

SCALE, SCOPE, AND STANDARD GOODS? BIG BUSINESS IN SMALL COUNTRIES

According to the late Alfred Chandler, to understand the origins, forms, and functions of a country's largest firms is to understand that country's path to modern capitalism. The pervasive influence of Chandler's work means that the emergence and subsequent transformations of large industrial firms remains one of the favorite topics of business historians. For better or worse, business history has tended to be primarily the history of big business. This paper follows in that tradition by asking how the development of big business relates to the size of nation-states, specifically in the case of small countries.¹

Most of the internationally known literature on big business as a historical phenomenon tends to build on evidence from a limited number of large countries, the usual suspects being the United States, the United Kingdom, Germany, France, and Japan. This emphasis is to some extent reasonable; after all, in 1962 these countries accounted for 447 of the world's 500 largest industrial firms, or almost 90 percent.² In 2005, they served as the headquarters of 351 (or about 70 percent) of the top 500 firms in the Forbes Global 2000, which includes both industrial and non-industrial companies.³ Nevertheless, big business is not and has not been entirely confined to big countries. Richard Rahn calculated the number of Forbes 2000 companies relative to population, and although Japan, the U. K., the U.S., and Canada made the top 10, the rest of the list featured much smaller countries, with Switzerland,

¹ Chandler's major works include *Strategy and Structure: Chapters in the History of the Industrial Enterprise* (Cambridge, Mass.: MIT Press, 1962); *The Visible Hand: The Managerial Revolution in American Business* (Cambridge, Mass.: Belknap Press, 1977); and (with Takashi Hikino) *Scale and Scope: The Dynamics of Industrial Capitalism* (Cambridge, Mass.: Belknap Press, 1990). For an assessment of Chandler's impact on business history, see Louis Galambos, "Identity and the Boundaries of Business History: An Essay on Consensus and Creativity," in *Business History around the World*, ed. F. Amatori & G. Jones (Cambridge: Cambridge University Press, 2003), 11-30.

² Calculated from Chandler & Hikino, "The Large Industrial Enterprise and the Dynamics of Modern Economic Growth," in *Big Business and the Wealth of Nations*, ed. Chandler et al. (New York: Cambridge University Press, 1997), Table 2.10, 53.

³ The Forbes Global 2000 rankings for 2005 are available at <http://www.forbes.com/2005/03/30/05f2000land.html>.

Sweden, and Singapore as the top three.⁴ In my work on the topic I have looked at big business in six small countries in northwestern Europe (Belgium, Denmark, Ireland, the Netherlands, Norway, and Sweden). In 2005, they contained well under one percent of the world's population, but were at the same time home to five percent of the world's 2000 largest companies, six percent of the 1000 largest, and seven percent of the 500 largest.

Although Chandler differentiated between the trajectories of big business in the U. S., the U. K., and Germany, he also found very important commonalities.⁵ The technology of the Second Industrial Revolution and the rapid expansion of systems of transportation and communication made mass production and mass marketing possible. In new, capital-intensive industries, the pioneers who built giant plants enjoyed economies of scale or scope that held potentially enormous first mover advantages. They built large, hierarchical organizations that continued to grow through vertical integration and horizontal combination. After a while, companies sought further growth by expanding abroad. However, Chandler noted that one of the three "basic factors" in American industrial growth was "the large, rapidly growing, geographically extensive, affluent domestic market."⁶ This linkage between market size and the rise of big business raises the question of how large companies came into being in small countries with limited home markets.

Whether or not the size of the home market is a significant factor will necessarily depend to some extent on the conditions for international trade. If trade barriers and transportation costs are low, the size of national markets will be less important. If they are zero, it will (theoretically) not matter at all. But if we venture from the ideal world of the economist to the world of the historian, we find that market size probably has mattered to some extent. If so, we would also expect that in a smaller country, big businesses would be more likely to arise from exploiting economies of scope than economies of scale. After all, at

⁴ Richard W. Rahn, "Best for Business," in the *Washington Times*, May 2, 2005.

⁵ Chandler, *Scale and Scope*.

⁶ *Ibid.*, 89.

the same level of development, people in small countries will require as many types of goods as people in big countries, but the population as a whole will require less of each good.

According to Paul Krugman, "nations matter... because they have governments whose policies affect the movement of goods and factors."⁷ In the case of economic modeling, it is the state's ability to impose restrictions on trade, labor mobility, and capital mobility that matters. For example, policies regulating international trade affect both market access and the level of competition a business faces. However, the power of government and borders go beyond such direct economic effects. Policies in areas like education, media, religion, and propaganda have been used to solidify national cultures and identities that help define markets in important ways. Taste, style, and customer preferences vary across nations, and these differences pose an additional barrier to trade in so-called differentiated products.

Half a century ago, the economist Jacques Dreze used the distinction between differentiated and standardized goods to develop a theory of small country economics. Dreze was trying to explain why Belgium, perhaps the most industrial country in the world, was stuck in industrial sectors which combined low growth and high wages (specifically coal, iron, steel, and metal processing). He rejected the conventional explanations based on historical, geographical, and political factors, and proposed the new and more easily generalized "standard goods hypothesis." He noted that most of Belgium's industrial products were either semi-manufactures or products for industrial use, in other words what he called "internationally standardized products." These were different from differentiated products that had to be adapted to specific demands and tastes. The consumption patterns typical for differentiated products did not allow economies of scale in small countries. It follows that the more standardized and thus internationalized the product, the smaller the disadvantages of small country firms in industries where economies of scale are important. Indeed, Dreze

⁷ Paul Krugman, *Geography and Trade* (Cambridge, Mass: MIT Press, 1991), 71-72.

found that large countries do not necessarily dominate industrial sectors with economies of scale, and reasoned that the ability to produce undifferentiated products for an international market leveled the playing field. In other words, specializing in standardized goods offered small country businesses a comparative advantage (compared with unstandardized goods), and Dreze was able to test this hypothesis through a sector-by-sector analysis of Belgium's foreign trade. As expected, he found that even within sectors, there was a clear tendency toward exporting undifferentiated products and importing differentiated ones.⁸

If we combine Chandler and Dreze, we find that economies of scale and scope constituted the foundation for the growth of big business, and that in small countries there should have been opportunities for both home market-oriented scope-economy producers and export-oriented scale-economy producers of standardized goods. The only real difference between big and small countries is thus to be found in the opportunities for achieving economies of scale in the production of differentiated goods.

Some empirical studies have brought into question even the validity of the latter statement. One example is S. B. Saul's study of the development of the small nations of northwestern Europe in the nineteenth century.⁹ Saul's findings suggested that those small countries in many ways exhibited greater differences than similarities. Although standardization dominated in Belgium, Swiss and Swedish industrialists "were able to break down style differences to some degree,"¹⁰ convincing customers in other countries that their products were of superior quality. In twentieth-century Europe, Harm Schröter concluded that there was no distinctive small-state type of capitalism, and that "the limitation of the national

⁸ Jaques H. Dreze, "The Standard Goods Hypothesis" [1960], translated in *The Economic Development of Belgium since 1870*, ed. H. van der Wee & J. Blomme (Cheltenham: Elgar, 1997), 32-51.

⁹ S. B. Saul, "The Development of Small Nations: the Experience of North West Europe in the Nineteenth Century," in *Economics in the Long View: Essays in Honour of W. W. Rostow, Vol. 2: Applications and Cases, Part I*, ed. C. Kindleberger & G. di Tella (London: The Macmillan Press, 1982), 111-131.

¹⁰ *Ibid.*, 119.

market was not a factor.”¹¹ Whereas Saul argued that small-state industrialists built a base within the home market first, Schröter found little evidence of a “two-step strategy;” the largest enterprises went multinational early by exploiting economies of scale and relying on open markets and their own ability to compete in the global arena.

Michael Porter has argued that the size of home demand is only important to a nation’s comparative advantage in certain industries and under certain conditions. The more important variable, according to Porter, is the composition of home demand. As an extension of this, he argued that small countries can be large markets for certain products. Porter offered the example of the icebreaker industry in Finland.¹² Another example might be the production of equipment for the improvement, maintenance, and clean-up of harbors and canals in the Netherlands.¹³ Both of these industries developed to manage what we might label negative natural resources, namely frozen sea lanes and muddy canals. But in both cases, they evolved into export sectors with a high level of competitive advantage.

A full appreciation of the special dynamics of big business in small countries is probably difficult to achieve without a project of Chandlerian magnitude, studying multiple companies in multiple countries in great detail and over long periods of time. My ambition here is considerably more modest, and the approach chosen is simpler and more superficial. It consists in going back to that 2005 Forbes 2000 list and identifying companies in six small countries in northwestern Europe in order to explore their basic characteristics.

It should be obvious that the Forbes 2000 list is not in any sense based on a perfect measure of company size. The idea of measuring business size in a way that makes sense across sectoral boundaries is itself problematic. However, the Forbes method of creating a

¹¹ Harm Schröter, “Small European Nations: Cooperative Capitalism in the Twentieth Century,” in Chandler et al., *Big Business and the Wealth of Nations*, 176-204. Quote on p. 203.

¹² Michael Porter, *The Competitive Advantage of Nations* (New York: Free Press, 1990), 86-94.

¹³ A. J. W. Camijn, *Een eeuw vol bedrijvigheid: De industrialisatie van Nederland, 1814-1914* (Utrecht: Veen, 1987), 66.

composite based on revenue, assets, profits, and market value is as convenient and credible as any method available. It should be noted that only public companies are included on the list.

In all, the 2005 list included 98 companies with headquarters in Belgium, Denmark, Ireland, the Netherlands, Norway, and Sweden. Table 1 compares the industry distribution of these companies with the list as a whole. Figure 1 offers a visual comparison (refer to industry numbers in Table 1).

Industry	Industry number	All countries (%)	Small countries (%)
Aerospace & defense	1	1.0	1.0
Banking	2	15.5	14.3
Business services & supplies	3	3.1	5.1
Capital goods	4	3.0	6.1
Chemicals	5	3.0	5.1
Conglomerates	6	1.5	2.0
Construction	7	4.1	5.1
Consumer durables	8	3.6	1.0
Diversified financials	9	7.5	10.2
Drugs & biotechnology	10	2.2	3.1
Food, drink & tobacco	11	3.9	10.2
Food markets	12	1.6	3.1
Health care equipment & services	13	3.1	1.0
Hotels, restaurants & leisure	14	1.8	0.0
Household & personal products	15	2.2	1.0
Insurance	16	5.4	4.1
Materials	17	5.4	5.1
Media	18	2.9	2.0
Oil & gas operations	19	5.0	3.1
Retail	20	4.4	1.0
Semiconductors	21	1.4	0.0
Software & services	22	1.6	2.0
Technology hardware & equipment	23	3.0	1.0
Telecommunication services	24	3.5	6.1
Trading companies	25	1.2	2.0
Transportation	26	4.1	5.1
Utilities	27	5.7	0.0

Table 1. Distribution of large companies, by industry, in all countries and select small countries.

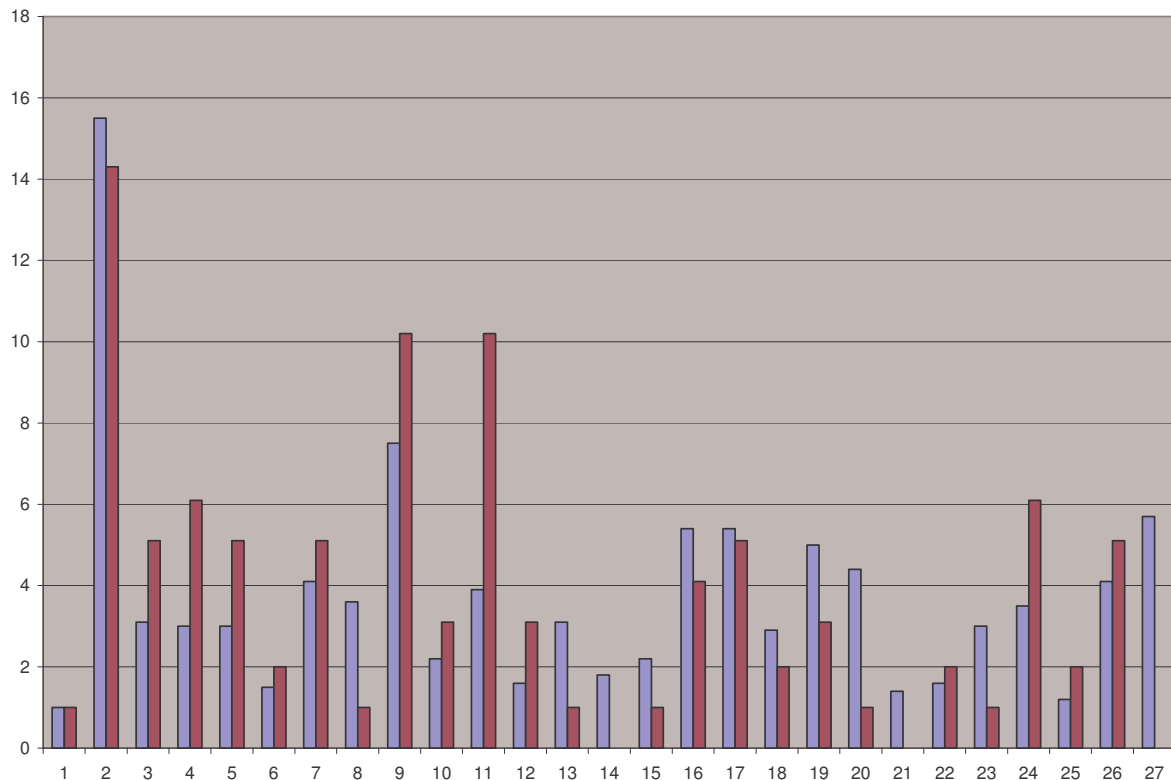


Figure 1. Distribution of large companies, by industry, in all countries and select small countries.

These data display two relatively similar patterns of distribution across industries, with a correlation of $r = 0.69$.¹⁴ However, we also discover some notable differences. First of all, none of the 177 large companies in utilities (category 27), semiconductors (21), or hotels, restaurants & leisure (14) belonged in the six small countries. The small countries also contained few Forbes 2000 firms in retail (20), household & personal products (15), health care equipment & services (13), and technology hardware & equipment (23). On the other hand, the small countries had relatively many big businesses in capital goods (4) and in food, drink, and tobacco (11). In general, these narrow categories mean that the small countries only had a few companies in each. Aggregating the categories into broader sectors is thus necessary to do a more meaningful and methodologically sound analysis.

¹⁴ This figure was calculated using figures for all countries except the six selected countries (i.e., not the figures for all countries provided in Table 1), in order to ensure independence of the two sets of variables.

Building large categories from small ones (that were not perfect to begin with) is unfortunately a difficult task. This is especially true when attempting to divide industrial categories into differentiated and undifferentiated groups. The concepts of standardization and differentiation become increasingly hazy when applied to real situations, and trying to assign an entire sector as a producer of one or the other implies a great deal of simplification. There are ways of “measuring” differentiation, such as advertising ratios, but in this case I have relied mostly on my own judgment. It should be kept in mind, then, that “differentiated” and “standardized” do not represent a real dichotomy, but rather differences in degree.

Sector	All countries	Small countries
Finance Banking; Diversified Financials; Insurance	28.4	28.6
Services Business Services; Food Markets; Hotels & Restaurants; Media; Retail; Telecom; Transportation; Utilities	27.0	22.4
Differentiated Industry Consumer Durables; Drugs & Biotechnology; Food, Drink & Tobacco; Health Care Equipment & Services; Household & Personal Products; Software & Services; Technology Hardware & Equipment	19.4	19.4
Standardized Industry Aerospace & Defense; Capital Goods; Chemicals; Construction; Materials; Oil & Gas Operations; Semiconductors	22.7	25.5
Other Conglomerates; Trading Companies	2.7	4.1

Table 2. Distribution of large companies, by sector, in all countries and select small countries.

Table 2 offers some support for the standard goods hypothesis: large companies were somewhat more common in the production of standardized goods in the small countries than they were in the world as a whole. Yet, standardized goods producers represented little more than one-quarter of the largest companies even in the small countries, while financials and other service firms made up more than half. However, the most remarkable fact to be extracted from the data must be the great similarity between the two right-side columns. The figures for differentiated industry and finance are identical or virtually identical, and the service category would be extremely close as well, if not for the utilities differential.

In order to get a better picture of the dynamics of scale, scope, and standard goods (or lack thereof) in the creation of the large businesses in small countries, I have examined (again, superficially) the Belgian, Danish, Irish, and Norwegian companies that made it onto the Forbes 2000 list in 2005. Not surprisingly, this exploratory foray reveals some of the ambiguities concealed by the categorical data. For example, the Belgian industrial firm Agfa-Gevaert, listed by Forbes under “household & personal products” is today purely a business-to-business operation, after the consumer division was divested and subsequently went bankrupt in 2004-5. Conversely, Solvay Group is listed under “chemicals” but also has a large pharmaceutical division with sales exceeding € 2 billion a year. Both these Belgian firms have roots in the Second Industrial Revolution and the innovations of Solvay and Gevaert (Agfa was originally a German dye-maker). They may perhaps be seen as typically “Chandlerian” firms that exploited early technological advantage and later turned to product diversification and expansion abroad. They are also “Drezian” firms that even today rely primarily on the sale of goods on the standardized end of the spectrum.

Overall, the impression from the seventeen largest industrial firms in these four countries is even stronger support for the standardized goods hypothesis. Only brewers InBev and Carlsberg are predominantly producers of differentiated products, while the Orkla

conglomerate and the food and food ingredient company Kerry Group make only some of their money in non-standardized goods. Even though drugs usually are considered differentiated products, pharmaceutical companies UCB, Novo-Nordisk, and Lundbeck pursue global strategies in which the home market is of little consequence. The remaining companies mostly produce typically standardized products like oil, natural gas, metals, cement, fertilizer, newsprint, industrial film, food additives, and plastics.

Overall, the scope of activities in the leading industrials in these small countries is not particularly impressive. Most companies have a rather limited range of types of products, and even those slightly more diversified often strive to narrow their operations to a “core” bundle of production lines. Divisions or activities inconsistent with this main profile are eagerly demerged or sold (Orkla’s diversified strategy constitutes the only major exception). Economies of scale are more difficult to evaluate, but it does not seem that the source of company size is the existence of one or two immense plants with unique cost savings. Most of the companies in fact have large numbers of plants, in dozens of countries, and the main economies of scale may be in marketing, distribution, and research.

These industrial firms are multinational or global in orientation. Some have most of their employees abroad, and most have the vast majority of sales outside the home market. InBev and Irish construction materials giant CRH provide extreme examples of explosive growth through international mergers and acquisitions or greenfield investment. InBev’s recent \$ 52 billion bid for Anheuser-Busch has received international attention. Less conspicuously, CRH in 2007 bought 78 companies in Turkey, China, the U. S., and other countries. Some of the non-industrial companies in this sample have followed similar strategies of aggressive internationalization. Danish ISS has acquired more than 350 companies in the last ten years, adding more than 200,000 employees and becoming the largest cleaning company in the world in the process. The multinational expansion of Telenor in the last decade has meant that

the company now has some 143 million customers, or 30 times the Norwegian population. Banks and other financial institutions are the main exceptions to the rule in this sample. They typically maintain an emphasis on the home market with secondary strength regionally, and only minimal involvement outside of home regions (e. g., Nordic countries or British Isles). This major exception apart, it appears that the key to achieving scale and growing huge in these small countries has been to make the company transcend domestic limitations through moving much of the production, or sales, or both, out of the country. Contrary to Porter's hypothesis, it is the size rather than the composition of home demand that matters in the case of big business in small countries. Being a national actor in epilepsy drugs, asphalt, or mineral fertilizer is not enough to produce a Forbes 2000 company, but being a global leader in those business areas will.

There are many reasons why history should not be all about paths to the present. On the other hand, it seems that in the study of big business history, a lot of the central works have focused on origins. Here, the emphasis has been on the present, with historicity merely implied. I believe this to be a useful starting point for further research, especially since very large companies have not really existed in some of these countries until quite recently. As the evidence has shown, the small countries in northwestern Europe now contain big businesses in virtually all the same sectors as the major industrial powers. However, they do to some extent retain the Dreizian emphasis on focused, standardized production. Perhaps most strikingly, it turns out that being a big business in a small country is something of an oxymoron. Growing big has, in the vast majority of cases, meant to go far beyond national boundaries.