The State and the Sea. Economic Policy for the Shipbuilding and the Marine-Equipment Industry in Italy Between the Two World Wars

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Abstract

This essay focuses on the economic policy pursued by liberal governments and by the Fascist government to support maritime industry, an economically and militarily strategic sector for the Italian economy. Well-known is the reorganization of this sector between 1933 and 1937 by the IRI-Istituto per la ricostruzione industriale, which took over the ownership of major Italian shipbuilding and shipping companies. The maritime industry was, in fact, an important factor in the making of the Italian model of the Entrepreneurial state. Yet, the transition of a major portion of this sector to the hand of the state is also the arrival point of a road taken from the 1880s on, and especially in the years following World War I. In fact, in the decade preceding the great crisis of 1929, both the Italian Government and Parliament not only kept providing economic support through the "usual" construction premiums to shipbuilding companies, and the "usual" maritime conventions to shipping, but also implemented new tools of public support. Among these tools, a particularly important role was played by the Istituto per il credito navale (1928-1940), created and chaired by Alberto Beneduce.

1. A model of state intervention in the economy (1862-1918)

The model of intervention adopted between the nineteenth and twentieth century in the Kingdom of Italy for the maritime sector was later extended to the entire capital-intensive domestic industry. The relationship between the state and the shipping industry assumed, however, different connotations depending on whether it involved shipbuilding or the marine-equipment industry.

In the shipping industry, the connection between the main shipping companies and the state was sealed with the signing of the 1862 Conventions. This deal was mainly a reworking of the agreements signed by the same companies with the pre-unification governments and was in line with the measures taken in the rest of Europe (De Courten, 1989, p. 21-24). It aimed to ensure essential services, particularly domestic postal and commercial services, at a time when the country still did not have a sufficiently extended railway network. The Maritime Conventions of 1862 provided significant subsidies in order to establish regular shipping routes between the major Italian ports, as well as two lanes with foreign destinations, the Genoa-Palermo-Tunis and the Ancona-Corfu-Alexandria of Egypt (which from 1866 was extended to Venice). In the following years, the links with foreign countries were intensified through the opening of a shipping lane to Constantinople and a second lane to Corfu, some lanes to South America and a new lane for Egypt (*Atti della Commissione reale per i servizi marittimi*, 1906, p. 24). The Conventions were then periodically renewed until the eve of the First World War. Being the focus of important economic interests, they provoked political tensions which were strong enough to lead to the downfall of governments, as happened in 1909 to the Giolitti Ministry (Giolitti, 1922, pp. 273-275; Grange, 1980).

Cavour had intended to entrust all the major maritime services to one large national company, which would be able to compete with the major French companies in the Mediterranean. It was a goal that he had pursued under the Kingdom of Sardinia, through the Transatlantica, a company which was disbanded at the time of the unification of Italy (Flore, 1970, pp. 285-286). Cavour's plan was initially shelved, but the change in the structure of maritime transport following the inauguration of the Suez Canal in 1869 made it necessary to strengthen the national merchant fleet and its concentration in one big company. In 1881, the merger of the two main national companies, Rubattino (Genoa) and Florio (Palermo), led to the creation of the Navigazione Generale Italiana (NGI). At the time of its creation the NGI possessed 81 ships and a corporate capital of 100 million lire, subscribed by the two former companies and the Credito Mobiliare, which became the bank of reference (Candela 2010). The NGI received an injection of Swiss capital from Rubattino and, later, German capital deriving from its close relationship with the Banca Commerciale Italiana. In fact, between the nineteenth and twentieth century, the Italian shipping industry as a whole was largely supported by foreign financial backers, as confirmed by the cases of the Puglia, La Veloce, Italia and Transatlantica companies, which were all backed by capital from the II Reich, while the resources to set up the Società Italo-Britannica di Navigazione and Becker & Peirce came from Great Britain. This strong foreign participation continued until the First World War, when foreign investors withdrew from Italy, leaving the entire sector – except for some stakes in tankers – in the often uncertain hands of national industry and finance.

The Navigazione Generale Italiana monopolized the shipping industry for nearly thirty years, obtaining a very high percentage of the subsidies laid out by the government. For example, with the renewal of the Conventions in 1893, services with Sicily, Sardinia, the Tuscan Archipelago, Pantelleria, Linosa, Lampedusa, Tripolitania, Tunisia, Malta, Corsica, the Levant, Egypt, the Red Sea and India all came under the control of the NGI: the other competitors were left with very little market share. The Navigazione Generale Italiana also completed a number of acquisitions which eliminated any real domestic competition and pushed it, at the beginning of the twentieth century, to the top of the world ratings for fleet size, ranking after Hamburg Amerika Linie, Norddeutscher Lloyd, Peninsular, White Star Line, Messageries Maritimes and Nippon Yusen Khaisha.

However, because of growing political opposition to its dominant standing and the new prospects which opened up because of the wars that Italy was preparing to fight (the Libyan War and then the First World War), in 1910 the NGI was forced to reduce its participation in subsidized maritime services and focus on the free market, in particular on the shipping lanes for the Americas. This allowed it, among other things, to decommission older and inefficient ships, which it entrusted to the Società Nazionale di Servizi

Marittimi, founded by a group of entrepreneurs from various backgrounds (Ernesto Breda, Guido Donegani, Guglielmo Peirce, Armando Raggio, etc.) specifically to take over the contracts of the Navigazione Generale Italiana. In 1913, in turn, the Società Nazionale was disbanded and left the fleet to three other companies that divided up the grants between the upper Tyrrhenian Sea (Compagnia Marittima Italiana), the lower Tyrrhenian (Società Sicilia), the Adriatic and the swift shipping lane to Egypt (Società Italiana di Servizi Marittimi) (Bachi, 1914, p. 172). On the eve of the First World War, the NGI was at the head of a large and solid group which included the aforementioned Società Italiana di Servizi Marittimi, Lloyd Italiano, Veloce and Italy.

The great resources connected with the Maritime Conventions were not, however, the only form of public support for the shipping industry adopted in the Kingdom of Italy. In fact, in addition to these grants, navigation premiums were introduced and later renewed several times through special laws. The government and the parliament hoped that the navigation premiums would compensate for the gap, in terms of interest rates (which were very high, with serious consequences for access to credit) and expenditure (which was high, especially for insurance and fuel), between the national fleet and its strongest foreign competitors (Giuffrida, 1906b). This system involved the allocation of funds according to the type and quality of navigation: it was repealed by an Act in 1913, which introduced premiums linked exclusively to the value of the vessels employed.

If the link between the state and the shipping industry started at the time of unification, the relationship between the public stakeholder and the shipbuilding industry was consolidated twenty years later due to the convergence of several factors. First of all, the government felt the need to modernize not only the military fleet, which was still recovering from its heavy defeat against the Hapsburg Empire at the Battle of Lissa in July 1866, but also the merchant navy. The latter was very old-fashioned compared with the fleets of modern Western countries, where the revolution in means of transport in the mid-nineteenth century had led to the replacement of wooden ships with ships built of iron/steel and the introduction of steam power rather than sails. The Household Inquiry into the merchant navy, coordinated by Paolo Boselli in 1881, described a fleet of cargo and passenger vessels which was outdated from the technological point of view, with insufficient average and total tonnage. Moreover, from 1875 to 1881 the annual production of domestic shipyards had plummeted from about 87,000 to 11,000 tons, and continued to fall until 1887, when it reached a minimum of just over 5,000 tons (Fragiacomo, 2012, pp. 30-31). The desired strengthening of the Italian marine equipment sector could not be accomplished by leveraging a national shipbuilding industry that was devoid of modern shipyards, except perhaps for the Orlando yard in Livorno.

The second factor that contributed to the consolidation of the link between the State and the shipbuilding industry was the idea of economic development that the left-wing governments pursued starting from the 1880s. The decision to focus on modern industry in order to close the gap with the most advanced Western countries, in particular Germany, led to a growing interest of the public sector in heavy engineering, identified as one of the key areas for the expected economic boom.

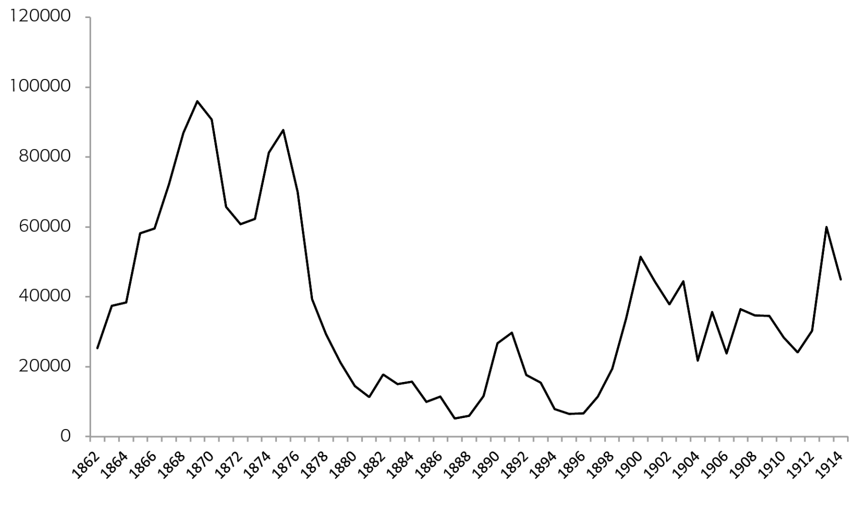
The third and final factor was that the shipbuilding industry – once converted to steel construction – was expected to place substantial orders with the budding steel industry, which was a necessary sector for the development of the national economy. The key role of the large steel industry in projects carried out by the Italian government between the nineteenth and twentieth century was such that the shipyards were subordinated to the interests of this industry and were forced to use Italian steel despite the fact that the quality was not optimal for this purpose and the price was high. This had a negative effect on the competitiveness of the domestic shipbuilding industry, which was also limited by severe and long-standing problems of work organization. According to the calculations carried out by Epicarmo Corbino, half of the financial resources that the state provided for the shipbuilding industry from 1885 to the outbreak of the First World War went, in fact, into the coffers of the major steel companies.

The shipbuilding industry mainly benefited from public intervention in two ways: through military orders and with construction premiums. The military orders – those that were not assigned to the State naval dockyards – were placed with a relatively small number of shipyards, often with the aim to compensate for the lack of demand for merchant ships (Confalonieri, 1975, p. 66). This system of state support and protection stimulated the development of processes of vertical integration between the steel companies and the large engineering companies engaged in the military industry, as demonstrated by the early twentieth-century cases of Vickers-Armstrong-Terni and Ansaldo.

The construction premiums, which had already been in force since 1862 for sailing ships, were also introduced for steel vessels by the Boselli Law in 1885. The mechanism behind this law, which mimicked a similar French measure introduced in 1881, was simple: it guaranteed a fixed state contribution for each ton of metal used by the Italian shipyards. The aim was to lower sales prices and to increase the demand for new ships. However, this did not happen either in France or in Italy. During the ten years that it was in force, the Boselli Law assigned benefits for about 25 million lire, two thirds of which were invested in the construction of sailing ships. The construction carried out in Italian shipyards until 1896 reached a total tonnage equal to one third of what had been estimated by the law. In total only 9 ships with a gross tonnage exceeding 500 tons were built, while in the same period Italian shipowners bought 107 ships abroad. The Italian merchant fleet declined from 999,000 to 763,000 tons, and many shipbuilding yards were forced to close because of lack of work.

The construction premiums were renewed by law in 1896, and contributed to the development of modern shipyards and new shipbuilding companies in Ancona, La Spezia, Palermo and Riva Trigoso, as well as to a significant upturn in production that in the next five years exceeded 160,000 tons, reaching a peak in 1899-1901. The setting up of universal banks (in particular, the Banca Commerciale Italiana and Credito Italiano) also contributed to this phenomenon as they were prepared to financially support the large companies involved in the shipping industry. The average annual shipbuilding production in Italy remained high even in the early years of the twentieth century, despite the fact that in 1901 the state had abolished the premiums for sailing ships of new construction and had established a progressive reduction in subsidies to the shipyards (see Figure 1). At this stage, the high demand for ships was a result of growing migration flows, but was also due to the fact that the government obliged the companies mainly involved in the "node of interest" of transoceanic services (Sori, 1979, pp. 315-320) to renew their respective fleets as soon as possible. This phenomenon consolidated in many observers, including Luigi Einaudi, the belief that public aid was of no help to the industry, but, on the contrary, discouraged spontaneous development, reducing the *animal spirits* (Einaudi, 1906). In 1906 Felice Giuffrida, a close associate of Francesco

Figure 1
Ships launched in Italy, 1862-1914 (GRT)



Source: Istituto nazionale di statistica, 2011, p. 686.

Saverio Nitti, noted that, although half a billion pounds had been spent by the state since 1862 for the Maritime Conventions, the value of the Italian merchant fleet was just 200 million lire (Giuffrida, 1906a, p. 58).

Between 1885 and 1913 the state subsidized the shipping industry for about 170 million lire, in the form of construction and navigation premiums, tax relief, etc. (see Table 1). Nevertheless, the shipowners continued to invest heavily in foreign ships, turning down the state sinecures, which were not enough to cover the high costs associated with the price of Italian steel and organizational inefficiencies of domestic shipyards. On the eve of the First World War, the Italian merchant fleet numbered 1.2 million tons and ranked sixth in the world (Ministero della Marina, 1916). However, it was two-thirds from foreign production and the gap with Britain in terms of annual production remained huge (in 1911, 24,034 vs. 1.1 million tons).

TABLE 1
Subsides for the Italian merchant navy, 1885-1913 (million lire)

Subsides	Act 1885	Act 1896	Act 1901	Acts 1911 and 1913
Excise duties	9.9	1.7	17.4	
Construction premiums	3.2	21.2	10.4	16.9 (to shipbuilding companies)
Repair premiums	1.1		1.8	
Premiums for coal transport	28.8	14.0		9.0 (to shipping companies)
Premiums for sailing ships			34.7	

Source: Corbino, 1922, p. 89.

The First World War did not revolutionize, but, on the contrary, partly reinvented the relationship between the State and the shipping industry, initiating a certain transition that would be completed in the 1920s and 1930s. For example, the war opened the way for the direct participation of the public stakeholder in the field of navigation, to such an extent that the term "State shipowner" was coined well before the appearance of the IRI and Finmare, which will be discussed later. This public participation took place through the Esercizio Navigazione di Stato (ENS), a company founded in 1910 to manage the shipping routes with Sicily and Sardinia in the hope that its non-profit nature would guarantee an efficient and low-cost service. The ENS, which was attached to the Ferrovie dello Stato, immediately ran into serious organizational problems, because it lacked the necessary skills to manage the services which had been assigned to it. At the outbreak of the war, the company owned eleven steamers and six ferry boats. During the conflict, the government handed over dozens of ships which had been captured or seized, so that its fleet increased to 69 units for a total of about 400,000 tons (Flore, 1973, p. 451).

Another anticipation of what was to come, with greater perfection, in the 1920s and 1930s came about through the establishment of the Consorzio Sovvenzioni sui Valori Industriali (CSVI). Founded in 1914 thanks to a Bank of Italy initiative, with a government mandate, in order to provide working capital for an industry that was about to be involved in a great war effort, in 1916 the CSVI was assigned specific tasks in the field of navigation. In short, the Consorzio was to provide loans to assist shipping companies in their business and, even more importantly, to encourage them to order new vessels from domestic shipyards. During the war the CSVI was inactive from the maritime perspective, but at the end of the conflict its function as a lender was confirmed, and it provided considerable credit to both shipping and shipbuilding companies.

As with other sectors of the national economy, the shipping industry benefitted greatly from the conflict. The need for supplies for the countries involved in the war and the serious risks of transportation caused freight rates to go up, ensuring big profits for the major shipping companies. In 1915-1916 the NGI made profits of, respectively, 12.4% and 23.0% of share capital, Lloyd Italiano of 24.0% and 19.9%, Lloyd Sabaudo of 14.2% and 17.1% (Bachi, 1917, p. 205; Supino, 1919, p. 69). In the following years, state requisitioning of merchant ships for war purposes only partially reduced these profits. Through a rather complex system that, in the intentions of the government, was supposed to prevent the complete paralysis of maritime traffic, 70-80% of the vessels were taken away from the shipping companies (Nobile-Massuero, 1917, pp. 62-63). However, the owners were compensated with some legislative decrees that spurred the growth of the companies.

Shipbuilding was no less favoured. In particular, two decrees in 1916-1917 introduced strong incentives for owners who had ordered ships in Italy, thus increasing demand for merchant ships. In addition to this, the huge contracts between 1916 and 1918 related to Mobilization of Industry, increased the production of ships to a total of 175,000 tons (+30% compared to the period 1912-1914). This situation determined the conditions for a new spate of mergers among shipping companies, shipbuilding and steel industries. The NGI took over, for example, the Baia yard in Campania and some other small shipbuilding yards, reflecting the methods which had already been followed in the Giolitti era by Piaggio in Genoa and by Cosulich in Venezia Giulia, which was still a Hapsburg region (Mellinato, 2001; Giulianelli, 2012). Ansaldo moved in the opposite direction, during the war it had acquired the Società Nazionale di Navigazione and the Transatlantica Italiana, giving rise to a group with a high level of integration. At the same time, Ilva, founded two shipyards in Piombino and Bagnoli and set up Lloyd Mediterraneo in the sector of marine equipment.

"Large capital flows into the sea", Riccardo Bachi wrote towards the end of the war (Bachi, 1918, p. 142). This capital, however, was invested only for speculation, to enhance systems and make industrial groups grow out of proportion, as if the war was never going to end.

2. The post-war period, between state and market (1919-1924)

At the end of the war there was much debate about the real extent of the losses suffered by the Italian merchant navy. The prevailing theory pointed to high percentages (62% of total tonnage according to the post-war Commission), although other sources indicated lower figures (see Table 2).

TABLE 2
Merchant steam fleets, 1914-1919

Country	1914 (,000 GRT)	1919 (,000 GRT)	Δ%
UK and Ireland**	20,524	18,208	-12.3
USA***	4,287	11,933	+278.3
France	1,922	1,962	+2.1
Germany	5,135	3,247	-36.8
Holland	1,472	1,574	+6.2
Italy*	1,430	1,238	-13.4
Japan	1,708	2,325	+36.1
Norway	1,957	1,597	-18.4
Hapsburg Empire	1,052	713	-32.2
Denmark	770	631	-18.1
Greece	821	291	-64.6
Spain	884	709	-19.8
Sweden	1,015	917	-9.7
Others	2,427	2,552	+5.2

* Data of 1919 concerning pre-war territorial boundaries; ** British dominions included; *** Sea + The Great Lakes.
Source: Bachi, 1921, p. 217.

There is no doubt, however, about the considerable expansion that the war had produced both in shipping and in the shipbuilding industry. The setting up of about fifty new medium-to-large shipping companies (Flore, 1970, p. 20) was connected, in fact, with the proliferation of shipbuilding yards, partly due to the acquisition of "redeemed lands" and the associated industrial plants. Thus, the 44 ports of call controlled by twelve major Italian shipyards in 1915, had increased by 38 and were distributed among thirteen new plants at the end of the conflict (Albini, 1933, p. 8).

Corbino did not wait for the end of the war to suggest how, in his opinion, the merchant navy should develop once peace had come. The central question was whether it was convenient for Italy to strengthen its cargo fleet and, as some people proposed, entrust it to the state? Or was it preferable to adopt a model which was to be maintained, with better conditions, by foreign stakeholders, at least as regards the trade which was most urgent and necessary for the country's economy – for example, related to industrial raw materials, which were notoriously lacking in Italy? Corbino was inclined to prefer the second option, which was clearly an example of economic liberalism. The capital that this industry needed would have been granted not through the traditional premiums which were not connected to any type of assessment of the efficiency of the services offered, but through certain tax exemptions (Corbino, 1917).

In addition to the hypothesis of nationalizing the shipping industry, in the months that followed the end of the war three other ideas emerged concerning the reorganization of this sector. The first hypothesis was aimed at returning to the monopoly of a private company, as had happened with the NGI between 1881 and 1910. The second hypothesis predicted the setting up of an obligatory consortium between the concessionaires of subsidized services. The third hypothesis, which was the one later adopted, suggested classifying the shipping lanes into "indispensable" and "useful", and dividing them up between the various companies according to their characteristics and the guarantees offered (Flore, 1970, pp. 403-404).

Of course, with hindsight it is easy to indicate what the government and the parliament should have done after the war. First of all, before starting a programme to construct or purchase foreign ships, it would have been appropriate to wait for the full and final resumption of trade and freight rates, without being tempted by the ephemeral expansion of the immediate post-conflict phase. It would have been just as necessary to try to understand what role and position Italy would have in the new economic (and political) post-war scenario. Finally, it would have been necessary to promptly rationalize the shipbuilding industry, in order to reduce its excessive production capacity and to encourage the process of industrial restructuring in the oversized production firms which had been most involved in the war effort (Ansaldo, above all).

However, the post-war Commission that was set up in June 1918 miscalculated the recovery of trade and overestimated the losses incurred by the Italian merchant navy during the conflict (Falchero, 1991, pp. 49-51). The result was a plan that aimed to provide Italy with an enormous fleet of over two million tons, 200,000 of which were transatlantic ships for migrants, 250,000 steamers for regular freight and passenger lines, another 200,000 cargo-liners for transporting bulk goods, and finally 1.4 million cargo "tramp" ships. To build up this fleet, the Commission suggested acquiring enemy ships, ordering new constructions to be completed within three or four years, and finally buying second-hand vessels from the Allies with state intervention (Commissione per il dopo guerra, 1919, p. 130). Of these three hypotheses, only the third was really put into practice. In March 1919, in fact, the four universal banks (Commerciale, Credito Italiano, Banca Italiana di Sconto, Banco di Roma) formed a consortium with the support of the government and bought, for 13 million lire, eighty English warships (for a total of 500,000 tons), which were then distributed among twenty-six Italian shipping companies (De Courten, 1984, p. 251; Falchero, 1990, p. 175; Cuomo, 2004, pp. 326-330). The deal was a failure for three reasons. Firstly, the English ships deteriorated in a short time, losing all their value. Secondly, purchasing these old ships slowed down the demand for new vessels, and consequently damaged the domestic shipyards. Thirdly, considering the difficult recovery of maritime trade and the presence of declining freight rates (which in 1920 went down by 70% for transport to and from British ports and by 80% on routes to the Americas) the arrival of the warships led to an oversupply in cargo ships.

In addition to this error in strategy there was great uncertainty related to the management of the main domestic commercial services, which at the end of the war had been taken over by the state. In the post-war period, the slow revival of trade and the increase in fuel and raw-material prices made it inconvenient for private shipping companies to take on the subsidized shipping lanes and forced the government to maintain direct control of this sector. In 1919 came mandatory for the government to rent the cargo and passengers ships to be used on the new shipping lanes with Central America, Australia, Canada and South Africa. Only in the summer of 1920 was private shipping released from government control in Italy, as also happened in Britain and France. However, the derequisition did not include, until a later date, any transportation that was deemed necessary for the country (fuel, food, etc.) and oversize loads (Bachi, 1921, p. 410). The new system, being rather complex, came up against considerable implementation difficulties and certainly did not contribute to a rapid renewal of the shipping industry.

As regards shipbuilding, although the purchase of second-hand British ships slowed down the demand for new vessels, the tax benefits provided by the Villa and De Nava Decrees in 1918-1919 guaranteed a high number of orders until 1921. Within three years, however, the decline in demand became quite clear. The reintroduction of construction premiums and the possibility for the State to order merchant ships directly from domestic shipyards, as established by the Belotti Decree (July 1921), were not enough to stop the negative consequences of this phenomenon: between 1922 and 1924, production was about 220,000 tons, representing a 30% decrease compared to 1919-1921 (see Table 3).

This sharp decline in the production of merchant ships in addition to the slump in military shipbuilding, caused a lethal short circuit for many companies. The example of Ansaldo is so well known as to render its analysis superfluous (Doria, 1989). It is sufficient to mention here that the cause of the crisis of the largest mechanical group in Italy was not so much the post-war crisis as the reckless expansion strategy followed during the conflict as a result of the State subsidies. The Ansaldo case also brought to light, dramatically, the dangers inherent in "Siamese brotherhood" between big business and big lenders evoked by Raffaele Mattioli, leading to the collapse of the Banca Italiana di Sconto (Falchero, 1990). Finally, this case confirmed the considerable interest in big and strategic businesses that the Italian government had shown since the salvaging of the Acciaierie Terni in 1887.

TABLE 3
Ships launched in Italy, 1919-1939

Year	Number of ships		Total tonnage		Average per ship	
	N.	Index	Grt	Index	Grt	Index
1919	17	100	92.900	100	5464	100
1920	15	88	78.640	84	5242	95
1921	31	182	143.193	154	4619	84
1922	17	100	85.834	91	5049	92
1923	16	94	60.000	64	3750	68
1924	15	88	74.000	79	4933	90
1925	22	129	126.000	135	5727	104
1926	148	870	250.289	269	1691	30
1927	83	488	93.519	101	1126	20
1928	68	400	66.788	71	982	17
1929	98	576	71.834	77	733	13
1930	126	741	96.312	103	764	14
1931	129	758	167.211	180	1296	23
1932	48	282	49.302	53	1027	18
1933	71	417	18.852	20	265	4
1934	81	476	27.363	29	337	6
1935	100	588	32.240	34	322	5
1936	41	241	13.914	14	339	7
1937	97	570	42.220	45	435	8
1938	126	741	106.243	114	843	15
1939	96	564	135.939	146	1416	25

Source: Istituto nazionale di statistica, 2011, pp. 686-687.

At the end of 1922, at the start of the Fascist era, the shipping industry was in serious difficulty, both in terms of shipbuilding, and in terms of marine equipment. The most important Italian shipping companies engaged in transoceanic-trade were forced to come to terms with the gradual closure of the U.S. borders firstly as a result of the Emergency Quota Act in 1921, and later due to the Immigration Act in 1924. The effects of the latter measure were very serious, as demonstrated by the case of the Cosulich group, which lost about 10,000 passengers in one year, the equivalent of 30% of its total customers.

The shipping industry is a valid frame of reference for the more general economic policy pursued by the Mussolini government in the years between the two World Wars. In its first phase – which is commonly identified with Alberto de' Stefani at the helm of the Ministry of Finance – Fascism seemed to favour economic liberalism in the debate that had ignited the post-war period concerning the relationship between the state, the shipping companies and the shipbuilding yards. In fact the Liberal government had already worked in this direction, allowing, at the end of 1921, complete freedom for the marine equipment industry by cancelling the navigation premiums.

The *laissez-faire* attitude of the first Mussolini government can be detected in some official statements, such as the one issued in December 1924 by the Minister of Communications, Costanzo Ciano, according to which the success of the Italian navy was inversely related to the degree of state intervention (Ciano, 1940, p. 29). In February 1923 Ciano, then undersecretary for the merchant navy, had signed a decree which, while reintroducing the shipbuilding premiums, provided for a gradual withdrawal of the state from this field. The *laissez-faire* policy of this period can also be seen indirectly, through the lack of at least three types of intervention, which, on the contrary, were introduced by the Fascist government starting from the mid-1920s: a) the renewal of Maritime Conventions, b) the rationalization of the shipbuilding industry (or, at least, the attempt to do so), c) the introduction of new tools for financing the sector. The first two points will discussed in the next section. The third point, however, must immediately be looked into.

Although at the time of the Boselli Inquiry (1881) there had been a debate about the possibility of introducing a specific institution (*Inchiesta parlamentare sulla marina mercantile*, 1882, pp. 357-366), throughout the period of economic liberalism the naval credit in Italy had been entrusted to the big banks and a few ordinary savings banks. In particular, from the end of the nineteenth century the Banca Commerciale Italiana and the Credito Italiano had largely financed both the shipbuilding and the marine equipment industry (Confalonieri, 1975 and 1982). This practice began to decline at the end of the war, when the difficulties in the resumption of trade routes and the low demand for ships urged the government to adapt a tool which had been introduced before Italy entered the conflict, but which had still not been used: the CSVI. As from 1920, this Consorzio distributed loans to shipping and shipbuilding companies, especially with regard to Venezia Giulia, a region that the Peace Treaties had taken away from the ex-Hapsburg Empire and had assigned to Italy (see Table 4). The distribution of loans was intensified in the following years, reaching a peak in 1926 (Biscaini, Gnes, Roselli, 1985, p. 158).

Therefore, the CSVI became an instrument for providing credit which, from the end of the war, became increasingly important for the shipping industry. Nevertheless, the fact that until 1928 no other special credit institution was set up alongside it is confirmation of the economic liberalism pursued during the early years of the Fascist government.

3. Subsidies, credit, corporate mergers (1925-1932)

In 1925, the replacement of Alberto de' Stefani with Giuseppe Volpi at the helm of the Ministry of Finance marked the interventionist turning point in the economic policy of the Fascist period. The sea became one of the "battles" that the regime promoted, together with the "battle of wheat" and the "battle of the Lira". Behind the bellicose rhetoric about winning back the Mediterranean (*Mare Nostrum*), the government pursued the goal of strengthening trade relations with the Balkans and North-Eastern Africa while trying, at the same time, to breathe new life into the shipping and shipbuilding industry which was in serious difficulty.

In this modified framework, on 1 January 1926 the new organization of the subsidized lines came into force. The reorganization of the Maritime Conventions had already been prepared by decree in December 1923, but it was two years before this provision was implemented. The services were divided into "useful" and "indispen-

TABLE 4
CSVI's financing of the shipbuilding and shipping industry, 1921-1928 (> 2.5 million lire)

Year	Company	Million lire
1921	Cantiere Navale Triestino	35.0
	Navigazione Libera Triestina	30.0
1922	Transatlantica Italiana	40.0
	Cantiere Navale Triestino	10.0
	Navigazione Libera Triestina	10.0
1923	Navigazione Libera Triestina	5.0
	Gruppo Cosulich	22.0
	Gruppo Cosulich	20.0-25.0
	Triestina di Navigazione Cosulich	25.0
	Navigazione Libera Triestina	8.0
1924	Ansaldo	70.0
	Transatlantica Italiana	21.25
	Roma di Navigazione	12.0
1925	Triestina di Navigazione Cosulich	25.0
	Società Nazionale Olii Minerali	3.0
1926	Cantiere Navale Triestino	35.0
	Lloyd Triestino	15.0
	Società Lussino	7.0
	Navigazione Premuda	3.0
	Gerolimich e C.	3.5
	Triestina di Navigazione Cosulich	4.0
	Cantieri Navali del Quarnaro	3.0
	Triestina di Navigazione Cosulich	15.0
	Lloyd Triestino	10.0
	Compagnia Italiana Transatlantica	8.0
	Compagnia Italiana Transatlantica	5.0
1927	Lloyd Sabaudo	10.0
	Agip	8.0
	Triestina di Navigazione Cosulich	15.0
	Ravano	5.0
	Triestina di Navigazione Cosulich	15.0
1928	Adria di Navigazione Marittima	8.0
	Ravano	5.5
	Navigazione Libera Triestina	15.0
	Petrolifera Esercizi Marittimi	3.5

Source: Confalonieri, 1997, pp. 369-372.

sable" (see Table 5). Between 1929-1930 and 1935-1936 the state assigned 1.6 billion lire to the companies involved (Banca d'Italia, 1938, p. 1773).

TABLE 5
Maritime Conventions, 1926

Services "useful"		Services "indispensable"	
Company	**Lines**	**Company**	**Lines**
Società Italiana di Servizi Marittimi	Egypt, Eastern Mediterranean, Black Sea	Transatlantica	Sardinia, Libya, Tunisia, Eritrea, Somalia, South-Eastern Africa
Lloyd Triestino	Egypt, Eastern Mediterranean, Black Sea, Bombay, Far East	Florio	Sicily, Sardinia, Tunis, Tripoli
Adria	Adriatic Sea, Sicily, Tyrrhenian Sea, Rijeka, Northern Europe	Società Anonima Industrie Marittime	Zara, Zadar, Split
		Puglia	Adriatic Sea, Rhodes, Alexandria
		Toscana	Tuscan Archipelago
		Partenopea	Parthenopeus and Pontine Islands

Source: De Rosa, 1979, pp. 189-191.

Subsidized shipping companies were required to renew their fleets. The difficulty in raising the capital to commission the ships was overcome by the involvement of the Consorzio di Credito per le Opere Pubbliche (CREDIOP). Set up after the war and based on a project by Alberto Beneduce, the CREDIOP was an institution somewhere between the public and private sectors. Its purpose was to provide loans at low interest rates to the concessionaires of contracts for the construction of infrastructure: the financial resources were raised by the sale of CREDIOP bonds to the public (De Rosa, 1979; Asso and De Cecco, 1994). This system, which in 1924 was extended to the electrical industry via the ICIPU (Istituto di Credito per le Imprese di Pubblica Utilità), did not involve any contact between the CREDIOP and the shipping industry. However, the pressing need for the modernization of the national fleet and the chance to open up to foreign financial markets that he had pursued since the early 1920s, led Beneduce to achieve an unprecedented international operation. The settling of the war debts with the United States and Great Britain in December 1925-January 1926 allowed negotiations to start (Toniolo, 1981, p. 23). The operation, conducted in 1926-1927 under the auspices of the Italian government and with the mediation of Morgan bank, led to the issue – on the markets in New York and London – of the CREDIOP bonds, the placement of which provided the necessary capital ($ 20 million) to administer the loans in favor of the subsidized shipping companies.

The international loans sponsored by the CREDIOP were a sort of precursor of the activity carried out by the Istituto per il Credito Navale. Inspired by Beneduce, the ICN was set up at the end of 1928, at the request of the government and with the help of the Banca d'Italia. Its goal was to provide shipping companies, but not the shipyards, with funds which were to be used to build new ships. This intervention was aimed at promoting the modernization of a national fleet which, although it had increased by 48% in tonnage between 1920 and 1925 (see Table 6), still seemed to be obsolete. From the organizational point of view, it was a replica of the model already used by Beneduce for the CREDIOP and the ICIPU. The Cassa Depositi e Prestiti participated in the ownership of the Istituto per il Credito Navale, underwriting the largest share of the capital, together with other public institutions, insurance companies and banks (but not universal banks). The Consorzio Sovvenzioni had a crucial role in setting up the system. The development of the ICN reduced the sphere of action of the CSVI in the field of naval credit, without canceling it. In fact, with the Royal Decree no. 2307/1928, the CSVI was authorized to provide short-term loans to supplement those granted by the ICN. It was also urged pay in advance up to 50% of the loans allocated by the Istituto per il Credito Navale, prior to placing the ICN bonds on the market. The CSVI efficiently performed

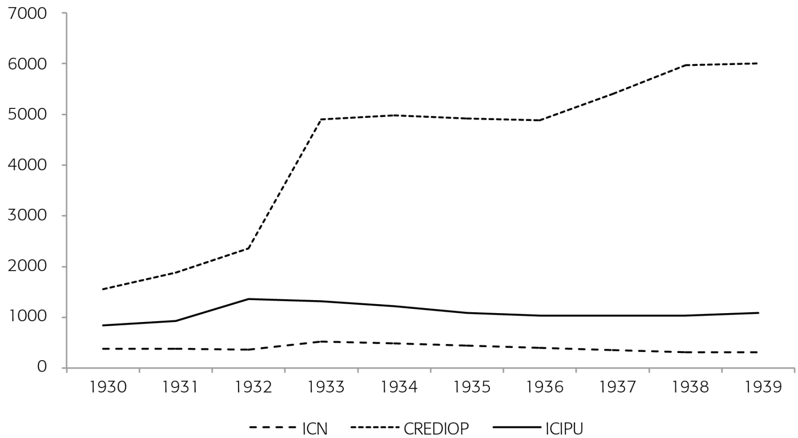
TABLE 6
Merchant motor fleets, 1920-1931 (.000 GRT)

Countries	1920	1925	1931
UK and Ireland	18.111	19.264	20.194
USA	14.574	13.821	12.794
Japan	2.996	3.968	4.276
Germany	420	3.062	4.226
Norway	1.980	2.553	4.062
France	2.963	3.324	3.513
Italy	2.118	3.150	3.274
Holland	1.773	2.553	3.111
Sweden	997	1.294	1.679
Greece	497	922	1.398
Spain	937	1.126	1.212
Denmark	719	1.049	1.133

Source: Mortara, 1932, p. 154.

this support service. Although the size of its business was much lower than that of CREDIOP and ICIPU (see Figure 2), in the 1930s the Istituto per il Credito Navale provided funds for more than 700

FIGURE 2
ICN, CREDIOP, ICIPU: bonds on the market, 1930-1939 (million lire)



Sources: Asso e De Cecco, 1994, p. 29; ICN, Bilanci.

million lire, which allowed the construction of 19 ships for a total of 220,000 tons. Loans benefited the major shipping companies in the country, including the NGI, Lloyd Sabaudo and Cosulich (Giulianelli, 2014a).

The Great Depression of the 1930s had two short-term consequences on State policy concerning the shipping industry. The first involved the navigation premiums, which had been abandoned after the war. In December 1931, faced with a drastic drop in trade and freight rates, the government decided to reintroduce them: initially planned for one year and 70 million lire, public support was then repeated, so that between 1932 and 1936 214 million lire were outlaid in favor of 1,120 merchant ships. The government also intervened to reduce the number of ships in excess as a result of the economic crisis, despite the fact that the Italian merchant fleet had grown by only 3% in terms of tonnage between 1925 and 1931 and had slipped from seventh to eighth place in the international ranking (see Table 6). For this reason, in November 1932, the government introduced compensation for demolition. These subsidies were specifically for the demolition of iron or steel cargo ships up to a total of 200,000 tons: even in this case the measure was renewed several times, to such an extent that in 1936 the number of tons demolished in order to benefit from the premiums was about 800,000 and the subsidies amounted to 19.4 million lire (Banca d'Italia, 1938, pp. 1771-1772). Moreover, the total tonnage scrapped in Italy between 1932 and 1936, therefore also including the ships for which the owners did not receive any subsidy, was a little less than three times that amount (2.2 million GRT), reaching a maximum in 1933 (746,494 GRT).

The second short term consequence of the Great Depression on marine equipment was a first reordering of the industry. To facilitate the processes of rationalization that the sharp decline in traffic since the second half of 1930 had made urgent, in 1931-1932 the government favored the concentration of the biggest corporations in four groups. The two largest groups were Italia-Flotte Riunite (NGI, Lloyd Sabaudo, Cosulich) and Lloyd Triestino (the eponymous company, Marittima Italiana, Società Italiana di Servizi Marittimi), whose fleets were respectively of 515,000 and 323,000 GRT. Italia-Flotte Riunite was placed fifth in the world rankings, behind Royal Mail, Peninsular & Oriental, Vapag-Norddeutscher Lloyd and Dollar United States Lines (Doria, 2009, pp. 153-154). Cosulich had been in control of the old Lloyd Triestino since 1928, and therefore the two groups were in fact already connected with each other. The other two companies, set up in 1932, were smaller: the first (Tirrenia) arose from the merger of Florio and the Compagnia Italiana Transatlantica, the second (Adriatica di Navigazione) originated from the confluence of Puglia, Costiera, Nautica, San Marco, Zaratina and the Società Anonima Industrie Marittime. The establishment of these four groups was followed by a reorganization of the business, which entrusted the links with the Americas to Italia-Flotte Riunite and the port of Genoa, the trade with the Levant and the Far East to Lloyd Triestino and the port of Trieste, the services of the Tyrrhenian Sea to Tirrenia and the port of Naples, and finally the Adriatic and Aegean lines to Adriatica di Navigazione and the port of Venice.

The shipbuilding industry also pursued the policy of mergers. The so-called "great invalid" of Italian industry in this period (La Francesca, 1972, pp. 27-28) tried horizontal and vertical integration (marine equipment-mechanics-steel) in order to increase efficiency and competitiveness. These concentrations of factories and businesses were promoted, in particular, by the banks that since the first half of the decade had held shareholder control of the leading companies. Thus, behind the process that in 1929-1930 led to the setting up of the Cantieri Riuniti dell'Adriatico (CRDA: Trieste, Monfalcone) and Odero-Terni-Orlando (OTO: Muggiano, Sestri Ponente, Livorno), there were respectively the Banca Commerciale Italiana and the Credito Italiano. Even at the beginning of the 1930s the Banca Commerciale owned CRDA, Ansaldo (Sestri Ponente), Franco Tosi (Taranto), Cantieri del Quarnaro (Fiume), Officine e Cantieri Partenopei (Naples), Bacini e Scali Napoletani (Naples), Cantieri Officine Savoia (Cornigliano) and the Piaggio group (Riva Trigoso, Ancona, Palermo) (Archivio storico Intesa Sanpaolo, Sofindit, cart. 258, fasc. 1).

To fully exploit their advantages of scale, CRDA and OTO tried to attract the highest number of contracts, in particular those relating to the construction of larger and better quality vessels. In the summer of 1930, the Consorzio Italiano Costruttori Navali (CICNA), which had been established one year earlier in order to ensure equals shares in foreign orders to the national industries, assigned respectively 26% and 28% of future demand for foreign ships to these two companies. Shortly afterwards, however, the Great Depression wiped out any possibility of price-fixing agreements and the CICNA collapsed, as had happened a few years before to another consortium, the Unione dei Costruttori Navali Italiani (UCNI) (Saba, 1994).

Having abandoned the initial goal to break the ties between the State and the shipbuilding industry, from the middle of the decade onwards the Fascist government restored State aid to this sector. In fact, a decree in May 1926 introduced construction premiums and excise duties that, being subsequently renewed and strengthened, in the decade 1927-1936 exceeded 357 million lire (see Table 7). On the contrary, nothing concrete was done to rationalize the industry, that continued to be oversized with a great amount of overlapping production. The start of the Great Depression stimulated the debate

TABLE 7
Subsides for the shipbuilding industry, 1927-1936 (.000 lire)

Year	Construction, repair etc. premiums	Excise duties	Total
1926-27	34.000	26.000	60.000
1927-28	32.000	26.000	58.000
1928-29	33.976	26.000	59.976
1929-30	30.000	25.887	55.887
1930-31			34.490
1931-32			32.809
1932-33			26.906
1933-34			14.841
1934-35			715
1935-36			14.841
Total			357.750

Source: Banca d'Italia, 1938, p. 1252.

about a problem that had been manifest since the end of the war, but which no government had intervened in for fear of losing the political consensus that the closure or streamlining of some factories would have caused. In May 1931 Giuseppe Lojacono, a counselor of the CRDA and future president of Finmeccanica, proposed a division of competences between the different national establishments as part of a reorganization plan prepared by Sofindit, the finance company which, in that period, the Banca Commerciale Italiana had entrusted with the control of their industrial holdings. The project involved the closing of smaller and obsolete plants, thereby leaving only eight yards (Sestri Ponente, Taranto, Monfalcone, Trieste-San Marco, Muggiano, Livorno, Ancona, Palermo). Greeted favorably by Rocco Piaggio, Lojacono's proposal was, however, rejected not only by the factories that were to be shut down, but also by some yards which had been excluded from the coveted production of submarines, that the project had reserved for Monfalcone, Muggiano and Taranto (Giulianelli, 2012, pp. 106-110).

4. The emergency, IRI, pre-war recovery (1933-1939)

The Great Depression led to the extreme economic interventionism that the Fascist government had adopted since 1925. The difficulties were felt above all in those areas where, especially after the war, the connection between the banks and industrial firms was particularly strong. Marine equipment and shipbuilding were among these industries.

Between 1930 and 1934 the world's maritime trade decreased by one-third in terms of quantity and freight dropped by 30%. From 1930 to 1933, the number of ships launched each year worldwide went down from 2.9 to 0.5 million tons (Flore, 1973, p. 42). In Italy, the number and the total tonnage of ships launched rose continuously from 1928 to 1931, but orders were interrupted as early as 1930 and this led to a sharp decline in production from 1932 (see Table 3). In order to deal with the gradual erosion of the "Siamese brotherhood" between universal banks, shipping companies and shipbuilding firms the State responded with the largest rescue operation ever undertaken in the West. In 1933, the Istituto per la Ricostruzione Industriale (IRI) gained control of more than half of the shipping sector. About eight tenths of the shipbuilding industry was absorbed, a share that rose in 1939 with the acquisition of the Neapolitan group Navalmeccanica, so that on the eve of the Second World War the companies managed by IRI absolved, in terms of value, 91% of production and 97% of the country's naval repairs (Cianci, 1977, pp. 276-279; Jacoboni, 1949, p. 47).

It was the need to better coordinate maritime traffic, eliminating any overlapping and inefficiencies, which soon pushed IRI to entrust the shipping industry to a sub-holding. In 1936 the old conventions were repealed and the four major industrial groups (Italia-Flotte Riunite, Lloyd Sabaudo, Tirrenia, Adriatica di Navigazione) were disbanded and replaced with homonymous societies, defined as "of major national interest" controlled by Finmare, a fledgling finance company of IRI. They took over the management of all the subsidized services, although no new agreements were entered into before 1939, and for the allocation of contributions different criteria were used than in the past (Doria, 2012, pp. 341-342).

The reorganization of shipbuilding followed a different and more bumpy path. The shipbuilding and ship repair industry continued to be managed by IRI until 1947, when it was assigned to the newly formed public company of the mechanical industry, Finmeccanica. Only ten years later, to relieve Finmeccanica of the heavy financial losses suffered by the shipbuilding firms, a specific holding company, Fincantieri, was set up (Galisi, 2011; Giulianelli, 2014b). However, the difficulty of intervening in the shipbuilding industry in order to streamline and modernize it, which had been apparent since the war, continued to be insurmountable. The case of the Guarneri Committee is the clearest confirmation of this. In October 1934, IRI established a Technical Committee made up of the executives of the three major State-owned companies (Ansaldo, CRDA, OTO), senior government officials, technical staff and union representatives.

The presidency was entrusted to Felice Guarneri, director of economic services for Confindustria and the Associazione Italiana fra le Società per Azioni. After several months of study, the Committee denounced, for the entire industry, a 40% excess in production capacity and tried to indicate the factories to close down. The criteria to be followed concerned specific technical and economic aspects (efficiency, degree of specialization), but also strategic (importance for the defense of the country) and socio-political factors (number of employees, location). These criteria were too heterogeneous to be able to reach an agreement and in fact no agreement was arrived at. The final report submitted by Guarneri in April 1935 accurately identified the main problems of the Italian shipbuilding industry, but was totally ineffective in terms of solutions (Mellinato, 1996).

Thus, rather than rationalization State intervention was, once again, preferred. The first and most important aid came from military orders. The rearmament policy adopted by the Fascist government (Falco, 2005) had increased the "military" sales of the Italian shipbuilding firms since the mid-1920s, when the gradual dismantling of State shipyards had begun to steer many orders to the private yards. This increase was interrupted, in absolute terms, in 1932, but in relative terms (that is, on total revenues of the shipbuilding companies) it was consolidated during the Great Depression (Fragiacomo, 2012, p. 91). After bottoming out in 1936 (-85% compared to the tons built in 1919), naval production started to rise again and in 1938 reached the same levels as before the economic depression (see Table 3). The demand for merchant ships also contributed to this recovery, which took off in the middle of the decade, thanks to the revival of international maritime traffic and the rise in freight rates. The exceptional transportation needs related to the African War (1935-1936) also contributed to renewal. The large-scale demolitions carried out in previous years had significantly streamlined Italian naval cargo ships, which dropped from 2.1 to 1.5 million GRT between 1929 and 1935. To gear up and face the new situation, the shipping companies started to again place orders with domestic shipyards. Shipbuilding increased, above all, thanks to the government's plan to develop Finmare, which in five years envisaged the creation of forty-four ships for 1.2 million GRT. In June 1939, the Italian share in the international mechanically propelled merchant fleet (vessels over 100 GRT) reached an important 5.2% (Flore, 1973, p. 104).

The Istituto per il Credito Navale had only a marginal role in the renewal of the shipping industry in the second half of the 1930s. After having initially deployed considerable loans (1930-1933), the ICN was hampered by the danger of conflict with the Treasury, which in the middle of the decade increased the offer of public funds. The ICN's activities were also damaged by the unstable structure of the shipping industry, which between 1932 and 1936 underwent the three reorganization processes already mentioned: a) incorporation of the biggest companies in four groups, b) acquisition of these groups in the State area, c) development of a public sub-holding. Between 1934 and 1938, the ICN did not administer any loans and merely managed the redemption of those previously granted (Giulianelli, 2014a).

In 1939, the Istituto per il Credito Navale showed new signs of life – the last before being disbanded in April 1940 – lending 161 million lire to Sidarma and the Cooperativa Garibaldi for the construction of ten cargo ships. The ICN responded in this way to the invitation of the government, which in that period was engaged in urging a rapid expansion of the national merchant navy. The most important measure in this direction was taken in March 1938 by the Benni Decree – subsequently converted into law –, which renewed the construction premiums. In addition to the considerable public resources that this law made available to the industry (100 million lire per year), important tax relief was also provided, to the extent that the benefits covered 60% of the full costs of production. In addition to urging domestic demand for merchant ships, the Benni Act was also intended to be a stimulus for the modernization of shipbuilding plants, both those belonging to the IRI group, and those that had remained in private hands. Both these objectives were achieved only in part: in fact, the Second World War interrupted, some of the ship building undertaken following this law (in some cases, the constructions were completed at the end of the conflict), and also slowed down the infrastructural and organizational work inside the factories. The war also put an end to the activity of the Consorzio fra i Costruttori Navali Italiani (CONAVE), which was created in 1938 with a similar role to that of CICNA between the 1920s and 1930s: the acquisition of foreign orders and their distribution to domestic companies.

5. Conclusions

Was the period between the two World Wars a break in the relationship between the State and the shipping industry in Italy?

This question clearly falls into a more general topic: the intervention of the government in the economy during the Fascist period. In order to answer this question, one straightforward consideration should be made. The shipping industry is a strategic sector worldwide, and it is inevitably important for Italy, which is more than two-thirds surrounded by the sea. Its importance has meant that this industry has always received considerable State benefits, which are intended to keep it in good working order (a reasonable goal), but also to preserve the political consensus of powerful business groups involved in this sector (an objective which is much less plausible). Fascism was no exception. Despite the initial *laissez-faire* statements, from 1925-1926 the Mussolini government assigned generous public aid to the shipping industry, using the tools introduced in the Kingdom of Italy from the second half of the nineteenth century onwards: construction and navigation premiums, agreements for the handling of postal services and trade. The only novelty was introduced by the demolition premiums, starting in the 1930s to reduce a national fleet tonnage which at that time appeared to be excessive with respect to the declining market demand.

Nevertheless, the years between the wars hosted two processes of transition, which marked the future of the shipping and shipbuilding industry throughout the remaining part of the twentieth century. The best known and most profound transition involved the reordering of the two industries which took place in the 1930s. This reorganization was through the incorporation of the major shipping companies and shipbuilding firms in large groups, finally absorbed into IRI. It was not a required response, but it was certainly linked to the state of emergency caused by the Great Depression. The second transition process concerned lending to businesses. The growing importance attached to the CSVI and the development of the ICN in the 1920s provided new solutions for the old problem of financing the shipping industry, which until the First World War had been in the hands of the universal banks.

The results of the Fascist economic policy for the marine equipment industry are positive, if observed at the end of the period. On the eve of the Second World War, the Italian merchant navy boasted large and prestigious ships, such as the transatlantic vessels "Rex" and "Conte di Savoia". More generally, it was modern and had increased its total size, as well as its importance in the world fleet. The reorganization carried out in 1939 also contributed to rationalizing this industry, bringing all the basic commercial services together in societies of "major national interest".

The framework of the shipbuilding industry appears to be less favorable. Even in this field, premiums, corporate mergers and state involvement in much of the industry was accompanied with attempts to rationalize production but with unsuccessful results. At the end of the 1930s, the government also urged the renovation and technological upgrading of shipyards, but these efforts were interrupted by the war. The defects of the plants, associated with an inadequate work organization, remained one of the most serious structural limitations of the Italian shipbuilding industry up to the second part of the twentieth century.

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