Universities of Leeds, Sheffield and York
http://eprints.whiterose.ac.uk/

This is an author produced version of a paper published in **European Management Journal**.

White Rose Research Online URL for this paper:
http://eprints.whiterose.ac.uk/9876

The geography of British exports:
Country-level versus firm-level evidence

Introduction

Emerging empirical evidence indicates that economic integration of national markets is more of a regional than a global phenomenon, both at a country-level and firm-level. In a recent study, country-level data suggests that "the surge of trade [and FDI] in the second half of the twentieth century was driven more by activity within regions than across regions" (Ghemawat, 2005:100). Ghemawat (2003) refers to this phenomenon as semi-globalization – a condition of incomplete market integration across borders where "… neither the barriers nor the links among markets in different countries can be neglected" (Ghemawat, 2003:139). Challenging the widespread beliefs about the true level of globalization, Rugman and Verbeke (2004, 2007) argue that at the firm level we are witnessing regionalization rather than complete market integration across national boundaries, where the majority of the company's sales are in its home region of the Triad (broadly defined as Europe, North America and Asia-Pacific).

Alan Rugman's "The end of globalization" (2001) could be considered as a beginning of a new and radical research programme investigating the real depth and spread of globalization at both, macro (country) level and micro (firm) level. In a number of subsequent articles and books Rugman and his co-authors have presented considerable empirical evidence on the predominantly home region orientation of the world's largest multinational enterprises (MNEs) (e.g. Rugman and Verbeke, 2004, 2007, 2008; Rugman, 2005). A formal model in the form of regionalization theory has been put forward intended to explain why firms' international activities are significantly constrained to the home region. The essence of Rugman and Verbeke's

regionalization theory is that the evident inability of the MNEs to deploy and exploit their firm-specific advantages (FSAs), even the non-location bound, indiscriminately across the world is due to the *(home-)region boundedness of FSAs* – i.e. the highly restricted transferability and acceptability of the firm's FSAs beyond the home region (Rugman and Verbeke, 2004). The restricted transferability and acceptance of FSAs beyond the home region is explained by the significant difference in expansion costs: "*the liability of intra-regional expansion appears to be much lower than the liability of inter-regional expansion*" (Rugman and Verbeke, 2007: 201, original emphasis). It is argued that the higher liability of inter-regional expansion stems from the higher costs of product/service adaptation to host region markets (especially at the downstream side of the value chain), management constraints in managing operations in host regions (incremental costs associated with cultural, administrative, geographic and economic differences), and costs associated with higher risk due to significant (one-sided) resource commitment in the host region (especially in the case of downstream FDIs).

In light of these recent regionalization debates, this study is intended to make an empirical contribution by investigating the degree of regionalization of UK exporters and assessing the extent to which country-level data supports or contradicts the firm-level findings of regionalization. The study makes several novel contributions. First, previous research has focused predominantly on examining the regional nature of the world's largest MNEs. The decision of MNEs as to where to locate their investments is one of the most extensively researched areas of international business (Aharoni, 1966; Green and Smith, 1972; Dunning, 1980; Nigh, 1985; Loree and Guisinger, 1995). Even though financial transactions, such as direct and portfolio investments, and international technology transfers have become increasingly important,

traditionally international trade in goods and services has been regarded as the principal channel for economic integration. Given this critical role of exporting and the increasingly active role played by small and medium-size enterprises (SMEs) in international markets, the focus of this study is on SMEs engaged primarily in exporting activities. In view of the recent evidence on the predominantly regional nature of the MNEs, the general perception is that the SMEs would have even less internationally diversified operations. By examining a sample of 356 UK exporters we determine the degree of SME regionalization following Rugman and Verbeke's (2004) classification of regional and global firms. Our analysis indicates that SMEs might be less regional in their geographic orientation than previously thought.

Second, the majority of prior empirical findings relating to regionalization are based on analysis of secondary firm-level data, constraining researchers in employing different regionalization concepts and metrics or limiting their focus on a specific region where more detailed data is available making their findings country/region specific and hard to validate. Hejazi (2007), for example, examines the global, regional and national concentration of US MNE activity and reports inability to obtain such data on MNE activity for any of the OECD countries. We bridged this gap by using primary data on 356 UK exporters collected by an electronic survey technique. The primary data enable us to derive and compare different measures of regionalization.

Furthermore, we contrast the firm-level data of our sample of UK exporters with the firm-level data from the UK, European and world's largest MNEs and determine if there are significant differences in the regional orientation between large international companies and the smaller exporting firms.

In order to achieve these objectives the paper is organized as follows. We start with an analysis of the regional distribution of UK trade flows. Next, the evidence of the regional nature of UK exports at country level is related to the regional scope of other country-level empirical evidence. We proceed with firm-level data by analysing the geographic spread of the exports of a sample of 356 UK exporters over the broad Triad regions of Europe, North America and Asia-Pacific and contrast these findings with the geographic dispersion of international activities of the UK, European and world's largest MNEs. We further relate the regional nature of the UK exporters in the sample to their organizational characteristics. Conclusions and implications conclude the paper.

Regionalization of UK exports – country-level evidence

At a macro level, globalization is broadly defined as a process leading to a worldwide integration of economic, cultural, political, religious, and social systems across geographical boundaries. Even though the financial transactions such as direct and portfolio investments, and international technology transfers have become increasingly important, traditionally, international trade in goods has been regarded as the principal channel for economic integration. As such, the rapid growth of international trade flows in the second part of the 20th century from 9% of GDP in 1960 to 26% of GDP in 2007, has contributed greatly to the globalization process.

However, both country-level and sectoral studies in recent years have found more evidence that "… increasing economic integration through international trade has been accompanied by increasing rather than decreasing regionalization" (Ghemawat, 2005: 101). Ghemawat (2005) in his analysis of intra-regional trade as a percentage of a region's total trade in the period from 1958 to 2000 found that in many parts of the world, intra-regional trade increased steadily, rising globally from about 47% to 55%

between 1958 and 2000. More recent data proves this to be true in the case of the North America and Asia Pacific regions where the intra-regional trade flows have increased by 12% and 9% respectively from 1990 to 2006 (IMF, Direction of trade statistics, 2008).

Table 1 represents the intra- and inter-regional trade flows in each Triad region's total merchandise exports (WTO, International Trade Statistics 2006). The data in Table 1 confirms that the world's trade is controlled by the Triad, i.e. 86 per cent of the world exports in 2005 originated from the three broad Triad regions: Europe (43%), Asia-Pacific (28%) and North America (15%), and 89 per cent were destined for a country in one of the triad regions. According to the 2005 data, the majority of world trade (57%) is intra-regional, with European exports being the most intra-regional (76%), followed by North America (56%) and Asia-Pacific (52%). European countries evidently continue to trade mostly within their home region and only 8%-9% goes to each of the other triad regions and the rest of the world.

[Insert Table 1 Here]

When compared to the 1997 intra-regional data in Rugman (2001) (Europe=73%; NAFTA=49%; Asia=53%), the data in Table 1 indicates that despite the evident increasing economic integration, Asia-Pacific's intra-regional trade remained almost unchanged, while the European and North American triad regions recorded an increase in home region trade flows. European trade flows to the other triad regions and the rest of the world also remained almost unchanged when compared to 1997 data (Rugman, 2001: 116).

The 2005 data for the United Kingdom (UK), presented in Table 1, indicate that 63 per cent of exports go to other European countries, 17 per cent to North America, 11

per cent to Asia-Pacific, and 9 per cent to the rest of the world. Compared to the 1997 data UK intra-regional trade flows also recorded an increase (Rugman, 2001: 131).

According to international trade theory, in a fully globalized world with complete market integration, a nation's share of world trade flows would be relatively equal to its proportion of the world GDP. The substantial difference in the regional distribution of GDP and trade flows of the Triad regions, as presented in Table 1, clearly testifies that the world is far more regional than global. Based on the respective regional share of GDP, the regional shares of intra-region trade flows are approximately two times higher than the ones expected in a fully global world economy.

Regional orientation of UK exporters – firm-level evidence

The empirical evidence of the predominantly regional nature of the national (country-level) trade flows raises the question of how global most of the international companies are and hence the appropriateness of their global strategies. In light of this debate, in the next section we investigate the degree of regionalization/globalization of UK exporters at firm-level and assess the extent to which firm-level findings support country-level data.

Sample and data collection

The sampling frame for this study was compiled from the British Exporters Database (BED) 2007 (www.exportuk.co.uk). The comprehensiveness of this database was validated by cross-referencing it with the TradeYorkshire Business Database (UK Trade & Investment), and the list of winners of the Queen's award for excellence in exporting for the previous 5 years.

Given the nature of the information requested, the export manager/director was deemed to be the best source of information and selected as the primary target to

receive the survey. For companies that did not have a designated export manager, the top executive of the company was contacted. A pilot survey, sent to 25 managing directors of exporting companies across the UK, randomly selected from the sampling frame, was first conducted to refine the questionnaire and identify potential flaws and sources of bias. Pilot respondents were asked for feedback regarding the clarity of the terminology used, any ambiguity of the questions and concepts investigated, and the ease of completion. Managing directors from ten firms responded and their comments indicated that the research questions were relevant, terminology and concepts appropriate and clear.

The internet survey was designed and conducted adhering to the principles of the Tailored Design Method (TDM) proposed by Dillman (2000), with particular attention being paid to TDM's principles regarding electronic and web-based surveys. The use of an Internet based survey was deemed the most time-and cost-effective tool for administering the survey questionnaire to a sample of this size and type. The survey was created and hosted on a university secure website created specifically for that purpose. Participants, especially privately owned firms, were expected to be highly sensitive to requirements to disclose their financial data; hence, in order to reduce the risk of low response rate due to requests for objective financial data, participants were asked for relative data about their sales and profitability.

In selecting the sampling frame the following search criteria were applied: firms should be current exporters, they must have been active exporters in the last five years or longer, and they should be both independent and indigenous. Based on the above criteria the search procedure generated a list of 3,504 exporting companies with data on their top management and their personal e-mails. After three rounds of contact efforts a total of 1,505 *valid* e-mails were delivered that yielded 378 completed

surveys. Twenty-two responses were declared ineligible because they were incomplete or inadequately completed. The final response sample contained 356 usable completed surveys, resulting in an effective response rate of 23.7%.

Non-response bias was assessed by the use of wave analysis, in which first-wave responses are compared with second-wave answers (Armstrong and Overton, 1977). In this survey, 191 firms responded to the first e-mail contact, with 165 responding only after receiving a second or third e-mail request. To examine the relationships between response time (first wave vs. second or third wave) and key variables, such as type of customer market served, major export region, number of employees, annual sales, and export experience, chi-square tests or independent-sample t-tests were employed, respective of the form of the variables. For continuous variables, no significant differences at the $p < 0.05$ level were found between first wave and subsequent respondents; likewise, for categorical variables, chi-square tests found no significant association between them and response time.

Measures

Two types of measures were used in this study: (i) ex-post estimated measures, and (ii) perceptual measures. Ex-post measures were derived from the data collected from both primary and secondary sources and employed in defining the geographic diversification variables. For the macro versus micro analysis we employed as a measure the share of each Triad region trade flows in the total trade flows (exports) at both national and firm level.

In order to assess the geographic diversification of the firms in the response sample we employed Rugman and Verbeke's (2004: 7) classification of firms based on the spread of their international sales:

1. *Home region oriented*: firms that have at least 50% of their sales in their home region of the Triad;

2. *Bi-regional oriented*: firms that have at least 20% of their sales in each of two regions, but less than 50% in any one region;

3. *Host region oriented*: firms that have more than 50% of their sales in a Triad region other than their home region;

4. *Global oriented*: firms that have sales of 20% or more in each of the three parts of the Triad, but less than 50% in any region of the Triad.

In line with the discussion on which sales metrics are more appropriate measures of firm regionalization, we employ five sales related measures:

i. Foreign sales as a percentage share of total sales (F/T);

ii. Home region sales as a percentage share of total sales (R/T);

iii. National sales as a percentage share of total sales (HOME/T);

iv. Rest of the (home) region sales as a percentage share of total sales (ROR/T);

v. Rest of the world sales as a percentage share of total sales (ROW/T);

Regardless of the firm's diversification strategy, other firm-specific factors may have an effect on the international diversification, such as size of the firm, the firm's export experience, and industry sector. Firm size was measured by the number of employees, following the EU definition of small and medium size firms (SMEs), where a firm employing less than 250 employees was considered a SME, and a firm with more than 250 employees was labelled as a large firm. Type of industry was used to reflect the differences in geographic diversification between respondents in the manufacturing industries and respondents in the service industries. Export experience was defined as a numerical variable expressing the number of years a firm has been involved in exporting activities. To evaluate the role of export experience the response sample was split into two groups: less experienced exporters with less than 10 years exporting experience, and more experienced exporters with more than 10 years of exporting experience.

Findings and discussion

Regional nature of the British exporters

Three streams of discussion appear to dominate the regionalization debate: one, the macro versus micro evidence of regionalization; two, the classification thresholds adopted to categorize a firm as regional or global; and three, the conceptualization of the sales metrics employed in measuring the degree of regionalization. Our analysis of the regional nature of UK exporters follows these three streams and provides some novel contributions to the on-going debates.

Most of the prior research on international diversification has been focused on the global strategies of the big multinational enterprises with very little attention devoted to the smaller international players, exporters in particular. A general view is that if the majority of the large MNEs, which are considered the drivers of the globalization process, are more regional than global (as the evidence suggests), than it is likely that the smaller international companies, the SMEs will be even less global (Rugman and D'Cruz, 2000). The rationale behind this perception lies in the incremental costs and benefits of the internationalization process. Taking a company's products or services over national borders incurs costs stemming from the liability of foreignness and newness (differences in the legal, social and economic systems, consumer culture and tastes). Bridging the administrative, economic, cultural and geographic distance (the so called 'psychic distance') (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977, 1978, 1990; Bilkey and Tesar, 1977; Cavusgil, 1982; Czinkota, 1982; Lim, Sharkey, and Kim, 1991; Crick, 1995) between the home and the foreign market requires significant resource commitments, both human and financial. The bigger the distance gap, the more likely the costs will outweigh the internationalization benefits. Given the human, knowledge and financial constraints of SMEs compared to larger firms, it is expected that SMEs will be more home-region oriented.

We start our analysis by establishing the geographic orientation of our sample of UK exporters and then contrast the micro (firm-level) data with the macro (national) trade data to determine to what extent country level data supports or contradicts the firm-level data. The geographic distribution of the foreign sales of our sample of UK exporters is presented in Table 1 (final row), and shows that almost half (48%) of the sample's exports (F/T) are within the home region of Europe. Asia-Pacific is the second largest market for the sample exporters (19%), followed closely by North America (16%) and the rest of the world (17%). Europe was also indicated as a main export region by more than a half of the firms (203) in the sample.

These findings indicate that the UK exporting SMEs are predominantly home-region oriented in their international activities. This evidence of the regional nature of the UK exporters in this sample is consistent with the country-level evidence of the home region orientation of the UK national trade flows shown in Table 1. However, there is an obvious difference between the national and the firm-level distribution of the trade flows among the three broad Triad regions. Except for the North American region, where the firm-level data (16%) is at par with the country-level data (17%), the exporters in our sample seem to be somewhat less home-region oriented (48%) than the national average (63%), and have a higher share of their exports in the Asia Pacific markets and the rest of the world than the national average. One potential explanation for this discrepancy could be that the national trade flow data measures the entire economy and includes export activities of locally-based subsidiaries of foreign companies. Given that the foreign sales of these subsidiaries are also predominantly home region oriented, they will skew the regional distribution of the national trade data towards the European region share in the total trade flows.

Table 1 also provides a benchmark of the regional distribution of our sample of UK exporters relative to the regional distribution of the world GDP. As indicated earlier, in a fully globalized world one would expect that the international firms would have their activities distributed globally proportional to GDP. Hence, according to the data in Table 1, UK firms should sell 36 per cent of their goods within the European region, 32 percent to North America, 25 per cent to Asia-Pacific and 7 per cent to the rest of the world. However, for the sample of UK exporters, Europe's share (48%) is 1.3 times Europe's GDP share (36%), while the North American share is half its GDP share, and the Asia-Pacific is three quarters its regional GDP share. This clearly indicates that the sample firms' trade distribution does not portray a fully integrated global market. Interestingly, the UK exporters' share in the rest of the world (Others) is almost two and a half times the GDP share. The evident asymmetry in the regional distribution between the sample of UK exporters' trade flows and the world regional GDP provides further support to the regionalization hypothesis.

Adhering to Rugman and Verbeke's (2004: 7) geographic diversification typology the survey respondents were classified into four categories as presented in Table 2.

[Insert Table 2 Here]

The results show that 82 per cent of the respondents are home region oriented exporters, i.e. they generate at least 50% of their sales in their home Triad region of Europe. The second largest group is the host region oriented (7%), i.e. firms that have more than 50% of their export sales in a Triad region other than their home region (North America, Asia-Pacific or Other region). Global oriented export companies make up 5% of the sample and 4% are classified as bi-regional. The Asia-Pacific region and the rest of the world (outside the broad Triad) are the largest host regions (36% each), while the North American region is a host region for 28 per cent of the

host region oriented exporters. Table 2 also indicates that almost half of the bi-regional exporters (47%) have at least 20% of their sales in the home region of Europe. The Asia-Pacific region is a target market for 27% of the bi-regional exporters, followed by North American region and Other regions (13% each). Table 2 further indicates that almost 90 per cent of the UK exporters follow a single region strategy (home or host).

As shown in Table 2 home region oriented UK exporters generate on average 83 per cent of their sales intra-regionally and host region oriented have only 24% of their sales in the home region of Europe, while the global and bi-regional exporters have 38% (each) of their sales in the European Triad region. These findings indicate that global and bi-regional exporters have more evenly dispersed sales across the four regions, confirming a higher degree of geographic diversification, while home and host region oriented exporters generate more than 75% of their sales in a single region, indicating a lesser degree of geographic spread.

A closer comparison of our findings with Rugman and Verbeke's (2004) study of the world's largest 380 MNEs and Rugman, Kudina, and Yip's (2007) study of UK MNEs presented in Table 2 reveals some interesting differences. First, Table 2 clearly illustrates that the predominant home region orientation of our sample of UK exporters (82%) is analogous to the sample of world top 380 MNEs (84%) but less so to the sample of top 27 UK MNEs (70%). Second, the distribution of firms among the other three categories in our sample differs from that of the other two samples. The most surprising difference is the high share of global oriented firms in our sample (5%) relative to those of the UK MNEs (0%) and world top MNEs (2%). This observation is contrary to the general expectation that smaller international firms will be even less global than the MNEs.

Any new research programme is bound to be subject to criticism and refinement, so the classification thresholds adopted by Rugman and Verbeke (2004) in categorizing a firm as regional or global, have been challenged for their robustness and theoretical reasoning. Osegowitsch and Sammartino (2008) for example retested the data using different classification thresholds and found that considerably more companies are active beyond the home region than the original results of Rugman and Verbeke (2004). However, their reclassification validates Rugman and Verbeke's findings that overall the majority of the world's largest MNEs are home-based and that there are relatively few truly global firms, regardless of the threshold adopted.

Researchers challenging the work by Rugman and his co-authors criticise their findings of considerable regional concentration, arguing that they are a result of the sales matrices used to measure a firm's international activities. Namely, Rugman and Verbeke (2004) employed home-region sales as a share of total sales (R/T) in their classification thresholds. Since R/T contains the national (domestic market) sales it inflates the home region share of the total sales resulting in predominantly home region concentration of the MNEs activities. We join the R/T versus F/T debate by replicating the above classification of our sample of UK exporters but this time we employ F/T as a sales measure, i.e. the share of sales to the domestic, national market is excluded.

Table 3 presents the categorization of the sample of UK exporters following Rugman and Verbeke (2004) classification based on the exporters' foreign sales as share of total sales (F/T).

[Insert Table 3 Here]

As expected Table 3 data shows a considerable drop in the share of home region oriented exporters from 82 percent when based on R/T to 49 per cent based on the F/T sales measure. The other three categories now exhibit much larger shares with the host region oriented firms noting the highest increase from 7 per cent (R/T based) to 31 per cent (F/T based), followed by 12 per cent of global oriented and 7 per cent of bi-regional oriented exporters. This substantial divergence in findings based on R/T and F/T is a result of the considerable share of the home market sales in the sample firms' overall activities as shown in Table 2, i.e. of the 83 per cent intra-regional sales for the home region oriented exporters, 62 per cent never cross the UK border. These observations indicate that the regional concentration is mainly driven by the national dimension of the firm's sales (Hejazi, 2007). The significant share of home sales (over 60%) re-emphasise the critical importance of the national dimension for any international corporate strategy, as it reflects the nature of the firm's FSAs and the associated degree of liability of foreignness (Rugman and Verbeke, 2007).

We further pursue this line of inquiry and compare the sales distribution of our sample of UK exporters with those of the UK, European and the world's largest MNEs. Accepting the proposition that sales represent an accurate metric of the successful deployment of FSAs, we employ five sales measures to evaluate if there is significant variation in the degree of regionalization when different sales metrics are employed. The results are presented in Figure 1.

[Insert Figure 1 Here]

Figure 1 implies that neither F/T nor R/T measures provide sufficient level of detail to make a sound assessment of the degree of the firm's regionalization. As noted the R/T ratio classifies every firm with more than 50% intra-regional sales as home region oriented but does not distinguish between the domestic market sales (HOME) and rest

of the home region sales (ROR) within the home region. Bundling domestic sales with home region sales may give misleading results especially if the percentage share of domestic sales is significant (indicating a domestic company with very little foreign activities). For example, Figure 1 shows that the R/T is very similar for the sample of UK exporters and World MNEs (76% and 75% respectively). However the national dimension of the world MNEs accounts for considerable bigger part of the R/T sales (63%) than in the case of the sample of UK exporters (55%). The F/T ratio does provide a more precise picture of the size of the firm's foreign activities but it does not distinguish between home region sales and the rest of the world, hence it is an inadequate indicator of the firm's degree of regionalization (unless detailed regional distribution data is available). For example, Figure 1 shows that the sample of UK exporters and UK MNEs have very similar F/Ts (45% and 48% respectively) however the ratio of rest of the home region sales (ROR) and rest of the world (ROW) is considerably different indicating that the sample of UK exporters are almost twice as much home region oriented than the UK MNEs.

The comparative analysis in Figure 1 clearly indicates that national, regional and global dimensions of the firm's activities are needed in order to assess the degree of transferability and deployment of FSAs. The considerable proportion of the home market sales in the R/T ratios in Figure 1 suggest that the predominant home region orientation is driven by the national dimension of the firm's activities.

Regionalization and organizational characteristics

In order to further investigate the geographic positioning of the sample of UK exporters we analysed the geographic distribution of the respondents considering their size, industry type and export experience. The descriptive statistics of these variables

are provided in Table 4. The chi-square statistics indicate that all three variables have a significant differentiating effect on the regional orientation of UK exporters.

[Insert Table 4 Here]

The descriptive statistics presented in Table 4 indicate considerable difference in the geographic spread between the SMEs and the large firms. Just over half of the SMEs are home region oriented compared to about one third of the large firms. A much greater proportion of the large exporters in the sample are bi-regional and global oriented (39%) than is the case for SMEs (18%).

These findings are consistent with the general view that smaller firms will be more home region oriented than larger firms. This home region orientation of the SMEs is not surprising given the limited scope of the SMEs' resources and capabilities and their choice of market strategies compared to the large international firms. Internationalization costs vary and evidence shows that diversification within regions has lower cost than diversification across regions (Qian et al., 2008). In order to achieve a positive internationalization cost/benefit ratio, SMEs have to keep costs low since their ability to derive benefits from economies of scale are limited by their resource and capacity endowments. This rationale implies that a regional strategy that focuses on a single region, primarily the home region, enables SMEs to achieve better performance where benefits of diversification outweigh the costs.

With regard to industry sector (manufacturing industries or services), Table 4 indicates that there are differences in the geographic positioning between the two sectors. While the manufacturing industries seem to be more home region oriented (52%) than the service industries (41%), the services industries are more host region oriented (43%) and bi-regional (9%). On the other hand, the manufacturing sector is

considerably more global (14%) than the service sector (8%). The single region strategic orientation of the service firms is no surprise (Rugman, 2005) considering that the service sectors tend to be more regional either because they are relatively more "location-bound" (utilities, transportation) or because of the propensity to be more heavily regulated than the manufacturing industries (banking and other financial services, telecommunication and utilities). Hence the propensity of service firms to concentrate their internationalization efforts to a single region (home or host).

As Table 4 indicates there are significant differences in geographic spread between less experienced and more experienced exporters. Exporters with more than 10 years experience tend to be more global (15%) and bi-regional oriented (9%) than the less experienced exporters. These findings are consistent with the expectations that less experienced exporters will be more regional than more experienced exporters. Our results imply that there is a significant difference in the inter-regional preferences of the less and more experienced firms. Namely, 92% of less experienced exporters have their sales within a single region of the Triad, either home or host region (Table 4), while more experienced exporters are less single-region oriented and more bi-regional and global. These findings are in line with the internationalization theory rationale of geographic expansion (Johanson and Vahlne, 1977, 1990), i.e. firms expand their activities first in the neighbouring markets where the "psychic" proximity reduces the liability of foreignness and newness and the associated costs of diversification beyond the national borders. Gradually, as the experiential learning is built up, they engage in new markets and more complex resource commitments. The experiential learning is a function of time and will directly affect the pace and spread of the firm's geographical expansion – the more experienced a firm is, the bigger the geographic spread of its operations.

Conclusions and implications

This study provides a contribution to the growing body of regionalization research in four areas: (i) the country-level data support for the firm-level findings of regionalization, (ii) the debate on the regional versus global nature of international firms, (iii) the use of different classification thresholds and sales matrices in assessing the firm's degree of regionalization, and (iv) the focus on the smaller international firms.

The analysis of the intra-regional sales of the countries in the broad Triad regions of Europe, North America and Asia-Pacific and the rest of the world, provide clear evidence of the high degree of regionalization of the trade flows worldwide. The study's findings also present relatively strong corroborating evidence of regionalization at firm-level. The UK exporters in our sample appear to be more regional than global, with intra-regional sales accounting for over 75% of their total foreign sales, supporting the view of the (home) regional boundness of FSAs. When compared to the UK, European and the world's largest MNEs, our findings imply that smaller international firms are relatively less regional and more multi-regional and global. We have also provided evidence that the firm's size, industry sector and international experience have a deterministic role in the degree of the geographic spread of the firm's operations.

The comparative analysis based on the R/T versus F/T sales ratios together with three other sales matrices: domestic market sales (HOME), rest of the home region sales (ROR) and rest of the world (ROW), produced the following observations. First, there is clear empirical evidence of the predominant home region orientation across all four samples of international firms (UK exporters, and UK, European and the world's largest MNEs) regardless of whether the R/T or F/T ratios are employed. Second, the

analysis shows that the regional concentration at firm level is driven by the national dimension of the firm's sales activities, i.e. the national dimension figures (HOME) are considerably higher than the rest of the home region figures (ROR). The degree of national and home region concentration is an indication of the transferability and deployability of the FSAs and the firm's ability to overcome the liability of inter-regional foreignness, implying that regional/global strategy decisions cannot be made in isolation and separate from the national strategy.

This study also contributes to the regionalization debate by focusing on the smaller international firms – i.e. exporters. The initial findings show that the regional nature of the smaller international firms does indeed differ from the larger MNEs, indicating a need for further investigation into the potential causes and implications of these differences.

There are several caveats associated with this study. The study investigates the regional nature of UK exporting firms, and the findings may not be generisable due to country specific effects. Sample heterogeneity in terms of industry mix, while beneficial to a degree, impedes the analysis from taking into account industry specifics. Also, the perception of what constitutes a home or host region may differ among the international firms, as well as the perception of distance.

The main contribution of this study is in exploring the exporting (spread) strategy of UK exporters. The findings imply that 80% of the surveyed UK exporters are single-region focused, either home (49%) or host (31%) region oriented, and generate over 70% of their foreign revenues in a single region of the Triad. The predominantly single-region orientation entails a clear need for a supporting regional strategy and organisational structure. Further investigation is required in order to determine

whether this single-region orientation is actually the result of a well-defined and deliberate regional strategy or the product of an ad hoc and emergent strategy process.

While the firms in the sample of UK exporters are predominantly regional in their geographic spread, they might be more multi-regional and global oriented than previously thought. It would be fruitful to investigate further whether this study's findings are due to country-or region-specific effects by conducting similar studies in other countries. The considerable host region orientation among exporters is another area that warrants further investigation.

References

Aharoni, Y. (1966) *The Foreign Investment Decision Process*. Cambridge, MA: Harvard University Press.

Armstrong, J.S. and Overton, T.S. (1977) Estimating nonresponse bias in mail surveys, *Journal of Marketing Research*, 51(August), 71–86.

Billkey, W.J. and Tesar, G. (1977) The export behaviour of smaller Wisconsin manufacturing firms, *Journal of International Business Studies*, 8, 1, 93-98.

Cavusgil, S.T. (1982) On the nature of decision making for export marketing, in: Hunt, S.D. and Bush, R. (eds.), *Marketing Theory: Philosophy of Science Perspectives*, American Marketing Association, 276-286.

Crick, D. (1995) An investigation into the targeting of UK export assistance, *European Journal of Marketing*, 29, 8, 76-94.

Czinkota, M.R. (1982) *Export Development Strategies: US Promotion Policies*. New York: Praeger.

Dillman, D.A. (2000) *Mail and Internet surveys: The tailored design method*, New York: John Wiley.

Dunning, J.H. (1980) Toward an electric theory of international production: Some empirical tests, *Journal of International Business Studies,* Spring, 11, 9-31.

Ghemawat, P. (2003) Semiglobalization and international business strategy, *Journal of International Business Studies*, 34, 2, 138-152.

Ghemawat, P. (2005) Regional strategies for global leadership, *Harvard Business Review*, December, 98-108.

Green, R. and Smith, C. (1972) Multinational profitability as a function of political instability, *Management International Review*, 6, 23-29.

Hejazi, W. (2007) Reconsidering the concentration of US MNE activity: Is it global, regional or national?, *Management International Review*, 47,5-27.

Johanson, J. and Vahlne, J.E. (1977) The internationalization process of the firm - A model of knowledge development and increasing foreign market commitments, *Journal of International Business Studies*, 8, Spring/Summer, 23-32.

Johanson, J. and Vahlne, J.E. (1978) A model for the decision making affecting the pattern and pace of internationalization of the firm, in: Ghertman, M. and Leontiades, J. (eds), *European Research in International Business*, New York: Croom Helm, 283-305.

Johanson, J. and Vahlne, J.E. (1990) The mechanism of internationalization', *International Marketing Review*, 7, 4, 11-24.

Johanson, J. and Wiedersheim-Paul, F. (1975) The internationalization of the firm - Four Swedish cases, *Journal of Management Studies*, 12, 3, 305-322.

Lim, J., Sharkey, T.W., and Kim, K.I. (1991) An empirical test of an export adoption model, *Management International Review*, Wiesbaden: First Quarter, 31, 1, 51-66.

Loree, D. and Guisinger, S. (1995) Policy and non-policy determinants of US equity foreign direct investment, *Journal of International Business Studies*, 26, 281–299.

Nigh, D. (1985) The effect of political events on United States direct foreign investment: A pooled time-series cross-sectional analysis, *Journal of International Business Studies*, 16, 1, 1-17.

Osegowitsch, T. and Sammartino, A (2008) Reassessing (home-)regionalization, *Journal of International Business Studies*, 39, 2, 184-196.

Qian, G., Li, L., Li, J. and Qian, Z. (2008) Regional diversification and firm performance*, Journal of International Business Studies*, 39, 2, 197-215.

Rugman, A.M. (2001) *The End of Globalization*. Random House: London.

Rugman, A.M. (2005) *The Regional Multinationals: MNEs and Global Strategic Management*. Cambridge, New York: Cambridge University Press.

Rugman, A.M. and D'Cruz, J. (2000) *Multinationals as Flagship Firms: Regional Business Networks.* Oxford: Oxford University Press, 2000.

Rugman, A.M. and Verbeke, A. (2004) A perspective on regional and global strategies of multinational enterprises, *Journal of International Business Studies*, 35, 1, 3–18.

Rugman, A.M., Kudina, A. and Yip, G.S. (2007) The regional dimension of UK multinationals, *Research in Global Strategic Management*, 13, 297-315.

Rugman, A.M. and Verbeke, A. (2007) Liabilities of regional foreignness and the use of firm-level versus country-level data: A response to Dunning et al. (2007), *Journal of International Business Studies*, 38, 1, 200–205.

Rugman, A.M. and Verbeke, A. (2008) The theory and practice of regional strategy: A response to Osegowitsch and Sammartino, *Journal of International Business Studies*, 39, 2, 326–332.

Rugman, A.M., Yip, G. and Jayaratne, S. (2008) A note on return on foreign assets and foreign presence for UK multinationals, *British Journal of Management*, 19, 162–170.

Figure 1 Degree of regionalization based on five sales metrics
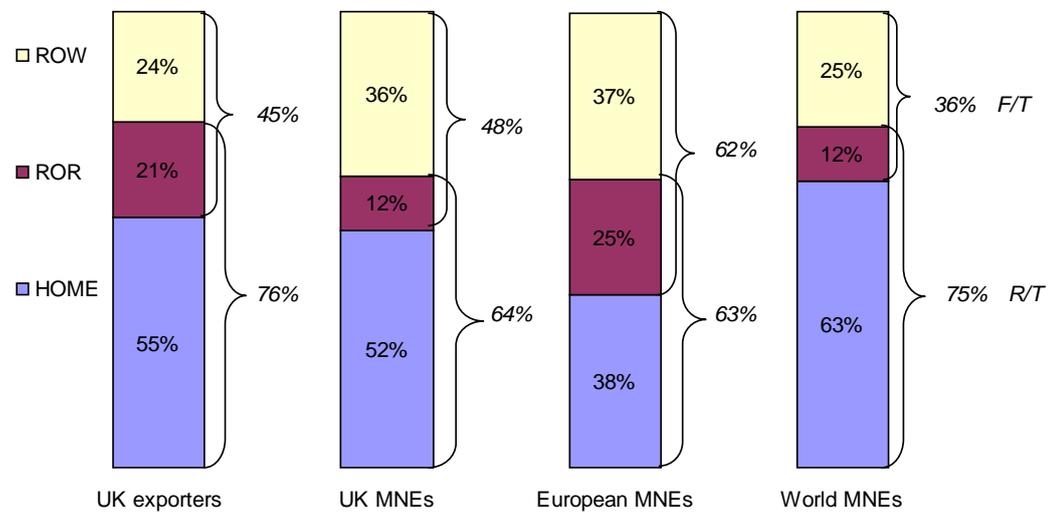
Sources:

UK exporters: Sample of 356 firms – primary data collected via electronic survey (data for 2005).

UK MNEs: Top 33 UK MNEs – adapted from Rugman, Yip, and Jayaratne, 2008: 168 (data for 2003).

European MNEs: 36 European MNEs – adopted from Osegowitsch and Sammartino, 2007 (data for 2001)

World MNEs: Top 380 world MNEs – adapted from Rugman and Verbeke, 2004 (data for 2001).

Table 1 The regional distribution of GDP and trade flows, 2005

Origin \ Destination	Europe	North America	Asia-Pacific	Other*	World exports by origin
World GDP by region	36%	32%	25%	7%	
Europe trade by region	76%	9%	8%	8%	43%
North American trade by region	16%	56%	18%	10%	15%
Asia-Pacific trade by region	18%	22%	52%	8%	28%
Other* trade by region	32%	18%	29%	21%	14%
World exports by destination	44%	21%	24%	11%	57%**
UK trade by region	63%	17%	11%	9%	
UK exporters trade by region***	48%	16%	19%	17%	

Source: WTO International Trade Statistics 2006
Note: Highlighted areas are intra-regional trade.
* *Other* represents the rest of the world outside the Triad regions.
** World intra-regional trade.
*** Sample data.

Table 2 Geographic orientation according to Rugman and Verbeke's (2004) classification (based on R/T sales)

	Sample of 356 UK exporters							*Top 27 UK MNEs*	*Top 380 world MNEs*
	Sales		*Number of firms*						
	Home market	*Intra-regional*	*Europe*	*North America*	*Asia-Pacific*	*Other*	***Total sample***		
Home region oriented	62%	83%	291				**291**	19	320
			82%				***82%***	*70%*	*84%*
Host region oriented	14%	24%		7	9	9	**25**	2	11
				28%	*36%*	*36%*	***7%***	*7%*	*3%*
Bi-regional oriented	17%	38%	7	2	4	2	**15**	4	25
			47%	*13%*	*27%*	*13%*	***4%***	*15%*	*7%*
Global oriented	22%	38%					**17**	0	9
							5%	*0%*	*2%*
Insufficient data							**8**	2	15
							2%	*7%*	*4%*
Total							***356***	***27***	***380***

Sources:
    Sample of 356 UK exporters: Primary data collected via electronic survey (data for 2005).
    Top 27 UK MNEs: Adapted from Rugman, Kudina, and Yip, 2007: 302 (data for 2001).
    Top 380 world MNEs: Adapted from Rugman and Verbeke, 2004: 7 (data for 2001).

Table 3 Geographic orientation according to Rugman and Verbeke's (2004) classification (based on F/T sales)

	Intra-regional sales	Number of firms				
		Europe	North America	Asia-Pacific	Other	Total sample
Home region oriented	*75%*	170	-	-	-	**170**
		49%				*49%*
Host region oriented	*15%*	-	30	40	37	**107**
		-	*28%*	*37%*	*35%*	*31%*
Bi-regional oriented	*32%*	18	4	3	-	**25**
		72%	*16%*	*12%*		*7%*
Global oriented	*30%*	-	-	-	-	**42**
						12%

Table 4 Regional distribution and organizational characteristics of UK Exporters

	Home region oriented	Host region oriented	Bi-regional oriented	Global oriented	Total	χ^2
Total sample	170	107	25	42	344	
	49%	*31%*	*7%*	*12%*	*100%*	
SMEs	159	98	18	36	311	12.92***
	51%	*32%*	*6%*	*12%*	*100%*	*df = 3*
Large firms	11	9	6	7	33	
	33%	*27%*	*18%*	*21%*	*100%*	
Manufacturing	136	72	18	36	262	8.52**
	52%	*27%*	*7%*	*14%*	*100%*	*df = 3*
Services	32	34	7	6	79	
	41%	*43%*	*9%*	*8%*	*100%*	
Less experienced exporters	53	44	3	5	105	16.61***
	50%	*42%*	*3%*	*5%*	*100%*	*df = 3*
More experienced exporters	117	63	22	37	239	
	49%	*26%*	*9%*	*15%*	*100%*	

** $p \leq 0.05$; *** $p \leq 0.01$.