

# Part I

## Overview and Methodology



# 1

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## The Performance of European Enterprise during the Twentieth Century

### General Overview

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#### STUDYING BUSINESS PERFORMANCE

This book originated from a very simple idea—that in the last analysis, performance is what really matters in business and thus in business history. After all, the object of business history is to explain the success or failure of a company or an entire industry, or, at a more global level, to explain the relationship between business performance and economic performance. Yet, surprisingly, the analysis of performances has been neglected by economic and business historians. Of course, most company histories include some data, and sometimes some discussion, of profits or profitability. The performances of entire industries have been considered.<sup>1</sup> There have also been a few national analyses, especially in France, with the studies inspired by Jean Bouvier in the 1960s and Jacques Marseille in the 1990s.<sup>2</sup> In Germany, Mark Spoerer has reassessed business profitability under the Weimar Republic and the Nazi regime.<sup>3</sup> At the European level, Youssef Cassis attempted a comparative analysis of the performance (defined in terms of net profits, returns on equity, and survival) of the leading British, French, and German companies in the course of the twentieth century as part of his study of big business in the three major European economies.<sup>4</sup>

The contributions from economics and business strategy, though important, do not fill the existing gap in the literature. Neoclassical economics works on the

<sup>1</sup> See for example W. Feldenkirchen, *Die Eisen- und Stahlindustrie des Ruhrgebiets 1879–1914: Wachstum, Finanzierung und Struktur ihrer Großunternehmen* (Wiesbaden, 1978); Y. Cassis, *City Bankers, 1890–1914* (Cambridge, 1984); G. Jones, *British Multinational Banking, 1830–1990* (Oxford, 1993); T. Gourvish and R.G. Wilson, *The British Brewing Industry, 1830–1980* (Cambridge, 1994).

<sup>2</sup> J. Bouvier, F. Furet, and M. Gillet, *Le mouvement du profit en France au XIXème siècle* (Paris, 1965); J. Marseille, dir., *Les performances des entreprises françaises au XXème siècle* (Paris, 1995).

<sup>3</sup> M. Spoerer, *Von Scheingewinn zum Rüstungsboom: die Eigenkapitalrentabilität der deutschen Industrieaktiengesellschaften, 1925–1941* (Stuttgart, 1996).

<sup>4</sup> Y. Cassis, *Big Business: The European Experience in the Twentieth Century* (Oxford, 1997).

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assumption that in a competitive environment expected profits converge in the long term and has thus paid little attention to the performances of individual companies. On the other hand, institutional economics has paid great attention to firms but has not directly addressed the question of performance. A number of major research projects on company profits have been undertaken within the field of applied economics, especially in Britain. P.E. Hart's work on the interwar years and beyond, based on Inland Revenue data and figures from the Central Statistical Office, provided aggregate data by industry and considered a number of issues such as the appropriation of profit and the effects of the size of the firm.<sup>5</sup> Geoffrey Whittington's analysis of company profits in the 1950s, based on the published accounts of all United Kingdom quoted companies engaged in manufacturing and distribution, was more directly interested in the profitability of firms, though at an aggregate level.<sup>6</sup> Similar studies have been undertaken in Continental Europe.<sup>7</sup> A more recent comparative study, coordinated by Dennis Mueller, has acknowledged the importance of firms' characteristics to explain the persistence of diverging profit rates, without, however, going beyond the level of aggregate figures at a national level.<sup>8</sup>

The business strategy literature has more directly addressed the question of the relationship between organizational structure and performance at company level, at least since Richard Rumelt's classic work on the largest American companies in the 1950s and 1960s. In the heyday of Chandlerian studies, Rumelt's conclusions pointed to strong performance for firms combining a strategy of diversification with a structure of divisional organization.<sup>9</sup> Interestingly, similar conclusions have been drawn by Richard Whittington and Michael Mayer in their recent analysis of the top 100 British, French, and German companies in the 1980s and 1990s.<sup>10</sup> One increasingly influential view of performance has been the measure of organizational longevity, notably the work of James Collins and Jerry Porras on American firms<sup>11</sup>—an issue that has interested business historians, in the first place Leslie Hannah, who has compared the world's largest 100 firms in 1912 and 1995.<sup>12</sup> More recently, Christian Stadler has attempted to draw some lessons from

<sup>5</sup> E. Hart, *Studies in Profit, Business Saving and Investment in the United Kingdom, 1920–1962*, 2 vols. (London, 1965–8).

<sup>6</sup> G. Whittington, *The Prediction of Profitability and Other Studies of Company Behaviour* (Cambridge, 1971).

<sup>7</sup> See for example G. Echevarria and J.L. Herrero, 'La evolución de la economía española durante el periodo 1940–1988 a partir de un indicador de la tasa de beneficio del sector industrial', *Información Comercial Española* (1989), 665; X. Taffunell, 'Los beneficios empresariales en España, 1881–1980. Estimación de un índice anual de excedente de la gran empresa', in *Revista de Historia Económica*, 16, 3, (1998), 707–46; H. Bruse, *Wettbewerbsbeurteilungen auf statistischer und dynamischer Basis, illustriert anhand der Aktiengesellschaften der 'Bonner Stichprobe'* (Bonn, 1981).

<sup>8</sup> D.C. Mueller, ed., *The Dynamics of Company Profits. An International Comparison* (Cambridge, 1990).

<sup>9</sup> R. Rumelt, *Strategy, Structure and Economic Performance* (Boston, 1974).

<sup>10</sup> R. Whittington and M. Mayer, *The European Corporation: Strategy, Structure and Social Science* (Oxford, 2000). Whittington and Mayer's aim was to extend the Harvard programme of the early 1970s, which included studies by Rumelt on the United States, Channon on Britain, Dyas on France, Thanheiser on Germany, and Pavan on Italy.

<sup>11</sup> J. Collins and J. Porras, *Built to Last* (London, 1994).

<sup>12</sup> L. Hannah, 'Marshall "trees" and global "forest": were "giant redwoods" different?', in N. Lamoreaux, D. Raff, and P. Temin, eds., *Learning by Doing in Markets, Firms and Countries* (Chicago, 1999). See also Howard Gospel and Martin.

‘outstanding corporations’—very large European companies combining survival (100 years or more) with performance, measured by total shareholder return.<sup>13</sup> There is undoubtedly a lot to take from the business strategy literature, especially for the analysis of performance in the last two or three decades. Nevertheless, it does not replace the long-term perspective and human dimension brought by the historical approach.

## DEFINING BUSINESS PERFORMANCE

For all that, the word ‘performance’ is ever present in the title of economic and business studies. The problem is that there is no general agreement about what business performance actually means. For Alfred Chandler, for example, whose influence on an entire generation of historians has been enormous, the most successful firms are those that have made the ‘three-pronged investment’ in production, management, and marketing, with longevity being the only approximate measure of actual performance.<sup>14</sup> Business performance can be assessed at a firm, industry or national level, as in Michael Porter’s notion of ‘international competitive advantage’, which is measured through the exports record of industries based in a particular country.<sup>15</sup> From a macroeconomic perspective, performance tends to be measured in terms of productivity growth. For others, performance is best assessed by a firm’s innovative capacity. Performance can also be measured in a more qualitative or even subjective way, using such criteria as job creation—a major issue for trade unions—or contribution to national greatness.

At a firm level, performance can be defined according to four broad criteria. The first is size (whether measured by market capitalization, turnover, workforce, or total assets). This could be considered as an indirect measure of performance, since growth is usually, though not necessarily, the outcome of strong competitive results. The second, rates of return (like return on equity and holding return) is in many respects the most direct measure. Value added has recently tended to be considered as the key measure of business performance,<sup>16</sup> but its calculation is highly problematic for most of the twentieth century. A third criterion includes aspects related to survival and longevity. These should be considered as partial measures of performance, in the sense that, depending on a specific context, they can be indicators of success or failure. The sale of a company might be in the shareholders’ best interest or part of an industry’s necessary reorganization, while survival may be the result of a Malthusian policy. The fourth criterion, competitiveness, includes physical measures of performances, including market share, production per worker, and so on. It is a direct measure, which can be extremely

<sup>13</sup> C. Stadler, *Enduring Fiedler*, ‘The long-run dynamics of big firms: The one hundred largest employers from the United States, the United Kingdom, Germany, France, and Japan, 1907–2002’, in Giovanni Dosi et al. (eds.), *The Third Industrial Revolution in Global Business* (New York, 2013), pp. 68–90. *Success: What We Can Learn from Outstanding Corporations* (Stanford, 2011).

<sup>14</sup> A. Chandler, *Scale and Scope. The Dynamics of Industrial Capitalism* (Cambridge, Mass., 1990).

<sup>15</sup> M. Porter, *The Competitive Advantage of Nations* (New York, 1990).

<sup>16</sup> See for example J. Kay, *Foundations of Corporate Success* (Oxford, 1993).

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useful for comparative purposes, though only within a homogeneous group of industries. Innovative capacity, though important, should be considered as a factor rather than a measure of performance.

Nevertheless, profits and profitability remain the most common way of assessing business performance, and it is these measures that we have used in this project. There are many possible ratios of profitability (return on equity, return on assets, return on capital employed, and others). We have chosen two of them. The first, probably the most widely used, is return on equity (ROE), which is the ratio, expressed as a percentage, of net profits to shareholders' equity. Net profits are profits after tax, while shareholders' equity comprises paid-up capital, reserves, balance carried forward, and other undistributed profits. The second is holding return (HR), in other words the return realized by a hypothetical investor who bought a share in a company and sold it a year later. It is the ratio, also expressed as a percentage, of the difference between the selling and buying prices plus dividend to the buying price. ROE and HR can thus be seen as providing a complementary measure of profitability, the former as seen from a firm's perspective, the latter from an investor's perspective. In constructing the database used in this volume, ratios have been calculated around five benchmark periods (1911–13, 1927–9, 1954–6, 1970–2, and 1998–2000), on the basis of a three-year average in order to even out possible erratic deviations of one exceptional year.

There has been much discussion, and also much criticism, about the relevance of profits in economic and business history. The main criticism concerns the reliability of the figures published in balance sheets and profit-and-loss accounts, which is what we have used in our study. There is a serious risk that published figures are distorted, either optimistically or pessimistically, and many historical studies have revealed differences between published and actual profits. As far as comparative studies are concerned, there is the added problem of differences among accountancy practices in each country.

We are, of course, fully aware of these problems. But we are also convinced that studying business performance is not only possible, but highly desirable. Published profits provide, for all countries, at best a fairly accurate picture, at worst a rough idea of a company's state of affairs. That is already something. However distorted, published profits do reflect the image a company wishes to project, and there is no reason to assume that discrepancies between published and unpublished profits are more pronounced in one country than in another. For HR, the challenge is the fact that a company share price incorporates expectations about future profits, while the historian is concerned with past performance. But the figures are accurate in the sense that they reflect market expectations and have not been massaged by creative accountancy.

### ANALYSING BUSINESS PERFORMANCE

The analysis of business performance is based on a sample of 1,225 companies, belonging to eight countries: the three major European economies (Britain, France, and Germany), two large south European latecomers (Italy and Spain), two smaller north-western countries (Belgium and Sweden), and one small

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Nordic country (Finland). Lists of companies have been established for five benchmark averages each made of three years, referred to in the following as 1913, 1927, 1954, 1972, and 2000.

A major characteristic of the project is its comparative perspective, and a serious comparative approach requires putting all the countries involved on the same footing. This, in turn, requires that the sample of companies on which the analysis is based should be established very carefully, in order to capture the depth and breadth of European business. Simply selecting the 100 or 200 largest European firms, or even the 50 or 100 largest in each country, would not have done the job. Consequently, firms have been selected on the basis of both size (measured by assets until the 1950s and turnover thereafter) and industries, while national representation has been weighted according to the size of the country's economy. Methodological details regarding our selection procedure are provided in Chapter 2.

This book has been conceived as a specific contribution of history to the analysis of business performance, as distinct from that of accountancy, finance, economics, or business strategy. In the first place, we do not start with a series of theoretical hypotheses that we endeavour to test by using econometric methods. On the other hand, we do question the validity of a number of widely held and often controversial assumptions regarding business and economic performance (ownership and control of the firm, balance between 'old' and 'new' industries, role of banks and capital markets, state intervention, entrepreneurship and innovation, or superiority of one 'model' of capitalism over another) in the light of the actual performances of a sample of European companies.<sup>17</sup>

Profit ratios thus represent a point of departure from which we try to explain why certain companies, in certain sectors, in some countries, at a given period in time, have been particularly successful—or particularly unsuccessful. For this purpose, we combine a quantitative analysis of profits and profitability with qualitative data on individual firms. In this way, the study of performance is as much a starting point, to better understand businesses and their interaction with their economic environment, as a point of arrival whose prime objective would be measuring profit with 100 per cent accuracy.

The results presented in this book must be seen in this context. Rather than a comprehensive study of business performance in Europe in the twentieth century, our aim is to provide a first set of results that should generate essential discussions within the discipline and form a launching pad for further research. In the remaining part of this introduction, we first present the broad results of our

<sup>17</sup> There have been long-standing debates on most of these issues. See for example Chandler, *Scale and Scope*; W. Lazosnick, *Business Organisation and the Myth of the Market Economy* (Cambridge, 1991); A. Chandler, F. Amatori, and T. Hikino (eds.), *Big Business and the Wealth of Nations* (Cambridge, 1997); L. Hannah, 'Survival and size mobility among the world's largest 100 industrial corporations, 1912–1955', *American Economic Review*, 88, 2 (1999), 62–5 and 'Marshall "trees" and global "forest"'; G. Jones and M.B. Rose, eds., *Family Capitalism*, special issue of *Business History*, 35, 4 (1993); A. Colli, *The History of Family Business, 1850–2000* (Cambridge, 2003); Y. Cassis, G.D. Feldman, and U. Olsson, eds., *The Evolution of Financial Institutions and Markets in Twentieth Century Europe* (Aldershot, 1994); J. Edwards and S. Ogilvie, 'Universal banks and German industrialisation: a reappraisal', *Economic History Review*, 49, 3 (1996), 427–46; M. Collins, 'English bank development within a European context', *Economic History Review*, 51, 1 (1998), 1–24.

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project (measures of business performance at a European aggregate level and a preliminary assessment of the main determinant of business performance), before introducing the chapters of the book and suggesting some avenues for further research.

### THE OVERALL PERFORMANCE OF EUROPEAN BUSINESS

The overall performance of Europe’s leading companies displays a surprising degree of stability throughout the twentieth century.<sup>18</sup> Let us first consider ROE (Table 1.1). The median stood at around 8.5 per cent for three out of the five benchmark years (1913, 1929, and 1972); it was lower in the mid-1950s (6.7 per cent) and higher at the height of the second globalization, in 1998–2000 (12.7 per cent). Arithmetic averages, while recording greater variations, confirm this general trend. However, even during these latter years, rates of return remained on average below the 15 per cent benchmark, which, throughout the twentieth century, appears to have been the level that European companies have endeavoured to attain.<sup>19</sup>

However, only a minority reached that target. The proportion of Europe’s 125 leading companies achieving an ROE of 15 per cent or more rose from 15 per cent in 1911–13 to 17 per cent in 1927–9; then fell to just under 10 per cent in 1954–6, and further to 7 per cent in 1970–2; before rising to a staggering 31 per cent—nearly a third—in the last years of the twentieth century. Interestingly, a comparatively high proportion amongst them were based in a small country (Belgium, Sweden, Spain, or Finland)—nearly half in 1954–6 and 1998–2000, whereas they made up only a quarter of Europe’s leading companies.

**Table 1.1.** Overall performance, ROE (in %)

	Mean	Median	Minimum	Maximum	Standard deviation	N
1911–13	10.09	8.77	–0.60	37.80	6.12	118
1927–9	10.18	8.68	–6.35	42.53	7.18	123
1954–6	10.43	6.70	–10.56	153.77	19.35	123
1970–2	7.69	8.50	–45.24	38.89	8.94	123
1998–2000	14.20	12.73	–110.78	91.58	17.28	122
Total						609

N = Number of valid observations.

Source: The Performance of European Business, Small Sample

<sup>18</sup> The discussion that follows is based on the analysis of the 125 leading European companies in 1913, 1927, 1954, 1972, and 2000—defined as the ‘Small Sample’ for the purpose of this project, as opposed to the ‘Large Sample’, which has been established on a sectoral basis. The Small Sample includes the largest companies of the eight countries selected for this project: 30 for Great Britain, 25 for Germany, 20 for France, 15 for Italy, 10 for Spain, Belgium, and Sweden, and 5 for Finland. See Chapter 2 for more details on the selection procedure.

<sup>19</sup> See Cassis, *Big Business*, p. 86.



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It is also noticeable that the best-performing companies were only occasionally the largest. Only three amongst the twenty largest (British American Tobacco, Krupp, and J. & P. Coats) managed an ROE of 15 per cent or more in 1911–13, four in 1927–9 (Union Minière, British American Tobacco, Imperial Tobacco, and Shell), a single one in 1970–2 (BP), two in 1954–6 (Daimler-Benz and VEBA), and none in 1998–2000. Companies from the ‘old industries’ were most likely to rank amongst the top performers during the first half of the century (‘free-standing’ mining companies were especially profitable before 1914), the ‘Chandlerian firms’ on the eve of the First World War as well as at the turn of the twenty-first century, and those from ‘finance and services’ during most of the century.

Only two non-financial companies (De Beers Consolidated and British American Tobacco) attained a 15 per cent ROE in three of the five benchmark periods, and another six (LKAB, Michelin, Petrofina, Prudential, Siemens, and Union Minière) managed to do so in two periods. This lack of consistency can be partly ascribed to changes in the composition of the group of leading companies, with some disappearing from the top 125 and new ones acceding to it. On the other hand, there were a number of major companies (in banking and the new industries of the Second Industrial Revolution) that remained amongst Europe’s largest during fifty to eighty years, or even more, but they were not the most profitable.<sup>20</sup>

From an investor’s point of view and considering HR, the picture is somewhat unexpected. Investors in European large companies made their day in the 1950s and 1990s, two periods in which median HRs were close to 20 per cent (Table 1.2). In these two periods, the number of over-the-average performers increased impressively: while only seven companies managed an HR higher than 15 per cent in 1911–13, their number reached forty-five in 1927–9, fifty-five in 1954–6, twenty-eight in 1970–2, and forty-five again in 1998–2000.

The highest returns also reached impressive levels, especially in the 1920s (above 96 per cent for Nord-Est and Générale Transatlantique and more than 77 per cent for Sofina), the 1950s (more than 300 per cent for Esso France and more than 80 per cent for Banque de l’Indochine, Shell, and Pétroles BP), and the

Table 1.2. Overall performance, HR (in %)

	Mean	Median	Minimum	Maximum	Standard deviation	N
1911–13	3.97	4.20	–36.45	60.72	10.46	104
1927–9	13.73	11.20	–30.37	98.23	21.96	117
1954–6	24.34	20.73	–28.94	311.12	36.54	99
1970–2	7.16	6.61	–23.10	46.15	14.58	102
1998–2000	18.43	12.76	–56.33	264.66	38.50	100
Total						522

N = Number of valid observations.

Source: The Performance of European Business, Small Sample

<sup>20</sup> See Cassis, *Big Business*, pp. 117–18. The best known include, amongst others, Barclays Bank, Lloyds Bank, Deutsche Bank, Société générale, Shell, BP, Unilever, RTZ, Michelin, Renault, Peugeot, Daimler Benz, RWE and Siemens.

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turn of the twenty-first century (264 per cent for Anglo American, 158 per cent for Nokia, and 124 per cent for Finmeccanica).

Interestingly, the top performers in terms of HR were not the same as when measured by ROE: this happened with only one company in 1913 (BASF), five in the 1920s (Sofina, Cockerill, Forges de la Providence, Alais Froges Camargue, and Rhône-Poulenc), two in the 1950s (Union Minière and Saint-Gobain), and three in each of the last two benchmarks (Hawker Siddeley, Thorn, and Associated British Food in 1972 and Nokia, Vodafone, and WPP Group in 2000). Companies with substantial HRs were likely to be based in a large rather than in a small country—between 80 and 90 per cent of the ‘top twenty’ in all benchmark years except for the early 1970s, and around 70 per cent of those with an HR higher than 15 per cent. They were also less likely to be amongst Europe’s largest companies—excluding banks. And finally, they were more likely to belong to the new than the old technology industries—motor cars (Citroën) and electricity (Sofina, Thomson-Houston, and Siemens) in the 1920s, oil (Esso Standard, Shell, and Compagnie Française des Pétroles) and motor cars (Fiat, Citroën) in the 1950s, and information technology (Nokia, Alcatel, Vodafone, and Olivetti) in the late 1990s.

The fact that high HRs were more often generated by companies based in large countries might be due, amongst other reasons, to the existence of a wider market for their shares—and hence the likelihood of a greater demand for the shares of big managerial enterprises. The fact that some of the best performers, in terms of HR, were the new technology industries is not surprising: in booming periods, such as the 1920s and the 1990s, the markets tend to take an optimistic view of their future prospects, irrespective of their actual profits, with often painful consequences.

### Sectoral Performance

Beyond European-wide overall business performance and the results of individual firms, looking at sectors is essential in order to understand economic and business performance in the twentieth century. Sectors will be approached from two different angles: five broad sectors (old industries, ‘Chandlerian firms’, finance and services, utilities, and knowledge industries) on the one hand and, when necessary, their various branches on the other.<sup>21</sup>

Let us first consider performance in terms of ROE (Table 1.3). Firms belonging to the broad sector of finance and services consistently outperformed the other sectors in the three central benchmark years and exhibited one of the highest performances at the end of the twentieth century. They also persistently displayed higher returns than the leading companies’ average, except in 1913. Manufacturing industry taken together, i.e. both the ‘old industries’ and the ‘Chandlerian firms’, outperformed the whole sample only at the height of the two globalization periods. Returns tended to be somewhat higher in the ‘old industries’ during their period of predominance (the first half of the twentieth century) and the

<sup>21</sup> See Chapter 2 for a definition of these five broad sectors.

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Table 1.3. Sectoral performance, ROE (in %)

	1911–13		1927–9		1954–6		1970–2		1998–2000	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Old industries	11.19	8.49	10.19	8.11	11.74	5.80	4.12	6.65	12.43	12.88
Chandlerian firms	11.49	9.30	10.01	9.53	7.69	6.71	7.86	8.81	16.06	12.71
Finance and services	10.19	9.54	12.81	10.12	17.36	8.90	11.07	10.15	14.49	12.88
Public utilities	7.84	7.24	7.89	6.96	5.12	4.87	4.68	5.95	10.20	12.44
Knowledge industries	—	—	—	—	—	—	7.40	7.40	13.93	16.03
Total	10.09	8.77	10.18	8.68	10.43	6.70	7.61	8.28	14.21	12.73

Source: The Performance of European Business, Small Sample

Chandlerian firms during theirs (the second half). On the other hand, returns were consistently low in public utilities, though they regained momentum in the late 1990s. The knowledge industries, which are present only in the later benchmark years, showed significantly high returns.

These general trends are confirmed, complemented, and explained by looking at the subsectors. Returns were regularly high in banking and in insurance and commercial activities during the last quarter of the century. By contrast, returns were low in railways (only included in the earlier benchmark years). They declined in transport and communications and also in metal production. On the other hand, they increased in utilities for electricity and gas supplies. In the Chandlerian industries—chemicals, electrical engineering, oil, machine building, and transport equipment—returns moved more or less downwards until the 1970s, while they significantly recovered at the end of the century. Some subsectors somewhat deviated from this pattern: in oil and rubber, ROE rose in the 1920s, driven by firms such as Michelin (26.4 per cent) and Shell (16.7 per cent); in transport equipment, rates of return improved in the 1950s, owing especially to car makers such as Ford Motor (14.9 per cent) and British Motor (13.8 per cent), and the Swedish shipyard Götaverken (10.7 per cent). However, they stagnated afterwards. Firms such as Siemens, AEG, Bosch, GEC, CGE, BASF, Bayer, ICI, Unilever, Shell, BP, Michelin, Daimler-Benz, Peugeot, and Fiat only occasionally figured amongst the top performers, but they combined size, longevity, and steady profitability.

For all sectors, HRs were higher in the 1950s and 1990s than at other benchmark years, with particularly low yields in 1911–13, mainly as a result of a general bear market in 1913, with a particularly sharp fall in the securities of the Chandlerian firms (Table 1.4). The knowledge-based industries not only performed better than the other sectors in the last two benchmark years, but actually displayed the highest returns in the sample (in excess of 35 per cent). This is no surprise, since the sector comprises some of the subsectors (services to business and media) that greatly benefited from the information technology revolution of the last decade of the twentieth century and were partly involved in the ‘dot com’ bubble. Chandlerian firms and public utilities, on the other hand, were the main

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Table 1.4. Sectoral performance, HR (in %)

	1911–13		1927–9		1954–6		1970–2		1998–2000	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Old industries	4.18	3.29	10.63	7.93	17.57	17.24	3.80	−1.42	26.13	14.86
Chandlerian firms	2.15	9.07	17.18	16.83	32.74	21.69	6.65	5.07	18.88	12.08
Finance and services	3.20	3.80	11.86	11.22	19.88	10.60	10.69	9.79	11.32	11.52
Public utilities	5.18	4.84	15.68	12.09	23.40	27.34	4.63	10.08	7.97	5.42
Knowledge industries	—	—	—	—	—	—	19.02	19.02	35.62	32.01
Total	3.97	4.20	13.73	11.20	24.34	20.73	7.67	7.35	18.17	13.00

Source: The Performance of European Business, Small Sample

drivers of the overall increase in HRs in the 1950s, whereas the old industries, whose performance had been below average for most of the century, significantly rebounded in 1998–2000. HR was less remarkable in finance and services, which only managed to outperform the whole sample in the early 1970s. Median figures confirm the general pattern as far as knowledge industries, Chandlerian firms, and public utilities are concerned, but finance and services did better on that count, with higher-than-sample yields not only in the 1970s, but also in the 1920s and 1990s.

The analysis of subsectors refines the picture further. Car makers (Citroen, with a return of 63.4 per cent) together with electrical engineering (Thomson-Houston, 49.5 per cent, and Siemens-Schuckertwerke, 48 per cent, being amongst the best performers) and chemical companies (Produits chimiques d’Alais, 40 per cent, and Kali-Industrie, 33.5 per cent) go a long way towards explaining the performance of the Chandlerian industries in the late 1920s, whereas oil companies (71.6 per cent) and again chemicals (34 per cent) account for the successes in the mid-1950s. Electricity companies (26.5 per cent) were mostly behind the outstanding performance of the utilities sector at mid-century, while mining (78.8 per cent) and food, drink, and tobacco firms (21.3 per cent) explain the impressive recovery of the old industries in 1998–2000, to a large extent driven by the substantial demand triggered by world economic growth and the rise of the BRIC countries. Insurance was a major determinant of the high returns of the finance and services sector in the last two benchmark periods—a sector otherwise penalized by the poor performance of retailing at the end of the century. Finally, electrical engineering yielded the highest returns of any industry at any period, with firms like Nokia, Alcatel, Marconi, and Ericsson—all close to the ‘knowledge economy’.

### Country-Level Performance

So far, Europe has been considered as a single entity, in the same way as business performance would be considered in the United States, Japan, or Australia. Is such an inclusive approach justified? Or should greater attention be paid to the

performance achieved by businesses within individual countries? There are some arguments in favour of considering Europe as an economic unit after the creation of the Common Market in 1958 (despite a gradual enlargement and persisting obstacles to full integration), but arguably also before 1914—in terms of communication, transport, and fairly modest trade barriers. On the other hand, each country retained, for most if not all of the twentieth century, a strong economic identity, in terms of size, level of development, policies, and, most importantly from our point of view, business organization—all of which can help explain national variations in business performance.

Comparing business performance at national level, however, poses a number of problems. In the first place, it must be clear that the average ROE or HR of a given country should in no way be seen as any kind of measure of that country's economic performance—it only reflects the performance of its largest firms. Second, national results are likely to be affected by the uneven distribution of companies, in terms of number, size, and sectors, between countries. This is a direct consequence of the way the list has been assembled, but it has to be taken into account when comparing, say, Finland and France, or Spain and Germany. Nevertheless, an analysis of European business performance would not be satisfactory without integrating the national dimension.

Starting, once again, with return on equity and judging from median values, firms based in smaller countries (Belgium, Finland, Spain, and Sweden) tended to perform better than their counterparts in larger countries (Table 1.5). Belgium, in particular, hosted some of the most profitable companies in the 1920s (with Sofina, Forges de la Providence, and Union Minière), the 1950s (Banque Nationale and Union Minière), and at the end of the century (Colruyt and Petrofina), just as Spain did most notably before the start of the First World War (with the mining companies Rio Tinto and Tharsis, together with Banco de España) and at mid-century (again with Banco de España). A host of Swedish and Finnish firms fared comparably well in the 1950s (LKAB) and in 2000 (Nokia, Skanska, Ericsson, UPM-Kymmene, Volvo, and Electrolux). Greater variation can be observed within the group of the larger economies, with Great Britain showing ROEs rather stable at around 10 per cent until the surge of the late 1990s (20 per cent), while Germany and France followed a path of decreasing yields until the 1950s, and

Table 1.5. Country performance, ROE (in %)

	1913		1927		1954		1972		2000	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Belgium	8.71	8.55	18.45	17.54	17.85	11.31	10.25	8.53	18.02	17.65
Germany	13.27	10.24	8.87	8.24	4.31	4.69	6.99	8.79	12.72	12.44
Spain	15.20	11.95	11.75	9.70	23.81	7.56	9.55	10.34	18.95	14.57
Finland	10.60	10.60	7.62	8.11	7.61	6.82	5.74	6.24	18.01	14.52
France	8.79	7.61	9.72	9.08	6.46	5.30	8.41	7.88	9.48	10.84
Britain	9.82	8.05	10.62	9.24	10.85	9.06	9.84	9.65	21.38	15.45
Italy	5.60	5.70	7.16	8.08	5.63	4.53	0.81	3.59	-0.06	9.06
Sweden	9.16	8.96	8.03	7.14	21.63	8.88	8.73	9.06	16.29	16.11
Total	10.09	8.77	10.18	8.68	10.43	6.70	7.69	8.50	14.20	12.73

Source: The Performance of European Business, Small Sample

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**Table 1.6.** Country performance, HR (in %)

	1913		1927		1954		1972		2000	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Belgium	4.84	2.56	21.11	20.14	17.27	14.58	14.44	13.15	9.76	10.67
Germany	3.72	3.50	0.93	-2.72	25.63	27.56	-3.89	-4.44	9.82	8.96
Spain	5.05	2.50	13.01	11.63	26.43	27.16	2.91	0.76	-3.22	-2.85
Finland	—	—	-5.11	-7.95	13.95	16.25	29.41	27.90	57.98	38.03
France	3.93	5.82	42.44	40.56	54.47	37.47	7.49	8.57	21.86	19.22
Britain	6.24	5.10	3.65	4.27	13.08	12.13	14.63	16.02	19.11	12.52
Italy	-3.26	-0.67	14.10	14.81	26.80	30.75	-7.61	-4.42	31.04	15.42
Sweden	5.35	6.33	17.58	19.90	7.97	7.03	5.96	5.07	15.55	13.48
Total	3.97	4.20	1373	11.20	24.34	20.73	7.15	6.61	18.43	12.76

*Source:* The Performance of European Business, Small Sample

then recovered to levels closer to, if still below, the European average. Remarkably disappointing was, on the other hand, the performance of Italian big business, which proved almost consistently the lowest.

From the point of view of investors, the picture differs and is more varied (Table 1.6). No clear pattern differentiates the performances of smaller and larger countries. Median HRs of Belgian and Spanish companies rose in concert through the first half of the century, then declined more or less sharply. Swedish firms followed their continental peers, but declined earlier and bounced back more pronouncedly in 2000, whereas Finnish companies showed a reverse trend. Within large economies, French and German returns moved in opposite directions until the 1950s—with yields reaching their highest values in France (26.5 per cent) and negative values in Germany (-4.7 per cent) in the 1920s. On the other hand, British investors had to be content with relatively low returns (between 3.8 and 5.4 per cent), lower than the European average except in the last two benchmark years. Finally, Italian yields fluctuated widely, displaying both the lowest (in the 1970s, -11.7 per cent) and highest (in 2000, 28.6 per cent) levels recorded in the sample.

#### THE DETERMINANTS OF BUSINESS PERFORMANCE

Behind an overall stability and homogeneity, the performance of European business at the level of individual companies displays enormous disparities. High or low returns can be attributed to a number of factors—sector, period, competition, regulation, and others. However, this is not enough. Significant differences can be observed among companies operating at the same time in the same industry. Explaining these differences requires combining quantitative data on performance with qualitative data integrating the main elements of a firm's history—variables related to ownership, strategy, structure, governance, foreign direct investment, industrial relations, political lobbying, and so on. We have not been able to systematically analyse all these variables within the framework of this

General Overview

Table 1.7. ROE by ownership category, 1911–2000 (in %)

	1911–13	1927–9	1954–6	1970–2	1998–2000
Family firms	14.87	11.08	17.65	8.02	12.71
State-owned enterprises	11.60	8.79	13.49	2.15	3.15
Widely dispersed ownership	10.01	9.15	7.92	10.02	16.45
Ownership by financial groups	9.74	14.33	7.79	10.90	16.89
All	10.09	10.18	10.54	7.69	14.05

Source: The Performance of European Business, Small Sample

project, and this will hopefully be the next stage in the study of business performance. However, our database enables us to consider the relevance of some of them.

Forms of ownership throw interesting light on business performance. Concentrated ownership, whether in family hands or in financial groups, has been a strong feature of European big business throughout the twentieth century, with the possible exception of Great Britain.<sup>22</sup> Dispersed ownership has of course increased, but family firms have persisted, while the data show quite clearly the impressive rise and fall of the state-owned enterprise in Europe. In terms of performance, the widely held view that dispersed ownership is conducive to better financial results is not confirmed by our analysis. In Europe, family-owned companies, as well as those controlled by financial institutions, achieved consistently high ROEs, even from the 1970s onwards—in sharp contrast with the poor returns of state-owned enterprises (Table 1.7). Dispersed ownership, on the other hand, seems to have had beneficial effects on long-term survival—another measure of business performance.

Scholars have continued to regard strategy and structure as significant variables of business performance ever since Alfred Chandler’s groundbreaking work on the topic.<sup>23</sup> In the case of the companies included in this project, the database does not allow a precise measurement and analysis of the relationship between these two crucial dimensions of the corporate identity. The qualitative evidence available from the chapters, however, seems to point—consistently with the existing literature—in the direction of an increasing diffusion of branches of industry within European large firms. We observed strategies of diversification, especially since the 1970s, that were more pronounced in the case of companies belonging to industries characterized by a declining trend in ROEs, as in the case of both the ‘old industries’ and the ‘Chandlerian’ firms. The direct relationship between diversification strategies and declining returns is also a similarity between European and American large corporations, though with some differences in timing. As far as organizational structures are concerned, however, neither the quantitative nor the qualitative data permit further generalization. We are leaving this area of analysis for future research.

To what extent should a firm’s international orientation be considered as a significant determinant of business performance? The database does not contain any coded information about companies’ foreign activity—in terms of either

<sup>22</sup> This point is discussed in greater detail by Andrea Colli in Chapter 3.

<sup>23</sup> See Chandler, *Strategy and Structure* and, for a more recent appraisal, Whittington and Mayer, *The European Corporation*.

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exports or foreign direct investments. Of course, the vast majority of the large companies included in the list had some kind of foreign activity, and here we suggest that higher foreign activity is directly correlated with higher profitability and returns. The propensity for international activity is clearly higher in some industries than others—one can expect low foreign activity in some branches of public utilities such as transport. Another element directly influencing the propensity for international activity is the dimension of the home market. From this perspective, the incentive to go abroad is higher for large companies based in small markets than for those with huge domestic outlets. In a similar way, a low propensity to internationalize activities can be explained by the possibility for companies to tap the advantages of monopolistic positions at home, something that discourages the search for (maybe risky) profits abroad.

The international dimensions can explain some sharp differences between the performances (in terms of ROEs) of companies based in different countries. An explanation of the persistent lower performances of Italian big business, for instance, can be connected to a comparatively low level of foreign activity among Italian firms, which were enjoying favourable conditions in the domestic market in terms of monopolistic rents. The contrary can be said, for instance, for Belgian companies, which were very active from the beginning on foreign markets.

A company's size is clearly the result of its past performance, but it can in turn act as a positive—and sometimes negative—factor in future performance. In this respect, our analysis reveals sharp difference between countries. As a rule, the largest companies in the sample belong to the core countries. Looking at the first deciles (by total assets), in 1913, six companies were British, five French, and one German. In 1927, eight were British, one Spanish, one German, and two Belgian, while in 1954, seven companies in the first decile were British, two Spanish, one Italian, one French and one Belgian. At the 1970–2 benchmark, four British companies were in the first decile, three Italian, three French, and two German. Finally, Germany led only in 2000, with five companies, as against four for Great Britain. The steady relevance of Britain among the largest companies, together with the 'weakness' of the German presence, look quite surprising, as does the French 'variability'. Peripheral countries—with to some extent the exception of Italy and Spain—are characterized by the presence of smaller companies, and one could of course be tempted to correlate this with the size of the domestic market.

Dimensional variance is straightforward and larger in Europe than in the United States. In 1913, the French railway company P.L.M. (Europe's largest company) was 150 times larger (by assets) than Oy W. Gutzeit, the Finnish wood and paper firm (the smallest of the 125 leading European companies). By comparison, in 1917 U.S. Steel, and, for that matter, the Pennsylvania Railroad Company, were about 57 times larger than Lehigh Valley Coal Company. In 2000, DaimlerChrysler, the largest manufacturing company in the sample, was more or less 200 times larger in asset size than the Belgian chemical firm U.C.B. The differences reflect as much the limited degree of European economic integration as the greater size and higher number of American giant companies. The fact that they have persisted throughout the twentieth century is no doubt a consequence of having included in the sample a quota of companies from smaller European countries—but this represents the diversity of European business—a very European characteristic indeed.



Other structural variables should be taken into consideration in the analysis of business performance. They include senior management (education and training, and stability), workforce (skills, turnover, and unionization), cartel agreements, research and development (innovation and technological intensity), socio-political networks (overlapping directorships and political lobbying), and also reputation—in a way a synthesis of them all. Here again, we hope to have lain the ground for their integration into a new generation of long-term analyses of business performance.

However, one should not dismiss the effect of the economic and political conjuncture. Our sample has been built in a way that eliminates major shocks, such as world wars or severe depressions—mainly because their effects can vary considerably from country to country and thus render meaningless any tentative comparison. Nevertheless, their long-term effects should be perceived. The study's first three benchmark periods correspond more or less to the 'Thirty Years War of the Twentieth Century'—the period extending from 1914 to 1945 and comprising two world wars and the most severe depression in modern history. However, what is perhaps most striking at this point is that, as a whole, the sample displays an impressive continuity in ROE levels across the first and most tormented part of the century, followed by a decline in the 1970s, at the end of the 'golden age' of economic growth, and a recovery on the eve of the new millennium. Of course, in the case of single countries, the variance is more pronounced, reflecting specific historical conditions. Germany, for example, seems to have suffered more from the Second than the First World War, while others, such as Belgium, prospered steadily across the century—in terms of their leading companies' returns.

An analysis of European business performance cannot ignore the effects of regulation and economic and industrial policies, and in the end state intervention. Regulation affected some industries more than others. The comparatively low performances (in terms of ROE) of public utilities, in particular transport and communications, may well be the result of persisting regulatory regimes in these industries, probably coupled with their position as domestic natural monopolies, very often under direct state ownership. Alternative reasons could include state intervention in order to reduce the daily-life expenditure of voters, or the choice to provide the highest standards and levels of security in such large technical systems. Both aims would be likely to reduce profitability. In any case, finding out the reasons requires additional qualitative case-studies.

The longitudinal analysis of the available data provides, to a certain extent, a contribution to the ongoing debate on the so-called 'varieties of capitalism'. This is true with respect, for instance, to ownership structures, with clear evidence of the persistence and prevalence of concentrated control in Continental Europe, with family capitalism in some countries and bank-centred systems in others, and Britain's peculiarity with an (apparent) precocious diffusion of widely held ownership structures. The effects of these 'varieties' on business performance are, however, far from clear-cut.

The same can be said about the 'competitive advantage of nations', their specialization in some sectors, which at the same time reflects their level of economic development. The composition of the Small Sample in 1913 reveals significant differences between Britain and Continental Europe. British capitalism had already reached a high level of maturity, being diversified into a wide range of

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manufacturing and service industries (railways, mining, textiles, financial intermediation, and food and beverage) when other countries were still in relative infancy, with industrial structures markedly oriented towards natural resources, old industries, and utilities. In other cases, the data confirm what we already know from the existing literature, for instance the prominence, until at least the 1950s, of Germany and Sweden in investment goods such as electric engineering.

### INTERPRETING BUSINESS PERFORMANCE

The issues that we have raised here are discussed in greater depth, and elaborated with further details and examples, in the rest of this book. The book is divided into three parts, in addition to this general introduction. Part I, including Chapters 2 and 3, deals with thematic issues. Chapter 2, by Michele D'Alessandro, discusses the methodology adopted in this study, in particular the procedure for selecting the companies included in the sample, and problems related to sources, standard classification, and the reliability of published accounts. Chapter 3, by Andrea Colli, assesses the relationships between the ownership structures of Europe's largest companies (family or individual, widely held, financial institution, holding, state, foreign, and shareholders' agreement) and their performance in a long-term perspective. The analysis has been conducted with reference to four main analytical frameworks: 'varieties of capitalism', corporate governance, ownership and control, and strategies and organizational patterns.

Part II is concerned with country performances, with seven chapters (4–10): one each for Belgium, Britain, France, Germany, Italy, and Spain, and one for Sweden and Finland, which are jointly dealt with in a single chapter. Each chapter has been constructed along the same broad lines and addresses, in turn, three main issues: first, overall business development, with specific reference to the country's leading companies, in other words those included in the sample, especially in terms of industries' representation, size, survival, and so on; second, performance measured in terms of ROE; and, third, performance measured in terms of HR. Results are discussed at aggregate, industry, and company levels, and considered in a long-term perspective. Despite this common framework, each chapter retains its own characteristic and flavour, because of the personality and style of its author(s) and the specific configuration of business prevailing in each country.

Part III is made up of four chapters (11–14), each covering a key group of industries. They represent the first cross-country analysis founded on a common data base and are consequently much more valid than previous comparisons. As we have already indicated, four broad groups of industries have been defined, partly on the basis of the nature of their activity and partly in terms of historical stage of industrial development. Two groups are concerned with manufacturing industry: the first with the 'old industries' of the First Industrial Revolution (coal, iron and steel,<sup>24</sup> textiles and leather goods, food, drink, and tobacco, and wood

<sup>24</sup> Steel, as part with coal and iron of the 'heavy industries', has been grouped with the 'old industries', even though it belongs to the industries of the Second Industrial Revolution. However,

and paper); the second with the ‘Chandlerian firms’, characteristic of the Second Industrial Revolution (chemicals and pharmaceuticals, electrical engineering, mechanical engineering, oil, rubber and other non-metallic products, and transport equipment). The ‘knowledge-based industries’ emerging with the third industrial revolution (information technology, telecom, services to business, media, and leisure and tourism) have had to be left out, as they only appeared in the last of our five benchmark periods (1998–2000). The third group includes ‘finance and services’ companies (banking, insurance, and commercial activities) and the fourth ‘public utilities’ companies (transport, electricity, gas, and water).<sup>25</sup> Three of these four chapters have been jointly written by two, sometimes three, contributors combining expertise on both a given field of business activity and one or several of the countries involved in the analysis—thus facilitating meaningful comparisons, at both industry and company levels.

The chapters that follow present the results of entirely new research—comparative, comprehensive and longitudinal. They combine a wealth of statistical material with innumerable narrative accounts of all aspects of the life of Europe’s major businesses throughout the twentieth century. Above all, they provide a much needed discussion of these companies’ successes and failures, with both intra- and extra-European comparisons, at European-wide, national, and firm levels. They represent a new and hopefully inspiring way of writing business history.

## FURTHER RESEARCH ON BUSINESS PERFORMANCE

Post-Chandlerian business history is still at a crossroads, somewhat torn between several trends—institutional approach, theory of information, business and management tools, and culture and value systems. Looking at business activity through the lenses of performance provides a unifying platform, encompassing all types of approaches, from the economic to the cultural. By highlighting, over the long term, the main determinants of business performance, business history should provide a major contribution to the reflection on the competitiveness of European enterprises in a global economy, and more generally to the evolution of

the crisis it went through in the mid-1970s was more typical of the ‘old’ than the other ‘new’ industries, such as the electrical or motor industries.

<sup>25</sup> There are, of course, some overlaps between the groups. For example, food, drink, and tobacco could in many respects be considered as belonging to the ‘Chandlerian firms’ of the Second Industrial Revolution. Moreover, the industrial economics literature has produced useful taxonomies of industries and sectors. In particular, the OECD’s distinction between low, medium, and high technological level industries has been further elaborated by economic historians in order to cope with the phenomenon of technological maturity. See R. Giannetti and M. Velucchi, ‘The demography of manufacturing firms, 1911–1971’, in R. Giannetti and M. Vasta, eds., *Evolution of Italian Enterprises in the 20th Century* (Heidelberg, 2009), which elaborates on T. Hatzichronoglou, *Revision of the High-Technology Sector and Product Classification*, STI Working Papers, 2, OECD (Paris, 1997). See also K. Pavitt, ‘Sectoral patterns of technical change: towards a taxonomy and a theory’, *Research Policy*, 13 (1984), 323–73. However, our proposed classification is more useful from a business history perspective, since it explicitly refers to the organizational typologies linked to the macro-sectors.

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industrial capitalism, stability, crises and recoveries, regulation and deregulation, corporate governance, and increasing social inequalities.

A considerable amount of information has been gathered in the project's database—yet an even greater amount of work remains to be done in order to properly understand the dynamics of business performance. Nevertheless, we believe that we are offering a good starting point. In the first place, the database will be hosted at Bocconi University, and will be made available to everybody through open access. We hope that it will be not only widely used, but also updated and augmented—with data on still missing countries, missing years, and missing variables of business performance.

In particular, there is room for extending existing data into long-term time series suitable for econometric analysis. There is also room for complementing existing, mainly quantitative, data with systematically collected qualitative data integrating the main elements of a firm's history. Such data, related in particular to ownership, strategy, structure, governance, multinational expansion, industrial relations, political lobbying, and others, could be processed by making use of the prosopographical method, mainly employed by social historians.

Another extension could be geographical, with the inclusion of enterprises from European countries omitted in this project, such as the Netherlands and Switzerland, as well as Austria, Norway, Denmark, Portugal, and Greece, and—though with a gap during the communist period—the Eastern European countries.<sup>26</sup> More complicated but also more rewarding would be a supplement covering the space of the former socialist countries.

And a third direction would be to widen and deepen the comparative dimension of the study. The 'natural' comparison would obviously be with the United States and/or Japan. A less natural one, with the performance of large firms in planned economies, would also be interesting. Here, to the lack of research in the field would be added the problem of 'language', that is, of measuring returns in a non-capitalist environment, where firms produced with other objectives than profitability, ROE, or HR. Another comparative exercise could finally be to include in the analysis small and medium-size enterprises, in order to understand if, and to what extent, there is a correlation between measures of performances and the dimensional attributes of companies in different sectors.

We do know our efforts are just one step into the direction of an integrated European business history based on one common ground. However, we feel that though this volume represents a modest and limited approach, it is at the same time a necessary one. In any case, we strongly invite scholars to make use of and deepen and extend our somewhat Wikipedia-like database under the address of: [http://www.crios.unibocconi.eu/wps/wcm/connect/cdr/centro\\_criosen/home/databases/european+business+performance+database](http://www.crios.unibocconi.eu/wps/wcm/connect/cdr/centro_criosen/home/databases/european+business+performance+database).

<sup>26</sup> A list of Europe's leading companies could be established on the following distribution principles: Britain would have thirty companies, Germany twenty-five, France twenty, and Italy fifteen. The first tier of small European countries (Austria, Belgium, the Netherlands, Spain, Sweden, and Switzerland) would have ten each, and the second tier of small European countries (Denmark, Finland, Greece, Norway, and Portugal) five each—making a total of 175 Western European companies. The division between 'first tier' and 'second tier' small European countries is based on the size of each country's economy as measured by GDP.