

ECONOMIC ENTREPRENEURSHIP, A SCARCE COMMODITY IN SPAIN,
1850-1930¹

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Spaniards are not enterprising in business, and few care to venture on a new industry or undertaking. But no sooner has one done so with success, than his example is certain to be copied by many others, and over-supply rapidly ensues.²

What is going to be Spain's competitive advantage? In the world of the future the main source of advantage will be brain power. You need a competitive strategy to play this game. Korea, with a population similar to yours, is a good example. Her strategy is to develop three or four world-competitive firms by means of research and development. What are these firms in Spain? You don't have them. I don't see your industrial competitive strategy facing the twenty-first century.³

The second citation above portrays one of the most serious problems of the Spanish economy today: it not only lags pitifully in international competitiveness, it lacks a blueprint to tackle the problem. A glance backwards in time (see the former citation) shows this to be a historical problem. Spanish industry has a long tradition of sluggishness, a congenital inability and unwillingness to compete abroad. One is hard put to remember a Spanish industrial firm with truly international prestige, comparable to Korea's Hyundai or Italy's Fiat, for a couple of present-day examples in roughly comparable countries. Today one can, with some justification, blame the state for such situation. Historically, however, the problem is a more general one of deficient entrepreneurship.⁴

Only recently have historians and economists started to devote some systematic attention and research to business history in Spain.⁴ This is probably the reason why some basic questions regarding Spanish business and entrepreneurial history have not yet been posed as problems to be solved in a scientific way. One of these problems, which has been frequently hinted at by historians one generation removed, is why has entrepreneurship been such a scarce factor in Spain? A related question would be: is this lack of great entrepreneurs a cause or a consequence of Spain's economic

¹Preliminary draft. Please do not quote.

²S.P. Cockerell, econ. attaché to the British embassy in Madrid (1906), in *EE*, 1908, CXVI, p. 55.

³Lester Thurow, interviewed in *El País*, 20 January 1993. My translation.

⁴Coll (1991), Tortella and Coll (1992).

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retardation? The present essay cannot even attempt to seriously answer any of the two questions. It will limit itself to trying to establish the fact of this scarcity by means of some testimonies and examples culled from a few case studies. Then it will try to examine the possible causes of this phenomenon and, finally, will end with some reflections about the general causes of Spanish economic retardation.

I

Spain is a typical "European latecomer". Although its national income per capita grew in real terms during the nineteenth century, the pace of this growth was so slow, especially during the first half of the century, that the gap between the country and the West-European average undoubtedly increased.⁵ Around the turn of the century the pace on income growth accelerated somewhat. In the period up to the Spanish civil war (1936-9) the Spanish economy recovered a small part of the lost ground due to its quickening economic growth while Western Europe as a whole substantially decelerated due to the Great War and the Great Depression. A unique feature of Spanish economic history is the deep and prolonged trough that followed the end of its civil war. It took almost fifteen years for Spanish national income per capita to reach the levels of 1935, the last whole normal year before the war.⁶ This compares very poorly even with countries which were invaded during the second world war, such as France or Italy, whose incomes plummeted during the hostilities, but which recovered in a matter of three or four years, more than three times faster than Spain. From the mid-Fifties to the mid-Seventies, however, Spain was a fast grower, performing almost as well as Germany or Italy. The crisis of the Nineteen-Seventies, nevertheless, hit Spain especially hard and for almost a decade it again lost some ground in relative terms. In the prosperous mid- and late-Eighties Spain again recovered some ground.

It is difficult to know to what extent entrepreneurs are to blame for Spain's economic backwardness. For one thing, Spain is not an isolated case, but is, as intimated before, a member of the set of "European latecomers", composed of most Mediterranean and Eastern countries. I have suggested elsewhere that Italy,⁷ Portugal, and Spain share many traits in their modern economic history.⁷ If lack of entrepreneurship were one of the factors of Spanish retardation, it should figure also in the Italian and Portuguese cases at least. For another, and again as intimated before, business entrepreneurship is an almost unexplored field of research in Spain. In the case of Britain, whose economic and business history is one of the longest and most intensely studied, the discussion has been heated, prolonged, and inconclusive about the role of the entrepreneur in the relative slowdown⁸ of the country during the late nineteenth and early twentieth century.⁸

Testimonies similar to those quoted above about Spain's lack of

⁵Molinas and Prados de la E. (1989), Tortella in *EHR* (forthcoming).

⁶Ros Hombravella et alii ().

⁷Tortella (forthcoming); for some disagreement, Molinas and Prados de la E. (1989).

⁸For a summary of the discussion see Payne (1978).

entrepreneurship are abundant.

The role of foreign entrepreneurship (especially French entrepreneurship) was key in Spanish banking. The first central bank in Spain, the Banco Nacional de San Carlos, established in Madrid in 1782, was the brainchild of François Cabarrus, a young (30 years) French businessman established in Valencia and Madrid. Cabarrus not only wrote the project of the bank which was finally enacted, but was its *de facto* manager during the first seven years of the bank. Although the history of the bank was rather stormy, the fact remains that the predecessor of the Bank of Spain and one of the first central banks in European history was founded by a Frenchman and not by a Spaniard.⁹

[Banqueros de nombre extranjero en España a ppios del XIX: Tedde] After a rather stagnant early nineteenth century, marred by foreign and civil wars, economic activity picked up, and banking became the most active sector, stimulated by railroad construction and considerable inflows of French capital and entrepreneurship. As a leading specialist has written with little exaggeration, "what little economic development Spain achieved in the nineteenth century was largely a result of these French-inspired credit companies." In the same vein, he quotes the French ambassador writing in 1856 the "Spanish imaginations have been vividly impressed by the generous assistance which French capital and skill ha[ve] recently extended to the national industry". And Cameron adds:

But however much impressed, the Spanish did little about it as evidenced by the fact that at the end of the century Frenchmen still controlled the greater part of Spanish heavy industry, and still took the initiative in creating new enterprises.¹⁰

In fact the French not only supplied capital and entrepreneurship, but legislative initiative as well, for French businessmen such as Kervégen, Millaud, Péreire, Rothschild, and Prost had an active part in the drafting of liberal banking legislation by the Spanish Cortes early in 1856. As a consequence, three large French banks were established, the Crédito Mobiliario Español (Péreire), the Sociedad Española Mercantil e Industrial (Rothschild), and the Compañía General de Crédito Español (Prost, Guillohou).¹¹ This legislation, plus the French example, among other factors, stimulated the growth of the Spanish banking system, which in a few years multiplied its numbers by almost twelve (from 5 to 58) between 1855 and 1865, thus confirming the opinion of the British consul in 1906

⁹Tedde (1989) and (1987), Santillán (1865), Hamilton (1945), (1946), (1949), and (1970). Although Cabarrus lived in Spain since he was twenty, he never relinquished his French citizenship and his contacts with French society, business, and politics were continuous. His daughter married the French politician Jean-Lambert Tallien, who had saved her from the guillotine in Bordeaux, and became a leading figure in the salon society of post-revolutionary Paris; see Tedde (1989), esp. chs. 2, 3, and 8; Carlyle (n.d.), pp. 539, 577-8; Thiers (1838), IV, p. 177; Furet and Richet (1970), pp. 341-2; and Soboul (1962), p. 147.

¹⁰Cameron (1989), p. 313; Cameron (1961), p.

¹¹Cameron (1961), pp. ; Tortella (1977), pp. 89-97.

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to make advances to the government on the guarantee of the proceeds coming from the sales of nationalized lands was already mooted in 1854-6 while the General Disentailment Law of 1 May 1855 was being discussed.¹⁷ Later on, during the euphoric year of 1863 there was frequent talk of a Banco Hipotecario; a former request was even put forward by José Salamanca and Bank of Spain. Nothing came out of all these plans (although a few smaller mortgage banks were created during those years, some by French capital) and finally it was a French group that obtained the charter. Although in the end the Hipotecario's capital and management fell into exclusively Spanish hands, during its first thirty years or more most of its shares were in French hands and its policies were co-directed if not dictated by a Paris Committee.¹⁹

Paribas also intervened decisively in the creation of a powerful Spanish bank in 1902, the Banco Español de Crédito, which was the successor of the stagnant Crédito Mobiliario Español. The purposes of its founders were to inject new capital in the old firm and to attract Spanish depositors. Both ends were attained. The Banco Español de Crédito ("Banesto", as it is generally known), while keeping the investment portfolio of the Mobiliario, became a successful commercial bank, with an expanding branch network. Although at first closely associated to the Paribas and its capital mostly in French hands (40 percent had been subscribed by the Paribas group, 30 percent by the old Mobiliario group, mostly the Péreire family, and 30 percent by Spanish capitalists), a large share of its equity was acquired by Spaniards during the first world war; the "Paris committee", little more than a symbol from then on, was officially dissolved in 1927.²⁰

French entrepreneurs were the paramount foreign group in Spanish banking. There were other, less relevant French initiatives in the field (Banco General de Madrid, Banco Popular de España, Banco Franco-Español, Crédit Foncier et Agricole du Sud d'Espagne, etc.). The Crédito Lyonnais opened several branches in Spain, notably in Madrid, Barcelona, and Valencia. There were initiatives, some ephemeral, from other countries. None as relevant as the big French concerns, from other countries. Italy. The Deutsche Bank, however, kept a substantial bridgehead in Spain, which took several forms (Banco Hispano-Alemán, Guillermo Vogel y Compañía, Banco Alemán Transatlántico) but always specialized in giving credit to the electrical industry. German, French, and Belgian capital promoted the Banco Español Comercial, operating in Valencia. The Italian Banco di Roma had a branch operating in Barcelona, and the Union Bank of Spain and England was the only British incorporated venture. Of course, Barings and their agent Henry O'Shea, were second only to the Rothschilds and Weisweiler and Bauer as powerful and active business bankers in mid-

¹⁷For a brief description of disentailment see Tortella (1987), pp. 44-5.

¹⁸Tortella (1977), pp. 538-6.

¹⁹Broder (n.d.), pp. 793-7; Lacomba and Ruiz (1990), pp. 51-

²⁰Sánchez-Albornoz (1977), pp. 173-4; Tedde (1974), pp. 424-6; Broder (n.d.), pp. 798-806; El País, 23 February 1987.

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that Spanish businessmen were followers rather than leaders.¹² The combined paid-in capital of the three French houses was almost one half of all the banking capital, even after all this impressive sectorial growth, and including the Bank of Spain. The Crédito Mobiliario alone had almost one third of all the paid-in capital, and almost double that of the Bank of Spain.¹³

This wave of bank foundations and business promotions was short-lived, however, and ended in a debacle during the mid- and late 1860's. The performance of the three French banks during the crisis differed widely. The Compañía General de Crédito suspended payments in 1864 and constituted a big failure, although it had a remarkable role in promoting gas companies. The Sociedad Mercantil e Industrial closed its doors in 1868, but the Rothschilds by no means decamped from Spain. Their original unincorporated Spanish branch, Weisweiler and Bauer, remained an important actor in Madrid business circles.¹⁴ The Crédito Mobiliario remained a prominent (albeit less active than at first) industrial bank until 1902.¹⁵

The second official bank in Spain, second in importance and in chronological order, was the Banco Hipotecario or Mortgage Bank. Founded in 1872, it was a French creation also, and expressly took the *Crédit Foncier* as its model. In the early 1870's the Spanish government was in serious financial difficulties, and it turned to a relatively new French institution, the Banque de Paris et des Pays Bas. In exchange for a loan of 100 million pesetas, Paribas and its group were granted the permission to establish the Banco Hipotecario.¹⁶ The idea of creating a special bank

¹²Some long-lasting and successful Spanish institutions, such as the Banco de Barcelona (1844), the Sociedad Valenciana de Crédito y Fomento (1846), the Banco de Santander (1857), and the Banco de Bilbao (1857) prove that there was some entrepreneurial ability in nineteenth-century Spain.

¹³Tortella (1977), esp. Tables I-1, IV-1, and IV-2.

¹⁴On Weisweiler y Bauer's early history see Otazu (1987), who defines Daniel Weisweiler as "the best teacher many Spanish bankers could have had" (p. 446). Weisweiler was from Frankfurt, and had been an employee of James de Rothschild in Paris. Ignatz Bauer, from Budapest, was later selected by Weisweiler as his partner and successor. Other prominent foreign bankers in early nineteenth century Madrid include Henry O'Shea, Irish, agent of Barings, and Jean-Pierre Saiglan-Bagnères, Joseph Buschenthal, André Finat, and the brothers Louis and Numa Guillohou, all French. The Guillohou brothers had started out in the 1840's with businesses of banking and tanning, and ended up as partners of Adolphe Prost in the General de Crédito and the Seville-Cádiz railway, among others. Cf. Otazu (1987), Cameron (1961), Platt (1983), and Tortella (1977).

¹⁵Sánchez-Albornoz (1977), Ch. 8 (on the contribution of the Mobiliario to the Spanish economy see esp. pp. 179-83); Tedde (1974), passim; Platt (1983).

¹⁶Cameron (1961), p. 197; Broder (n.d.), pp. 769ff; Tortella (1977), pp. 536-41; Lacomba and Ruiz (1990), Chs. I and II.

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Nineteenth century Madrid.²¹

That Spanish railroads were built largely with French capital, entrepreneurship, and know-how is a well-established fact, recognized by contemporaries and present-day historians. For English-language readers the most familiar description will be that of Cameron in his classic *France and the Economic Development of Europe*. More recent Spanish research has found new evidence and has studied the history of Spanish railways from different angles, but Cameron's rendition has been completely validated.²² The essential facts are as follows: the three large French banks established in mid-nineteenth century had as their primary aim to build Spain's basic railroad network, which until then was almost negligible. The three banks immediately created their own railroad companies and, in a few years of feverish activity, from 1856 to 1866, they laid out the basic radial network. True, they were not alone. There were also Belgian entrepreneurs,²³ and several smaller Spanish companies which built substantial segments, showing once again the propensity to follow (or to "copy", according to Consul Cockerell) of Spanish entrepreneurs. There is some discussion about what percentage of the capital that financed the Spanish railroads was "foreign". The late Christopher Platt, naturally, thought the larger share of capital was local, whereas Tedde thinks is not as large as it may seem, they may both be right about different points in time, and the question may never be definitely settled. What nobody discusses is that the initiative was French, and that Spaniards only followed. The case, however, is far from exceptional, since Frenchmen built most railroads in Southern and Eastern Europe.

II

Nineteenth-century Spain was predominantly an agrarian country. Most of its exports were of agrarian and animal products, to which minerals were added during the last quarter of the century. Of course agrarian entrepreneurship was overwhelmingly native; but then it is also true that it was notoriously backward and conservative.²⁵ To what extent this conservatism was a rational decision is something that historians will debate for years; the fact remains that Spanish agrarian entrepreneurs in the nineteenth century were averse to innovation; this, however, was no glaring exception in Mediterranean Europe. And, in turn, there were a few exceptions in Spain to this general panorama of agrarian inertia. These exceptions appeared in the sector that was more oriented towards exports. Specialization in orchard and fruit crops was one such innovation, and citrus were one of the most successful products. The development of an

²¹Tedde (1974), passim; Broder (n.d.), pp. 806-27.

²²Tortella (1977), Gómez Mendoza (1982), (1989); Artola (1978).

²³For the misadventures of a Belgian railroad promoter in nineteenth- and early twentieth-century Spain, Edouard Otlet, see De Ryck (n.d.).

²⁴Platt (1983); Tedde (1978). For more recent statistics, Gómez Mendoza (1989).

²⁵Bernal (1992); Simpson (1987); Tortella (1987).

orange-growing agriculture, mostly in Valencia, shows that not all Spanish farmers were averse to change.²⁶ Orange production, although growing very rapidly in the second half of the nineteenth century, however, did not reach national significance until the twentieth century. Another agrarian sector which experienced an export boom in the mid-nineteenth century was wine. Taking advantage of the phylloxera plague in France, Spanish exports of wine reached unprecedented proportions in the 1870's and 1880's. Many regions, notably Valencia, benefited from this bonanza, which required little innovative entrepreneurship. But there was a kind of export wine whose production and commercialization required entrepreneurial expertise, the Jerez wine or sherry (or *xerès* in French).²⁷ The boom in sherry exports took place earlier, in the 1850's and 1860's, spurred by a shift in British tastes from sweeter to dryer wines. The Jerez region, however, had been exporting darker (sweet) fortified wines at least since the late eighteenth century. The fact is that the production and exportation of these high-quality distinctly Spanish wines was largely in the hands of foreign entrepreneurs, whose origins were French, English, and Irish. Such is the case of Domecq, a gascon family of the provincial nobility whose business had been the exportation of Bordeaux wines to England, who escaped to Spain during the French revolution, and who established themselves in Jerez, continuing their business, probably with the same English contacts and only changing the origin, and therefore nature, of their wares.²⁸ The names of the most famous Jerez cellars or *bodegas*, namely González-Byass, Osborne, Garvey, Terry, Sandeman, Williams and Humbert, Duff-Gordon is an indication of the role of foreigners in this trade.²⁹ Again, this is not to deny the role of domestic entrepreneurship in the field, the most notable probably being Manuel González Angel, the senior partner in González-Byass.

III

The other large exporting sector was mining. For most of the nineteenth century Spain's respectable stock of mineral resources remained largely undisturbed and contributed little to the country's development. After 1870, however, all this underground wealth was tapped and was turned into the most dynamic economic sector. The factors causing this resurrection were partly internal and partly external.

Let us look at the internal causes of the stagnation of Spanish mines for most of the nineteenth century. On the supply side, lack of capital and of technical know-how kept production inelastic and undeveloped. On the demand side, general economic backwardness deprived the sector of markets. Another frequently mentioned factor was an excessively regressive

²⁶Palafox (1987).

²⁷This pale dry fortified wine is known generically as *fino*, and is also produced in other areas, such as the Montilla and Moriles districts in Córdoba. The Jerez district, in turn, also produces other wines, such as *manzanilla* (a lighter sherry), *oloroso*, *palo cortado*, *amontillado* (in the manner of Montilla), etc. See Simpson (1985).

²⁸Belgado y Orellana (1966).

²⁹Platt (1983), pp. 126-7; Simpson (1985), esp. pp. 174-89; Jeffs (1970), Chs. 3-5.

legislation. The Mining Law of 1825, for instance, while trying to stimulate private investment, clearly established the principle of "eminent domain" whereby private owners were placed in a precarious position vis à vis the Crown as regards property rights. This discouraged private initiative.³⁰ Later on legislation softened the regressive principles, as did the Mining Laws of 1849 and 1859, but it was the legislation and the general policies of the "Glorious Revolution" of September 1868, it would appear, that unleashed the feverish mining activity of the last quarter-century.

In my view, however, demand factors were more powerful than laws. Mines were not developed simply because the government wanted it but, more importantly, because there was a growing international demand for mineral ores. This demand did not wait for legislation (although it probably lobbied for it). Neither did domestic and foreign private supply wait for the revolutionary legislation to start acting. The key, however, lay in foreign demand and foreign supply, because domestic markets, know-how, and enterprise were clearly insufficient, say, in 1870, and their development to the required levels was not in sight. The dilemma, therefore, was visible, and the revolutionaries of 1868 perceived it clearly: either the mines were exploited by foreign capital and mostly for export, or they would remain undeveloped for a long time. They chose development.

Iron is a case in point. The slow development of the Spanish smelting industry could not be a stimulus to the full development of Spanish iron mining. The stimulus was provided instead by the growth of the British (and to a lesser extent, German) steel industry. The decisive invention was the Bessemer converter to mass-produce steel. The British demand for non-phosphorous ore grew prodigiously, and the Biscayan mines were the best located in Europe with relation to the sea and the British market.³¹

For a series of mainly technical problems, the diffusion of the Bessemer method was relatively slow. Although some Basque ore was imported in the 1860's, British interest in Basque iron mines did not start in earnest until the early 1870's. Then in a few years more than twenty British companies were founded to exploit Spanish non-phosphorous iron ores, among them the Orconera Iron Ore Company, the Luchana Mining Company, the Parcocha Iron Ore and Railway Company, the Salvador Spanish Iron Company, and the Marbella Iron Company. There were French firms too, such as the Schneider branch, and the mixed Franco-Belge des Mines de Somorogo. Spanish capital wasn't absent either. The Ybarra company, for instance, owned 25 percent of Orconera, and also mined its own ore at its own mines (such as Saltacaballo). True, other Basque iron smelters also owned their own mines, and numerous, although smaller, Spanish concerns were formed to exploit Spanish ores. Iron was the most important mining product at this time, in quantitative and in qualitative terms: total mineral exports around 1900 were valued at some 162 million pesetas; iron ore exports alone were 100 million, nearly two thirds, a stable proportion since 1875.

Lead, however, was not included in these statistics, because it was metal, not ore, that was exported. The reason for this is that its metallurgy is rather simple, while the ore is heavy: it is advantageous to smelt it in situ. In fact, over the whole nineteenth century the value of lead exports exceeded those of iron ore, not only because as a metal its

³⁰Chastagnaret (1972).

³¹Flinn (1955).

value added was higher, but also because its large scale exports had started much earlier.

Lead was abundant in Southern Spain (mainly in Granada, Almería, Murcia, Jaén, and Córdoba), and was exploited with relatively modern methods since the 1830's. It was extracted from a series of mountain chains (Sierra de Gador, in Almería, Sierra Almagrera, in Murcia), which run parallel to the coast near the sea. Until the mid-nineteenth century the industry was almost exclusively in Spanish, largely local, hands; then foreign capital gradually got in. The locals failed to make the necessary heavy investments to dig deeper into the ground, and foreign entrepreneurs often took over mines which the Spaniards had abandoned or sold cheap. During the second half of the century French and British firms dominated lead mining in Córdoba and Jaén. This inflow of capital and entrepreneur-ship, combined with the extension of the railroad network and with the exhaustion of the Gádor and Almagrera deposits, contributed to the gradual transfer of leadership from coastal to inland lead. Nadal and Estevan Senis have decried the short-sightedness of Spanish lead miners, "speculators rather than entrepreneurs", according to Nadal.³² Of course neither nationals nor foreigners followed loftier ideals than the profit motive; the difference lay, however, in the planning horizon, the know-how, the ability to muster resources, and the knowledge of the market. In all of this the foreigners were far ahead.

Something similar goes for copper mining. The large cupriferous deposits in Southwestern Iberia had been known since Antiquity and their location had been situated in the fabulous kingdom of Tharsis or Tartessos. In fact, they extend over a wide area, parallel to the coast, north of the city of Huelva, between the Guadiana and Guadalquivir rivers. The most important Spanish lodes, Riotinto and Tharsis, are located between two smaller rivers, the Tinto (tinted by the ore it carries) and the Odiel. A big Portuguese district, Sao Domingos, lies on the west bank of the Guadiana. In all of this basin the mineral appears mostly in the form of pyrites, a combination of copper and sulphur.

The mines of Tharsis lay idle during most of the nineteenth century until the French *Compagnie des Mines de Culvire d'Huelva* acquired a concession to obtain copper from them in 1855. But the stronger demand and the largest capitals were in Britain. As important or more than copper, pyrites offered sulphur, the raw material for caustic soda and sulphuric acid, vital inputs for the British chemical industry. It was a consortium of British chemical companies that, in 1866, organized the *Tharsis Sulphur and Copper Company*, which replaced the *Compagnie des Mines* in its concession by means of an "amicable arrangement". The British company immediately undertook the necessary work for large scale exploitation: earth removal for "open-cast" mining, a narrow-gauge railroad to the coast, and a pier and loading facilities near Huelva. Tharsis smelted part of the mineral in situ for the obtention of copper, and shipped the rest to Britain, where it was sold to chemical firms as the raw material for sulphur, and byproducts.³⁴ Production and exports remained high for the remainder of the century.³⁴

The Rio Tinto mines, meanwhile, were exploited in an inefficient,

³²Nadal (1975), pp. 102-103; Núñez (1985).

³³Nadal (1975), p. 100; Esteva Senis (1966).

³⁴Checkland (1967).

sometimes fraudulent manner (sulphur was totally wasted, the air was fouled) by domestic entrepreneurs, with little or no profit for the state, their owner. Finally, in 1870, dogged by debts and deficits, the Spanish government decided to sell the concession to the highest bidder. At first there were no takers: the asking price was high, the investments needed heavy, the economic and political atmosphere both in Spain and in Europe unfavorable. Finally in 1873 an international syndicate headed by a Scottish banker (Matheson) and composed mainly of British and German capitalists took up the opportunity. As in Tharsis, open-cast pits, additional shafts, a railroad, and a pier were needed. The company was forced to issue bonds, and production began, the results were impressive. Output, exports and profits surpassed those of Tharsis by far. Rio Tinto soon became a successful multinational.³⁵ These were the two largest, although by no means the only, firms exploiting the Spanish pyrites.

If in iron, lead, and copper mining foreign capital and entrepreneurship were unavoidable, in that of mercury it does not appear so. Obtaining mercury from its ore (cynabrium) is a simple process which does not involve complex techniques, nor heavy capital investments, and does not require, therefore, the exportation of the ore. The enterprise was perfectly within the reach of Spanish entrepreneurs; in spite of this, the commercialization of Spanish mercury was in the hands of the Rothschilds during most of the nineteenth century.

The mercury mines in Almadén ("the mine" in Arabic) have been known since Antiquity, been exploited at least since Roman times, and belonged to the Spanish state since the fifteenth century. The state often used them as its best collateral asset to guarantee its debts. This is why in the sixteenth century Almadén was in the hands of the Fuggers and in the nineteenth in those of the Rothschilds.

During the periods in which they were more or less officially had the concession of the Almadén mercury (most of the period from 1835 to 1921) the Rothschilds acted in the capacity of agents of the Spanish government either as direct appointees, or as the highest bidders in auctions (sometimes rigged).³⁶ Either way they took the lion's share of the profits, especially after 1868, when the government borrowed heavily from them and gave them a concession whose conditions were related to, and dependent upon, repayment. This was ideal for the bankers, who owned another large mine, that of Idria, in Italy, and could influence the volume of the third large producing country, the U.S.A. For some years they cornered the market: prices went up, and so did profits, but in the end the monopoly did not hold. On paper the Spanish state made handsome profits.³⁷ The rub, however, was in the almost incredible interest rate of 200 percent it paid on the original loan. The contract with the Rothschilds was modified twice in the twentieth century until it was rescinded in 1921 and the state became its own agent for the sales of mercury. In conclusion, it is obvious that in this case where foreign capital and entrepreneurship were not strictly necessary, it was the indebtedness and mismanagement of the Spanish state that brought the Rothschilds in and gave them the chance

³⁵Avery (1974); Harvey (1981).

³⁶Martín (1980); Otazu (1987), esp. ch. I; Nadal (1975), pp. 109-15.

³⁷Cuentas del Estado Español, I, p. 138, and II, p. 332.

to make large profits with little risk or effort. Cinc was another ore which abounded in Spain and was exploited by foreigners. The Belgian Real Compañía Asturiana de Minas was established in 1872 the Sociedad Española de la Dinamita (Patente Nobel), one of the best zinc beds in Europe, and it is still at it today. Until quite recently the ore was exported to be processed in Belgium or France. Cinc was also mined and exported by the same companies which obtained lead in Southern Spain, where both ores are frequently found together.

IV

Of course most of the machinery and other capital inputs were imported by the mining industry. Explosives, however, a very important tool for miners, were produced domestically, although by another foreign firm. In 1872 the Sociedad Española de la Dinamita (Patente Nobel), was established in Bilbao; its capital, techniques, engineers, directors, even raw materials, were imported, mostly from France, although its capital was also developed by Alfred Nobel, who was a member of the board. Its main customers were the mining companies. After a few years the number of explosives manufacturers had multiplied and Spanish capitalists were taking an increasing part. The demand for sulphuric acid, nitric acid, and other chemicals expanded and their domestic production developed. Some of the industry's byproducts were used as raw materials in other industries, such as fertilizers. Later on all the explosives firms united in a single trust, and in a few years the whole industry belonged to Spaniards.³⁸ Another chemical branch which developed in Spain during the nineteenth century was that producing sulphuric acid, caustic soda, and hydrochloric acid, mostly for the textile industry. The first chemical factory in Spain (Barcelona) was also the product of French entrepreneurship: François Cros, a disciple of Jean-Antoine Chaptal, who emigrated to Catalonia after the Napoleonic wars and established his company at around 1820.³⁹

Modern industries such as gas, electricity, and urban transport were also pioneered by foreign capital and entrepreneurship. The gas industry was introduced by three foreign firms. In Barcelona, in 1842, it was Charles Lebon, the son of one of the inventors of coal gas, the Frenchman Philippe Lebon, who in association with the banker Pedro Gil created the company Catalana de Gas. Lebon then extended his activities to several other cities in Spain (and several other countries).⁴⁰

In Madrid gas was introduced by the British company Manby and partington in 1846 (although some experiments had been conducted already in 1826). The crisis of 1847-8 induced the company to withdraw, and the business was taken over in 1848 by a Madrid businessman and banker, Gregorio López de Mollinedo, who finally purchased the company in 1856 and immediately resold it to the Crédito Mobiliario Español.⁴¹ And the other provincial network of gas factories (to the number of six) was that created by the Compañía General de Crédito en España, whose first plant, that of

³⁸Tortella (1983), (1987), (1992).

³⁹Nadal (1986).

⁴⁰Sudrià (1983); Broder (n.d.), pp. 1663ff, who gives Lebon's first name as Pierre.

⁴¹Madoz (1848), p. 185; Tortella (1977), p. 114.

British and French, but Belgian companies soon became preponderant. Around the turn of the century, Belgian-owned companies operated tramways in Madrid, Barcelona, Valencia, Valladolid, Málaga, Santander, Granada, Saragossa, Mallorca, and several other Spanish cities. In addition, AEG operated the tramway network in Bilbao and Seville.⁴⁷

This has been a non-exhaustive, although extensive, enumeration of the role of foreign entrepreneurs in the Spanish economy during the nineteenth and early twentieth centuries. I consider it an indication of the weakness of Spanish entrepreneurship during that period. In other important industrial sectors, growing at different rates and moments during the same timespan, such as metallurgy, textiles, cement, and food processing, the role of foreign entrepreneurs was much smaller and that of Spanish businessmen, correspondingly much larger. These were, however, sectors where competition was restricted one way or another, and extraordinary profits almost guaranteed. Textile manufacturers, although operating in an atomistic market, were proverbial and successful lobbyists for tariff protection.⁴⁸ Metallurgists, especially the most powerful and important iron and steel manufacturers, were an oligopolistic group which also reached considerable success in obtaining high tariff protection.⁴⁹ The cement sector had a clear oligopolistic structure as well; early in the twentieth century they created a cartel organization and repeatedly (and often successfully) pressured the government to intensify public works programs and even to enforce the application of the cartel's own policies and agreements.⁵⁰ Similar cases occurred in the food processing industries, such as the one studied by Martín Rodríguez, the sugar industry, where the formation of a cartel and repeated and successful appeals to tariff and other sorts of state protection were the response to a problem of chronic overproduction.⁵¹

It would be foolish to deny that there were remarkable native entrepreneurs in the Spain of this period. In banking especially, there are names such as Manuel Girona, the founder of the Banco de Barcelona in 1844, the greatest private bank in nineteenth-century Spain; José Campo, the creator in 1846 of the first incorporated business bank in Spain, the Valenciana de Crédito y Fomento, and the introducer of railroads and coal gas in Valencia; Antonio López, a younger associate of Girona, ship magnate and banker; Estanislao de Urquijo, a Basque who emigrated to Madrid, started out as a clerk in the Weisweiler bank (Rothschild's agent) and became the foremost business banker in the late nineteenth century; Antonio Basagoiti, who made a fortune in Mexico and then founded the Banco Hispano Americano, the number one commercial bank in twentieth-century Spain; etcetera. These, and many others, were remarkable men and entrepreneurs. But they, except Basagoiti, were all local and their activities hardly transcended their country and in many cases their cities; they were,

⁴⁷Broder (n.d.), pp. 1724ff.; Núñez (1991).

⁴⁸Tortella (1981).

⁴⁹Fraile (1991).

⁵⁰Gómez Mendoza (1987).

⁵¹Martín Rodríguez (1887).

Valladolid, started production in 1859.⁴² The only case of clear local initiative in the gas industry was that of José Campo in Valencia, who at first cooperated with Lebon and then ousted him.⁴³

It should surprise nobody that German companies predominated in the introduction of the electrical industry in Spain, as German firms such as AEG, Siemens, and Schuckert, supported by such financial institutions as the Deutsche Bank, played a similar role in several other European countries. It is remarkable and less well known however, that Spanish initiative --helped not doubt by the government-- took a relatively larger part in this field than in other modern industries. It is a fact, however, that the first electric generator in Spain was installed in Barcelona by a company whose partners were both catalan (Tomás Dalmau and Narcís Xifra). The Dalmau-Xifra company, nevertheless, was small: it generated power by means of gas engines and supplied street light and motive power for some Barcelona factories. It tried to become national, but it could not compete with the multinational giants.⁴⁴ AEG entered the Spanish market in Madrid, joining forces with the Madrid Gas Company and the Páreires and creating the Compañía Madrileña de Electricidad in 1890. The Schuckert group also entered the Madrid market in 1898 with the Central Norte electricity company. The Madrid market was exceedingly fragmented (such was also the case in Barcelona). AEG also created the Compañía Sevillana de Electricidad, the Compañía Barcelonesa de Electricidad, the Compañía Vizcaína de Electricidad (Bilbao), and several other provincial companies. Schuckert created the first electrochemical plant in Spain, the Electroquímica de Flix, in Catalonia in 1897. Meanwhile, as Sudrià puts it, "Spanish capital seemed in principle remiss towards investment in the electrical business".⁴⁵ Things changed with the expansion of hydro-electricity, due at least in part to legislation which reserved ownership of water falls and chutes to Spanish nationals. This did not prevent, however, the consolidation of Barcelona's electricity and tramway network under a complex multinational, the Barcelona Traction Light and Power Company, which through processes which are still not totally clear, managed to acquire AEG's Barcelonesa de Electricidad and Indelec's (the Siemens bank) Energía Eléctrica de Cataluña, which had been founded in 1910 with the cooperation of the French Compagnie Générale d'Electricité, and at the suggestion of a Catalan businessman, Emilio Riu, who had been spurred by the Catalan banks in his efforts to exploit his water concessions.⁴⁶

The case of tramways was very similar, as the same companies often undertook the generation and supply of electric power, and installed or operated the tramway network. The first tramway companies in Barcelona were

⁴²Tortella (1977), p. 236.

⁴³Sudrià (1983).

⁴⁴See Broder (1985) for a general statement of the power of the German and U.S. electrical companies and the weakness of the others, notably the Spanish.

⁴⁵Sudrià (1990), p. 156. Broder (n.d.), p. 1745, also mentions the negative of Catalan banks, a few years later, to invest in hydro-electric projects, unlike their Basque and Madrilean counterparts.

⁴⁶Broder (n.d.), pp. 1745ff.

furthermore, able administrators rather than bold innovators, and this was the case with most other Spanish businessmen.⁵²

The fact is that Spaniards, when they have decided to assume the role of entrepreneurs, have been extremely reliant on non-competitive structures: cartels, tariffs, official and non-official monopolies, assorted state protection. Table 1 offers the result of an analysis of entrepreneurial attitudes which I have carried out on the basis of an official inquest about possible tariff reforms in 1889.

Table 1

Attitudes of Spanish Entrepreneurs Towards Possible Tariff Reductions and Renewal of Commercial Treaties, 1889

Tariff	Indust.	Agricult.	Commerc.	Chambers, Other	Total Reduction
Favorable	4	0	7	14	11
Against	37	13	0	66	11
Total	41	13	7	80	22
Treaties					
Favorable	3	0	7	23	9
Against	13	6	0	43	8
Total	16	6	7	66	17
PERCENTAGES					
Tariff Reduct.	9.8	0.0	100.0	17.5	50.0
Favorable	90.2	100.0	0.0	82.5	50.0
Against	100.0	100.0	100.0	100.0	100.0
Total					
Treaties	18.8	0.0	100.0	34.8	52.9
Favorable	81.3	100.0	65.2	47.1	62.5
Against	100.0	100.0	100.0	100.0	100.0
Total					
Tariff Reduct.					
Favorable					
Against					
Total					

Source: Calculated from La Reforma arancelaria; see text.

The inquest included up to 26 different questions relating to the economic conditions and outlook in the different sectors, and the opinions of the respondents about different aspects of commercial policy, among them tariffs and commercial treaties. I have selected the answers relating to these two topics and have classified them according to their sign (positive or negative), and the nature of the respondent (industrialist, farmer, merchant, chamber of commerce or other professional bodies, and others --in most cases, civil servants). The total number of answers was 240, but not all of them are classifiable for our purposes. It can be seen that about two thirds of respondents had clear answers about tariffs and less than half about treaties; around one half of all tabulated answers came from

⁵²Tortella (1974); Tortella (1877); Otazu (1987); García Ruiz and Tortella (1993).

professional bodies, which makes them quite representative.

The hostility towards free trade is overwhelming: 78 percent of all answers, nearly four in five, were against tariff reduction (and very often, although this cannot be reflected in the table, vociferously so; in fact, the prevailing opinion, more than against tariff reduction, was for tariff increases). Among professional bodies the proportion was higher (83 percent); this is probably the most representative figure, because the sample is large, and because these were collective bodies. Some of these were industrial or agricultural professional organizations, but in most cases they were chambers of commerce, grouping therefore a wide variety of businessmen, including merchants. The sample of industrialists is also large (one fourth of the population) and almost unanimously against tariff reduction. The unanimity is absolute against farmers, and in favor among merchants. Although these samples are small, they are probably not very biased. It is interesting also to observe that civil servants are split in the middle about tariffs.

The picture is quite similar about treaties except that people held less definite opinions. There were less clear respondents and opinions were slightly less unanimous; the hostility towards treaties, nonetheless, was strongly predominant: 65 percent against among professional bodies, 81 percent against among industrialists. Farmers and merchants, nevertheless, were equally unanimous against and for, although the farmer sample is smaller. Civil servants were nearly equally divided again. In total, 63 percent of respondents were against commercial treaties.

It would be interesting to contrast these results with those of similar studies for other countries, but lack of time and space prevents me from undertaking such a comparison. All in all, however, they confirm something we already knew from other kinds of evidence: Spanish businessmen, even in the liberal atmosphere of the nineteenth century, declared themselves in the overwhelming majority against free trade and competition. It is true that in the last decades of the nineteenth century the general business opinion was turning against free trade in many European countries. But the near unanimity of the Spaniards is impressive, and seems to confirm the love of state protection, monopolistic positions, and risk aversion which we have detected when analyzing the predominance of foreign entrepreneurs in sectors of the Spanish economy that were competitive, subject to innovation, and required big investments. According to Fraile

What really distinguished Spain from most of its neighbors was the propensity of the institutional framework to generate and maintain during long periods of time, supply structures which exhibited a marked restrictive and monopolistic character which tended to separate Spanish industry from international competition by means of tariff protection. [...] The ease with which [entrepreneurs] obtained rents from the state made market competition and the employment of factors of production comparatively disadvantageous and by contrast made the allocation of resources towards rent-seeking more attractive.⁵³

We can only hypothesize about the causes of these attitudes. There exists a long polemic about the role of social values in Spanish backwardness. Among the most frequently cited causes are the following: (1) The old aristocratic prejudice against work, especially manual work; (2)

⁵³Fraile (1991), p. 202.

is some truth in Weber's assertions that Catholic doctrine was less sympathetic than Protestant doctrine to the basic tenets of market economics. And, as Hamilton wrote, "[d]uring the century of decline the Church seems to be the only institution that grew [in Spain]."

Karl Vossler used to say that Spaniards were disciplined in their thought and undisciplined in their behavior (by contrast to Germans, who were the opposite on both counts). They had been molded into mental submission by centuries of imposed orthodoxy.

In every European country during the seventeenth century religious censorship of the press and speech undoubtedly stifled the intellectual progress upon which economic advancement has always largely depended; but, owing to the heavy hand of the Inquisition, the interference of the Church with learning was at its worst in Spain.⁶⁰

Richard Kagan shows how Spanish universities declined after the sixteenth century, and how the interest in philosophical subjects diminished in favor of more practical matters such as law or medicine. He dates this change to the end of Erasman influence in Spain after the symbolic date of 1559, when a great *auto de fé* was staged in Valladolid.⁶¹ The decline of Spanish universities (which, according to Kagan, had made of Castile one of the better educated countries in Europe at the end of the sixteenth century) was precipitous during the seventeenth century, and they never recovered until the great reforms of the mid-nineteenth century (which were in fact equivalent to starting from scratch). In the eighteenth century,

university professors, in their great majority, show an obstinate adherence to the past and they refuse, as much as they can, to adopt the reforms which might introduce in those sclerosed bodies a bit of youth and audacity, a little of intellectual curiosity and some freedom of judgement.⁶²

In 1772, for instance, there was a long dispute between the Spanish government and the University of Salamanca, because this august institute refused to teach Newton, Cassendi, Descartes (whom it described as clearly inferior to Aristotle on the grounds that the Greek philosopher was closer "to revealed truths"), Hobbes, Locke, etcetera. That same year the Theology School of the University of Santiago de Compostela insisted on sticking to St. Thomas Aquinas to the exclusion even of other Church theologians such as St. Isidore or St. Anselm. This moves Sarrailh to remark that the politicians were more liberal than the professors.⁶³ Some quantitative aspects of the economic effects of Spain's educational backwardness have been studied by C.E. Núñez,⁶⁴ and the relationship between the two appears to be undeniably strong.

⁶⁰Hamilton (1938), p. 223.

⁶¹Kagan (1974), pp. [cap. 9].

⁶²Sarrailh (1957), p. 98.

⁶³Sarrailh (1957), pp. 98-103.

⁶⁴Núñez (1992).

The old Catholic mistrust towards capitalism (usury laws, praise of poverty, fear of competition and rationalist attitudes); (3) Intellectual passivity and lack of inquisitiveness actively imposed by the Inquisition; (4) Low educational standards; (5) The long mercantilistic tradition favoring state intervention in the economy, and strongly regulated and sheltered entrepreneurial activity (6) The familiar vicious circle: economic backwardness by itself is an obstacle to economic development and a discouragement to vigorous entrepreneurial activity. Let us briefly examine these possible factors in turn, while keeping in mind that they are non-exclusive.

Among the causes of Spain's decline in the seventeenth century Hamilton cited "contempt for manual labor and arts".⁵⁴ A nineteenth-century economist had written that

One of the first needs of the Spanish people in the eighteenth century was to honor and ennoble the mechanical arts, generally held in low esteem and some of them affected with the opinion of infamy, a remnant of that silly and vulgar idea that the soft hands of an hidalgo or gentleman should not be soiled or roughened by plebeian occupations.⁵⁵

A more recent work on the eighteenth century develops on the same problem:

The ideal of aristocratic life impregnated the mentality of all strata of Spanish society in the Old Regime and was solidly rooted in the lower layers, so much so that work on some trades was socially rejected. [...] Such rejection was even reflected in [...] the legal codes of the kingdom.⁵⁶

It is true that the enlightened governments of the eighteenth century were opposed to these attitudes, and that the laws declaring certain trades undignified were abolished by Charles III.⁵⁷ But the attitudes long survived: "reformist legislation was much more generous in this respect than popular opinion".⁵⁸ According to Sarrailh, at the end of the eighteenth century, "practicing industry or commerce still seems incompatible with the status of nobility".⁵⁹ To what extent these attitudes remained in the nineteenth century is difficult to ascertain irrefutably. But since they had survived for centuries and the social prestige of the aristocracy was still great, one must assume that they had not disappeared.

It is unnecessary to go at great length here about the anti-capitalist bias of the Catholic Church. The topic has been endlessly debated from Max Weber on, but I do not think many economic historians will deny that there

⁵⁴Hamilton (1938).

⁵⁵Colmeiro (1863), p. 807.

⁵⁶Anes (1975), p. 131.

⁵⁷Colmeiro (1863), pp. 807-9.

⁵⁸Anes, *ibidem*.

⁵⁹Sarrailh (1957), p. 89.

A recent work by García Sanz is somewhat skeptical of "sociological or psychological positions [which] adduce explanations such as 'lack of entrepreneurial spirit', of 'initiative', of 'love of risk' while laying emphasis on the weight of conservatism and traditionalism with regard to economic behavior" when trying to explain the backwardness of nineteenth-century Castile. He maintains that there was entrepreneurial spirit in Castile; what appears to have been missing were the agricultural conditions. This is possibly why "capitalist rationality [led] into a dead end." However, García Sanz admits that "one of the basic requirements for the development of agrarian capitalism in Castile and León during the nineteenth century was the maintenance of a protectionist policy for cereals".⁶⁵ The differences between this author and what I have been maintaining here are therefore small. There were plenty of capitalists in nineteenth-century Spain as long as, according to Table 1, their profits were guaranteed by state action, preferably through tariff protection. Spanish capitalism has a long tradition of sheltering under the protective wings of the state.

It would be naive to blame Spain's retardation on the mediocrity of its entrepreneurs. The causes are deeper and more complex.⁶⁶ Social traits, however, are very persistent. My hypothesis has been that a society that was frozen in orthodoxy, that repressed original thought and the free pursuit of happiness, since the late sixteenth century, found itself three centuries later without a competitive and inventive entrepreneurial class. There are indications that the problem is still with us.

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⁶⁵García Sanz (1991), pp. 22-4, 36-7.

⁶⁶For a comparative analysis see Tortella (forthcoming).

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ABBREVIATIONS

ASI = *Annali di Storia dell'Impresa*.
 EEH = *Explorations in Economic History*.
 EER = *Economic History Review*.
 RHE = *Revista de Historia Económica*.