In an age of global competition and interdependence in which it is necessary to mobilize the maximum amount of resources, Cuccia's philosophy does not appear very appealing. Schimberni's idea of creating public companies free of the control of government or families and governed by salaried, competent managers, even if momentarily defeated, seems much more convincing. In any event, in all the sectors where technology permits the full use of economies of scale and scope the evidence suggests that also for Italy the wealth of a nation cannot avoid big business. The unsatisfactory performances of La Rinascente and its competitor Standa effectively mean that, with the creation of the Single Market of 1993, other European mass retailers can freely open their stores (leaving the sector here at risk). The defeats of Montedison, ENI, and Olivetti strongly contribute to the negative commercial balance in chemicals and electronics.[70] This statistic can hardly be compensated by the success of small businesses in labor-intensive sectors if Italy wishes to remain inside the core of modern world capitalism.

[70] Confindustria, *Evoluzione dei settori industriali nel 1993*, SIPI, Roma, 1994, pp. 72–80 and 146–152.

9

Spain: Big manufacturing firms between state and market, 1917–1990

ALBERT CARRERAS AND XAVIER TAFUNELL

INTRODUCTION[1]

At the end of the nineteenth century, the Spanish economy was still largely agrarian. Its exports, mainly oriented toward Western European countries, were primary products – mainly agricultural and mineral. Since the 1850s it attracted much foreign investment in railway building and mineral development. Railway and telegraph networks, the essential base for large-scale industrial enterprise, although not very large, were completed. With a population of about 17 million inhabitants, and a low density for European standards, it constituted a medium-sized market.

By 1890 the government was a constitutional monarchy with a bicameral legislature. Universal suffrage for males only was approved this year. A stable political system was in place with Conservatives and Liberals alternating in office. The Spanish policy was basically liberal and favorable to business development. Government itself played a minimal direct role in the economy, operating the postal and telegraph systems. As many other European countries, Spain switched to higher tariffs in 1891 because of the impact of the agrarian depression. Textile and steel producers took advantage of the new protectionist mood.

The victory of the United States over Spain in 1898 and the resulting loss of its once global empire brought a *regeneracionismo* movement in politics, with a strong bias for economic development and industrial growth. The succeeding years were marked by a wave of new investments (increasingly by Spaniards as well as foreigners) in urban transportation

[1] We pay more attention to the factors underlying the performance of big Spanish firms in the longer version of this chapter (same authors and title). Economics Working Paper no. 93, Universitat Pompeu Fabra, Barcelona, 1994, pp. 6–14.

and utilities, shipping, sugar refining, the growth of universal banking enterprises and stock exchanges and more public investments in port development, roads, irrigation schemes, and the like. These investments brought a dramatic increase in investment–output ratios. Furthermore, the government managed to achieve budget surpluses after a long century of chronic indebtedness. At the same time, the government increased the subsidy to public education and formed new technical schools. These schools, concentrated largely on civil and mining engineers, became the primary sources for industrial managers in Spain.

In these ways, Spain participated, though somewhat belatedly, in the prosperity and economic growth that Europe enjoyed during the two decades before the outbreak of World War I. The war itself was a period of economic euphoria for the nonbelligerent Spain. After the war the country experienced a continued period of economic expansion under the dictatorship of general Primo de Rivera. There was an upsurge in industrial output, a rise in urbanization, and large internal migration movements and new heights were reached in capital formation ratios. The economic depression of the 1930s reached Spain very mildly. The fall of Primo de Rivera, the exile of the King Alfonso XIII in 1931, and the new Second Republic opened an era of continuing political conflict and labor unrest. The political and social reformism of the new Republican regime was unable to win over the traditional ruling classes (the upper bourgeoisie, the aristocracy, the military, and the Catholic Church), which supported, jointly with the Castilian small landowners, the Franco uprising of July 1936. The resulting civil war lasted until March 1939.

After 1939, Franco, as chief of state, carried out a policy of economic autarky, or self-sufficiency, cutting back foreign trade and investment, nationalizing (usually foreign) private enterprises in major sectors, and creating new industrial firms through the newly created INI (Industrial National Agency – an imitation of Mussolini's IRI). Franco's policies eventually closed the country to foreign investment and trade, except for the previous commitments with the Axis powers. As a result, even though Franco's Spain did not become a combatant in World War II, it did not take part in the postwar reconstruction and transformation that began to bring rapid economic growth and prosperity to other European countries and Japan in the 1950s.

Only by 1960, after the dismantling of the more extreme autarkic regulations, the devaluation of the nation's currency (too much overvalued, as in Salazar's Portugal, because of the nation's "prestige"), and the entrance in the network of international organizations, did government policies begin to change. So from the early 1960s to the mid-1970s, Spain did enjoy what would be the "golden years" for most of the major Western economies: this was the period of the Spanish "economic miracle" (over 7 percent GDP and over 10 percent industrial output growth rates from 1960 to 1975). Then after 1975, Spain, like the other European countries and the United States, with the leveling off of demand, inflation, and increasing global competition, faced the industrial and banking crisis, complicated in Spain by political change. Franco died in 1975 and the first democratic elections were held in 1977. It took some time to attract the attention of politicians to economic problems. They did it in the early 1980s, first, by devoting huge resources to the refloating of large industrial firms and banks; and, second, by bringing Spain into the EEC in 1986 and opening the country to the world economy.

THE HISTORICAL DEVELOPMENT OF SPANISH BIG BUSINESS

Given the state of business history in Spain, we have acutely felt the need for a preliminary approach to big business in general before addressing the development of manufacturing firms. We have constituted a data base with the 200 top firms measured by their assets.[2]

Big business and the wealth of the nation

Altogether, the first 200 firms have evolved in the way illustrated in Table 9.1. Big business increased quite strongly between 1917 and 1930. The depression of the 1930s, the civil war, and the autarkic period partly destroyed the assets of the big firms during the period up to 1948. Big business grew again in the 1950s but the 1960 level is really not much higher than in 1930. The only real change came in 1974.

What do these figures mean compared with the national balance sheet?

[2] The paper we submitted to the preconference (A. Carreras & X. Tafunell, *National Enterprise. Spanish Big Business, 1867–1990*, Florence, European University Institute, 1992) contained a detailed appendix with the methods and sources used to establish these lists of 200 top firms, and the lists themselves. Limitations of space have obliged us to exclude the bulk of this information from this new version. An improved series of tables with the data for 1917 to 1974 can be found in A. Carreras & X. Tafunell, "La gran empresa en España, 1917–1974. Una primera aproximación," *Revista de Historia Industrial*, 3 (1993), pp. 127–175.

Table 9.1. *Total assets of the 200 largest Spanish firms, 1917–1974 (in million pesetas)*

	Current pesetas	1917 pesetas
1917	12,426	12,426
1930	27,175	22,029
1948	70,079	16,436
1960	383,146	27,813
1974	4,080,615	112,013
1990	28,469,824	126,548

Note: Current prices have been transformed in real terms through a GDP deflator.
Sources: 1917–1974: A. Carreras & X. Tafunell, "La gran empresa en España, 1917–1974. Una primera aproximación," *Revista de Historia Industrial*, 3 (1993), pp. 127–175. 1990: *Anuario El País, 1992*, Madrid, Ediciones El País, 1992, *El País* (Negocion) (1990), December, 30, pp. 21–26, and *Expansión* (1990), December, 29, pp. 16–22 following the same criteria presented in A. Carreras & X. Tafunell, ibid. For the GDP deflator, Leandro Prados, *Spain's Gross Domestic Product, 1850–1993: Quantitative Conjectures*, Madrid, Universidad Carlos III, mimeograph copy, 1995, table D.3.

It is too hard to say because of lack of adequate figures.[3] An alternative macro measure of the changing importance of the top 200 firms may be given comparing their total assets with the GDP, in current terms. We reach the results shown in Table 9.2. The ratio fluctuates between 53 and 87 percent of GDP. There are four periods. The first one, from 1917 to 1930, suggests an increase in the weight of the top firms. We may assume that the trend was in motion even before 1917. The second one, 1930 to 1948, corresponds to a very depressed period, mainly consisting in the long and slow recovery after the 1936–1939 civil war. The third, from 1948 to 1974, covers the most expansive era of the century. By 1974 the ratio reaches its maximum value. The last period, since 1974 to 1990, is

[3] There are some estimates of the Spanish capital stock for some benchmark years, but they suffer from inconsistency among them. See A. Carreras, "Renta y Riqueza," in A. Carreras (ed.), *Estadísticas históricas de España (siglos XIX y XX)*, Madrid, Fundación Banco Exterior, 1989, pp. 533–588; A. Corrales & D. Taguas, "Series macroeconómicas para el período 1954–1989: un intento de homogeneización," in C. Molinas, M. Sebastián, & A. Zabalza (eds.), *La economía española. Una perspectiva macroeconómica*, Barcelona, Antoni Bosch/I. E. F., 1991, pp. 583–646; and André A. Hofman, "The Capital Stock of Spain in the 20th Century," paper presented to the European Historical Economics Society Workshop on *Long-Run Economic Growth in the European Periphery*, La Coruña, 1993.

Table 9.2. *Proportion of the total assets of the 200 largest Spanish firms to the Spanish GDP*

1917	69%
1930	83%
1948	53%
1960	65%
1974	87%
1990	63%

Notes: The assets and the GDP have been valued at current pesetas.
Sources: Assets in current prices, see Table 9.1; GDP in current pesetas: Leandro Prados, *Spain's Gross Domestic Product, 1850–1993: Quantitative Conjectures*, Madrid, Universidad Carlos III, mimeograph copy, 1995, table D.1.

a substantive reduction of the relative size of the Spanish big firms. The industrial and banking crisis has produced its biggest harm to these firms.

Sectoral change in big business

What is the sectoral content of Spanish Big Business? Table 9.3 answers this question. There is a dramatic change through the period under review (in what follows we will pay more attention to the assets than to the number of firms). In 1917 railway companies were completely dominant with almost half of the assets of the 200 main firms. The transport firms in question were mainly railways, but also shipping companies. Four other sectors were on an almost equal footing – manufacturing, mining, utilities, and finance – and had the same aggregate weight as the transport firms.

In 1930 the hegemony of railways and shipping companies was still there, but in clear decline. Other sectors seemed more dynamic, with utilities showing clear and quick progress, manufacturing gaining a few percentage points, finance showing slight progress, but mining declining more quickly than transports.

Basically the same situation appeared in 1948. The weight of the transport sector increased slightly, in spite of the nationalization of the main railway companies. Below transport two sectors emerged to achieve a strong position: manufacturing and utilities. Finance made no progress,

Table 9.3. *Sectoral composition of the 200 largest firms, 1917–1990*

Sector	1917	1930	1948	1960	1974	1990
A. Number of firms						
Mining	47	15	8	7	7	3
Manufacturing	45	61	76	110	82	89
Utilities	26	41	41	31	23	22
Construction & public works	2	5	22	9	10	15
Transports	58	37	20	14	14	7
Finance	18	31	25	22	57	53
Others	4	10	8	7	7	11
Total	200	200	200	200	200	200
B. Assets (in percentage)						
Mining	11.9	7.3	2.4	2.4	2.2	0.8
Manufacturing	14.3	20.1	23.6	44.7	27.1	26.7
Utilities	12.5	27.0	23.4	25.5	29.8	38.6
Construction & public works	0.2	0.6	3.4	1.5	2.7	7.2
Transports	49.3	31.8	34.9	18.7	9.1	4.8
Finance	10.7	11.8	11.3	6.2	28.0	18.5
Others	1.0	1.3	1.0	1.0	1.0	3.3
Total	99.9	99.9	100.0	100.0	99.9	100.0

Notes: Utilities includes electricity, gas, water, and telephone. Construction includes the societies devoted to housing development.
Sources: 1917–1974: A. Carreras & X. Tafunell, "La gran empresa en España, 1917–1974. Una primera aproximación," *Revista de Historia Industrial*, 3 (1993), pp. 127–175. 1990: *Anuario El País, 1992*, Madrid, Ediciones El País, 1992, *El País* (Negocios) (1990), December, 30, pp. 21–26, and *Expansión* (1990), December, 29, pp. 16–22 following the same criteria presented in A. Carreras & X. Tafunell, ibid.

mining almost vanished, and construction (especially housing development) expanded.

The 1960 benchmark showed a radically different situation. Manufacturing had almost half of the assets. We will see in the next section how important has been the role of publicly owned industrial firms. The utilities remained at a very high level, railway transport declined, and the weight of finance – mainly banking – was reduced.

In 1974 the situation was again strongly modified. Utilities attained a first position. Finance was at an almost equal level. Its increase was more than fourfold compared with 1960 – a jump that was well observed in contemporary literature. Manufacturing firms accounted for more than a quarter of the total assets but were very far from their 1960 success. Intriguingly enough, the fall of manufacturing happened when all the indicators pointed to a complete success of Spanish industrialization, much more than in the previous period. A careful look at the top firms could clarify the situation.

The 1990 pattern is quite different to the previous benchmark. The financial sector suffers the effects of an important banking crisis. Utility companies attain an outstanding leading position. Construction and "others" (retail, communications, and so on) grow, too. Manufacturing manages to keep its portion despite the devastating crisis of the late 1970s and early 1980s.

Compared with the situation in 1917, the proportions have been completely overturned. Instead of railways, shipping, and mines, we have utilities and manufacturing and banks.

The top firms

For a closer look at Spanish big business, it may prove useful to focus attention on the top firms. We have selected the top twenty, that is, the first decile, which historically represented 50 to 60 percent of the total assets of the 200 companies.

The list of the top twenty, presented in Table 9.4, requires a few comments, since we will now consider the changing sectoral structure just described as it is perceived through the top twenty.

The first two benchmarks are dominated by the two main railway societies – Norte and M-Z-A – accompanied by a few other giants like Andaluces, Tánger-Fez or Madrid-Cáceres-P(ortugal) and Medina C.(-Zamora-Orense-Vigo), later absorbed by Oeste (de España). After 1941 they were absorbed by RENFE and disappeared.

The mining companies appeared among the top twenty in 1917 (Rio Tinto, Tharsis, and the mining parts of S.M.M. Peñarroya and Duro Felguera). Rio Tinto, R.C. Asturiana, and S.M.M. Peñarroya survived in 1930 only to vanish from the top positions in 1948.[4]

There were four utilities in 1917 among the first twenty. The main one, in the seventh place, was a gas company that was entering into the

[4] Because of lack of data for the R.C. Asturiana in 1917, it missed the top positions that it likely deserved by then.

Table 9.4. *The twenty largest firms, 1917–1990*

	1917	1930	1948	1960	1974	1990
1	Norte (T)	C. Ferroc. M-Z-A (T)	RENFE (T)	RENFE (T)	Cía. Telefónica (U)	Cía. Telefónica (U)
2	C. Ferroc. M-Z-A (T)	Norte (T)	Cía. Telefónica (U)	ENSIDESA (Ma)	Banco Central (F)	Hidrola (U)
3	Banco España (F)	CHADE (U)	CHADE (U)	Cía. Telefónica (U)	Iberduero (U)	Iberduero (U)
4	Rio Tinto (Mi)	Barcelona Traction (U)	Riegos y Fuerzas E. (U)	E.N. Calvo Sotelo (Ma)	Hidrola (U)	RENFE (T)
5	Ferroc. Andaluces (T)	Banco España (F)	Iberduero (U)	Hidrola (U)	RENFE (T)	Unión Eléctrica Fenosa (U)
6	S.G. Azucarera (Ma)	Riegos y Fuerzas E. (U)	CAMPSA (O)	Iberduero (U)	ENSIDESA (Ma)	ENDESA (U)
7	Catalana de Gas (U)	R.C. Asturiana (Mi)	Banco Hispano A. (F)	CAMPSA (O)	Banesto (F)	FECSA (U)
8	Madrid-Caceres-P. (T)	S.M.M. Peñarroya (Ma)	S.E. Const. Naval (T)	E.N. Bazán (Ma)	Banco Bilbao (F)	C. Sevillana Electr. (U)
9	Riegos y Fuerzas E. (U)	Cía. Telefónica (U)	Banesto (F)	Altos Hornos V. (Ma)	FECSA (U)	Banco Bilbao Vizcaya (F)
10	Ferroc. Zafra-Huelva (T)	Ferroc. Tánger-Fez (T)	Banco Bilbao (F)	ENDESA (U)	Unión Eléctrica (U)	Banco Santander (F)
11	Energía Eléctrica C. (U)	Ferroc. Andaluces (T)	Banco Vizcaya (F)	C. Sevillana Electr. (U)	Banco Hispano (F)	Banco Central (F)
12	S.M.M. Peñarroya (Ma)	S.E. Const. Naval (T)	Unión Eléctrica M. (U)	ENHER (U)	FENOSA (U)	REPSOL (Ma)
13	Ferroc. Medina C. (T)	Catalana de Gas (U)	C. Sevillana Electr. (U)	CEPSA (Ma)	EMPETROL (Ma)	CAMPSA (O)
14	Tharsis Sulphur C. (Mi)	Rio Tinto (Mi)	Banco España (F)	FECSA (U)	C. Sevillana Electr. (U)	El Corte Inglés (O)
15	Barc. Electricidad (U)	Cía. A. Tabacos (Ma)	Altos Hornos V. (Ma)	FENOSA (U)	Banco Santander (F)	Iberia (T)
16	Duro-Felguera (Ma)	C. Trasatlántica (T)	E.N. Bazán (Ma)	Saltos del Sil (U)	Banco Vizcaya (F)	ENSIDESA (Ma)
17	Cía. A. Tabacos (Ma)	CAMPSA (O)	U.E. Explosivos (Ma)	Banesto (F)	Iberia (T)	Banesto (F)
18	S.E. Const. Naval (Ma)	C.N. Ferroc. Oeste (T)	E.N. Calvo Sotelo (Ma)	Unión Eléctrica M. (U)	ENDESA (U)	Grupo Torras (O)
19	Cía. Transmediterr. (T)	S.G. Azucarera (Ma)	Tabacalera (Ma)	U.E. Explosivos (Ma)	U.E. Rio Tinto (Ma)	CEPSA (Ma)
20	Banco Hispano A. (F)	Banco Bilbao (F)	Hidrola (U)	S.E. Constr. Naval (Ma)	Astilleros Esp. (Ma)	Banco Hispano A. (F)

Notes: (Mi): Mining company; (Ma): Manufacturing; (U): Utilities; (T): Transport; (F): Finance; (O): Others.

Sources: 1917–1974: A. Carreras & X. Tafunell, "La gran empresa en España, 1917–1974. Una primera aproximación," *Revista de Historia Industrial*, 3 (1993), pp. 127–175. 1990: *Anuario El País, 1992*, Madrid, Ediciones El País, 1992, *El País* (Negocios) (1990), December, 30, pp. 21–26, and *Expansión* (1990), December, 29, pp. 16–22 following the same criteria presented in A. Carreras & X. Tafunell, ibid.

electricity business. All four were developing their activities around the Barcelona area. The situation changed in 1930. The third, fifth, and sixth societies were utilities, as were the eleventh and thirteenth. In 1948 the first four after RENFE were utilities, and a total of seven entered the list. The very top were less utility-intensive in 1960 but the overall performance was still better than in 1948, with ten companies among the first twenty. In 1974 there were still eight and in 1990, six but in the first eight positions.

The emergence of the manufacturing sector is more difficult to document mainly because of the lower size of the mean firm: five in 1917, the same number in 1930 but in a lower position, six in 1948, seven in 1960 with a better ranking, and only four in 1974 and three in 1990. The best moment was achieved in 1960 with the second biggest corporate firm (ENSIDESA) belonging to the manufacturing sector.

The finance firms were banks. Before the civil war the main private bank was the Banco de España (the central bank), much larger than any of the others. After 1939 its size diminished to the advantage of the other banks. So the two banks present in 1917 and 1930 became five in 1948, six in 1974 and five in 1990. The banks reached their highest importance in 1974 with the second record and five other firms among the first 20.

The rise of public "national" firms

All in all here we have a first map of Spanish capitalism. The sectoral content changes and so do the names of the firms. But we get the impression that the turnover at the top is perhaps too high. Do the old 1917 big firms survive in top positions by 1990? Not at all! Among the 1917 top twenty, there is only one – Banco Hispano, in twentieth place – that survives in 1990 in the top situation (but it was absent in 1930 and 1960!). If we accept a continuity between Riegos y Fuerzas (del) E(bro) and FECSA, we can add a second candidate.

A summary may be provided through a table of survivors remaining among the top twenty, Table 9.5. The major discontinuities were perceivable since 1948. At that particular moment, only five out of the top twenty could be traced back to the same group in 1917, while ten out of the top twenty in 1948 survived until 1990.

What changes occurred among the top Spanish firms? They may be classified into two groups: those flowing from normal market evolution (absorptions and mergers, slow growth, and even bankruptcies) and those stemming from state intervention. Here we will focus on the latter.

Table 9.5. *Survivors from one year to the other among the twenty largest firms, 1917–1990*

1917–1930: 11					
1917–1948: 5	1930–1948: 9				
1917–1960: 2	1930–1960: 5	1948–1960: 13			
1917–1974: 2	1930–1974: 2	1948–1974: 10	1960–1974: 12		
1917–1990: 1	1930–1990: 2	1948–1990: 10	1960–1990: 12	1974–1990: 16	

Sources: 1917–1974: A. Carreras & X. Tafunell, "La gran empresa en España, 1917–1974. Una primera aproximación," *Revista de Historia Industrial*, 3 (1993), pp. 127–175. 1990: *Anuario El País, 1992*, Madrid, Ediciones El País, 1992, *El País* (Negocios) (1990), December, 30, pp. 21–26, and *Expansión* (1990), December, 29, pp. 16–22 following the same criteria presented in A. Carreras & X. Tafunell, ibid.

At the very beginning, in 1917 – just as through the nineteenth century – Spanish capitalism was a private business. The state was completely absent. From 1917 to 1930 the normal operation of the market explains the novelties, including two foreign ventures as Franco-Española de Ferrocarriles de Tánger a Fez (Morocco) and the Compañía Hispano-Americana de Electricidad, on CHADE (Argentina). There are a few and quite significant exceptions, mainly the enforcement of two monopolistic firms through the state intervention: Compañía Telefónica and CAMPSA. In both there was a mixture of private and public. The private and foreign was hegemonic in the telephone company, while it was the public in command in CAMPSA because of its fiscal significance (the capital was mainly private and native).

The monopolistic state-tutored arrangement was dramatically increased in 1948 through RENFE. A real nationalization was made that gave the whole monopoly of railway operation, except for narrow gauge railways, to this state agency. The national-public content was increased in Cía. Telefónica, nationalized in 1944. RENFE and Cía. Telefónica were the two top firms. They were accompanied by CAMPSA, which was sixth. The state, through the INI (Instituto Nacional de Industria) decided to intervene actively in the economic life creating new firms. Two of them were quite considerable by 1948: E. N. Bazán (shipbuilding) and E.N. Calvo Sotelo (petroleum distillation and refining), sixteenth and eighteenth, respectively.

In 1960 the four top Spanish firms were public: RENFE, ENSIDESA (steelworks), Cía. Telefónica and E.N. Calvo Sotelo. The seventh and the eighth were public, too. And the tenth, twelfth, and fourteenth. Nine out of fifteen! They were unmistakably public: the letters E.N. stay for "Empresa Nacional" (i.e., National Enterprise). Where they seemed to be absent, it is always possible to find them: RENFE stands for Red *Nacional* de Ferrocarriles Españoles, and Telefónica stands for Compañía Telefónica *Nacional* de España. Out of the nine public firms, most were created from scratch by the state (ENSIDESA, E.N. Calvo Sotelo, E.N. Bazán, ENDESA, ENHER). Some (RENFE, Cía. Telefónica, CAMPSA, ENASA) were created through the (paid) nationalization of previous firms. The state activism constitutes the main event of these years.

Interestingly enough, the top public firms in 1960 featured very low profits – if any.[5] Our following benchmark (1974) shows a slowly declining role for the state firms. There are still six among the first twenty (Cía. Telefónica, RENFE, ENSIDESA, EMPETROL (the merger of the old E.N. Calvo Sotelo with two other publicly owned refining companies), Iberia, and ENDESA), and they still occupy very high positions: first, fifth, sixth, thirteenth, seventeenth, and eighteenth. The public sector also had a large portion of Astilleros E(spañoles) – a merger of S.E. Const(rucción) Naval, E.N. Bazán, and Euskalduna. By 1990, the situation is very similar to 1974: six public firms (Cía. Telefónica, RENFE, ENDESA, REPSOL, Iberia, and ENSIDESA).

The rise of the public enterprise – but a very particular kind of it, usually named "national enterprise" – constitutes the main discontinuity in one century of Spanish big business. Spanish "national enterprises" were created to address national problems and not to expand through the world. They fixed a political ceiling to their sectoral and territorial expansion. They were just the opposite of a "global enterprise." Indeed, they were created with autarkic goals and without parliamentary consent.[6] They were quite different from the other Western European public firms. Some

[5] We have measured the profitability as: profits/net assets (source: *Anuario Financiero y de Sociedades Anónimas de España*, Madrid, Revista Financiera, 1918–1975). We divide the twenty top firms in 1960 according to their character – private or public. The mean profitability for the (eleven) private firms is 5.1 percent. The remaining firms are to be divided in two groups: (1) the monopolies (telephone [public] and petroleum [private]), with a profitability of 5.0 percent; and (2) the public firms not legally monopolistic (six), with a mean profitability of 1.9 percent. This last group has two electric companies with "high" profits (3.6 percent) and four manufacturing firms with low profits (1.0 percent). We do not have data for RENFE, which used to be run with huge losses.

[6] P. Martín Aceña & F. Comín, *El INI: cincuenta años de industrialización en España*, Madrid, Espasa-Calpe, 1991.

of their features were "Western," while others were "Eastern." It is this amazing mixture that makes the Spanish experience so interesting, and close to some Eastern Europe, Latin America, and Third World cases.

THE HISTORICAL DEVELOPMENT OF BIG MANUFACTURING FIRMS

Our data base on big Spanish firms yields a limited amount of manufacturing firms, properly speaking. We have built a data set of the fifty top manufacturers for each benchmark year, ranked by their assets.[7] The international and historical comparisons of leading Spanish firms are only possible within this framework.

Industrial distribution of large enterprises

As for the patterns of industrial apportionment, a first look at the Spanish experience will be informative. In order to ease the comparison with the United States, the United Kingdom, and Germany we use the SIC American sectoral breakdown in Table 9.6. Spanish manufacturing shows one sector of continuing, though slightly declining, strength – basic metal industries – and another of increasing weight, transport equipment. The former was the larger during the first part of the century, the latter from 1960 to 1990. Chemical industries were more fluctuating but used to represent more than 10 percent. Food products were the major declining field while petroleum the main growing one. If we add food, tobacco, and textiles – mainly final-demand-oriented – we can wonder about the reasons of their abrupt decline, from 38 to 8 percent. The 1990 benchmark introduces a sharp contrast: the boom of electrical machinery and electronic equipment up to 20 percent.

A comparison with the three other major economies (the United States, the United Kingdom, and Germany for 1917, 1930, 1948, and 1974)[8] reveals some points quite clearly: an initial strength (1917) in a few areas – food and tobacco and metal, transport and chemistry. By the end of the period the car, oil, and metal system is dominating. Through the century

[7] For 1917 to 1974, see A. Carreras & X. Tafunell, "La gran empresa en España, 1917–1974. Una primera aproximación," *Revista de Historia Industrial*, 3 (1993), pp. 127–175. The data for 1990 come from *Anuario El País, 1992*, Madrid, Ediciones El País, 1992.

[8] Alfred D. Chandler, Jr., *Scale and Scope: The Dynamics of Industrial Capitalism*, Cambridge, Mass., Belknap Press, 1990, chap. 1, tables 6, 7, 8.

Table 9.6. *Distribution of the fifty largest manufacturing enterprises, by industry*

Group	Industry	1917	1930	1948	1960	1974	1990
20	Food	11	9	7	5	2	3
21	Tobacco	2	2	3	2	1	1
22	Textiles	6	4	1	1	1	0
23	Apparel	0	0	0	0	0	0
24	Lumber	1	0	0	0	0	0
25	Furniture	0	0	0	0	0	0
26	Paper	1	1	2	0	4	3
27	Printing and publishing	1	2	0	0	0	1
28	Chemicals	7	4	9	10	9	5
29	Petroleum	0	1	2	3	5	5
30	Rubber	0	0	0	0	2	0
31	Leather	0	0	0	1	0	0
32	Stone, clay, and glass	2	2	1	0	4	4
33	Primary metals	10	11	10	10	6	4
34	Fabricated metals	1	1	0	1	0	1
35	Machinery	0	0	0	0	3	1
36	Electrical machinery	1	3	4	4	1	10
37	Transportation equipment	7	7	10	13	12	11
38	Instruments	0	0	0	0	0	0
39	Miscellaneous	0	3	1	0	0	0
—	Conglomerate	0	0	0	0	0	1
	Total	50	50	50	50	50	50

Sources: 1917–1974: A. Carreras & X. Tafunell, "La gran empresa en España, 1917–1974. Una primera aproximación," *Revista de Historia Industrial*, 3 (1993), pp. 127–175. 1990: *Anuario El País, 1992*, Madrid, Ediciones El País, 1992.

Spain is much more concentrated than the others in transport equipment,[9] while remaining much weaker in machinery (electrical and nonelectrical). Generally speaking, it is more the U.K. pattern than the American or German.

The cost advantages derived of market considerations – proximity of raw materials, transport and energy costs, labor, capital, entrepreneurs – were at work up to the civil war. They tended to be forgotten during the autarky (1939–1959), when the state intervention assigned the resources in a quite arbitrary way. Consequently, the market pattern of specialization became weaker and weaker. The figures mobilized in Table 9.6 suggest, mainly for 1917 and 1930, a particular pattern, with food and tobacco industries, textiles, cork, some chemicals, basic metals, and transport equipment at the core and of the system. Our hypothesis is that the industrializing policy of the Francoist regime, with its strong autarkic content, pushed in noncompetitive directions, with notorious failures, and countered those firms and sectors with natural growing potential. The harvest was many, small, noncompetitive manufacturing firms.

The top manufacturing firms[10]

A first look at the top ten may be useful. Table 9.7 provides the list of the ten top manufacturing firms between 1917 and 1990.[11] A quick glance at the table is enough to realize that some sectors are well represented while others are absent – or almost, if we consider their weight in the industrial

[9] This seems an intriguing feature. Some explanations can be developed. First, we may recall the very high social saving estimate reached by Antonio Gómez Mendoza, *Ferrocarriles y cambio económico en España, 1855–1913*, Madrid, Alianza, 1982. As the business was relatively better than in other countries, it is not surprising to find a higher proportion of big business devoted to the building of railway equipment – once the frontiers have been closed to the imports. Second, the relative size of the Spanish fleet has also been reassessed. Jesús Mª Valdaliso has convincingly argued about the Spanish relative specialization on shipbuilding as the outcome of a high intensity of maritime transportation in the Spanish economy. Indeed, shipbuilding is one of Spain's leading sectors throughout the twentieth century until its recent crisis. Jesús Mª Valdaliso, *Los navieros vascos y la marina mercante en España, 1860–1935. Una historia económica*, Bilbao, Instituto Vasco de Administración Pública, 1991.

[10] We pay much more attention to the building and maintenance of industrial leadership in the longer version of this chapter (same authors and title). Economics Working Paper no. 93, Universitat Pompeu Fabra, Barcelona, 1994, pp. 34–48.

[11] We consider manufacturing firms only those that, as their main activity, produce manufactured goods. The firms that are also involved in mining or distributing activities have been included only when most (i.e., more than 50 percent) of the value of their assets is employed in manufacturing activities. Because of this criterion being used, we have excluded very big firms with an important manufacturing component, such as Rio Tinto, Tharsis Sulphur and Copper, Royale Compagnie Asturienne des Mines, or CAMPSA.

Table 9.7. *The ten largest manufacturing firms, 1917–1990*

	1917	1930	1948	1960	1974	1990
1	S.G. Azucarera (20)	S.M.M. Peñarroya (33)	S.E. Constr. Naval (37)	ENSIDESA (33)	ENSIDESA (33)	REPSOL (29)
2	Duro Felguera (33)	S.E. Constr. Naval (37)	Altos Hornos V. (33)	E.N. Calvo Sotelo (29)	EMPETROL (29)	ENSIDESA (33)
3	Cía. A. Tabacos (21)	Cía. A. Tabacos (21)	E.N. Bazán (37)	E.N. Bazán (37)	U.E. Río Tinto (28)	Grupo Torras (—)
4	S.E. Constr. Naval (37)	S.G. Azucarera (20)	U.E. Explosivos (28)	Altos Hornos V. (33)	Astilleros Esp. (37)	CEPSA (29)
5	Papelera Española (26)	Cía G. Corcho (39)	E.N. Calvo Sotelo (29)	CEPSA (29)	CEPSA (29)	SEAT (37)
6	H. Fabra & Coats (22)	Altos Hornos V. (33)	Tabacalera (21)	U.E. Explosivos (28)	SEAT (37)	FASA-Renault (37)
7	Altos Hornos V. (33)	Sider.Mediterráneo (33)	Cros, S.A. (28)	S.E. Constr. Naval (37)	Altos Hornos V. (33)	General Motors (37)
8	Tabacos Filipinas (21)	U.E. Explosivos (28)	ENASA (37)	REPESA (29)	Ford España (37)	Altos Hornos V. (33)
9	Astilleros Nervión (37)	Cros, S.A. (28)	S.G. Azucarera (20)	S.M.M. Peñarroya (33)	E.N. Bazán (37)	CASA (37)
10	S.E. Constr. Mecánic. (34)	Duro Felguera (33)	La Maquinista (37)	Tabacalera (21)	Tabacalera (21)	IBM España (36)

Notes: SIC classification in brackets (see table 6 for the content of the two-digit classification).

Sources: 1917–1974: A. Carreras & X. Tafunell, "La gran empresa en España, 1917–1974. Una primera aproximación," *Revista de Historia Industrial*, 3 (1993), pp. 127–175. 1990: *Anuario El País, 1992*, Madrid, Ediciones El País, 1992.

value-added. In fact, out of the thirty-three firms that have been in the top-ten positions during any of those years, eleven belong to the transportation equipment sector, six to the primary and fabricated metal industries (a branch closely related to the transportation equipment sector), five to oil refining and petrochemicals, four to the food and tobacco, two to the chemicals, and four to other manufacturing (paper, textiles, cork, and electronics) – but only for one benchmark each.[12] If we pay attention to the continuity, the best performers are the steel firms, the transportation equipment firms, and the food-processing ones, followed by the chemicals. The industry has developed much later but also much faster, reaching the top ten in the last benchmarks. The same should be said of the car-making industry. Just the reverse is true for the consumption-goods-producing industries. They were present, though not outstanding, during the first third of the century, but vanished later on. Intermediate- and capital-goods-producing industries dominate our rankings – but not all their subsectors. There are very significant exceptions such as the machinery building and the electrical and electronic equipment (but for IBM España). These weaknesses reveal the main features of Spanish big manufacturing firms sectoral composition – quite different from that of economically more advanced countries, as has been discussed already.

The foundation of big manufacturing firms hasn't been time neutral, as Table 9.8 indicates. Let's focus our attention on the incorporation dates for the top ten in any of the 1917–1990 benchmarks. The big manufacturing firm was born in Spain in the 1880s. Afterward we have to wait until the early years of the century to find new incorporations: from 1900 to 1904 six more came to life. During the remaining years of the first decade there was only one addition, just as for the whole of the second decade. By the end of the third (1929) two more came into being, but none during the fourth. After this long drought, the first years of the Franco regime were very productive: nine new (big but for IBM-España) incorporations from 1941 to 1951. But the next one had to wait for eighteen years! From then (1969) to 1990 seven more were created, distributed unevenly but without any clear timing.

Is there any rationale behind this peculiar temporal pattern? Of course, there is. The first great wave (1896–1904) was a merger wave. Five out of the seven big incorporations were mergers that attempted to form gigantic firms with monopolistic power within their sectors. It is

[12] The remaining firm (Grupo Torras, an industrial conglomerate) was too diversified to be classified under a sectoral heading. Nevertheless, it is to be said that it included the largest chemical firm (i.e., ERCROS).

Table 9.8. *The ten largest manufacturing firms, classified by incorporation date*

1855	La Maquinista (A)	1941	IBM España (B)
1881	S.M.M. Peñarroya (B)	1942	E.N. Calvo Sotelo (C)
1881	Cía. A. Filipinas (A)	1945	Tabacalera (C)
1887	Cía. A. Tabacos (A)	1946	ENASA (C)
1888	Astilleros Nervión (A)	1947	E.N. Bazán (C)
1896	U.E. Explosivos (A)	1949	REPESA (C+A)
1900	Duro Felguera (A)	1950	ENSIDESA (C)
1901	Papelera Española (A)	1950	SEAT (C+A+B)
1902	Altos Hornos V. (A)	1951	FASA-Renault (B)
1903	H. Fabra & Coats (B+A)	1969	Astilleros Esp. (C+A)
1903	S.G. Azucarera (A)	1970	U.E. Rio Tinto (A)
1904	Cros, S.A. (A)	1974	EMPETROL (C)
1908	S.E. Const. Naval (A+B)	1974	Ford España (B)
1917	Sider. Mediterráneo (A)	1979	General Motors (B)
1923	CASA (A)	1984	Grupo Torras (B)
1929	Cía. G. Corcho (A+B)	1987	REPSOL (C)
1929	CEPSA (A)		

Notes: (A): Spanish private-owned; (B): Foreign private-owned; (C): Spanish public-owned.
Sources: 1917–1974: A. Carreras & X. Tafunell, "La gran empresa en España, 1917–1974. Una primera aproximación," *Revista de Historia Industrial*, 3 (1993), pp. 127–175. 1990: *Anuario El País, 1992*, Madrid, Ediciones El País, 1992.

clearly the case of Papelera Española, S.G. Azucarera, Altos Hornos de V(izcaya), and, of course, U.E. Explosivos, a legal monopoly (like the Cía. A. Tabacos).[13] The same merger origin can be traced for the S.E. Const(rucción) Naval (incorporated in 1909) and for the Cía. G. Corcho (1929), but not for the other big firms founded during the first four decades of the twentieth century.[14]

[13] Gabriel Tortella, "La implantación del monopolio de explosivos en España," *Hacienda Pública Española*, 108–109 (1987), pp. 393–410.

[14] CASA, Duro Felguera, and Cros can't be related to this strategy because of their very limited market power when they were incorporated. H. Fabra & Coats, a firm linked to the First World textile producer (J&P Coats) but operating in a very fragmented and competitive market, failed to enter into the merger, monopoly-oriented pattern. The emergence of Siderúrgica del Mediterráneo was, much to the contrary, a challenge to the hegemonic position of Altos Hornos de Vizcaya. See Manuel Girona, *Minería y siderurgia. Sagunto (1900–1936)*, Valencia, Institució Valenciana d'Estudis i Investigació, 1989, and Eupenis Torres Villanveva, *Ramón de la Sota: historia económica de un empresario*

While the first wave of manufacturing giant firms was led by market developments, the second was almost entirely carried out by state intervention. But for IBM-España and Fasa-Renault, all the new big manufacturing firms were publicly owned. The state had full responsibility in the new incorporations and in the radical change with the previous trend in big firms creation.

The incorporations of the past two decades are mainly the combined outcome of both forces: market development and state intervention. The latter would be responsible for the founding of EMPETROL and REPSOL, whereas the former would be accountable for the U.E. Rio Tinto merger. Astilleros Esp(añoles) was a combination of both. The real innovation was the appearance of quite a number of multinational branches: Ford España and General Motors España have renewed the top positions of big manufacturing firms.[15]

How big were manufacturing firms in Spain?

To answer this question, we have relied heavily on the three appendixes of *Scale and Scope*. We have assumed that the data were comparable, although some precaution has to be kept in mind. Our first move has been to assess the size (in Spanish currency) of the 200th firm in the United States, the United Kingdom, and Germany for each of the three relevant years. Afterward we compare the size of these firms (the 200th) with the Spanish ranking of manufacturing firms.

Table 9.9 shows the result. The comparison immediately reveals a pattern of stability of the size of Spain's big industrial firms from 1917 to 1930, followed by a sharp reduction from 1930 to 1948. By 1948 the size of the 200th U.S. industrial firm (measured by the assets) was impossible to reach for the first Spanish firm. The same held true for the British. Though we lack the relevant data, we have the impression that the declining trend continued at least until 1960. It was clearly reversed by 1974, and even more by 1990.

Some Spanish firms reached a quite impressive size in international terms. In 1917 this was the case of the S.G. Azucarera (sugar producer and refiner), tenth among the British manufacturing firms and seventh among the Germans, and second among the British food manufacturers and first among the Germans. The Azucarera was an outstanding case. The three following firms (Duro Felguera, Cía. A. Tabacos, and S.E. Const(rucción) Naval) had a similar size – around $25 million. They were small among the big American firms, but substantive among the British (around the 30th) and the German (around the 35th). Still in 1930 the first Spanish manufacturing firm, S.M.M. Peñarroya, was to be placed 13th among the British and 4th in the German ranking. But in 1948 not even the largest Spanish industrial firms were able to enter among the first U.S. 200; the first was only 100th among the British and 50th among the German. Checking the *Fortune* 500 world list for 1990 (1991) the situation is as follows: REPSOL, the Spanish manufacturing giant, is 102nd by assets; the second Spanish industrial concern, CEPSA, is 379th – and both are petroleum refiners. The high level reached by the public holding INI (24th) is not reflected in our data because we have considered each of the INI firms separately and because *Fortune* includes the assets of the electrical firms owned by the INI, so the estimate becomes inconsistent. By its assets REPSOL is the 31st U.S. industrial corporation, the 8th U.K., and the 11th German. It may represent a catching-up. Unfortunately for Spanish pride in big business, the second firm – CEPSA, a petroleum refiner, too – is substantively smaller (three times).

(*1857–1936*), Madrid, Universided Complitense, 1989. CEPSA was created not to become a monopolist (there was a legal monopolist at that time – CAMPSA) but to take advantage of the limited space of free action allowed by CAMPSA.

[15] The Grupo Torras was a very peculiar case: a holding of Spanish (mainly manufacturing) firms controlled by an investment trust (KIO – Kuwait Investment Office) owned by the Kuwaiti government. By 1993 the Grupo Torras went bankrupt.

Table 9.9. *Position of the 200th manufacturing firm of the United States, Great Britain, and Germany within the Spanish ranking of manufacturing firms, 1917–1974*

	United States	United Kingdom	Germany
ca. 1917[a]	4th	26th	21th
ca. 1930[b]	4th	26th	39th
ca. 1948[c]	1st	8th	42nd
1974	7th	—	—
1990	12th	—	—

[a] 1917, 1919, and 1913, respectively.
[b] 1930, 1930, and 1929.
[c] 1948, 1948, and 1953.
Sources: A. Carreras & X. Tafunell, "La gran empresa en España, 1917–1974. Réplica a una nota crítica," *Revista de Historia Industrial*, 6 (1994), pp. 165–172, and *Fortune* (1975), May, pp. 210–229, and August, pp. 156–161; *Fortune* (1991), 22 April, pp. 122–141, and 29 July, pp. 70–103.

Assessed by sales and not by assets Spanish firms were absent by 1962 and 1967.[16] They only appeared in 1972 (SEAT). The following benchmark – 1978 – is one of clear success: 7 firms (EMPETROL, U.E. Rio Tinto, CEPSA, Tabacalera, ENSIDESA, SEAT, Altos Hornos V(izcaya)) enter among the top 497. The industrial crisis reduced the Spanish presence by 1982 to 3 (EMPETROL, CEPSA, and Tabacalera). By 1990, and according to *Fortune*,[17] the situation was not very different: 4 firms (INI, REPSOL, CEPSA, and Tabacalera). The trend of the first Spanish firm in the ranking is continuously increasing: 452th in 1972, 215th in 1978, 167th in 1982, and 62nd in 1990.

In short, Spanish big business has become comparatively smaller through a good deal of the twentieth century. It probably reached its minimum international size around 1960. Afterward it has improved its overall position.

PRODUCTION AND MANAGEMENT

Production and technology

We have approached the investment in production and new technology through the change in assets, that is, variation in assets in real terms (pesetas of 1917). As usual, we concentrate on the first ten manufacturing firms. For the sake of the dynamics, we follow each firm on the top from the beginning to the end of the period. For the sake of simplicity, we aggregate them in six major sectors: consumer goods (20 to 27 according to Table 9.6 classification); metal products (33 and 34); transportation equipment (37), chemicals (28); petroleum products (29), and others (only 36, electric and electronic equipment).

By 1917, as is indicated in Table 9.10, we have a set of manufacturing firms with their assets concentrated in sectors like food and tobacco, iron and steel and shipbuilding. From 1917 to 1930 the individual experiences had a lot in common: all the sectors expanded. The 1920s were a very prosperous period also for Spain. The top manufacturing firms engaged in expanding their productive capacity – that is, they invested in production. New firms appeared. The previous primacy of final-demand-oriented

[16] According to *Profitability and Performance of the World's Largest Industrial Companies*, London, *Financial Times*, 1975; and J. Dunning & R. Pearce, *The World's Largest Industrial Enterprises*, Gower, Westmead, 1981, and *The World's Largest Industrial Enterprises, 1962–1983*, Gower, Aldershot, 1985, in their rankings of 497 world's largest industrial enterprises (classified by sales).

[17] *Fortune* April 22, 1991, pp. 122–141; and July 29, pp. 70–103.

Table 9.10. *Changes in assets values (in million pesetas of 1917)*

Sectors	1917	1917–30	1930–48	1948–60	1960–74	1974–90
Consumption goods	618.1	564.4	–516.0	342.8	818.2	3.6
Metal products	371.1	980.9	–1,097.8	3,293.2	2,767.5	–2,768.0
Transportation equipment	192.6	408.0	14.0	1,471.9	4,139.0	–422.2
Chemical industry	60.2	206.2	–21.6	462.2	1,468.3	–1,531.3
Petroleum products	—	91.5	104.4	2,142.0	1,722.9	–1,965.4
Others	—	—	—	—	—	924.4

Sources: A. Carreras & X. Tafunell, *National Enterprise. Spanish Big Business, 1867–1990*, paper presented to the Pre-Conference on Global Enterprise, Florence, European University Institute, "La gran empresa en España, 1917–1974. Una primera aproximación," *Revista de Historia Industrial*, 3 (1993), pp. 127–175, and table 6. The deflation has been made using the GDP deflator, Leandro Prados, *Spain's Gross Domestic Product, 1850–1993: Quantitative Injectures*, Madrid, Universided Carlos III, mimeograph copy, 1995, table D.3.

products switched, although not dramatically, to intermediate sectors like primary metal products. Transportation equipment, chemicals, and petroleum products also enjoyed substantive investments in productive capacity.

The period 1930–1948 was a disastrous one. Most firms were unable to make positive net investments.[18] With a few exceptions of small caliber, the private sector was unable to invest in production. Only the newly created "national enterprises" (Calvo Sotelo, E.N. Bazán, ENASA) committed themselves to a substantive growth in production. The outcome was a sharp contraction in asset value, particularly in the previous leading sectors: consumer goods industries and metal products. The traditional foundation of Spanish big firms was severely shaken. The expansions, very modest, came from petroleum products and transportation equipment, and were strictly related to public investment.

The years 1948 to 1960 revealed a very different standing. Prosperity came back for all the firms. Some were unable to compensate for the disinvestments made in the previous period, mainly in the more final-demand-oriented firms. The huge (in historical terms – we are using 1917 pesetas) real expansion in production came again from the public sector: ENSIDESA and E.N. Calvo Sotelo made enormous investments. Other newly created public firms followed their pattern: E.N. Bazán, SEAT, and ENASA. They worked in sectors with high economies of scale, and the private firms of those sectors also expanded. The major changes, in relative terms, came in oil refining: the investment expansion was more than tenfold. Metal products, chemicals, and transportation equipment also enjoyed substantive investment policies. Altogether, the change in technological leadership was completed: new sectors emerged, new firms appeared, while the old sectors and firms declined.

The period from 1960 to 1974 was the golden era of Spanish economic miracle. It is no wonder, considering how large were the investment commitments of the top manufacturing firms. Nevertheless, the expansion of the top firms was not so dramatic compared with that in 1948–1960. Some of the old ones continued their decline. Many of the recently created and publicly owned firms lost momentum, while some private ones got their own dynamism. Transportation equipment – mostly car making, but also shipbuilding – was the leader in new investments. The chemical industry enjoyed the quickest growth. But the bet for expansion was common to all the sectors. Metal and petroleum products insisted in their

[18] Perhaps the assessment of their performance is worsened by the fact that they were slow in revaluing their assets according to inflation. Nevertheless, we have checked their market value and the results found fluctuate closely around the book value.

enlargement of productive capacity and a few of their firms reached dimensions that began to be noticeable in international terms.

Except for some of the car makers, the period 1974–1990 has been extremely painful. It can only be compared with 1930–1948, but with a much worse aggregate performance. The recently expanding sectors and firms have suffered a tremendous contraction: steelmaking (2,768 million 1917 pesetas), oil refining (1,965), chemicals (1,531), shipbuilding (1,720). It is shocking how similar these figures are to those of the previous expansion. The worst performing, the shipbuilding companies, has led to the closing of entire shipyards and to the abrupt decline of their hometowns. The extent of the crisis sheds a dark shadow on the assessment of the previous investment strategies. The performance is worse the more public the company is. Only the automobile industry had a less critical development. Two firms developing new technologies have reached the range of the top-ten manufacturing: CASA (an aircraft builder, publicly owned) and IBM España (with a strong commercial component).

The overall impression is one of too high discontinuity. The firms seem unable to protect their production investments, and everything done in a period can vanish in the following. This fragility may be the outcome of state hyperactivism combined with rent seeking.

Management[19]

A real managerial tradition begins in Spain only toward the early 1960s. Schools of management and a management culture with specialized journals begins then.[20] There was an engineering basis for such a tradition since the last century, with a host of specialized journals.[21] The years around World War I – notorious in our story for so many reasons – were also the period of multiplication of economic and business journals.[22]

[19] Not until after the completion of this chapter did we learn of Mauro F. Guillén, *Models of Management: Work, Authority and Organization in a Comparative Perspective*, Chicago, University of Chicago Press, 1994. A whole chapter (pp. 152–204) is devoted to Spain.

[20] W. C. Frederick & C. J. Haberstroh, *La enseñanza de dirección de empresas en España*, Madrid, Moneda y Crédito, 1969; Andrés Suárez Suárez, "Los estudios de Economía de la Empresa en la Universidad Española," *Economistas*, 2, (1983), pp. 16–24.

[21] Ramón Garrabou, *Enginyers industrials, modernització econòmica i burgesia a Catalunya (1850–inicis del segle XX)*, Barcelona, L'Avenç/Col.legi d'Enginyers Industrials, 1982.

[22] Albert Carreras, "Renta y Riqueza," in A. Carreras (ed.), *Estadísticas históricas de España (siglos XIX y XX)*, Madrid, Fundación Banco Exterior, 1989, pp. 533–88; M. V. de Diego & J. Timoteo, *La prensa económica y financiera, 1875–1949. Fuentes hemerográficas para la historia de la economía y la hacienda en España*, Madrid, Instituto de Estudios Fiscales, (monograph No. 35), 1985.

The protohistory of modern management was to be found in railway companies, but our knowledge of this is very limited.[23] The industrial firms began to modernize through the adoption of Taylorism. Taylor's "Scientific Organization of Labor" began to be known since 1914 and was first adopted in steelworks and engineering firms during the 1920s.[24] The civil war provoked some dramatic changes in the management of large firms. The managers loyal to the Republican regime lost their positions after the war. A new managerial class rose with good political connections as its main asset. Moreover, the wave of nationalizations and the creation of many new "national enterprises" opened the way to new managers. An interesting feature of Spain's postwar years is the fact that many of these came from the military and diffused their own culture in the managerial field. After the stagnating 1940s, the creation of the "Comisión Nacional de Productividad" (National Productivity Commission) in 1952 and, just afterward, the by-products of the U.S.–Spain military agreement of 1953, opened a new period. For some twelve years the activity of managerial retraining and of professional development was very much intensified. Many "productivity missions," public grants, new committees, new specialized journals, and, eventually, even new management schools built new managerial capabilities in Spain's business world.[25] The movement slowed down since 1964 when the management schools became well established and the foundations of the catching-up, too.[26] It was also the end of the most proliberal (in economic terms) stage of the Franco regime.

The main paths for the introduction of new management techniques were the consulting firms. They were of French or U.S. origin, and the first to operate were created in 1952 (TEA) and 1953 (Bedaux).[27] Still, nowadays they retain a critical role in the introduction and diffusion of the most advanced technology related to labor management – robotics.

[23] But the situation is beginning to change with Javier Vidal, "La estrategia internacional de las empresas ferroviarias españolas durante la segunda mitad del siglo XIX (1850–1914): una aproximación," paper presented to *V Congreso de la Asociación de Historia Económica*, San Sebastián, pp. 271–283.

[24] José Mª Vegara, *La organización científica del trabajo. ¿Ciencia o ideología?*, Barcelona, Fontanella, 1971; J. Tomás & J. Estivill, "Apuntes para una historia de la organización del trabajo en España, 1900–1936," *Sociología del Trabajo*, 1 (1979), pp. 17–43.

[25] José Luis Herrero, "El papel del Estado en la introducción de la OCT en la España de los años cuarenta y cincuenta," *Sociología del Trabajo*, 9 (1990), pp. 141–166.

[26] Social capabilities as described by Moses Abramovitz, "Catching-Up, Forging Ahead and Falling Behind," *Journal of Economic History*, 46, 2 (1986), pp. 385–406.

[27] Pedro Egurbide, "El 'consulting' en España," *Información Comercial Española*, 513, (1976), pp. 133–137.

Another hint of the modernity of management is the introduction of new technologies – calculators. According to Santiago López the first companies to install calculators were the railway companies during the 1930s.[28]

The diffusion of top management as differentiated from ownership has been present for a long time in Spanish business life. This was the case for the railway and the mine business of the nineteenth century. The existence of foreign investment induced a higher complexity in the firm organization. So early top management was foreign. A further and critical step toward the emergence of a native class of managers in the manufacturing sector was the merger wave at the end of the nineteenth century. The mergers introduced systematically a top management component. The new firms were always multiplant (not multidivisional): S.G. Azucarera, Cía. A. Tabacos, Papelera Española, U.E. Explosivos, Altos Hornos V(izcaya), and so on. The investment role of Spanish banking from World War I also allowed for the diffusion of management ownership cleavages on a more modern basis. By 1960, Linz and De Miguel observed this new pattern in a large sample of in-depth interviews with business leaders.[29] The trend was confirmed in another research conducted by Payno around 1970.[30] At that moment, the manager was much more present in business life. Nevertheless, there has never been in Spain a "managerial revolution." Managers have remained well under the control of the ownership.[31] Indeed, most of the current problems in the summit of some Spanish big firms are not due to poor monitoring of managers but to poor monitoring of the owners in charge of the management.

THE UNMAKING OF ORGANIZATIONAL CAPABILITIES BETWEEN STATE AND MARKET

A provisional conclusion that can be reached for Spain is the failure to build organizational capabilities of the kind needed to develop "global

[28] Santiago López, *Los orígenes de la Tercera Revolución Tecnológica en España*, unpublished manuscript.

[29] J. Linz & A. de Miguel, "Fundadores, herederos y directores en las empresas españolas," *Revista de Investigaciones Sociológicas*, 81 (1963), pp. 5–38; 82 (1963), pp. 184–216, and 85 (1964), pp. 5–28; "Nivel de estudios del empresario español," *Arbor*, 219 (1964), pp. 33–63; "Características estructurales de las empresas españolas: tecnificación y burocracia," *Racionalización*, 1 (1964), pp. 1–11; 2 (1964), pp. 97–104; 3 (1964), pp. 193–208; and 4 (1964), pp. 289–296.

[30] Juan Antonio Payno, *Los gerentes españoles*, Madrid, Moneda y Crédito, 1973.

[31] Vicente Salas, "Estructura de propiedad, profesionalización gerencial y resultados de la empresa," in J. L. García Delgado (ed.), *Economía española de la transición y la democracia*, Madrid, Centro de Investigaciones Sociológicas, 1990, pp. 421–443.

enterprises." We perceive, in a simplified approach, two main reasons. The first derives from the unrestricted working of markets. The second from the intervention of the state. Let's begin by the explanations coming from the market side.

We have mentioned the limited size of the market and the role of the commercial policy. We would like to suggest here that even when the market was growing smoothly and no reallocative policy was undertaken, nothing really significant developed in the direction of building organizational capabilities.

An interesting test is the development of trademarks. Alfred Chandler has indicated the centrality of brand names for the development of organizational capabilities. They are critical in the deployment of marketing policies, in the formation of managerial hierarchies, and in the investment in new technologies. The brand name represents the key to mass consumption. A recent article by Mira Wilkins underlines and expands these considerations.[32] As she, interestingly enough, points out, her interest in trademarks, the legal term on which brand names are based, arose with a question by Juan Linz on the absence of Spanish trademarks. The question, formulated at the beginning of the 1960s, has received a detailed and fascinating answer by Mira Wilkins, with a delay of more than a quarter of a century – quite a normal feature in the social sciences. The substance of Wilkins' response is: trademarks are related with levels of income. The richer the country (in per capita terms), the more likely it develops its own trademarks. It may be possible to introduce some delays or inertia in order to cope with some outlier observations but, generally speaking, here we have a simple and sound theory. The high standards of living in the turn-of-the-century United States was responsible for the first upsurge of well-diffused and recognized trademarks. Other European countries followed, but with significant delays. Indeed, trademarks were identified with American products for many decades. If this approach is a sound one, we may expect the rise of Spanish trademarks in the coming years. Moreover, given the previous, continuous, and spectacular growth of Spanish per capita income since the 1950s, we may wonder how is it that we are still short of Spanish trademarks – as we are.

But, is the trademark so well related to per capita income? It is difficult to test this correlation. How can we measure trademarks? A shortcut is

[32] Mira Wilkins, "The Neglected Intangible Asset: The Influence of the Trade Mark on the Rise of the Modern Corporation," *Business History*, 1 (1992), pp. 66–95.

multinationals or, at least, giant firms. Daems developed a test of this kind in order to realize the underlying factors to the growth of big firms.[33] He provided some puzzling facts, such as the astonishingly high level of large U.K. firms in real per capita terms among the European countries or, on the contrary, the surprisingly low level of Spanish large firms in the same terms. Just as the United Kingdom had by 1982 many more large firms than expected, Spain had less. Spain was not alone: Norway and Austria were in a similar situation. A possible, but insufficient, explanation was low R&D levels. Another line of reasoning is to check the revealed comparative advantage of a country against the set of sectors more conducive to giant firms. This is the line we would like to explore.

As Chandler has argued, you do not get modern business enterprises with managerial hierarchies, huge size, and well-known brand names in every manufacturing industry.[34] There are some where big firms do not appear. The difficulty of developing trademarks and brand names is even bigger outside the manufacturing sector. You do not get trademarks out of the agricultural or the mining sector – at the very maximum you get *dénominations d'origine*. And you fail to get trademarks with services not amenable to foreign trade.

Those countries that have a set of comparative advantages located in sectors where trademarks are unlikely to develop may grow – perhaps not so quickly – but will fail to achieve a large size for their top firms. Even when they develop big firms, they will tend not to be of the brand-name kind. Exporters of food products, minerals, raw materials, and semimanufactured goods are ideal candidates for this class. Here we find Spain, other Mediterranean countries, some Scandinavian countries (Norway, Finland until very recently), Austria, South Africa, Australia, New Zealand, the wealthiest countries of Latin America, Canada, and so on.

The testing of this hypothesis is much too demanding within the space at our disposal, but we will try to develop it in the near future. Meanwhile, we simply suggest that the peculiar comparative advantage of Spain was not conducive to the developing of trademarks, at least until 1970. Oranges and fruits, iron ore, lead, pyrites, wine, and oil were unlikely candidates for trademarks. Even the late growth of industrial exports was linked to nontrademark sectors: shoemaking and shipbuilding. During

[33] Herman Daems, "The Size of the Firm: Theoretical and Empirical Reflections on European Industrial Hierarchies," in *Piccola e grande impresa: un problema storico*, Milano, Franco Angeli, pp. 73–91.

[34] Alfred D. Chandler, Jr., *Scale and Scope*.