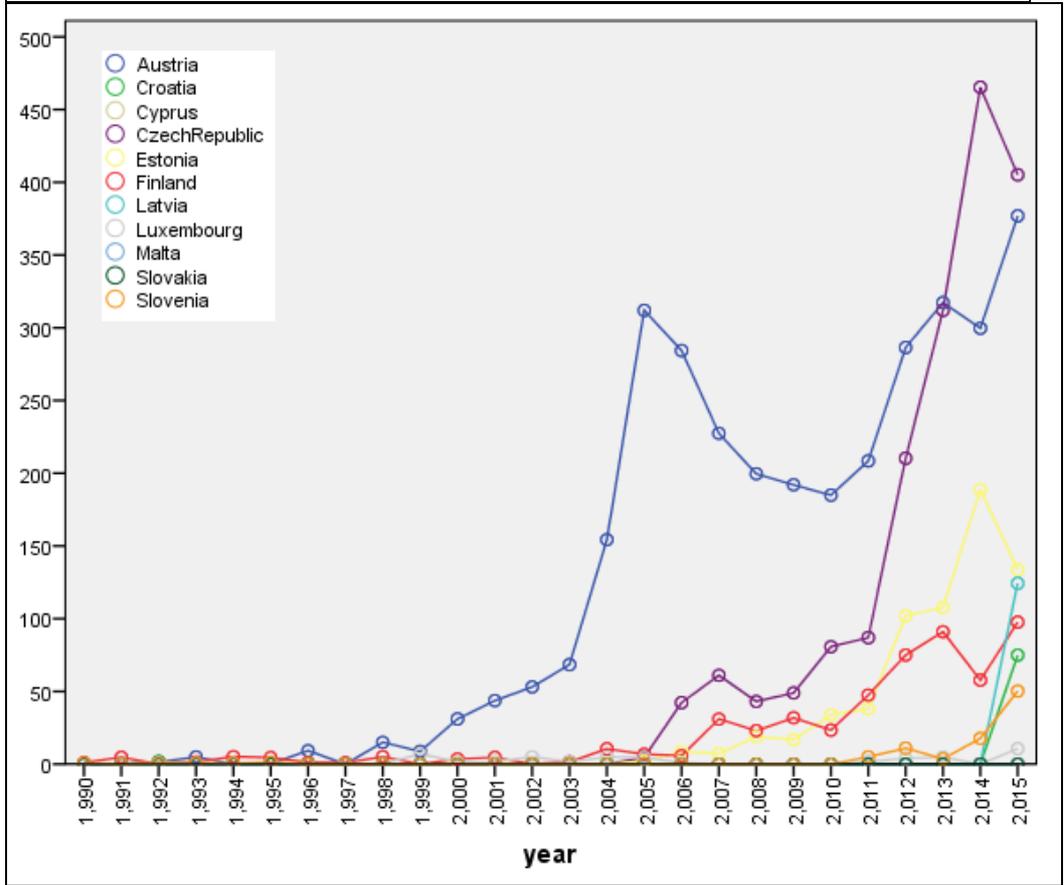
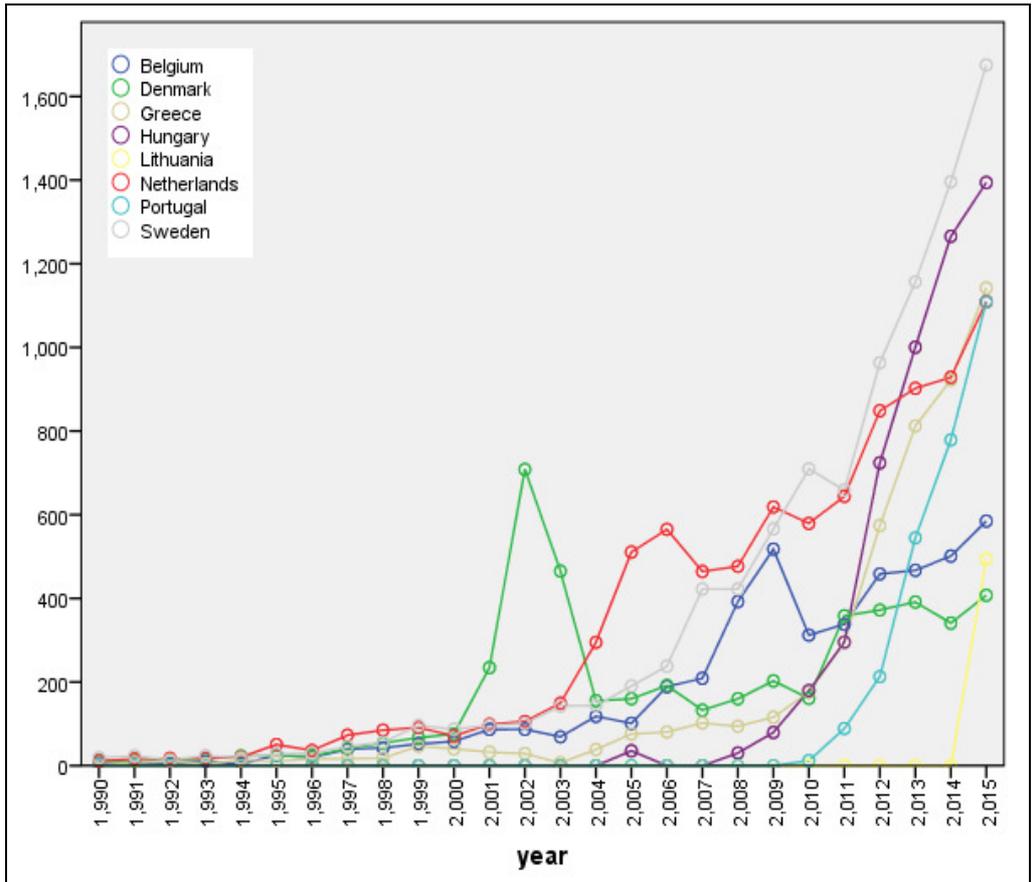
confidence in this technique of establishing companies established by foreigners who also live in their country of nationality.

4.2 General results

The following figures report the time series for incorporations of such foreign-based private limited companies in the UK and Slovakia (i.e. with all directors/senior managers being shareholders and being nationals from another Member State but deducting the companies established by foreigners living in the UK or Slovakia). As the scale of the incorporations differs considerably, the first of those figures reports the eight countries with the highest numbers of foreign incorporations in the UK/Slovakia, the second figure the next eight countries, and the final figure the remaining Member States.

Figures 3 to 5: Time series of newly incorporated foreign-based UK ltds

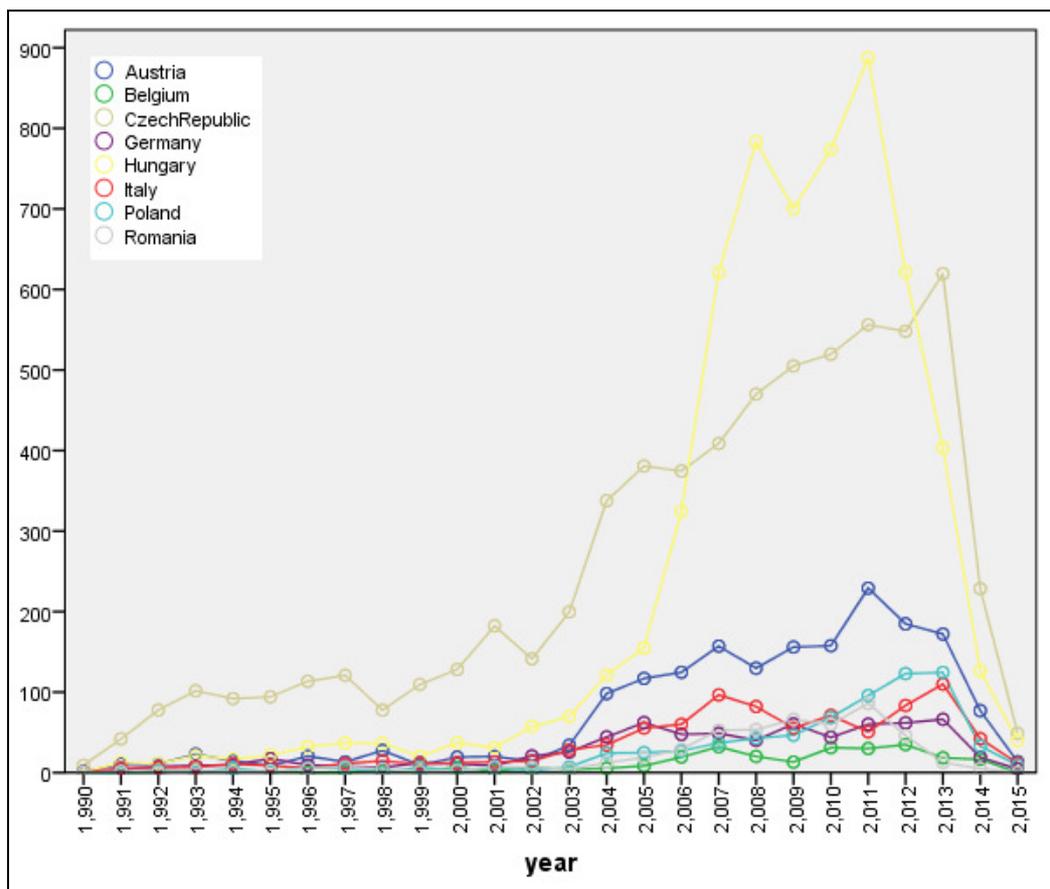




The UK data show that prior to the 2000s most curves are flat, then followed by a rise of ltd incorporations, first, in some of the ‘old’ Member States (notably, Germany, Denmark, the Netherlands and Austria), but in the 2010s also across all Member States (both ‘old’ and ‘new’ ones). In terms of the countries that are at the top of the curves, it is no surprise that more populous countries have more companies incorporated in the UK. With respect to the countries of Central and Eastern Europe (CEE), it needs to be noted that it is possible that the residence adjustment underestimates the number of citizens from these countries resident in the UK who established ltds.⁵⁷

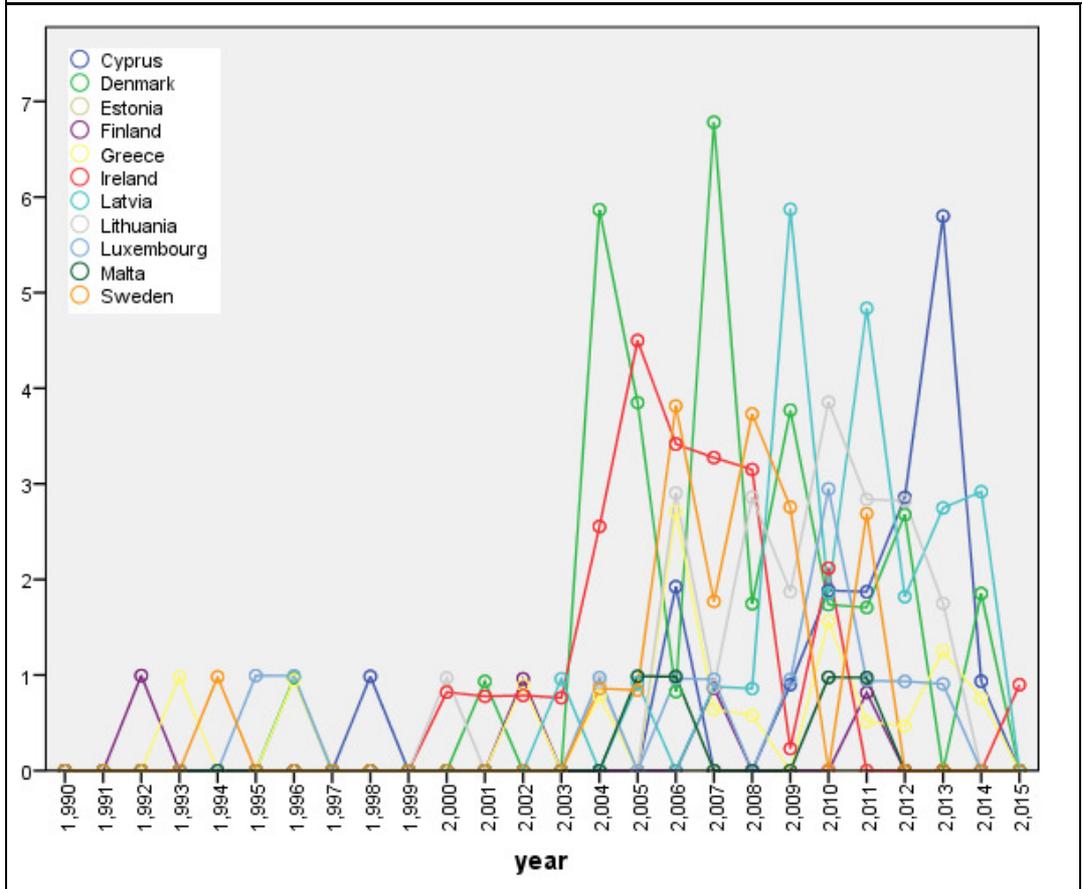
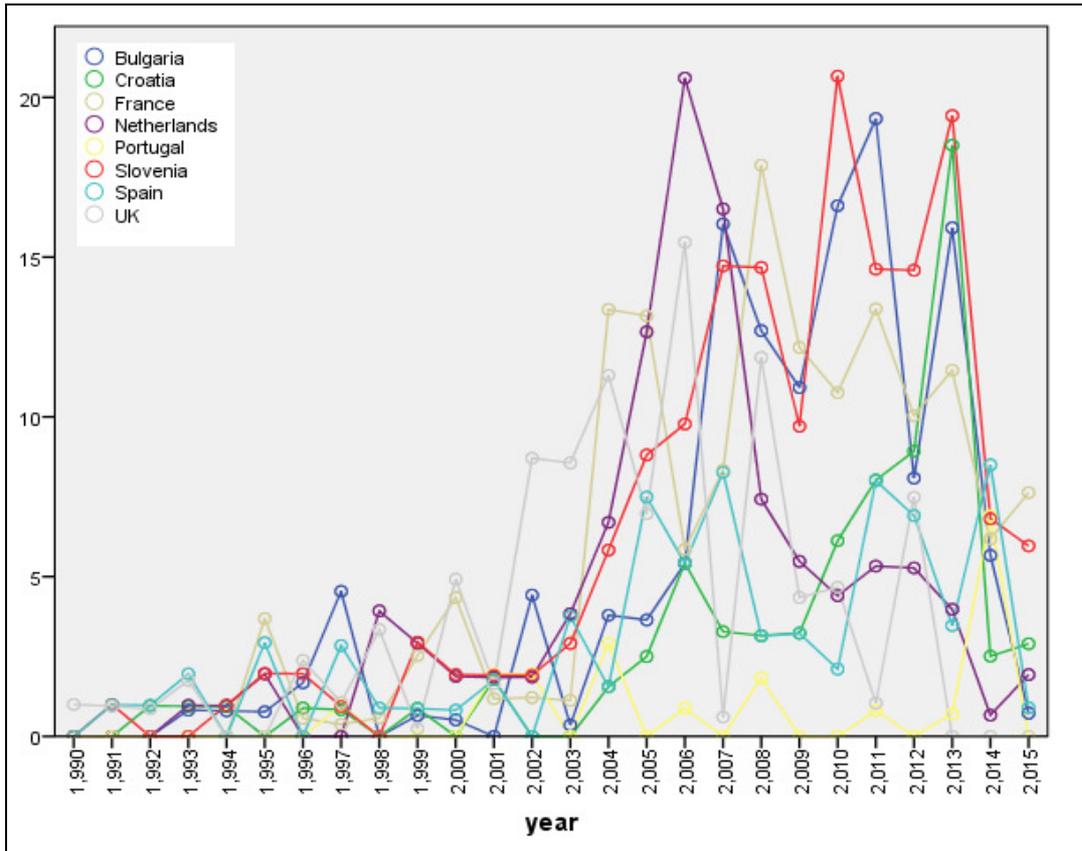
In some Member States, there has been a rise of UK ltds but then also a decline, at least for some years. As already noted by Ringe,⁵⁸ this happened in Germany in particular with a reform of the law of private limited companies (MoMiG), but the figures also show some reversals of the general trend for Spain, Denmark, Belgium and Austria. However, overall, the number of newly incorporated foreign ltds has continued to rise. Thus, we do not confirm Ringe’s assessment of mere ‘flash in the pan’.

Figures 6 to 8: Time series of newly incorporated foreign-based Slovakian SROs



⁵⁷ Notably, this may be the case for the Romania and Bulgaria data in the years 2007 to 2013, given the restrictions to immigration in the UK for Romanian and Bulgarians but with an exemption for self-employment. See <http://immigrationmatters.co.uk/uk-border-agency-rules-for-bulgarian-and-romanian-nationals.html>.

⁵⁸ Ringe, supra note 12.



The numbers for foreign-based SROs are, generally speaking, lower than those for foreign-based UK ltds. The figures also show that the trend lines are flat and low until the EU accession of Slovakia in 2004, with the exception of businesses established from the Czech Republic.⁵⁹ Throughout the time series it is noticeable that incorporations from the neighbouring countries Czech Republic, Hungary and Austria are at the top of the curves.

The general time trend is that after 2004 foreign incorporations increased for a number of years, but then most of the curves peaked in the early 2010s and subsequently declined, in particular in 2013, 2014 and 2015 (while the very low 2015 data should be treated with caution as Orbis may not yet have fully recorded all companies from that year). It is suggested that these changes do not simply reflect changes in minimum capital requirement and ease of incorporation as most CEE countries have followed the same trend in facilitating the incorporation of private companies.⁶⁰ Rather, it may be linked to changes in the investment climate in Slovakia. For example, it can be observed that, in Slovakia, inflows in foreign direct investment have declined in the last few years, in particular since 2011,⁶¹ which has been attributed to Slovakia's 'malfunctioning judiciary', 'excess bureaucracy', 'poor infrastructure', as well as an increase in the corporate tax rate above the rates of the Czech Republic, Hungary and Poland.⁶²

4.3 Structural breaks

The previous section pointed towards possible changes in the time series after the ECJ case of *Centros, Überseering* etc. and the EU accession of the CEE countries. These possible 'structural breaks' can also be assessed more formally with tools of change-point detection.⁶³ The following uses two of those techniques: first, Stata implements a test for structural breaks in time-series data, using a Wald test.⁶⁴ This test tries to identify exactly one break in the time series. However, in the present time series, it may not be unrealistic to assume that there can be more than one break point. Thus, second, with the software 'Change-Point Analyzer',⁶⁵ we use a CUSUM change point detection test which can identify multiple change points and provide further information about the strength and direction of these structural breaks of the time series.

⁵⁹ It may also be noted that, until 1993, both countries were still part of the same country; thus, the data from the first years of the time series should be treated with caution.

⁶⁰ For example, the minimum capital requirements reported in Becht at al., supra note 7, at 251, for 2006 have been reduced in the subsequent years in Slovakia, Hungary and the Czech Republic. Further comparisons of the ease of incorporation across time can be assessed with the Doing Business Reports, see 5.2, below.

⁶¹ See data at <http://databank.worldbank.org/data/reports.aspx?source=2&country=SVK&series=&period> and www.tradingeconomics.com/slovakia/foreign-direct-investment.

⁶² US State Department, '2015 Investment Climate Statement – Slovakia', available at www.state.gov/e/eb/rls/othr/ics/2015/241740.htm.

⁶³ For references and an application to legal data see D Katelouzou and M Siems, 'Disappearing Paradigms in Shareholder Protection: Leximetric Evidence for 30 Countries, 1990–2013' (2015) 15 *Journal of Corporate Law Studies* 127 at 141-2.

⁶⁴ See www.stata.com/new-in-stata/structural-breaks/.

⁶⁵ Available at www.variation.com/cpa/index.html.

Table 5: Change point evaluation of foreign-based UK and Slovakian limited companies

Test:	UK limited companies (ltds)		Slovakian private companies (SROs)	
	Wald	CUSUM (with level)	Wald	CUSUM (with level)
Austria	2004	2004(2)	2004	2004(1) , 2014(4)
Belgium	2008	2004(3), 2008(2)	2006	2000(2) , 2006(1)
Bulgaria	2012	2010(5), 2012(3)	2007	2007(1)
Croatia	2012	no	2010	2004(2) , 2010(1)
Cyprus	no	no	2010	2010(1)
Czech Rep.	2012	2006(2) , 2013(1)	2004	2004(2) , 2014(3)
Denmark	2001	2002(2) , 2004(3)	2004	2004(1)
Estonia	2012	2008(3), 2012(1)	no	no
Finland	2011	2007(2) , 2012(1)	2012	no
France	2012	1998(3), 2012(4)	2004	2004(1)
Germany	2004	2004(1) , 2008(2)	2004	2004(1)
Greece	2012	1998(6), 2010(3), 2012(2)	2006	2006(1)
Hungary	2012	2012(3)	2006	1996(6), 2006(3), 2007(2) , 2013(4)
Ireland	2011	1998(4), 2011(2)	2004	2000(1) , 2004(3), 2009(2)
Italy	2012	2007(5), 2012(2)	2005	1997(3), 2003(2) , 2014(1)
Latvia	2012	no	2009	2003(2) , 2009(1)
Lithuania	2012	no	2006	2006(1)
Luxembourg	1999	no	2006	2006(1)
Malta	no	no	2005	2005(1)
Netherlands	2005	2005(3), 2012(2)	2004	1998(3), 2005(1) , 2008(2)
Poland	2012	2013(2)	2008	2004(2) , 2010(1)
Portugal	2012	2013(3)	2001	no
Romania	2012	2013(5)	2006	2004(3), 2007(3), 2013(4)
Slovakia	no	no		-
Slovenia	2012	1996(4), 2015(3)	2005	2005(2) , 2014(1)
Spain	2012	2013(4)	2005	2005(1)
Sweden	2010	2007(6), 2013(3)	2004	2004(1)
UK		-	2002	2000(1)

Notes for CUSUM test: (i) Black for positive change; red for negative
(ii) lower level indicates more important change point;
the lowest two levels (i.e. (1) and (2)) are in bold.

The results of Table 5 confirm some of the interpretations of the previous section, namely that the main changes happened after 2000, with many of them in the UK in the 2010s and in Slovakia in the mid-2000s, and that most changes characterise an increase in foreign incorporations, though with some exceptions (Denmark and Germany for the UK, and a number of countries for Slovakia, mainly for 2013 and 2014).

Focussing on the results of the CUSUM test, it is worth highlighting the most important changes, i.e. those with the levels (1) and (2). In the UK data, all of those changes happened a

number of years after the ECJ case in *Centros*; thus, apparently, this judgment alone did not give non-UK businesses the confidence to establish a company in the UK. It may also be noticeable that we only have such strongly important changes for less than half of the post-2004 Member States; thus, this also justifies a caution assessment of the effectiveness of the ECJ case law for corporate mobility in the EU. The data from Slovakia show strong change points in or around the Slovakian accession to the EU in 2004. But it is difficult to strictly relate this finding to the ECJ case in *Centros* etc. as this positive effect may also be due to other factors that have increased cross-border cooperation and business activity with EU accession.

5. Regression analysis: does private international law matter?

5.1 Methodological considerations

In order to assess the relevance of differences in conflicts of laws rules applicable to companies, the following regression analysis will be based on the cross-sectional data of currently incorporated companies.⁶⁶ While time series data can be helpful to establish causal relationships, the aforementioned limitations of data availability mean that only the cross-sectional data enable us to conduct a meaningful analysis of the relevance of differences in private international law for companies incorporated across all Member States.

The incorporation data are count data. This indicates a Poisson or negative binomial distribution with a Generalized Linear Model (GLM). In the present case, negative binomial is preferred due to overdispersion.⁶⁷ We use standard errors clustered by the countries of the commercial register, thus addressing the possibility that our data are correlated within groups of observations sharing the same country.⁶⁸

In all of the subsequent models, we use the original data of companies with all managers from another Member State and the majority of those being shareholders, both as reported in Orbis. We then also control for the availability of the relevant data in and migration to the country of the register (see Table 7 below: ‘multiplier’ and ‘migration’). This approach was preferred over the use of the adjusted data (see Table 3, above). The adjustment was based on the assumption that migrants incorporate a company as frequently as the native population. But it is also possible that migrants are more likely to incorporate their own companies since it may be difficult for them to find employment in the state sector and local businesses. Thus, the use of migration as an explanatory variable is helpful since its effect can consider any higher (or lower) rate of incorporations per capita of the migrant population.

⁶⁶ As reported in 3., above.

⁶⁷ In Stata, we use ‘negative binomial parameter estimated via ML’.

⁶⁸ For further technical details on regressions using count data see, eg, R Winkelmann, *Econometric Analysis of Count Data* (Berlin, Springer 5th ed 2008); S Coxo et al., ‘The Analysis of Count Data: A Gentle Introduction to Poisson Regression and Its Alternatives’ (2009) 91 *Journal of Personality Assessment* 121.

In the main regressions we exclude the six countries with the most limited data (below 5%).⁶⁹ To check the robustness of the findings we also ran regressions with all countries but the UK, the eleven countries with the most comprehensive data (above 50%)⁷⁰ and all 28 Member States.

5.2 Explanatory variables

In the EU, the case law of the ECJ is widely understood as requiring that for intra-EU scenarios a pure ‘real seat’ theory, based upon a bilateral connecting factor, cannot be applied any more in private international law.⁷¹ However, there may be some ‘remnants’ of the real seat theory in some Member States, which might variously refer to the location of the administrative office or other fact-based criteria, in order to mitigate certain effects of a ‘pure’ incorporation theory.⁷² We can code the level of ‘purity’ of the incorporation theory as follows:

A country gets ‘1’ if a connecting factor based upon the incorporation theory is clearly formulated in legislation or through judge-made law (i.e. in a way that everyone, even non-experts, can grasp it) and no exceptions are provided (i.e. no additional connecting factors based upon the location of a company’s real seat). The score ‘0.667’ denotes either (i) the situation that a connecting factor based upon the incorporation theory is clearly formulated but that this criterion is subject to exceptions, or (ii) that legal experts can identify that the country follows a connecting factor based upon the incorporation theory and no exceptions are provided, but non-experts are uncertain about this position. The score ‘0.333’ refers to the previous scenario (ii) but exceptions to the incorporation theory clearly exist. Finally, ‘0’ is about to the scenario that even legal experts cannot identify that the country follows a connecting factor based upon the incorporation theory.

In addition, in some Member States, rules of substantive company law contain requirements for companies to establish or maintain a specific connection to the territory of the Member State. This was coded as follows:

A country gets ‘1’ if domestically incorporated companies do not have to have their headquarters or any other fact-based criteria on the domestic territory; a country gets 0.5 if domestic companies should have some factors on the domestic territory but this rule is in practice not respected or uncertain; it gets ‘0’ otherwise.

Based on these definitions and the comparative analysis⁷³ this leads to the following classifications:

⁶⁹ These are Belgium, Croatia, France, Greece, Netherlands and Sweden, see Table 2, above.

⁷⁰ These were Bulgaria, Czech Rep, Denmark, Finland, Germany, Italy, Latvia, Poland, Romania, Slovakia, UK.

⁷¹ See chapter 1 of the report.

⁷² It is worth reminding that in this section we are not making any statement on the compatibility of such remnants of real seat theory with the freedom of establishment: we merely describe the reality of Member States’ private international law as it emerged from the country reports.

⁷³ See chapter 2 of the report.

Table 6: Country classifications in private international and substantive company law

(1) 'Purenness' of incorporation theory under private international law (max. 1)					
(2) Substantive company law free from 'real seat elements' (max. 1)					
	(1)	(2)		(1)	(2)
<i>Austria</i>	0.667	0	<i>Italy</i>	0.667	1
<i>Belgium</i>	0.667	0	<i>Latvia</i>	0.333	0
<i>Bulgaria</i>	1.000	1	<i>Lithuania</i>	1.000	0
<i>Croatia</i>	0.667	1	<i>Luxembourg</i>	0.333	0
<i>Cyprus</i>	1.000	1	<i>Malta</i>	1.000	1
<i>Czech Republic</i>	1.000	1	<i>Netherlands</i>	1.000	1
<i>Denmark</i>	0.333	1	<i>Poland</i>	0.000	0.5
<i>Estonia</i>	0.667	0	<i>Portugal</i>	0.000	1
<i>Finland</i>	1.000	1	<i>Romania</i>	0.667	1
<i>France</i>	0.667	0	<i>Slovakia</i>	1.000	1
<i>Germany</i>	0.667	1	<i>Slovenia</i>	0.667	0
<i>Greece</i>	0.333	0	<i>Spain</i>	0.667	0
<i>Hungary</i>	1.000	1	<i>Sweden</i>	1.000	1
<i>Ireland</i>	1.000	1	<i>United Kingdom</i>	1.000	1

Incorporation in another country can also be driven by a number of other factors. For this purpose, we use various control variables, see Table 7. The main aim is to test whether other characteristics of the country of incorporation may be more important than conflict of laws rules. Further variables account for the closeness of the country pairs.

We also needed to consider that the data on private companies as they exist today are likely to be influenced by both the recent past and the present: while the past is of importance for the incorporation decision, the present is also relevant since companies that still exist today make the implicit choice to keep the present legal form.⁷⁴ For the collected data, 74% of the companies were established between 2005 and 2015: thus, as far as the control variables have been subject to change, the regressions use the average value over this period.⁷⁵

⁷⁴ Thus, the present analysis is different from the one by Becht et al., supra note 7, and Braun et al., supra note 9, which only analysed the new incorporations in a particular year.

⁷⁵ This was done for the variables on incorporation costs, corporate tax rates, rule of law and migration.

Table 7: Description of control variables

Name	Description (for country of incorporation unless stated otherwise)	Source
<i>Incorporation costs</i>	Indicator that measures minimum capital, costs, procedures and time for establishing a company	http://www.doingbusiness.org/data/explortopics/starting-a-business
<i>Corporate tax rates</i>	Corporate tax rate	https://home.kpmg.com/xx/en/home/services/tax/tax-tools-and-resources/tax-rates-online/corporate-tax-rates-table.html
<i>Rule of law</i>	Rule of Law score based on Word Governance Indicators	http://info.worldbank.org/governance/wqi/index.aspx#home
<i>Legal origin</i>	Dummy variable for countries of the same legal origin (English, French, German and Nordic)	La Porta et al. 2008, data available at http://scholar.harvard.edu/shleifer/publications/economic-consequences-legal-origins
<i>Official language</i>	Official language of country pairs	http://www.cepii.fr/CEPII/en/publications/wp/abstract.asp?NoDoc=3877
<i>Spoken language</i>	Language spoken by at least 20% of population of country pairs	as previous
<i>Geographic distance</i>	Distances between the cities constituting the economic centres between country pairs, weighted by share of country's population	as previous
<i>Population</i>	Population	http://ec.europa.eu/eurostat/statistics-explained/index.php/Population_and_population_change_statistics
<i>Companies per capita</i>	Limited companies (as reported in Orbis) per capita	Own calculations, see also Table 2, above
<i>Difference conflict rules</i>	Absolute difference in conflict of laws rules as regards pureness of incorporation theory	Own calculations based on Table 6, above
<i>Multiplicator</i>	Factor correcting for variations in data availability	Own calculations, see Table 2, above
<i>Migration</i>	Number of international migrants	http://www.un.org/en/development/desa/population/migration/data/estimate_s2/estimates15.shtml
<i>Country dummies</i>	Dummy variables for each country (UK as the reference category)	

To elaborate, instead of conflict of laws rules, it could rather be low incorporation costs, low corporate tax rates and a good rule of law rating of the country of incorporation that attract foreign businesses. With respect to the possible relevance of corporate tax law, it is worth noting that the concepts of tax residence diverge from mere formal registered seat and is normally fact-intense criterion, which, for instance, considers the place of a company's busi-

ness or its headquarter.⁷⁶ Thus, such a variable is unlikely to be significant for companies that merely have a ‘letterbox’ in the incorporation country while doing business in another Member State.⁷⁷ However, it is likely to be relevant with regard to companies having a physical connection to the country of incorporation, so that the tax authorities apply domestic tax law, despite its managers being foreign-based.⁷⁸ Those cases are also within the scope of the present analysis.⁷⁹

More generally, it can also be speculated that businesses may not choose a legal system by way of incorporation that is too unfamiliar to them: the variable on whether countries belong to the same ‘legal origin’ (English, French, German or Nordic), based on the contentious studies by La Porta and Djankov et al.,⁸⁰ aims to account for this factor.

Of course, it is not only legal similarities that play a role. Language could matter since registration of a company typically requires the use of the official language of the respective country. It can also be relevant as far as the choice of a place of incorporation may mean that the founders may become involved in legal disputes in the country of question. Geography is likely to matter for businesses that operate in a border region – which can even mean that the main place of business could be in the neighbouring country.

The population of the incorporation country could also be relevant. In the US, the popularity of the small state of Delaware is, inter alia, said to be due to the fact that Delaware can focus on being attractive to foreign incorporations while more populous states have to balance more diverse interests.⁸¹ But the reverse is also possible, namely that countries with a larger population are considered as being a more secure choice for incorporating a company. This variable also controls for the effect that some of the companies considered here may do some business in the country of the incorporation state and therefore may benefit from the larger market of those countries.

The control variable of companies per capita may capture a variety of factors. Some of those overlap with reasons already mentioned, such as costs of incorporation. But it is also worth testing whether, more generally, the form of the private limited company is popular in the country of incorporation, thus controlling for other difficult-to-code details of company law.⁸²

⁷⁶ For a good overview see G Maisto (ed.), *Residence of Companies Under Tax Treaties and EC Law* (Amsterdam: IBFD, 2009) (also on how the definition of these factual terms differs from the corresponding terms in the conflict of laws rules applicable to companies).

⁷⁷ For the ambiguous phrase ‘letterbox companies’ see also 2.1, above.

⁷⁸ Or where, in practice, tax authorities are not fully informed as regards the factual connections of the company to another country, or are lenient in the way they apply the law as regards this connection.

⁷⁹ See 3.2, above.

⁸⁰ For further discussion, see M Siems, ‘Varieties of legal systems: towards a new global taxonomy’, *Journal of Institutional Economics*, forthcoming (FirstView available at <http://dx.doi.org/10.1017/S1744137415000545>).

⁸¹ See, e.g., R Romano, *The Genius of American Corporate Law* (1993). For a US/EU comparison see, e.g., F Mucciarelli, ‘The Function of Corporate Law and the effects of Reincorporations in the U.S. and the E.U.’ (2012) 20 *Tulane Journal of International and Comparative Law* 421.

⁸² Also considering that the existing quantifications of company law focus on the law of public companies. See, e.g., <http://www.cbr.cam.ac.uk/research/research-projects/completed-projects/law-finance-development/>.

The variable about the absolute difference in conflict of laws rules as applicable to companies takes the classification according to ‘pureness’ of incorporation theory (see Table 6, above) as a starting point. It then establishes the difference between each country pair; thus, for example, countries get a ‘0’ in difference if both of them follow the pure incorporation theory or if both of them still have many remnants of the real seat theory. This variable can potentially be interesting as it may indicate whether any harmonisation of conflict of laws rules in this area (i.e. regardless of the substance) may be beneficial to corporate mobility.

It was already mentioned (see 5.1, above) that the control variables ‘multiplier’ and ‘migration’ are necessary since the regressions use the original data of companies as reported in Orbis. Finally, the dummy variables for the country of the managers consider that there are many unobservable reasons that may be determine why people from a particular country want to incorporate a private company in the first place.

5.3 Regression results

The first three regression outputs report the results excluding the six countries with the most limited data for the place of incorporation (see 5.1, above). They are therefore based on 22 (place of incorporation) x 27 (place of business) = 594 observations.

Table 8: Negative binomial regressions (1) – dependent variable: number of companies with all managers being citizens of another Member State and more than half of those also being the shareholders of the company

<i>Independent variables:</i>	(1)		(2)		(3)	
Incorporation score	2.080279	**	1.469544	*		
Substantive law	-0.8176418		-0.7902481		-0.81764	
Costs of incorporation	0.1040623	**	0.0834384	*	0.104062	**
Corporate tax rate	-0.0758701		-0.0330982		-0.07587	
Rule of law	-0.6018829		-0.7245814		-0.60188	
Legal origin	0.7639068	**	0.7502287	**	0.763907	**
Official language	1.607175	**	1.242886	*	1.607175	**
Geographic distance	-0.0013462	**	-0.0014363	**	-0.00135	**
Population	6.20E-08	**	6.26E-08	**	6.20E-08	**
Companies per capita			13.93519	*		
Difference conflict rules					-4.16056	**
Multiplier	-0.143194	*	-0.31475	**	-0.14319	*
Migrants	3.40E-06		3.63E-06		3.40E-06	
Country dummies	#	**	#	**	#	**
Constant	-0.44684		0.630225		1.633443	
Log pseudolikelihood	-2825.4477		-2802.8148		-2825.4477	
	n=594		n=594		n=594	

** significant at 1% level, * at 5% level; # highest degree

The results show that, as far as the legal variables are concerned, the incorporation score, the costs of incorporation and legal origin are consistently statistically significant, but not the variables on ‘real seat’ elements in substantive company law, corporate tax law and rule of

law. The variables about official language and geography are significant with the expected signs. In further regressions (not reported here) we also examined the role of the spoken language, but it was found to be less significant than the official language. The variable on population shows that, in the EU, larger countries have an advantage in attracting foreign incorporations.

Model (2) includes the variable on ‘companies per capita’ and confirms that other factors may play a role for the incorporation decision; however, the incorporating score also retains its significance in this specification.

Model (3) shows that it is not only the substance of the conflict of law rules that matters but also the absolute difference between them.

Table 9: Negative binomial regressions (2) – dependent variable: as Table 8

Independent variables:	(4)		(5)		(6)	
Incorporation score	3.382553	**	2.104793	**	1.578953	**
Substantive law	-0.95515		-0.65626		-0.69515	
Costs of incorporation	0.10797	**	0.101664	**	0.063953	*
Corporate tax rate	-0.29792	**	-0.0836		-0.07589	*
Rule of law	0.139134		-0.44879		-0.73922	*
Legal origin	0.706026	*	0.749897	**	0.762654	**
Official language	0.400527		1.388102	**	1.171581	**
Geographic distance	-0.00158	**	-0.00138	**	-0.0015	**
Population	8.04E-08	**	5.75E-08	**	3.60E-08	**
Companies per capita						
Difference conflict rules						
Multiplicator	0.685718		-0.16251	**	-0.13767	**
Migrants	7.79E-07		3.37E-06	*	3.22E-06	*
Country dummies	#	**	#	**	#	**
Constant	0.833491		-0.133796		3.916033	
Log pseudolikelihood	-1714.925		-3172.2658		-2865.7440	
	n=297		n=756		n=729	

** significant at 1% level, * at 5% level; # highest degree

To check the robustness of the findings, models (4) to (6) report the regression results for the specification of model (1) for modified country groups. Model (4) examines the eleven countries with the most comprehensive data, and model (5) does so for all 28 Member States (even the six with the very limited data). Model (6) excludes the UK as a possible outlier given that more than 50% of the foreign incorporations are registered in the UK.⁸³ It should be noted that this is a *hypothetical* scenario since in an EU without the UK, it may well have been the case that a Member State with a similar law (perhaps Ireland) would have taken the position of the UK as a popular target destination.

The main results are unchanged in all of the three models. In model (4) the lower significance level for some of the variables is likely to be due to the lower number of observations. In

⁸³ See 3.2, above.

models (4) and (6) it is however also interesting that the variable on corporate tax rate is now statistically significant, with the expected negative sign. In addition, in model (6) the negative significance of the rule of law variable is likely to be due to the popularity of some of the Central and Eastern European countries as popular target destinations (see Table 3, above). It can also be speculated that the lower rule of law score may not always be against the interest of companies since it may go hand in hand with lighter requirements in terms of doing business. In this respect, model (6) may also indicate a possible ‘market segmentation’: businesses who only aim at reducing the initial incorporation costs do so in the UK, while those who also aim at reducing taxation (and have a more general preference for laxer laws) incorporate in other countries.

Table 10: Interpretation of coefficients in model (1)

<i>Independent variables:</i>	<i>Coefficient and significance</i>	<i>Change per 1 Unit Increase (IRR)</i>	<i>Change per Standard Deviation</i>
Incorporation score	2.080279 **	700.67%	213.79%
Substantive law	-0.8176418	-55.85%	-26.54%
Costs of incorporation	0.1040623 **	10.97%	68.23%
Corporate tax rate	-0.0758701	-7.31%	-50.42%
Rule of law	-0.6018829	-45.22%	-27.66%
Legal origin	0.7639068 **	114.66%	52.92%
Official language	1.607175 **	398.87%	75.38%
Geographic distance	-0.0013462 **	-0.13%	-97.55%
Population	6.20E-08 **	0.00%	143.22%
Multiplicator	-0.143194 *	-13.34%	-127.28%
Migrants	3.40E-06	0.00%	31.68%

Count data regressions do not lend themselves to intuitive interpretation as easily as OLS models; however, it is possible to say that a coefficient of x means that a change in the respective independent variable of 1 will result in a multiplication of the predicted count by e^x .⁸⁴ In Table 10, we present the interpretation of the coefficients of the most convincing model (1). The column ‘change per 1 unit increase’ enables the calculation of an effect of changes to this variable, holding the other variables constant.

The next column follows the same approach but examines the percentage impact of a one standard deviation increase. This is the best way to compare the effects of the individual variables. It can be seen that the incorporation score plays the largest role, followed by the population, geographic distance, official language, costs of incorporation and legal origin.

6. Conclusion

The empirical research about corporate mobility in the EU has so far been limited in two respects: it has been focussed on the analysis of foreign-based companies in the UK and it has mainly been concerned with differences in the costs of incorporation.

⁸⁴ See, eg, Winkelmann, *supra* note 67, at 70; Coxe et al, *supra* note 67, at 124.

This chapter had the aim to fill these gaps. First, in the descriptive statistics, based on data from all EU Member States, we identified the UK as the most popular target destination. To a lesser extent, foreign incorporations also take place in other Member States, in particular in Central and Eastern Europe, with Estonia, Romania and Slovakia being popular target destinations. However, the network analysis of these data also showed that the foreign incorporations typically happen neighbouring countries with further linguistic, social and economic similarities; thus, the effect of the freedom of establishment on the mobility of companies *across all* Member States is still rather limited.

Second, the time series of new incorporations in the UK and Slovakia found that the main changes happened after 2000, with many of them in the UK in the 2010s and in Slovakia in the mid-2000s, and that most changes characterise an increase in foreign incorporations. Thus, for the UK, all of those changes happened a number of years after the case law of the ECJ liberalising the freedom of establishment of companies. The data from Slovakia show strong change points in or around the Slovakian accession to the EU in 2004. But here too it is difficult to relate this finding to the ECJ case law as this positive effect may also be due to other factors that have increased cross-border cooperation and business activity with EU accession.

Third, the regression analysis established that decisions about domestic or foreign incorporations are not merely a result of differences in substantive company law. Rather, we found that private international law plays a key role. Countries that have a clear-cut version of the ‘incorporation theory’ benefit in this market for incorporations, as compared to companies that have retained elements of the ‘real seat theory’. We also identified a negative effect of differences in the conflict of laws rules applicable to companies.

These findings have important policy implications. They show that the case law of the ECJ (now CJEU) has not made all differences in the conflicts of laws rules applicable to companies obsolete. More specifically, the significant negative effect of the differences between those rules may speak in favour of EU harmonisation. The significance of the ‘purity’ of the incorporation theory can also provide an indication about the possible direction of any harmonisation that aims to facilitate corporate mobility in Europe

7. Annex: Forms of companies from EU Member States in Orbis

<i>Country</i>	<i>Forms of private companies</i>	<i>Forms of public companies</i>
Austria	Private limited company – GmbH	Public limited company - AG
Belgium	Private limited liability company – SPRL/BVBA	Limited company by shares – SA/NV
Bulgaria	One-person private limited company - EOOD, Private limited company – OOD	One-person public limited company - EAD, Public limited company – AD
Croatia	Limited liability company – d.o.o., Limited liability company, simplified – j.d.o.o.	Joint stock company - d.d.
Cyprus	Private limited company	Public limited company
Czech Republic	Limited liability company - S.R.O.	Joint stock company - A.S.
Denmark	Private limited company – ApS	Limited company - A/S
Estonia	Limited liability company – OÜ	Joint stock company - AS
Finland	Private limited company – OY	Public limited company - OYJ
France	Limited company, simplified – SAS, Limited liability company – SARL	Limited company – SA
Germany	Limited liability company – GmbH [includes data for UG]	Public limited company – AG
Greece	Limited liability company - E.P.E, Limited liability company - sole shareholder, Private capital company - I.K.E.	Limited company - S.A.
Hungary	Limited liability company – KFT	Public limited company - ZRT and NYRT
Ireland	(Private) limited liability company	Public company
Italy	Limited liability company - SRL	Joint stock company – SPA
Latvia	Limited liability company – SIA	Joint stock company – AS
Lithuania	Limited liability company – uab	Joint stock company – ab
Luxembourg	One-person company with limited liability, Private limited liability company – SARL	Limited company by shares – SA

Malta	Limited liability company, Limited liability company - private exempt, Limited liability company - private non-exempt	Limited liability company - public non-exempt
Netherlands	Private limited liability company – BV	Public limited liability company – NV
Poland	Limited liability company - Sp. z.o.o.	Joint stock company – SA
Portugal	Limited liability company - LDA	Public limited company - SA
Romania	Limited liability company – SRL	Joint stock company – SA
Slovakia	Limited liability company - S.R.O.	Joint stock company - A.S.
Slovenia	Limited liability company - d.o.o.	Joint stock company - d.d.
Spain	Limited liability company – SL, One-person company with limited liability	Public limited company – SA
Sweden	Limited liability company – AB	Public limited liability company - AB publikt
UK	Private limited company	Public limited company