The Globalization of Firms

This note considers how firms have globalized by extending themselves—in multiple ways—across national borders. While only a very small fraction of firms have meaningful cross-border activities, the ones that do tend to be larger and more innovative than other firms and account for significant shares of international flows and even aggregate economic activity. Thus, in the U.S., while multinationals represented well under 0.1% of all companies, they accounted for about 24% of all private jobs, 71% of exports of goods, and 84% of nonpublic R&D in 2009.1 For the very largest multinationals, “international” activities account for more in the way of sales, assets and employment than their domestic operations. They tend, in other words, to be more globalized than markets, and have even been described as the visible hand of globalization. Note that incomplete international integration of markets is why firms’ cross-border activities take on distinctive interest: perfect cross-border integration would limit the economic value of the bridges that firms can build by crossing borders.

Due to the diversity of firms by industry, size, home country, and other dimensions, this note will mainly provide segment level data, from which general impressions may be drawn, rather than providing global averages such as those presented in the note on Globalization of Markets. The most important systematic bias to keep in mind is that most of the data available about firms’ internationalization is drawn from samples of large multinational firms which, of course, are not representative of firms in general. To address this concern, this note first reviews the data on firms’ participation in trade and FDI by firm size. Then, data drawn mainly from large firms are presented by function, covering marketing, operations, R&D, finance, accounting, organization and people.

Global versus Local Presence

As a general rule the bulk of each country’s trade is conducted by relatively large firms, but small firms are also very active in international trade in many countries, often comprising the bulk of trading firms. Eurostat provides detailed data on firms’ participation in international trade for a subset of European countries, of which Italy and Sweden are shown in Exhibit 1.2 Companies with less than 50 employees comprise over 90% of exporting firms in both countries, but such firms contribute 58% of total exports by value in Italy versus 29% in Sweden. Between 2002 and 2006, roughly 4.6% of U.S. firms (excluding those without any employees) were identified as exporters according to U.S. Census data, but data were not available to break out export value by firm size.

Foreign direct investment (FDI) is even more concentrated among large firms than trade. A rough analysis of data from the 1980s suggests that only 0.7% of U.S. firms had foreign affiliates (subsidiaries and foreign joint ventures – typical structures for FDI). 35% of large firms had foreign affiliates versus only 0.2% of small and medium enterprises (SMEs). While 28.3% of all firms investing abroad were SMEs, they accounted for only 2.3% of foreign assets, 3.4% of foreign sales, and 1.9% of foreign employment among all U.S. transnational corporations.3 Data from other countries paint a similar picture. In the UK, for example, SMEs were 66.3% of all foreign investors (and 98.4% of all establishments), but held only 0.8% of foreign assets.4 Thus, while SMEs are indeed active foreign investors, the bulk of foreign investment, to an even greater extent than trade, is conducted by large firms.

The limited globalization of SMEs reflects constraints such as lack of familiarity with foreign markets, the fixed costs of exploring them and establishing a presence overseas, and limitations on international bandwidth. That said, some of the impediments are self-inflicted, most notably passivity rather than prioritization of cross-border engagement, narrow views of the benefits to be derived there
from and, according to one U.S. study, a failure to exploit export assistance programs and other available governmental aid.\(^5\)

Turning to the other end of the size spectrum, data on the very largest firms—the 100 largest non-financial transnational firms by foreign assets—indicated that the average firm generated 69% of its sales revenue outside its home country in 2010 up from 57% in 1990.\(^6\) Looking at a somewhat broader sample of large (U.S.) firms, in 2010, 46% of the S&P 500’s total sales came from outside the U.S., up from 42% in 2003. These averages, however, masked significant variation by industry: among the S&P 500, Information Technology companies derived the highest proportion of their sales coming from abroad, 56%, versus 37% in Financials, and even lower proportions implied for sectors where few companies included such ratios in their financial reporting.\(^7\)

That said, the footprint of the firms that do operate across borders, even the largest ones, is generally limited and centered on their home markets. Thus, in 2004, of all U.S. companies that had foreign operations, the largest fraction operated in just one foreign country, the median number in two, and 95% in fewer than two dozen. And none of these summary statistics has changed since the mid-1990s.\(^8\) Or to focus on the very largest firms, of the Fortune Global 500, 88% derive more than one-half of their sales (an average of 80%) from their home regions.\(^9\) In contrast, tri-regionals that derive at least 20% of their revenues from each of the “triad” regions of North America, Europe, and Asia account for only 2% of the Fortune Global 500.\(^10\)

Exhibit 2 illustrates this point for some large German companies: note that Daimler-Benz is, based on the criteria above, one of the few tri-regionals in the Fortune Global 500.

**Marketing**

Marketing is the first point of contact for many firms with the challenges of globalization as they initiate exports. Even experienced exporters appear to under-adapt to foreign markets.\(^11\) What has been more controversial is how much large global companies—which tend to cluster in marketing-intensive sectors\(^12\)—need to adapt their marketing strategies. The 1980s saw a surge of interest in Theodore Levitt’s assertion that customers everywhere want the same thing, permitting ever-increasing levels of standardization.\(^13\) Subsequent developments—some reflecting underlying cross-country differences and others related to the anti-globalization movement, the terrorist attacks of 9/11 and other spurs to companies to be more sensitive to local markets—have tended to contradict Levitt’s assertion.\(^14\)

Consider some illustrations related to the ‘4Ps’ of marketing:

- **Product.** Pringles chips have been identified by a marketing expert as the only major consumer product that is completely standardized.\(^15\) Significant competitive advantages of the sort possessed by the Apple iPod or Coke Classic can mitigate the need for local product variation but usually fail to eliminate it: the iPod’s software interface and Coke Classic’s sweetness vary around the world. Variation is even more evident when one looks at Coke’s overall product portfolio. In Japan—its most profitable major market—cola is only a small part of total sales; Coke offers more than 200 products there, many of them unique to the country.\(^16\)

- **Price.** A few multinationals target the same relative positioning everywhere, but actual price levels tend to vary across markets and decisions about them to be decentralized.\(^17\) Thus, despite being an iconic offering from a multinational known for its appetite for standardization, McDonald’s’ Big Mac is priced very differently around the world—so much so that it used (lightheartedly) as a basis for estimating effective currency under- or overvaluation.\(^18\) The pressures—and room—to vary prices have been reduced by increased integration within some regions (e.g., Europe) but have been greatly increased by the attention many multinationals are paying to emerging markets—which differ more from developed markets than the latter do from each other (and so create greater pressures to vary all 4P’s).
• Promotion. Data on 10,000 top brands in 31 countries indicates that only 16% are recognized in more than one country, and only 3% are recognized in more than seven. This is a bar to standardized advertising campaigns, as are cross-country differences. More emphasis is now placed on standardizing taglines and visualizations to achieve global consistency while leaving room for adaptation, but even this can lead to problems: thus, Perdue Chicken’s tagline, “It takes a tough man to make a tender chicken,” was translated into the Spanish equivalent of “It takes an aroused man to make a chicken affectionate.” And global companies acquiring strong local brands often retain them alongside their global brands (e.g., Coke’s retention of Thums Up in India after originally deciding to discontinue it).

• Place. While the examples cited above focus on consumer products subject to pull strategies, differences in distribution structures loom (even) larger in business-to-business marketing. Even when distribution structures are the same, channels typically have to be set up country by country—and according to one study, most of the relationships established at the time of market entry, especially into emerging markets, eventually fail. Distribution decisions tend, like pricing, to be very decentralized.

Business-to-business marketing to large, multinational accounts does increasingly involve global or regional account management in which the management of multinational customers is coordinated and partially standardized. Also, many multinationals discourage national subsidiaries from reinventing the wheel and encourage them, instead, to adopt marketing programs that have succeeded elsewhere while making needed local adaptations—part of the ongoing quest to achieve some degree of aggregation or cross-border economies of scale. But overall, the global marketing discussion has shifted from competing the same way everywhere to careful consideration of which countries to compete in and how much to coordinate across them. And some assert that marketing is the least centralized of major functional areas.

Operations

Firms can extend their operations across national borders through arm’s length trade, foreign direct investment or, in between those extremes, through a variety of contractual modes. The globalization of supply chains through these diverse mechanisms, supported by adoption of information technology that enabled the extensive use of e-tenders and other digital coordination mechanisms, was a particular focus through the 2000s. Thus, one survey of (large) companies in advanced countries in 2010 reported that about one-third of their manufacturing capacity was managed by external partners; one-third was managed by the companies’ international facilities; and one-third remained within their home countries. For some companies such as Cisco, the percentage of production outsourced—mostly to low cost offshore locations—came to exceed 90%. And information technology helped offshoring move beyond manufacturing to services, with one study pegging about 25% of U.S. jobs—dominated by the services sector—as potentially offshoreable (although estimates of the actual extent of offshoring center around one-tenth that level).

These developments inspired a shift in interest from the globalization of markets to the globalization of production or more precisely, towards supply-side globalization, as illustrated by Thomas Friedman’s The World Is Flat. But by 2010-2011, the hype had been diminished by concerns around energy prices and the environment, the potential for protectionism, the vulnerabilities of lean production and just-in-time stock management that were exposed by shocks such as the earthquake in Japan, elevated perceptions of uncertainty, and a “Two speed world” of slow growth in advanced economies and fast growth in emerging markets, implying rising relative costs in the latter as well as interest in them as sources of demand.

As a result, practitioners began to rediscover academic experts’ advocacy of tiered supply chains that mixed local and offshored production to achieve not just efficiencies but agility and adaptability as
well—of particular importance in the presence of product proliferation and shortening product life cycles. Thus, the 2010 survey cited above concluded that “Outsourcing activities in manufacturing and assembly have reached a plateau where companies have found the right balance between internal and external production.” Another survey, of third-party logistics providers, suggested that the overwhelming majority of their manufacturing customers had begun to place more emphasis on “near-shoring”—a trend also discernible in the Indian IT services industry, even though it was the example that had originally inspired assertions of “flattening.” And according to McKinsey, “Building the supply chain of the future...means ditching today’s monolithic model in favor of splintered supply chains that dismantle complexity, and using manufacturing networks to hedge uncertainty.”

Research and Development

The most comprehensive dataset on the internationalization of R&D is UNESCO’s: for the 42 countries that reported more than $1 billion of R&D in 2005, an average of 6% was funded by foreign sources. However, the UNESCO data include all sources of R&D: business R&D (60% of the total) is significantly more internationalized, especially among the largest companies. Thus, a survey of 209 R&D-intensive multinationals indicated that in 2001, 33% of spending for the West European companies, 32% for North American ones and 11% for Japanese ones occurred outside their home countries. These percentages have since increased: consultants Booz & Company reported that 184 R&D-intensive multinationals spent 55% of their R&D budgets outside of their home countries in 2007. Data on companies with R&D activities in the U.S. assembled by the National Science Foundation remind us, however, that levels of internationalization do decrease as one looks at a broader set of companies: in 2008, 20% of R&D spending by these companies took place abroad.

Another common measure of the globalization of R&D focuses on R&D labs and indicates a significant shift towards emerging markets: according to one dataset, of nearly 900 global R&D centers opened between 2001 and 2010, 29% were located in China and 12% in India, versus 26% in the traditional “triad” of the U.S., the EU and Japan. But it is worth remembering that the triad continue to dominate R&D spending: the new facilities in China and India tend to be focused on a relatively small, narrow range of tasks. And despite the hype about “reverse innovation,” the R&D activity in China and India seems mostly focused on adaptation to local market (and political) conditions and arbitrage to exploit differences in the costs and availability of skilled personnel: China alone accounted for nearly 20% of researchers worldwide by 2007, versus 20% for the U.S. and 30% for the EU. Corroboration comes from data indicating that of the patents filed in rich OECD countries—still about 95% of patents filed worldwide—foreign-owned patents represent only 15% of the total and the percentage of patents actually involving international cooperation is only half that.

Emerging market’s share of total R&D activity is likely to continue to increase for demand-side as well as supply-side reasons. This will compound the challenge for large multinationals of making their networks of R&D labs function more effectively: a challenge that is exacerbated in an international context by differences such as different languages, variations in intellectual property rights, geographic distance, and lower trust levels. These differences seem responsible for the finding that relatively focused global R&D footprints perform better than very dispersed footprints.

Finance

Firms from different home countries tend to adopt different mixes of equity and debt financing. Equity finance is especially important in economies such as the United States and United Kingdom, whereas banks play a greater role in others such as Japan and Germany. These differences, as well as the institutional factors that underpin them, are described further in the note on Differences in Business Ownership and Governance around the World.

Turning to the extent to which firms tap foreign sources of capital and looking first at equity, listings by foreign companies accounted for just 7% of total stock market listings reported by the World Federation of Exchanges in 2010. Roughly in line with that percentage, 8% of the value of the stocks traded on exchanges around the world in 2010 was accounted for by foreign companies. And even for
companies with dual listings, the home market (or region) continued to dominate equity financing. Thus, although Deutsche Bank is listed on the Frankfurt and New York stock exchanges, at the end of 2010, 47% of its shares were held in Germany, 37% in other European countries, and only 13% in the U.S. (the rest of the world accounted for another 3%). However, there was a significant difference between patterns for firms from developed countries (which dominated the averages reported above) versus developing countries. Based on another source of data, the proportion of equity capital raised abroad by developed country firms remained stable from 1991 to 2005 at about 9% while the proportion raised abroad by firms from developing countries increased from 15% to 59%.43

Debt financing was more globalized, overall, than equity financing: according to (incomplete) data from the World Federation of Exchanges, 28% of the value of the new capital raised by bond issues in 2010 was from foreign companies, with foreign issuance being dominated by financial centers, particularly Luxembourg.44 According to another source, the proportion of debt capital raised internationally by firms from developed economies rose from 27% to 46% between 1991 and 2005, while remaining steady at 44% for companies from emerging markets.

Overall, about 30 percent of the equity and debt capital raised by the sampled firms between 1991 and 2005 was from outside their home countries. But it is important to recognize that this capital was raised by a very small proportion of firms. "About 15 percent of the almost 46,000 firms that issued any securities in public markets during our sample period accessed international markets, and only one-tenth of these firms (less than 700 firms) collected about two-thirds of all the funds raised internationally."45 In addition, there are indications that the internationalization of sources of capital has diminished since the global financial crisis.

The emphasis by firms from developing countries on raising capital abroad and the importance of financial centers provides some evidence of attempts by companies to arbitrage differences in capital costs, tax rates, et cetera. Note, however, that such attempts at arbitrage fall far short of implying fully integrated internal capital markets within firms, even the largest multinationals. While the extent of local financing, risk management and capital budgeting within the largest multinationals have long been treated as missed opportunities, research-based treatments sound a more cautionary note. Thus, according to one researcher,

In managing their internal markets to create a competitive advantage, finance executives must delicately balance the financial opportunities they offer with the strategic opportunities and challenges presented by operating in multiple institutional environments, each of which has its own legal regime and political risks. There is also a critical managerial component: What looks like savvy financial management can ruin individual and organizational motivation...A global finance function must do three things well: Establish the appropriate geographic locus of decision making...at a geographic level where other strategic decisions are made...create a professional finance staff that rotates globally...[and] codify priorities and practices that can be adapted to local conditions.46

**Accounting**

Financial accounting also varies greatly across countries, reflecting many differences but perhaps most notably the variation in governance that is discussed at greater length in the note on Differences in Business Ownership and Governance around the World.47 Briefly, governance in Anglo-Saxon countries, which is based on common law and focused on shareholders, emphasizes public disclosure because dispersed owners tend to lack direct access to management; whereas governance in Continental Europe, which is based on civil law and focused on stakeholders does not since main stakeholders tend to have direct access to management. (Asian governance typically fuses civil law with some type of group structure and therefore more closely resembles Continental governance.) As a result, share prices are more responsive to public earnings reports in Anglo-Saxon countries than in Continental Europe or East Asia, where reserves tend to be used to smooth out payouts to major stakeholders over time.48

More similarity is expected to be forced on these accounting traditions by the fact that nearly 100 countries use or are adopting International Financial Reporting Standards (IFRS)—including all 27
European Union members, which have used them for consolidated accounts since 2005. China, Japan and India are also engaged in convergence towards IFRS, but to different degrees and at different rates. U.S. Generally Accepted Accounting Principles (GAAP) remain the last major set of standards to be switched, although some differences between U.S. GAAP and IFRS have been resolved.

IFRS, while influenced by the Anglo-Saxon tradition, are less directive than GAAP, leading one review to conclude that uniform standards won’t produce uniform financial reporting: “Most market and political forces will remain local for the foreseeable future so...there inevitably will be substantial differences among countries in implementation of IFRS, which now risk being concealed by a veneer of uniformity.” This suggests perpetuation of the current situation, in which accounting mostly occurs on a country-by-country basis—even when global clients rely on global accounting firms.

Organization

While the cross-country differences described above presented significant organizational challenges, the decreased costs, increased speed and expanded richness of communication possibilities across borders have expanded the amount of cross-border coordination that many multinationals attempt well beyond the traditional emphasis on resource allocation across and monitoring of national operations by headquarters. One illustration is provided by a survey suggesting a shift among large multinationals towards matrix structures that attempt to coordinate along more than one dimension: see Exhibit 3. Respondents also reported significant increases in the importance of regional groupings at the business level and of strategic alliances involving significant inter-organizational coordination as well as relatively broad use, often in conjunction with one another, of mechanisms such as temporary task forces to facilitate international collaboration on specific projects and committees/councils to allow managers from different international locations to engage in joint decision-making and career paths that cross national boundaries.

In addition, some leading-edge companies are experimenting with new cross-border coordination mechanisms. Procter & Gamble coordinates global business units and locally-focused market development organizations with an array of mechanisms, capped by layered reviews that start with growth objectives and cascade through strategies, innovations, and brands before being translated into plans and budgets. Central to IBM’s attempts to arbitrage as well as aggregate is a sophisticated matching algorithm that optimizes peoples’ assignments across all of its locations—a “human supply chain” that is vastly more complicated than a conventional parts supply chain. General Electric’s attempts to move production quickly to low-cost countries have been aided by mechanisms such as “pitcher-catcher:” a “pitching team” at the existing site working closely with a “catching team” at the new site until the latter’s performance met or exceeded the former’s. And in order to focus more attention on emerging markets, IBM has created a growth markets unit and GE the post of a chief globalization officer, both based in Shanghai. Another area of ongoing experimentation focuses on the use of social media and other improvements in information technology to connect and coordinate better—both internally and externally.

The ferment reflects not only new developments but also the sense that nobody has yet figured out the optimal way to organize a complex global company—and that even the best run such companies continue to face significant organizational challenges. Thus an analysis of public companies by McKinsey suggests that even high-performing global organizations appear to lag “local champions” in areas such as establishing a shared vision and engaging employees around the world, maintaining professional standards and encouraging innovation of all kinds, and building governmental and community relationships and business partnerships.  

People

Levels of internationalization of firms’ workforces (human resources) are also closely tied to firm size. Among the Top 100 nonfinancial transnational corporations, referenced above, the average firm had 60% of its employees outside its home country in 2010. Looking more broadly, in the United States, employment by all majority-owned non-bank affiliates of foreign firms has risen steadily since the 1970s but constituted only 4.5% of total private sector employment in 2006.
Although most of the largest firms’ workforces are based outside the countries where they are headquartered, their senior leadership typically still hails from their home countries. Of the companies on the Fortune Global 500 list in 2008, 68 (i.e. 14%, or just over one in seven) had a non-native CEO. This average does mask significant variation by country of headquarters. Leading the list were small countries, mainly in Europe: Switzerland with 71% nonnative CEOs, Australia with 63% and the Netherlands with 36%. The United States, in contrast, came in at 12% and Japan at 3%. And even among U.S. technology firms started between 1995 and 2005, which might be expected to do much better on this measure—only 25% had at least one senior executive born elsewhere. Fortune Global 500 companies headquartered in the BRIC countries reported zero non-native CEOs.

Large multinational firms typically do include foreign directors on their boards, but the majority of their directors are almost always from the company’s home country. Among the world’s 100 largest transnational firms, 75% had at least one foreign director in 2005 (up from 36% in 1993), but only 10% had a majority of foreign directors; the average board had 25% foreign directors. Data on S&P 500 companies provide a broader picture. Among the directors of those companies, only 7% were foreign nationals, only 9% had degrees from non-U.S. institutions, and 73% had no international work experience at all.

Expatriation is another avenue via which companies can transfer knowledge and relationships across borders. However, there are indications that companies are reducing their reliance on expatriates to save money (expatriates typically cost 2-3 times as much as locals) and to improve localization. According to one study, the proportion of expatriates in senior management roles in multinationals in China, India, Brazil, Russia, and the Middle East declined from 56% to 12% from the late 1990s to the late 2000s. Overall, data on a small sample of large companies suggest that the proportion of expatriates in large global companies is usually less than 1% of total employment—often only around 0.1-0.2%. There is also evidence that for U.S. and European multinationals, expatriates still take longer, on average, to ascend the corporate ladder than managers who continue to work within their home countries. Some large companies are paying more attention, however, to distinguishing among “traditional” expatriates, inpatriates, short-term assignees, international business travelers and self-initiated assignees, and developing different career models for them.

Another, somewhat different concern reflects the fact that large firms tend to have relatively few senior managers on the ground in the emerging markets that many of them are targeting for much of their growth. A 2005 survey by the Boston Consulting Group found that 16 key emerging markets accounted for 20% of global companies’ sales at the time and 35% of their anticipated growth over the next five years but for only 15% of their employees and 7.5% of their top 200 managers. This arithmetic was exacerbated by rapid turnover in these growth markets.

Summary

Large multinational firms, as this note has described, are significantly more integrated across national borders than markets in general, to the extent that they may even be considered one of the motors of international integration. However, even for these global giants, the glass of integration is probably best considered as closer to empty than to full. Their footprints still tend to be centered on their home countries or regions, as are their workforces and especially their senior leaders. Their marketing, operations, accounting, and so on vary significantly across the countries where they operate. Thus, while 63% of experienced international executives indicated on a 2007 Harvard Business Review survey that they believed, “The truly global company has no home base,” the reality is that nearly all multinationals are very much still rooted in a particular home country, or at least a home region. And they continue to try to improve the efficiency of their border crossing activities.
Exhibit 1
Exporters and Exports by Firm Size in Italy and Sweden, 2003


Exhibit 2
Rooted Maps of Selected Large German Companies, 2003

Source: BASF Annual Report

...exhibit continued on next page...
Exhibit 3

<table>
<thead>
<tr>
<th>Organization of Large Multinationals (% of respondents)</th>
<th>2007</th>
<th>Late 1990s</th>
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<td>Functional Organization</td>
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<tr>
<td>Other</td>
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</tbody>
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8 Computations are based on Bureau of Economic Analysis data kindly carried out at the author’s request by Raymond J. Mataloni in fall 2007.


10 These proportions are sensitive to the definitions employed and cutoffs used; in addition, it does appear that the percentage of the very largest firms that are focused on their home-regions has dropped over time (in contrast to the apparently increasing regionalization of world trade). See Thomas Osegowitsch and André Sammartino (2008), “Reassessing (Home-)Regionalisation,” *Journal of International Business Studies* 39, 184–196.


15 Martin Lindstrom, private communication, November 24, 2006.


42 World Federation of Exchanges website


44 Note that Luxembourg's role specifically may be overstated due to the practice of recording Eurobonds as having been issued in Luxembourg even though these securities are actually issued across Europe.

45 Juan Carlos Gozzi et al. (2009).


