



# Reassessing (home-)regionalisation

Thomas Osegowitsch and  
André Sammartino

*Department of Management and Marketing,  
University of Melbourne, Parkville, VIC, Australia*

**Correspondence:**

T Osegowitsch, Department of  
Management and Marketing, University of  
Melbourne, Parkville, VIC 3010, Australia.  
Tel: +61 3 8344 3722;  
Fax: +61 3 9349 4293;  
E-mail: ot@unimelb.edu.au

**Abstract**

Alan Rugman and co-authors argue that globalisation, and with it global strategy, is a myth. This contention rests on a taxonomy of the world's largest firms based on their sales, showing an overwhelming share of home-regional firms. We question the rationales underpinning their classification scheme. When retesting the data using different schema we find that the original results are far from robust, with a significant share of firms attaining bi-regional or global status. Further longitudinal analysis shows that large firms increasingly are extending their sales beyond the home region. Our results defy regionalisation theory in its current form, and we call for refinements through further research.

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## INTRODUCTION

Alan Rugman and co-authors' recent empirical research has drawn attention to an important phenomenon: most MNEs' (multi-national enterprises) sales take place largely within their home region (Collinson & Rugman, 2008; Rugman, 2000, 2005; Rugman & Verbeke, 2004a, 2005). Their findings show that firms with a global sales presence (and thus global strategies) are more elusive than the business press and some textbooks would suggest. The authors have rightfully scolded researchers for their breathless commentary on "globalisation" and indiscriminate use of the prefix "global" (e.g., Rugman & Hodgetts, 2001).

The finding of home-regionality has given rise to a new and ambitious research programme. A number of international business (IB) scholars are dedicating their theoretical efforts to explaining the empirical results of Rugman and co-authors (e.g., *Management International Review*, 2005/1, Special Issue). Given the contentious nature of the classification system used (see below), it is disconcerting that such theorising has proceeded without Rugman's empirical results having been tested for robustness.

When researchers initially explore an issue, the adoption of "first stab" benchmarks to segment the phenomenon in question is inevitable and perfectly legitimate. But as we deepen our commitment to a particular research programme we must revisit those initial benchmarks to see how sensitive the findings are to the cut-offs imposed. To that end, in this paper we scrutinise the theoretical reasoning underpinning Rugman's classification system, and also explore practical aspects of its application. We then adjust the classification thresholds in line with our own arguments.

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With relatively simple and justifiable adjustments in classification thresholds, considerable numbers of companies are shown to be active beyond the home region. Utilising longitudinal evidence we also highlight the growing share of bi-regional and, to a lesser extent, global firms between 1991 and 2001. Our findings call into question the pleas to IB researchers to abandon models and research questions that include global strategies and to focus instead on intra-regional MNE activity.

### THE EXISTING LITERATURE

Rugman's empirical research focuses on the world's largest firms as listed in *Fortune* magazine's Global 500 edition in 2002. He maintains that these firms are the major players in the IB world, collectively accounting for over 90% of the world's stock of foreign direct investment (FDI) and about half the world's trade (Rugman, 2005; but see Dunning, Fujita, & Yakova, 2007: footnote 4). Regional sales data for these companies is collected from annual reports, SEC filings and direct communications. Sales data is utilised because it "constitutes a true performance measure at the output level" (Rugman & Verbeke, 2004a: 7). Subsequent replication using company assets as the relevant criterion produced virtually identical results (Collinson & Rugman, 2008; Rugman & Brain, 2003).

Utilising a three-region or "triad" perspective of global business activity, encompassing North America, Europe and Asia-Pacific, Rugman and co-authors seek to classify the world's largest firms as home-regional, bi-regional, host-regional or global. The classification employs the following (maximum and minimum) thresholds:

- Home-regional firms have greater than 50% of sales in the home region.
- Bi-regional firms have less than 50% of sales in the home region and greater than 20% in another region of the triad.
- Host-regional firms, a special form of bi-regional firm (Rugman, 2005: 11), have greater than 50% of sales in a triad region other than the home region.

- Global firms have less than 50% of sales in the home region and greater than 20% in each of the other two triad regions.

This classification scheme is loosely based on Ohmae's (1985) ideas. Ohmae viewed a global presence (in terms of distribution) as imperative for firm success. His argument was founded on the need to recover the costs of innovation. As such, it was primarily an economies of scale and scope argument, although he also articulated the need for a global presence to avoid competitive blind spots. Only a balanced presence across the triad, then defined as the US, European Union and Japan, would render the MNE a triad power.

Rugman adopts this need for balance in his definition of the global firm category. The imposition of a minimum 20% host-region threshold is predicated on the roughly equal size of the three (broad) triad regions in terms of GDP:

The 20% figure is less than the one-third required for an equal triad distribution and so is biased downwards in favour of finding global MNEs. Conceptually it implies the successful deployment of customer-end FSAs [firm-specific advantages] in three distinct markets. (Rugman, 2005: 64)<sup>1</sup>

The 20% host-region threshold is used to define not only global firms but also the bi-regional firms, which are seen to deploy their FSAs successfully in the home region and one host region.

The 50% home-region threshold is predicated on assumptions about the impact of the firm's geographic sales distribution on the locus of both organisational decision-making and competitive advantage:

[W]e assume that a region representing more than 50% of total sales will systematically both shape and constrain most important decisions and actions taken by the MNE. It also implies a concentration of the MNE's customer-end related FSAs in that region. (Rugman, 2005: 64)

Rugman and co-authors then apply the 50% home-region threshold and 20% host-region threshold to classify the firms listed in *Fortune's* Global 500 list. They find an overwhelming preponderance of home-regional firms (see Table 1), a result that is

**Table 1** Rugman's results (using 20% host-region threshold and 50% home-region threshold)

<i>Home-regional</i>						
	<i>Of which solely domestic</i>	<i>Bi-regional</i>	<i>Host-regional</i>	<i>Global</i>	<i>No data available</i>	<i>Insufficient data available</i>
320 (87.7%)	54 (14.8%)	25 (6.8%)	11 (3.0%)	9 (2.5%)	120	15

Source: Rugman (2005: 4).

largely invariant to the firms' industry or region of origin. Of the 365 firms for which sales data across the three triad regions was available,<sup>2</sup> a staggering 87.7% are home-regional, providing support for Rugman's claim that "globalisation is a myth" (2000: 163). We note in passing that, of the home-regional firms, 54 firms should more accurately be labelled as solely domestic. The remaining categories contain negligible numbers of bi-regional, host-regional and global firms.

Since then, a substantial body of theoretical scholarship has been built up in an attempt to explain this result of overwhelming home-regionality (e.g., Collinson & Rugman, 2008; Rugman, 2005; Rugman & Verbeke, 2004a, b, 2005, 2007). In essence, Rugman and co-authors explain their finding on the basis of severe limits to the transferability and acceptability of firms' FSAs beyond the home region (Rugman & Verbeke, 2004a: 6). These limits to transferability and acceptability – which apply irrespective of whether FSAs are embodied in exports, transferred to licensees, or transferred to subsidiaries – are captured in the concept of (home) region boundedness of FSAs (Rugman & Verbeke, 2004a: 13). Any FSAs that may have been newly developed in host-region subsidiaries are equally limited in terms of transferability and acceptability, and typically cannot be deployed beyond the region in which they were created (Rugman & Verbeke, 2007: 202).

Rugman and Verbeke (2007) elaborate their argument by introducing the related concepts of liability of inter-regional expansion and liability of inter-regional foreignness. The lack of FSA deployment beyond the home region is explained by "the additional costs of doing business abroad [which] are often much higher when venturing into other regions of the world than when expanding intra-regionally" (Rugman & Verbeke, 2007: 201). The additional costs of doing business outside the home region stem from the need for expensive complementary FSAs that are necessary to render imperfectly non-location-bound FSAs applicable in host regions. Moreover, while certain (home country) location-bound FSAs can be "tuned up" at little extra cost so as to be usable within the entire home region, this option is ruled out for inter-regional expansion. Overall, the cost penalty associated with expansion into host regions "acts as an entry deterrent for many MNEs" (Rugman & Verbeke, 2005: 14).

In the final analysis, "[i]f firms have exhausted their growth in their home region of the triad and

still go into other regions, they then face a liability of [inter-regional] foreignness and other additional risks by this global expansion" (Rugman, 2005: 1). As few firms are capable and willing to bear these costs and risks, they are destined to compete within the confines of their home region.

### ASSESSING RUGMAN'S CLASSIFICATION SCHEME

In this section we revisit the original empirical results that gave rise to (home-) regionalisation theory. At the outset, we contend that Rugman's classification system, utilising both a home- and a host-regional threshold, is overdetermined. Specifically, it incorporates an implicit hierarchy, with the 50% threshold for home-region sales overwhelming other considerations. If a firm exceeds this criterion then host-region sales become moot. Yet if we are to accept that 20% of sales in a host region is indicative of successful FSA deployment, why is such success negated by a large home-region presence?

No strong theoretical grounds are offered for the precedence of the home-region threshold in the classification system, other than an assertion that home-region sales in excess of 50% reflect and constrain decision priorities. We believe that the locus of decision-making is not a useful criterion in this instance. It will depend heavily on, *inter alia*, HQ's understanding of the host-regional context and the overall disposition of the firm (centralised vs decentralised), which in turn may be an outcome of the firm's administrative heritage and/or the power balance between HQ and the national/regional operations (Bartlett & Ghoshal, 1989; Ghoshal & Bartlett, 1990). As such, inferences about decision-making rights based solely on a company's sales profile are troubling. More generally, the introduction of decision-making is spurious in a classification system that is fundamentally about establishing firms' success at the output level and the deployment of FSAs in defined geographic regions (Rugman & Verbeke, 2004a: 7).

The hierarchical nature of the classification system, with home-region sales taking precedent, means valuable information is ignored. For example, a company such as Volvo, which has more than 30% of its sales in North America, is classified as home-regional by virtue of having 51.6% of its sales in Europe. Crucially, 10 of the 25 bi-regionals recognised by Rugman (2005) had home-regional sales between 45 and 50%. A minor shift of their sales distribution in favour of the home region



(akin to Volvo) would pull these bi-regional competitors back into the home-regional category despite extensive sales (and putative successful FSA deployment) in a host region.

Finnish telecom equipment manufacturer Nokia provides the most dramatic illustration of the problematic outcomes that result from the precedence of the home-region threshold. In 2001, Nokia reported 49% of total sales in the European home region, 26% in Asia and 25% in North America, making it one of the handful of global companies in Rugman's classification. By 2002, one year after Rugman's snapshot, Europe accounted for 54% of Nokia's net sales, with the Americas accounting for 22% and Asia-Pacific for 24% (Nokia, 2003: 5). As a result, Nokia would have been categorised as a home-regional in 2002 on account of exceeding the 50% home-region threshold. We believe that any classification system that reassigns an erstwhile global company to the opposite end of the spectrum following a minor rebalancing of its sales portfolio (or a mere appreciation of the home-region currency) is necessarily flawed.

Further empirical issues spring from the 50% threshold. Home-region sales invariably include domestic (i.e., home country) sales. Yet it is unclear how we should interpret domestic activity in a taxonomy that is fundamentally about internationalisation. Earlier, Rugman and Verbeke (1992) rightly argued that many FSAs may be location-bound (in the sense of country-bound), thus hampering the scope for international expansion. In the current classification scheme, success in transferring, adapting and/or building FSAs in host regions is gauged by the firm's sales levels in those regions, but there is no equivalent measurement of the success in deploying FSAs within the home region exclusive of the home country.<sup>3</sup> As a result, a recognised home-regional firm may actually have little or no foreign sales in the home region, a fact also pointed out by Aharoni (2006) and Westney (2006). The evidence proffered by Rugman and co-authors on the 27 British firms among the *Fortune* Global 500 is a case in point (Rugman & Verbeke, 2007; Yip, Rugman, & Kudina, 2006). Average domestic sales for these companies were 52% while average home-region sales stood at 64%. In other words, the home-region sales share net of home country sales was a mere 12%. The stylised average British firm would be classified as home-regional under the Rugman scheme, despite only one quarter of its foreign sales occurring in the home region and three quarters outside the home region.

For a broader sample, Osegowitsch and Sammartino (2007) report that the share of foreign sales beyond the home region is approximately two and a half times larger than foreign sales in the home region. In short, the use of a home-regional threshold without also accounting for domestic sales may obscure a firm's FSA reach in the home region beyond the home country. At the same time it may thwart an effective exploration of any inter-regional (vs intra-regional) liability of foreignness (LOF).

We also have some empirical concerns with the 20% host-region threshold used for the bi-regional and global categories. The magnitude of the threshold may be difficult to justify since overall symmetry across the regions in terms of GDP belies significant inter-industry differences. Respected market researcher Euromonitor reports highly skewed global demand in a variety of industries. For instance, the market size for dairy products – relevant for a *Fortune* Global 500 competitor such as Groupe Danone – varies significantly, with Europe accounting for roughly twice the size of the North American market, and almost three times the Asia-Pacific market (Euromonitor, 2005). The same is true in pharmaceuticals, with 2001 sales estimated at US\$172 billion for North America, US\$125 billion for Europe and US\$93 billion for Asia-Pacific (Euromonitor, 2000).<sup>4</sup> Demand for certain commodities, on the other hand, is strongly skewed towards Asia. One of the most extreme examples may be the cement industry, with implications for a Global 500 company such as Lafarge. Rapidly growing emerging markets have the highest demand for cement. As a result, Asia accounts for more than two-thirds of global production volume, and China alone accounts for nearly 45% (Cembureau, 2007). World demand in dollar terms is bound to be less skewed, but no doubt still shows the (more developed and slower growing) triad regions of Europe and North America lagging far behind Asia.

While other industries show a more balanced distribution of demand across the triad, the above indicates that at least in some industries we should not expect a balanced sales distribution, even if a company's FSAs are of comparable strength in each region. The imposed minimum of 20% of sales in a particular host region may already exceed that region's proportional share of worldwide demand, and in some instances Rugman's benchmark may simply be too onerous.

Moreover, the 20% host-region sales minimum, which is taken as evidence of successful FSA deployment in one or two host regions (to attain

bi-regional or global status), may be difficult to justify in view of the sampled companies' size. Takenaka was the smallest of the firms listed in the *Fortune* Global 500, with total sales in 2001 exceeding US\$10 billion. Given the size of the firms considered, even the achievement of, say, 10% of total sales in a particular host region may be seen as evidence of successful FSAs deployment in that region. A business with sales in excess of US\$1 billion cannot be established by catering to a few erratic customers, such as an expatriate community or similar niche, but requires significant firm-specific strengths to overcome any liability of foreignness. For instance, General Motors, a home-regional in Rugman's classification, may only have 15% of its sales in Europe and thus fail to satisfy the 20% host-region threshold, but that represents 2001 sales in excess of US\$25 billion.<sup>5</sup>

A final empirical concern regarding the magnitude of the 20% host-region threshold applies only to the global category. This category requires firms to have less than 50% of their sales in the home region and 20% or more in each of the other two triad regions. Given that the broad triad, on average, accounts for 90% of world demand in an industry, there is virtually no margin for error in a competitor that has close to 50% of sales in the home region. The corresponding arithmetic is  $<50 + >20 + >20 = 90\%$ . For instance, US-based 3M, a recognised bi-regional company, has 47% of sales in North America, 25% in Europe and 19% in Asia Pacific. As such, 3M's sales into the triad already exceed the stylised 90% of world demand claimed by the triad regions, and attaining global status according to Rugman's criteria may prove challenging. Since many bi-regionals as recognised by Rugman have home-region sales just below the 50% mark, achieving global status may be exceedingly difficult for them.

In light of the concerns raised above, we argue that alternative classification regimes should be considered to determine the status of firms. Most importantly, the overdetermination of the current classification scheme must be remedied. For a simple alternative classification system, based on the geographic deployment of FSAs, the use of host-regional sales thresholds would suffice. Firms that attain significant sales in one or two host regions are given bi-regional and global status, respectively. Firms that do not have significant host-regional sales are, by default, assigned to the home-regional category.<sup>6</sup>

For such an alternative classification system, the definition of what constitutes "significant"

host-region sales – so as to speak of successful FSA deployment in these regions – warrants further discussion. While 20% host-regional sales may seem a reasonable benchmark, there are arguments to support somewhat lower benchmarks, given both the heterogeneity in product market sizes and the huge size of the MNEs under examination (see earlier). There may also be merit in lower benchmark levels where the researcher is interested in the internationalisation process and the development of host-regional FSAs over time.

### SENSITIVITY ANALYSIS OF THE DATA

In light of our theoretical and empirical concerns, and the alternative classification scheme sketched above, we engaged in sensitivity testing designed to ascertain the overall robustness of Rugman's results. Data concerning the 365 companies in the original sample were obtained directly from the Appendix in Rugman's (2005) book.

Based chiefly on our arguments concerning the uneven division of demand across regions in some industries, we initially lowered the 20% host-region threshold to first 15% and then 10%, while retaining the 50% home-region threshold. As Table 2 shows, the bi-regional category weakens somewhat as 6–14 bi-regional firms shift to global, but, overall, the classification results are largely unchanged from Rugman's (Table 1).

Given our views regarding the overdetermination of Rugman's classification system, we then abolished the 50% home-region threshold while retaining the original 20% host-region threshold. As a result, a company such as the above-mentioned Volvo, with 52% of its sales in Europe and 30% in North America, would now be considered bi-regional rather than home-regional. Similarly, Nokia would still be considered global in 2002 despite its European sales having nudged beyond the 50% threshold. Using this new system of classification, results vary markedly from Rugman's (Table 1). As can be seen in Table 3, 53 firms shift

**Table 2** Results using 15 and 10% host-region thresholds and 50% home-region threshold

	Home-regional	Bi-regional	Host-regional	Global
15% threshold	320 (87.7%)	19 (5.2%)	11 (3.0%)	15 (4.1%)
10% threshold	320 (87.7%)	11 (3.0%)	11 (3.0%)	24 (6.6%)

**Table 3** Results using 20% host-region threshold, no home-region threshold

<i>Home-regional</i>	<i>Bi-regional</i>	<i>Host-regional</i>	<i>Global</i>
267 (73.2%)	87 (23.9%)	2 (0.5%)	9 (2.5%)

**Table 4** Results using 15 and 10% host-region thresholds, no home-region threshold

	<i>Home-regional</i>	<i>Bi-regional</i>	<i>Host-regional</i>	<i>Global</i>
15% threshold	232 (63.6%)	114 (31.2%)	1 (0.3%)	19 (5.2%)
10% threshold	200 (54.8%)	122 (33.4%)	1 (0.3%)	42 (11.5%)

from home-regional to bi-regional. A further eight firms shift from host-regional to bi-regional,<sup>7</sup> while the global category remains unchanged. This casts some doubts on the robustness of Rugman's findings. In particular, the bi-regional category, which now accounts for a quarter of all firms, can no longer be dismissed as insubstantial.

As a final step in our sensitivity analysis, we again dropped the 50% home-region threshold and utilised the less onerous 15 and 10% host-region thresholds. As is shown in Table 4, a strikingly different picture emerges once more. Global companies remain relatively few in number, although their share increases by 100–350% compared with Rugman's (Table 1).<sup>8</sup> More importantly, a very considerable proportion of the companies, around one-third in both instances, are now identified as bi-regionals. At this stage we remind the reader that the home-regional category in its present form actually contains 54 solely domestic firms. If these were set aside in a separate domestic category, global and bi-regional firms combined (133) would not be far behind the genuine home-regional MNEs (178) when adopting the 15% host-regional threshold. If the 10% threshold were to be adopted, their combined numbers (164) already exceed those of the genuine home-regional MNEs (146).

These results confirm that it is the 50% home-region threshold, criticised earlier on theoretical and empirical grounds, that overwhelmingly drives Rugman's classification. Removing the overdetermination introduced by the home-region threshold

produces contrasting findings, with global and bi-regional companies combined now accounting for a sizeable portion of the sample. We conclude that Rugman's classification is less robust than is desirable. The numbers of "newly found" bi-regionals and, to a lesser extent, global companies clearly suggest that the home region is not the insurmountable barrier portrayed by Rugman and co-authors.

### LONGITUDINAL ANALYSIS

Rugman has bolstered his claims by arguing that home-regionals have dominated rankings of the world's largest firms for the past two decades. The situation is presented as unlikely to change in the foreseeable future. Efforts at intra-regional integration and concomitant inter-regional protectionism (trade wars between the triad regions, barriers to regional entry, etc.) are seen to generate an enduring inter-regional liability of foreignness (Rugman & Verbeke, 2007). Rugman concludes that "the end result is the persistence of MNEs that will continue to earn 80% or more of their income in their home triad region" (2005: 63). To his chagrin,

some colleagues still seem to question these data. There must be a trend towards globalization over time they say. Well no – actually the aggregate [trade and FDI] data of chapter 11 strongly suggests the opposite; ... Naturally these aggregate data trends are likely to be mirrored in the firm-level data. (Rugman, 2005: 239–240)

Scant longitudinal firm-level data is offered in support of these statements, however, and Rugman has been criticised for his lack of appreciation of the dynamics in firm internationalisation (Aharoni, 2006).<sup>9</sup>

Using company data available via Datastream we tested Rugman's claims for his original sample, which uses 2001 data. We sampled only those firms for which regional sales data was available for both 1991 and 2001. Not surprisingly, for a significant number of companies this was not the case, chiefly reflecting less stringent reporting requirements in the early 1990s, and the impact of mergers and acquisitions. In total we identified complete data sets for 198 firms, and the following results must be considered with the restricted sample in mind.<sup>10</sup>

As shown in Table 5, we identify an unambiguous trend towards greater internationalisation beyond the home region between 1991 and 2001. Using Rugman's thresholds, the (small) numbers of bi-regional and global firms in 2001 represent an almost threefold increase on their numbers a decade

**Table 5** Longitudinal classification (1991 and 2001)

	Year	Home-regional	Bi-regional	Host-regional	Global
Rugman's scheme (20% host-region threshold and 50% home-region threshold)	1991	185 (93.4%)	8 (4.0%)	3 (1.5%)	2 (1.0%)
	2001	166 (83.8%)	20 (10.1%)	6 (3.0%)	6 (3.0%)
Our scheme I (20% host-region threshold, no home-region threshold)	1991	156 (78.8%)	40 (20.2%)	0 (0.0%)	1 (1.0%)
	2001	133 (67.2%)	58 (29.3%)	1 (0.5%)	6 (3.0%)
Our scheme II (15% host-region threshold, no home-region threshold)	1991	146 (73.8%)	45 (22.7%)	0 (0.0%)	7 (3.5%)
	2001	115 (58.1%)	68 (34.3%)	1 (0.5%)	13 (6.6%)
Our scheme III (10% host-region threshold, no home-region threshold)	1991	135 (68.2%)	43 (21.7%)	0 (0.0%)	20 (10.1%)
	2001	92 (46.5%)	74 (37.4%)	1 (0.5%)	31 (15.7%)

Note: Of the 198 firms sampled, 53 (26.8%) were solely domestic in 1991. By 2001, only 22 firms (11.1%) were solely domestic.

earlier. Utilising our revised thresholds, the growth is not quite so stark, but still impressive off an already significant base. These results indicate that the situation is more fluid than realised by Rugman and co-authors. During the period of investigation, many former home-regional companies in our subsample were evidently able to successfully deploy their FSAs abroad.<sup>11</sup>

## DISCUSSION

When researchers explore a new topic, the adoption of preliminary cut-offs to segment the phenomenon in question is often inevitable. It is good research practice, however, to revisit those initial thresholds at a later stage, to see how sensitive the findings are to the cut-offs originally imposed. To that end, in this paper we scrutinised the reasoning underpinning Rugman's chosen thresholds. We then manipulated the thresholds in line with our own arguments, and checked the robustness of the results obtained.

Naturally, manipulating benchmarks in any (exhaustive and mutually exclusive) categorisation scheme will favour certain categories at the expense of others. We are conscious that in the context of this research endeavour there is no one host-region threshold that can claim to be the "true" threshold; an element of judgement pervades all the choices,

including ours.<sup>12</sup> But we believe we have advanced empirical arguments in support of our judgements and, more generally, our call to relax Rugman's (20%) benchmark.

With respect to the greater-than-50% home-region sales threshold we are far less open-minded. We believe it should be discarded for its inconsistency with the avowed purpose of classifying firms based on the successful deployment of FSAs. Recall that the (20%) host-region threshold was adopted to indicate extensive customer-end FSAs in one or two host regions. The subsequent denial of these FSAs (and thus the denial of bi-regional or global status) on the grounds that home country sales greater than 50% of total sales imply "concentration of the MNE's customer-end related FSAs in that region" (Rugman, 2005: 64) is untenable and suggests overdetermination.

Our sensitivity analysis suggests that the 50% home-region threshold is the primary driver of Rugman's findings. Once this threshold is abandoned, and host country minimum thresholds relaxed to a less onerous 15% or 10% of sales, a significantly different picture emerges. Among the world's largest companies many are home-regional, but a substantial portion of them are bi-regional and a not insignificant number are global players.

The lack of robustness in Rugman's empirical findings has serious theoretical implications. At present, Rugman argues that "[i]f firms have exhausted their growth in their home region of the triad and still go into other regions, they then face a LOF and other additional risks by this global expansion" (2005: 1). Firms will stay at home because a home-regional presence

allows the MNE to gain all the potential economies of scale and scope and/or differentiation advantages within its home triad market. The additional scale, scope or differentiation advantages to be gained by going global are not sufficient to compensate for the enhanced risks. (Rugman & Brain, 2003: 7)

These statements concerning the thrust of regionalisation theory in its current form are difficult to reconcile with the significant number of companies that have successfully pushed beyond the home-region boundary.

Results of our longitudinal analysis also cast doubt on Rugman's pronouncements concerning change over time as well as the lack of benefits from expanding outside the home region. Contrary to his claim that "sales data for earlier periods [i.e., prior to 2001] are highly unlikely to provide much new information or cause us to reclassify more than a handful of the [...] firms" (Rugman, 2005: 239), our analysis indicates strong growth in the bi-regional and global categories and a corresponding decline in the home-regional category for the period 1991–2001.

We are left with the responsibility to explain the results our empirical investigation uncovered. Based on the observed (international) sales pattern at a given point in time, Rugman and co-authors draw conclusions regarding the deployability or *reach* of FSAs.<sup>13</sup> We agree with their proposition that sales are the decisive indicator of FSA reach: (international) sales reflect (international) customers' judgement about the attractiveness of the firm's goods or services and, ultimately, the strength and relevance of the underlying FSAs. If we accept this proposition we must also accept that (international) sales over time reveal the evolution of FSA reach. Based on our empirical evidence we must then conclude that FSA reach has been expanding from 1991 to 2001, allowing more firms to deploy their FSAs beyond the home region.

To explain the observed trend, we deem it instructive, albeit simplistic, to conceptualise FSA reach as a series of concentric circles, as indicated in Figure 1. This reflects a view that, to paraphrase

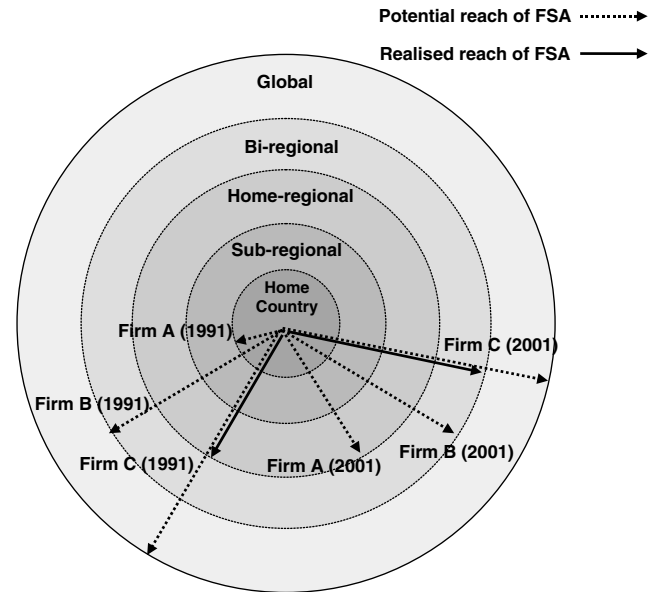


Figure 1 Conceptualising FSA reach over time.

Westney (2006: 447), differences between home-regionalisation and bi-regionalisation and globalisation may be merely quantitative rather than qualitative. At any one point in time, certain FSAs may be inherently national, as they are either irrelevant beyond the domestic context, or the cost of transfer/adaptation would outweigh the benefits obtainable. Other FSAs may be home-regional in reach, while still others may be bi-regional or even global. In addition to these established levels of analysis we would add the sub-regional level, as introduced by Enright (2005: 87). Sub-regions are groups of countries within a region that have much more in common with one another than with other countries in the region. These commonalities may reside along any of the four primary dimensions – cultural, institutional, geographic and/or economic (Ghemawat, 2001).

This view of FSA reach as a series of concentric circles can be further refined to accommodate the results of our longitudinal analysis. One explanation why firms are increasingly spreading beyond the home region is predicated on demand-side arguments. Differences across countries and across regions – as conceived in terms of cultural, institutional and economic "distance" – may be diminishing over time. While it is clear that the world will remain in a state of "semi-globalisation" (Ghemawat, 2003) into the foreseeable future, it appears that at least along certain dimensions "distance" has shrunk, through factors such as new technologies, trade

and FDI agreements (bilateral and multilateral), and the emerging global mass media (*Economist*, 1997). In short, national as well as regional economies have become more interdependent and, in the process, more compatible. Consequently, certain FSAs previously restricted to, say, the home country (Figure 1: Firm A in 1991), may be applicable to the entire home region 10 years later (Firm A in 2001). Other FSAs may have retained their level of reach as the dimension(s) relevant to the FSA failed to converge over time (Firm B in 1991 and 2001).

A complementary explanation for the findings of our longitudinal analysis emphasises supply-side arguments. To that end we initially draw a distinction between the *potential* and *realised* reach of FSAs and contend that FSA deployment is plagued by significant lag effects. For a variety of reasons it takes time to adjust the firm's geographic scope to the potential reach of its FSAs (especially since potential reach may be a moving target, as indicated above). These reasons include Penrosian constraints,<sup>14</sup> delays due to the challenges in assembling the required co-specialised assets (Teece, 1986) or, for companies in the earliest stages of internationalisation, ample opportunities for aggressive growth within the home region.<sup>15</sup>

These lag effects may also help explain why, at present, home-regional sales account for a very large portion of total sales, and why Rugman (2005) and this investigation (still) find the home-regional category – however defined – the dominant category. To illustrate our point, Firm C in Figure 1 possessed FSAs with global reach in 1991, but had failed to realise their full potential. By 2001 the actual deployment of its FSAs was still below the potential, although by going bi-regional the firm had advanced beyond the situation a decade earlier.

The longitudinal trends charted for the period 1991–2001 suggest that firms do eventually close the gap to the potential reach of their FSAs. Correspondingly, a significant number of erstwhile home-regional firms had already migrated into the bi-regional category and, to a lesser extent, the global category by 2001. If the trends presented in this paper persist, the home-regional category will be further weakened in years to come as more large companies assume bi-regional and possibly global status.

### CONCLUSION

Rugman and co-authors' empirical research has drawn attention to a previously under-appreciated phenomenon: in IB, many companies operate

mostly within their home region. Their research was timely in that it helped pour cold water on the globalisation hyperbole. It has also given rise to the beginnings of a regionalisation theory intent on explaining why firms are compelled to restrict their activities to the home region.

Our own results suggest that the case for home-regionalisation is overstated. In turn, regionalisation theory in its current form is straining against the evidence assembled in this paper. In the concluding paragraphs we offer a number of pointers to how this research stream may be advanced.

Rugman and co-authors effectively dismiss bi-regional and global strategies, asserting that there are severe limits on the transferability and acceptability of firms' existing FSAs beyond the home region. Moreover, "the administrative heritage of most MNEs, undoubtedly conducive to home region market success, may well constitute an administrative rigidity when attempting to penetrate host regions" (Rugman, 2005: 197). As a result, managers are advised to "think regional [...] and forget global" (Rugman & Hodgetts, 2001: 341). Yet all these claims rest squarely on Rugman's evidence that global and bi-regional firms are the exception in the world of big business. Our revision of the data – uncovering significant numbers of bi-regional firms [which "may be regarded as partly global" (Rugman, 2005: 4)] and global firms, and their share having grown markedly from a decade earlier – dilutes the case considerably.

Regionalisation theory and its concepts, such as the inter-regional LOF, are fundamentally dependent on intra-regional integration and enduring inter-regional differences. While intra-regional integration policies reduce the costs associated with deploying FSAs in the home region, in host regions the "requirement for high, region-specific 'linking' investments acts as an entry deterrent for many MNEs" (Rugman & Verbeke, 2005: 14). While we confirm that sales of a large share of firms are concentrated mostly in the home region, we also identify a considerable and growing share of companies that manage to deploy their FSAs in host regions. This suggests that any inter-regional LOF is too small to generally deter firms from spreading beyond the home region.<sup>16</sup> In turn, this would suggest that inter-regional differences across the triad may be weak (and diminishing) and/or intra-regional integration less advanced than is commonly assumed.<sup>17</sup>

Taken to their logical endpoints, such conclusions ultimately lead to questions about the merit



of the (triad) region as a unit of analysis. The identification of regional sales outcomes and region-based trends – as performed by Rugman and ourselves – may mask significant variation within regions. In fact, the extant literature on the internationalisation of the firm (e.g., Benito & Gripsrud, 1992; Johanson & Wiedersheim-Paul, 1975) emphasises the individual country, thus implying that firms are predominantly making country-by-country choices in the deployment of their FSAs. Equally, notions of LOF (Zaheer, 1995) have overwhelmingly been theorised and explored at the country rather than the regional level.<sup>18</sup> Aggregating country-based choices to the regional level, and inferring that firms are making region-by-region choices (and that, say, a LOF exists at a regional level), may hamper our understanding of actual firm strategies. In short, the usefulness of the (triad) regional level of analysis in this context is yet to be fully confirmed.

One way to establish the merit of the (triad) regional level of analysis, and of the region-based concepts that make up regionalisation theory, would be the concurrent exploration of country- and region-level data. At present, no large-scale database offers the required detailed information on MNEs, but more manageable (industry-based) studies may allow such investigations. Ultimately, such research would also allow us to discern the level of differences within and across regions as perceived by MNE managers.

Once the usefulness of the region as a level of analysis is established, attention can turn to refining the corresponding theory. Initially, it would seem that the current, strong form of regionalisation theory must be relaxed to accommodate a scenario where bi-regional and global firms are no longer exceptions. Further elaboration of the theory may be facilitated by a particular focus on bi-regional firms. Given their significant numbers and their in-between status (in between home-regional and global), studying these firms would seem to hold great promise for a better understanding of an LOF at the regional level. For instance, there are indications that any inter-regional LOF is far from uniform. Taking the 15% host-regional threshold (Table 4) we identify 114 bi-regional firms, 97 of which are North American or European in origin. Virtually all of these 97 firms are bi-regional by virtue of strong sales in each other's region rather than in the Asia-Pacific. Only four firms (Boeing, Ericsson, Manulife Financial and Motorola) have successfully deployed their

FSAs in the Asia-Pacific rather than in the other “Western” host region. This would seem to suggest that any inter-regional LOF that might exist is highly asymmetric.

Regionalisation theory is also in need of more longitudinal studies, to establish a clearer picture of the dynamics in (intra- and inter-regional) expansion. At the most general level, future research should also strive for more fine-grained empirical models – by taking up some of the arguments raised earlier, using continuous instead of categorical measures, and adopting other innovative measurement approaches (e.g., Asmussen, 2006) – to get a better grip on regionalisation phenomena.

Alan Rugman and co-authors have opened up an exciting new research stream. The data analysis presented herein casts doubts on regionalisation theory in its current state, and hints at some of the questions that remain to be addressed. Clearly, further empirical work and theory-building is warranted.

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#### NOTES

<sup>1</sup>Strictly speaking, if the broad triad accounts for roughly 90% of world output, a perfectly balanced global presence would require 30% in each triad market rather than 33.33%.

<sup>2</sup>Accounting conventions give firms considerable leeway in how to report the geographic breakdown of their sales, and firms rarely follow the exact triad scheme. As a result, this entire research stream is affected by a significant level of “noise” in the data used. See Rugman (2005: Chapter 2) for a comprehensive disclosure and a discussion of the inevitable limitations that arise from relying on sales data as reported in company accounts.

<sup>3</sup>Setting a threshold for the share of home region ex domestic sales is an obvious solution, but complicated by the fact that the “rest of home region” varies with the company's country of origin. For instance, the size of the “rest of home region” differs markedly for a US firm compared with a Canadian firm. Approaches that account for the relative GDP of the home country (e.g., Asmussen, 2006) seem to hold great promise in this regard.

<sup>4</sup>Not only sales but also profits may be highly skewed across triad regions. For instance, it is well

known that most big pharmaceutical companies, many of which feature in the *Fortune* Global 500, make about half of their profits in the US alone (*Economist*, 2007).

<sup>5</sup>On the suggestion of a reviewer we set out to count the number of firms with host-region sales greater than US\$1 billion. Sufficient data to perform this analysis was available for only 219 firms in Rugman's 365-strong sample. Of those 219 firms, 97 had sales greater than US\$1 billion in both host regions, while 35 had attained such levels in one host region. The corresponding figures were 58 and 61 firms when the bar was raised to US\$2 billion.

<sup>6</sup>Clearly, such a simple scheme does not address our concerns regarding the inclusion of domestic sales among home-region sales. More complex classification systems may explicitly set thresholds for home-region sales ex domestic sales (weighted for the size of the home country within the home region).

<sup>7</sup>Once the 50% threshold for home-region membership is removed, it becomes difficult to manage and rationalise the 50% benchmark for the special host-regional category. While it is a far from ideal categorisation, host-regional status now belongs only to those firms that achieve a market share greater than 20% in a host region and less than 20% in the home region. Most of the firms in the host-regional category tend to collapse into the bi-regional (and occasionally the global) category in subsequent tables.

<sup>8</sup>Data insufficiencies bias this classification against finding global competitors, since Rugman's data contains numerous firms with no available information for a particular region (mostly Asia) and/or reported sales that make up significantly less than the 90% of total sales expected for the entire triad. For example, in 2001, pharmaceutical giant Glaxo reported European sales and US sales at 28.6 and 49.2% of total sales, respectively, rendering it a bi-regional in Rugman's classification scheme. Where the remaining 22.2% of sales took place was not disclosed by the company. It is likely that Glaxo's Asian sales during that year exceeded the 10% threshold, which would make the firm a global player according to one of our classification regimes.

<sup>9</sup>Rugman (2005) does provide rudimentary temporal sensitivity analysis of his classification. For that purpose, he utilises updated 2002 figures for 60 firms in his original 2001 sample. Not surprisingly, a single year after the original analysis, "only two of these sixty firms were re-categorised" (2005: 32). This hardly constitutes a strong test of robustness over time.

<sup>10</sup>We are cautiously confident about the representativeness of our sample.  $\chi^2$ -tests of Rugman's original sample and our own, based on firms' region of origin

and their distribution across the four categories in 2001 (using Rugman's classification scheme), were non-significant at the 1% level.

<sup>11</sup>See Osegowitsch and Sammartino (2007) for a more detailed investigation of these trends, but see also Rugman and Oh (2007).

<sup>12</sup>The definition of thresholds to distinguish global from bi-regional and home-regional firms is likely to remain a contentious issue unless the community of IB researchers can reach consensus as to what constitutes "significant" sales that warrant a particular categorisation. We note in passing that there is also disagreement whether sales should be the relevant criterion (see Aharoni, 2006; Rugman & Verbeke, 2004a: 7). Clearly, such a situation is far from unique. After all, IB scholars are still debating exactly what constitutes a multinational firm (Aharoni, 1971; Ghoshal & Westney, 1993).

<sup>13</sup>The notion of FSA country or region boundedness implies an exogenous phenomenon, determined entirely by environmental forces. We view the boundaries of effective FSA leverage as also governed by firm-specific aspects and as partly controlled by management. As a result we prefer the term "FSA reach".

<sup>14</sup>The "Penrose effect" simply suggests that there are strict limits to a firm's growth rate due to dynamic adjustment costs that are incurred by firms trying to grow their productive resources. Penrose (1959) focused on one major source of dynamic adjustment costs, namely those attributable to the expansion of management resources. She insists that a firm's expansion requires the services of experienced internal managers. Hiring new managers is an inadequate solution, since only seasoned internal managers can undertake the coordination task inherent in firm expansion. As a result, the rate of growth is limited by the rate at which the firm can develop internal managers. Not only domestic expansion but also international expansion is subject to the Penrose effect (Tan & Mahoney, 2005).

<sup>15</sup>We agree that firms typically begin their internationalisation in the home region. The home region is likely to contain some of the most similar (i.e., "least distant") countries. FSA deployment in these initial destinations is facilitated by institutional similarities, cultural affiliations, lower transportation costs, etc. Beyond the initial round of internationalisation, market choices are likely to be much less focused on the home region, as similar countries also exist in other regions.

<sup>16</sup>Based on evidence presented elsewhere (Osegowitsch & Sammartino, 2007), we also dismiss the possibility that firms venture into host regions only once they have exhausted growth opportunities in the



home region, as a kind of “last resort” option to keep growing. Instead, it seems that many firms are simultaneously deploying their FSAs within and beyond the home region.

<sup>17</sup>See also Aharoni (2006) and Westney (2006) on this point.

<sup>18</sup>Hejazi (2007) is, to our knowledge, the only study trying to model a regional LOF in terms of MNE sales

(as well as asset, income and employment) distribution. His methodology explicitly tries to disentangle country and regional effects. While the results must be treated as strictly preliminary, they do suggest that “distance” (as well as size differentials) between individual countries explains the sales distribution of US MNEs; regional (dummy) variables yield no additional explanatory power.

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### ABOUT THE AUTHORS

**Tom Osegowitsch** is a lecturer in the Department of Management and Marketing at the University of Melbourne. He earned his PhD from the University of Western Australia. His current research focuses on MNC knowledge strategies and their performance implications. Tom is a citizen of Austria but has been living in Australia

for more than 10 years. He can be contacted at [ot@unimelb.edu.au](mailto:ot@unimelb.edu.au).

**André Sammartino** is a lecturer in the Department of Management and Marketing at the University of Melbourne. He also earned his PhD from the University of Melbourne. His current research focuses on the adaptation and reconfiguration of subsidiary roles and the expansion of international retailers. André was born in, and is a citizen, of Australia. He can be contacted at [samma@unimelb.edu.au](mailto:samma@unimelb.edu.au).

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