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after the Second World War**

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(preliminary version – do not quote)

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At the end of the Second World War the Italian government decided to tenaciously pursue an industrial support policy aimed at re-launching its public and private engineering sector. On the internal front the government approved *ad hoc* financial incentives and special supportive laws and institutions, while on the external front an incessant diplomatic effort was designed to obtaining special consideration for this industrial sector. In the end, one-quarter of Eximbank and Marshall Plan loans went to the engineering firms. In most cases, financial help and new machinery and plants incoming through Marshall Plan aid enabled Italy's engineering companies to overcome a short-term crisis, become competitive again, conquer important positions on all Western markets and lead the country's exports' growth in the 1950s and 1960s. Nonetheless, in a few cases non profit-aims came into play in shaping the government's policy towards some engineering companies. Thus, my contribution will analyse two collateral but significant aims guiding government policy in those years: social welfare purposes and a political dismissal of the aircraft industry.

One of the main reasons underlying the first line of action was that the default of the weakest engineering companies would have provoked discontent among a very high number of workers, which at the time was not politically feasible. Therefore, social welfare motives pushed the government to finance badly managed companies with little hope of repayment, which in the end meant nationalising a few big industrial groups nowadays belonging to Finmeccanica (a state-controlled company producing highly technical engineering products with an important foothold in the international market).

With the benefit of hindsight, the nationalization of the weakest companies prevented the country from losing important industrial capital and labour capabilities and keep a grow path steadily open, while the political decision not to help aircraft manufactures condemned most companies to bankruptcy or reconversion, thus causing the irremediable loss of technical knowledge built up over the previous decades.

1. The situation of the engineering industry at the end of the Second World War

Although Italy after the war still had a very important agricultural sector, and fruit and vegetables were the most important export category, things were rapidly changing. Since the First World War, the mechanical industry had gained a unique position on the Italian productive scene: a 1945 government document stated: «as far as number of employees and plants, considering the variety of productions and the experience built up in past, Italy's engineering industry is the most important sector of our economy».¹

War damages to buildings, machinery and industrial furnishings only slightly affected the engineering industry and they did not exceed 10 per cent of the asset value². It was Italy's lack of raw materials and fuel which slowed down industrial recovery. With the traditional European suppliers out of the play, US coal shipments, though insufficient and expensive, became of vital importance and represented 2/3 of total imports from 1945 to 1947.³

¹ Ministero dell'industria e commercio (a cura di), *Piano di massima per le importazioni industriali dell'anno 1946*, Milano 1945, 49.

² Attilio Jacoboni, *L'industria meccanica italiana*, Roma 1947, 50 and also Banca d'Italia, *Adunanza generale ordinaria dei partecipanti*, Roma 1948.

³ Ibid.

Italy's industrial production was able to return to the pre-war output level only in 1948 as raw materials and fuel were made available and in 1950 it outgrew the pre-war level by 20%.⁴ In the first years after the war, the engineering firms faced a slow and hard-working process of restructuring and change from war to civil production: it wasn't a too difficult change and most firms were able to use the existing machinery.

As shown in Table 1 the engineering sector was characterized by a good degree of continuity: both in 1937 and 1951 it employed around 16 per cent of total industrial workers and featured as the leading sector of Italy's manufacturing industry.

TAB. 1 Manufacturing industry labour force per sector

	1937		1951	
	No.	%	No.	%
Engineering	687186	16,7	670435	15,8
Textiles	607037	14,6	653107	15,4
Construction	556761	13,4	510920	12,1
Iron and steel	211011	5,1	382996	9
Food	481662	11,6	358624	8,5
Clothes	250421	6,0	223414	5,3
Leather	171882	4,1	215312	5,1
Furniture	146212	3,5	200563	4,7
Glass, cement	200443	4,8	195072	4,6
Chemicals	112241	2,7	175793	4,2
Wood	213882	5,1	169275	4,0
Mining	128381	3,1	130742	3,1
Utilities	40647	1,0	80774	1,9
Printing	63201	1,5	71573	1,7
Paper	45729	1,1	52631	1,2
Tobacco	48745	1,2	52496	1,2
Rubber and plastic	21427	0,5	34690	0,8
Energy products	16506	0,4	17670	0,4
Recycling	3573	0,1	4205	0,1
Others	159201	3,8	29743	0,7
TOTAL	4166148	100,0	4230035	100,0

Fonte: author's calculation from: G. Federico, "La struttura industriale (1911-1996)" in R.Giannetti e M.Vasta (a cura di), *L'impresa italiana nel Novecento*, Bologna, 2003, p.46.

In 1938 Northern Italy provided 86% of engineering output and the average number of workers per plant – 132 – highlighted the small scale of Italy's production units: only 1.2% of the companies counted more than 200 workers and only 4.2% more than 500.⁵ War demand increased the number of plants and enlarged those already in operation, war orders engaged half of Italy's engineering companies productive capacity and the ensuing massive post-war reconversion process concerned 350.000 workers.⁶

As we shall see, a common feature of all democratic coalitions governing the country after 1945 was to assist the engineering industry in its reconversion process and help it gain a strong foothold on the international market. In the 1950s engineering products exports grew from 19 to 32 per cent of total exports: they increased by 530 per cent (from 135 to 729 bn. lire), and by 836 per cent in case of automobiles, they surely represented the leading sector of Italian exports. Competitive prices and quality conquered the international market. In the words of Vera Zamagni: «no line of production was un-attempted, automobiles, tractors, vespas and lambrettas, sewing machines, machinery for paper mills, calculators and electric material, refrigerators, washing

⁴ Banca d'Italia, *Adunanza generale ordinaria dei partecipanti 1950*, Roma 1951, 86.

⁵ Jacoboni, *L'industria meccanica*, p.43.

⁶ "L'inchiesta dei lavoratori sul FIM" in *Notizie Economiche*, 1950, n.7, p.3 sgg. F. Rezia, "Le importazioni in Italia di attrezzature e macchinario ERP" in *Moneta e Credito* Volume III 1950 4° trimestre, pp.502-3.

machines, typewriters, packaging machines: Italian entrepreneurs in the engineering field tried to produce them all with smaller or greater degree of success, but with great timing».⁷

2. Birth and relevance of state industry in Italy

As a consequence of the 1929 crisis a large part of Italy's tottering enterprises and banks fell into state hands in 1933 under IRI (*Istituto di ricostruzione industriale*) management. IRI was organized as the main holding with four sectoral sub-holding, each taking care of publicized firms in a particular sector: Finmeccanica (engineering), Finsider (iron and steel), Finmare (naval building and transport) and STET (telephone). In addition to this, IRI also controlled ¼ of the banking system and of the hydro-electrical production plus various companies including two airline companies (Linee Aeree Italiane and Alitalia) and important shares in the chemical industry (8% of Montecatini – the biggest Italian chemical enterprise).⁸

As shown in Table 2, by 1950 the state held relevant stakes in various productive sectors: among IRI's sub-holding Finsider produced 80% of pig-coal and 45% of steel output, while Finmeccanica was in charge of ¼ of Italy's engineering production and Agip refined half of imported oil.

TAB. 2 Share of IRI's sub-holding output on total output in 1950

IRI sub-holding	Share of total output
FINSIDER*	
<i>Pig-iron</i>	79,7
<i>Steel</i>	44,7
FINMECCANICA**	
<i>Shipbuilding</i>	80
<i>Railroad mobile material</i>	25
<i>Motorcycle branch</i>	10
FINMARE (merchant marine tonnage)	18
STET (telephones)	57
AGIP	
<i>Natural gas</i>	60
<i>Crude oil</i>	40
AGIP e ANIC	52
<i>Crude oil to be refined</i>	
ACAI – coal	90
COGNE - anthracite	80
COGNE e ILVA - iron	80
AMMI	
<i>zinc</i>	30
<i>lead</i>	15
<i>antimony and gold minerals</i>	100
<i>tin</i>	70
<i>mercury</i>	65
RAI television subscribers	100
Electric energy companies – energy produced	30
Airline companies	80
Banks - % deposits	33

* Including Cogne

** Important shares in other engineering sectors

N.B. IRI had also minor presence in the chemical sector, tourism (CIT compagnia italiana turismo and numerous thermal establishments), film industry (Cinecittà, Ente nazionale Industrie Cinematografiche ENIT), and Italstrade (highways).

Source: own calculations from: Ministero dell'Industria e del Commercio, *L'Istituto per la ricostruzione industriale* documenti, vol. I, Torino, 1956, pp.18-9; 75 sgg.

⁷ Zamagni, *Dalla periferia al centro* (cf. n. 2), 414.

⁸ IRI, *Esercizio 1948*, p.11; 26-28. On the history of IRI in the afterwar years see: G. La Bella, *L'IRI nel dopoguerra*, Edizioni Studium, Roma, 1983, p.130 sgg. B. Bottiglieri, "Una grande impresa chimica tra stato e mercato: la Montecatini degli anni '50" in F. Amatori e B. Bezza, *Montecatini 1888-1966 Capitoli di storia di una grande impresa*, p. 340. On Saigs see R. Petri, "Il polo chimico ferrarese" in P.P. D'Attore e V. Zamagni *Distretti imprese classe operaia. L'industrializzazione dell'Emilia Romagna*, Milano, 1992, pp.280 sgg.

It was clearly a huge productive and human capital public property, totalling 220000 industrial workers, including 86639 people employed in the engineering sub-holding Finmeccanica. The latter was at the time running 50 different medium to big size plants scattered all over Italy in bad financial conditions, it upheld 26,5% of Italy's productive capacity in the engineering sector and 80% of dockyard activities and shipbuilding (29921 workers).⁹ Unfortunately, Finmeccanica was also the most indebted holding since it ran engineering companies which had all depended on state military orders before and during the war. They had also absorbed the largest share of public investment (76%) from 1942 and 1947.¹⁰ It should thus not come as a surprise to find out that Finmeccanica accumulated liabilities up to L. 24 bn. lire between 1947 and 1949 and a L. 19 bn. budget loss over this last year. The enterprises losing out the most were Ansaldo, Oto, S.Giorgio, Alfa Romeo and Navalmeccanica all engaged in a wide ranging reconversion process from war to peace production.¹¹ Civil production previously employing 15000 workers was suddenly engulfed with 60000 workers and little to do. Consequently, in the beginning a large part of Finmeccanica workers' salaries were handed out for social welfare reasons and political peace-keeping priorities. Things changed slowly for Finmeccanica, all its plants needed a fresh managing policy to get poorly organized firms going yet a postwar law prohibited to reduce and renew the labour force. The holding showed a very sluggish pace of recovery, actual profits remained low or nonexistent: total losses amounted to 75 bn. lire in the first six years of operation while IRI's losses totalled 76 bn. lire: it was IRI's main liability.¹² Therefore, when talking about Finmeccanica, also contemporary observers could but underline its potential rather than the actual state of affairs: "progress, from an economic point of view, is fairly slow and is mainly to be measured by the relevant reduction of the huge losses accumulated in the past rather than by the profits made so far"¹³. As a matter of fact, the state believed in its engineering firms' potentialities and kept investing on them and such effort eventually bore rewards in the future.

Despite Finmeccanica's difficult situation, IRI proved a viable solution in the after war years, its trustworthy and appropriate public business management saved it from the attacks of hard-headed liberals and impressed foreign observers.¹⁴ There had been in fact a few uncertainties as to IRI future at the end of the conflict: being a by-product of the fascist state and given its pervasive control and obligations on economic life, some thought it had to be dismantled.¹⁵ Yet, the liberals' approach was short-lived, the privatisation hypothesis was soon set aside and the government instead of getting rid of its public companies decided to strengthen them (it poured money into IRI endowment fund increasing it from L.20 to 60 bn.) and modernise them (the Sinigaglia Plan was undisputedly a farsighted modernisation plan which effectively brought Italy's coal and steel production and prices to European standards).¹⁶

⁹ CISIM *Rilievi e proposte sulla industria meccanica italiana*, Roma, 1952, p.344 sgg

¹⁰ See: IRI, *Esercizio 1947*, Roma 1948, p.30; 32.

¹¹ Ministero dell'industria e del commercio, *L'Istituto per la ricostruzione industriale*, Studi e documenti, vol. I, Torino, 1956, pp. 34-5.

¹² Ministero dell'industria e del commercio, *L'Istituto per la Ricostruzione Industriale* (cf. n. 3), 70-152.

¹³ *Ibid*, Relazione di P. Saraceno, pp.70-2.

¹⁴ L. Avagliano, "La mano visibile" in *Italia*, Edizioni Studium, Roma, 1991, p.127-8.

¹⁵ See Battilani-Fauri, *Mezzo secolo di economia italiana*.

¹⁶ S. Battilossi, *L'Italia nel sistema economico internazionale. Il management dell'integrazione: industria, finanza, istituzioni 1945-1955*, Milano, 1996 and also G. Amato "Il ruolo dell'Esecutivo nel governo delle Partecipazioni statali", in *Il governo democratico dell'economia*, Bari, De Donato Editore, 1976, pp.136-7.

3. Industrial support policy towards the engineering sector: domestic and international aid funds and loans

In order to give a picture of the amount of money which in various forms benefited Italy's engineering industry in the reconstruction years (1944-1947) a very tentative table has been elaborated on the basis of the available material. The listing of laws and provisions in favour of the sector might not be exhaustive yet it undoubtedly gives an indication of the government effort on the domestic and international front to provide the necessary help to relaunch the engineering sector.

TAB. 2 Domestic and international aid funds and loans to industry 1944-1951

Laws	Mil. of lire or dollars	Aims	Engineering industry (mil. lire)
Decreto legislativo Luogotenenziale (DLL) 1-11-1944, n.367	L.31929	Ministry of Treasury aid to help enterprises in the liberated territories	4689
DLL 14-6-1945, n.365	L.5000	Payment of long stand state credits (before September 8th) to industrial enterprises	1879
DLL 14-9-1945, n.605	L.3000	Increase of bank credit to enterprises short of liquidity	
DDL 18-12-1945 n.416 e DDL 5-5-1946 n.86	L.2000	Increase of industrial credit of Banco di Sicilia (10 bn.) and IMI (10 bn.)	1021
DLL 31-3-1946, n.246	\$25	Export Import Bank loan to import USA cotton	
DLL 8-5-1946, n.449	L.12971	IMI loans to help industrial reconversion	9741
DDL 21-6-1946 n.5	L.1000	Regional fund for important industrial enterprises	885
CSVI		Special funds for IRI firms	9000
Decreto legislativo del capo provvisorio dello stato (DLCPS) 8-9-1947, n.889		L. 5 bn to FIM (engineering firms) which will soon increase to 66 bn. lire	5000
DLCPS 11-9-1947, n.891	\$100	Eximbank loan	30000
DLCPS 15 -12-1947 n.1419	13172	Loans for SME (15 mil. each)	

Source: Banca d'Italia, *Adunanza ordinaria dei partecipanti anno 1947*, Roma, 1948, pp.140-141; Lex, various issues and ASC, Fondo finanziamenti all'industria, 8 ottobre 1953.

Between 1944 and 1947, domestic and international funds aimed at rebuilding plants, restore the stocks and set activity in motion again but no adequate amount was still provided to speed up a sweeping recovery through a renewal of the old machinery and plants.¹⁷ In the above mention period, the biggest amount was provided in 1944 by the Ministry of Treasury allotting L.32 bn to industrial enterprises "interested in the resettling of civic and economic life of the liberated territories". Priority was given to the electric, gas and engineering sector which together secured more than 50% of the loan. On the whole, 222 industrial plants got hold of some of the funds channelled through various private banking institutions (IMI, Istituto Crediti Pubblica Utilità and Banca Nazionale del Lavoro) the state only intervened in the payment of the interest rate and as a sort of guarantee.

On the international front, the new democratic government loan requests had a hard time in getting a positive response, the only post-war success until the end of 1946 was a \$25000 Export Import Bank loan to import American cotton. Only in January 1947 a further \$100000 Eximbank loan was offered to Prime Minister De Gasperi on occasion of his visit to Washington to help Italian industry recover and modernize.¹⁸ The Italian government delegation which left for Washington on this first post war multi purpose mission included Confindustria President Angelo Costa, whose short-sighted perspective on the industrialists needs and capacity made him say back in Rome: "I haven't asked for money to finance industrial investments 'cause I had no idea how we could pay it back". He also showed a very pessimistic view on the possibility of getting further aid from the US: "I think the aid we have received so far and the help we have been promised is about to end... the American contributor serenely and elegantly bears the consequences of having to pay taxes to assist

¹⁷ Cisim, *Rilievi*, pp.218-9.

¹⁸ Segreto, "Finanza, industria e relazioni internazionali nella Ricostruzione", pp.69-71

the whole world”.¹⁹ But he was convinced this attitude was to change soon. President Costa’s pessimistic views on the recovery potential of Italian industry and American feelings soon proved wrong (the Marshall Plan will be announced in June 1947).²⁰

Between 1944 and 1947 the Italian government also passed a few important laws to ease the small and medium enterprises’ credit access. The SMEs already formed Italy’s industrial fabric, but “can rarely meet the necessary guarantees and when they do, their credit gets reduced and their security expenses become excessive compared to the obtainable loan”.²¹ Therefore, in December 1947 a special “urgent law” was passed (Dlcpn n.1419) which provided for the setting up of a special credit section for the SME inside a few big banking institutions (the Banca Nazionale del Lavoro, Banco di Napoli and Banco di Sicilia) with a L. 275 mil. capital endowment.²² Each small or medium enterprise could get up to L. 15 mil. and the state guaranteed 70% of the loan. It was not a very successful experiment in the end: the banks complained many SMEs were unable to pay the loan back in due terms, while many firms accused the banks of charging exorbitant interest rates and disposing too short refund terms. On top of this, Confindustria judged the law “unable to attain its aims, since it has too quickly exhausted its funds”.²³

If we look at Table 2, we can also calculate that between 1944 and 1947, the engineering industry received L. 57 bn lire, including the Eximbank loan. The engineering industry was thus helped by generous financial aid, which represented «a much needed shot in the arm for the enterprises». ²⁴ Yet, in the summer of 1947 Italy’s economic situation was still difficult and unsettled while industry started complaining about the new restrictive policy measures passed to halt inflation. Minister of the Budget Einaudi’s measures proved successful (wholesale prices went down by 11.8 per cent between September and December 1947 and the cost of living index by 8 per cent) yet the credit freeze led many firms to the verge of a financial crisis.²⁵

Therefore, the government decided to set up the FIM or *Fondo per il finanziamento dell’industria meccanica*, a fund for the financing of the engineering industry, in order to guarantee the necessary liquid assets. The FIM aimed at giving incentives to engineering firms needing to invest in reconstruction and modernization, with the aim of increasing exports and employment. It was managed by a highly professional technical committee. Yet, its results were meagre: between 1947 and 1950 the FIM gave loans to 37 companies for a total of L. 66 bn. but only L. 23 bn. had been returned by the end of 1950. All public firms and some private ones – like Piaggio (motorcycle producer) and Fiat – were able to pay their loans back to the FIM. In these cases, financial aid was a transitory but necessary intervention which allowed beneficiaries to cope with a difficult moment of crisis. On the other hand, Breda (a big company producing a great variety of products, from metal engineering to railroad materials and armaments), Ducati (electrical appliances and motorcycles) and Gruppo Caproni (aeronautics, light engineering products) were unable to pay back their loans. The FIM decided not to help most firms of the Caproni group (which went bankrupt), but stood by the rest, effectively controlling their majority shares by the end of 1950. One of the main reasons underlying this decision was that the default of those big engineering companies would have meant provoking discontent among a very high number of workers, which at the time was not politically feasible. In 1962 all FIM’s industrial properties passed onto EFIM or *Ente partecipazioni e finanziamenti industrie manifatturiere* and finally in 1992 to the big state

¹⁹ ASC, Verbale Giunta esecutiva del 27-28 febbraio 1947, Costa, “L’organizzazione del lavoro industriale negli Stati Uniti”.

²⁰ See on this issue: F.Fauri, *Il Piano Marshall e l’Italia*, Il Mulino, Bologna, 2010.

²¹ ACS, Fondo Finanziamenti industriali 74-5-1 “I finanziamenti alla piccola industria”

²² F. Ventriglia, “I mutui IMI 1945-48 per la “riconversione” in *L’illustrazione economica e finanziaria*, n.2, 1951.

²³ ASC, Fondo finanziamenti industriali, 74 5.1. I finanziamenti alla piccola industria.

²⁴ Marco Doria, *L’industria meccanica italiana nella Ricostruzione*, in: *Rivista di Storia Economica*, 4 (1987), 43.

²⁵ CHS, Fondo Giunta Esecutiva, verbale seduta 12 novembre 1947.

holding company Finmeccanica (only recently in part privatised, producing highly technical engineering products with an important foothold in the international market).²⁶

Finally, we should mention that between 1948 and 1951, the Marshall Plan issued Italy with purchasing authorisations to the value of 1.3 billion dollars thanks to which more than 18 million tons of goods arrived. The first five items in order of importance were cotton, cereals, coal, oil and machinery.²⁷ While the process was slow to start, mainly for bureaucratic reasons, in four years the importation of machinery increased from 0.8 to 29% of the total goods imported as part of the ERP (European Recovery Program). Three hundred and fifty eight Italian firms were given the opportunity to renew their industrial plants and equipment and 20% were engineering firms (see Table 3).²⁸

TAB. 3 Marshall Plan loans by sector (mil. lire)

	Erp dollars	Erp lire	Total
Energy	41979	8257	50236
Iron and steel	41015	3178	44193
Engineering	33470	2271	35741
Textiles	9152	2105	11257
Arar Spei (for SMEs)	3142	4516	7658
Oil refining	4868	0	4868
TOTAL	153600	22573	176173

Author's calculations from Lombardo p.702

MP loans in machinery made the modernisation of technology possible, as well as the definition of strategies of development for large-scale businesses who were thus able to consolidate their presence on the market over time, but above all to achieve in the years to come important goals as regards increase in productivity, decrease in costs, increase in employment, and conquest of the domestic and international markets.²⁹

On the whole, we can say that well-managed private engineering companies thanks to domestic and international loans, Marshall Plan machinery and a human capital endowment slowly built up in the past swiftly recovered and their products soon turned extremely competitive on the world market. In the very opinion of international observers: the mechanical and engineering sector offered great possibilities for Italian recovery: "Mechanical products are characterized by a preponderant amount of skilled labour, while involving a comparatively low consumption of raw material and power. This is especially the case of precision products, where even 75% of value is accounted for by labour. Italy ranks amongst the countries highly specialized in this field... Italian mechanical products are well known and appreciated abroad and a certain revival is now taking place in the following branches: electromechanical, precision engineering, automotive, typewriters and sewing machines".³⁰ American aid donors and Italian authorities considered the mechanical sector of primary importance for the Italian recovery program. The sector modernisation could bring about lower production costs, ensure a rational utilisation and distribution of labour and foster exports and dollar earnings. Last but not least, a revival of the mechanical industry could bring a large variety of products within the reach of more people and reduced prices could create demand.

²⁶ On the FIM see: F. Fauri, "La 'strada scabrosa del risanamento economico delle aziende: la missione impossibile del Fondo Industria Meccanica'" in *Imprese e Storia*, n.36, luglio-dicembre, 2007, pp.193-217.

²⁷ CIR, *Lo sviluppo dell'economia italiana*, Roma, 1952, p.100-103.

²⁸ Source: author's calculations from: Lombardo, *L'Istituto Mobiliare Italiano*, pp.663-693.

²⁹ See: F.Fauri, *Il Piano Marshall e l'Italia*, Il Mulino, Bologna, 2010.

³⁰ NARA, Washington, RG 469 1259 ECA/Rome Industry Division "Italian mechanical and engineering sector summarized study for the productivity survey at Rome", 26 April 1950.

But poorly-managed private engineering companies or difficulties-stricken companies ended up in state hands either through Finmeccanica (from 1947 onwards) or FIM (between 1947 and 1951). Finmeccanica was in charge of 25% of Italian engineering industry productive capacity, including big companies such as: Alfa Romeo, Ansaldo, Arsenal Triestino, Delta, Società metallurgica ligure, Filotecnica Salmoiraghi, Industria Meccanica Napoletana, Fotomeccanica SPA and Navalmeccanica SPA.

The Italian government was clearly pursuing non-profit aims as to its weak and losing engineering sector, many billions of lire were poured in tottering state firms, saved jobs and competences which eventually bore results in the future. The only exception being the aircraft industry, which the state decided it was not a safe bet. In the next two paragraphs a few words will be spent on these two case studies.

4. The public engineering sector: working at a loss

At the end of the second world war, the government decided to gather all IRI firms and also IRI controlled companies operating in the engineering and naval building sector under a new holding: Finmeccanica. What happened was that IRI passed onto Finmeccanica 51% of its shares in each company, thus remaining with 49% or less depending on the role of private owners. However, such division originated bad management, lack of organization and heavy interference of IRI and Finmeccanica. While Finmeccanica was in charge of coordinating the various companies, determine the level of production, occupation and short term loan policies, IRI was in charge of the general management as to the investment and finance/support policy. The lack of a clear-cut definition of responsibilities led them to interfere in the operation of the single firms, both as regarded expenditure and technical subjects, so that no responsibility was clearly defined and “the perfect machinery for passing the buck had been created.”

As the US mission to Italy reported: “All Finmeccanica firms work at a loss, while FIM financed firms, to fall under FIM control, must by definition be near failure. They are all badly managed: it is only a question of degree... Of the large Finmeccanica firms, the worst is apparently Ansaldo, the best probably the Cantieri Riuniti dell’Adriatico. The many Ansaldo branches constitute by themselves an inextricable maze of un-coordinated managerial authorities, the Direzione Centrale interferes in a confuse way with the different manufacturing branches, each of which is well provided with General managers, assistant managers etc, so that no executive has any clear defined responsibility. There is every advantage in doing nothing in putting all the blame on the communist workmen and relying on the government’s subsidies to balance the budget. One of the worst cases of mismanagement is given by Ansaldo’s Stabilimento Meccanico: this branch makes no effort at all to sell its products. The reason of course is that under fascism, the Stabilimento Meccanico had more than enough work building engines for the Italian Navy’s ships: so that all the managers are waiting for orders to drop from the sky.”³¹ Here the report tells about a state Navy bid for the construction of the engines of a destroyer: all the competing firms had to present a plan for the technical solutions within specified features (a stem pressure of 45 at, each shaft with twin turbines, boilers in even numbers and so on). While the other firms presented their offers in the stated time, the SM, once the Navy’s main supplier, had to be sent two reminders and when its plans finally arrived, they didn’t match the requests (they included three turbines instead of two, wrong pressure and temperature). The contract for the engines went to Tosi at which Ansaldo made a terrible political fuss with the Ministry, it complained the workers were ill-treated and thus managed to get the next Navy contract for a Corvette.

However, not all IRI mechanical firms were so badly managed. Despite its poor economic results, Alfa Romeo’s technical and engineering ability was beyond doubt, even compared to American standards. Therefore, a US 1 and 1/2 million dollars ordnance procurement was allocated

³¹ NARA, Washington, RG 469 E1259, “Report on Badly Managed IRI and FIM controlled mechanical industries” 20 August 1951.

to Alfa Romeo for motor vehicles and trailers reconditioning. The company's production facilities were judged suitable and the contract easy to handle for a firm normally manufacturing new vehicles, while the fact the labour force was 60% communist, did not represent a problem, they were indeed "pretty peaceful" and no labour troubles were ever reported by the management.³² Therefore, if it cannot be denied that IRI, Finmeccanica and FIM rather cumbersome and overstaffed management mechanism caused many troubles and garbled the chain of command making it sometimes difficult to discover the ultimate responsibility, it is also true that profit was not the primary political aim.

5. The political dismissal of the aircraft industry

The aircraft industry was the most penalized engineering sector after the Second World War, it produced 200-300 planes a month during the conflict but after 1943 all firms engaged in this business were either closed down or had to start manufacturing something else - Piaggio for instance started to build the famous Vespa in 1946.³³

The maximum decline shown by aeronautical constructions is accounted for by the peace treaty limitations and by the fact that civil air lines started using mostly war surplus allied material.³⁴ As a matter of fact, when the main civil aviation corporations Alitalia and Lai (they both shared the presence of foreign capital: the British Overseas Airways Corporation-Boac owing 30% of Alitalia and Trans World Airlines-Twa 40% of LAI)³⁵ had to buy new planes they turned to American producers. Lai obtained a MP loan to purchase three four-engined American aircrafts to be put into service on the Rome-New York run, MP officials underlined that one of the major factors involved in giving approval to this project was that additional passenger-carrying capacity from the US to Rome would be needed for Holy year pilgrims.³⁶ Alitalia's request was instead turned down by the American authorities. The Company had filed an application for authorization to purchase on the USA market three used 4-engine Symasters planes at the global price of \$1,2 mil including accessories and spare parts. Alitalia underlined that it was operating along routes which were not followed by American companies, like the Rome-Buenos Aires one or other European ones.³⁷ After the denial of ERP funds, the public financial institution in charge of managing all loan requests, the IMI, decided to use what was left of the Eximabank loan to buy the American aircrafts.³⁸

Therefore, despite an initial undertaking on the part of Alitalia to "buy Italian", all the planes were bought on the American market. Thus the aircraft building sector, which shared no political sympathy, was condemned to failure.

No doubt aircraft producers like Caproni, SVA, Fiat, Ansaldo, Piaggio and Breda had flourished during the interwar period thanks to the fascist regime direct interest and support of the aeronautical sector. After the war, the fascist bias might have undoubtedly played against it, despite the undisputable successes of the 1930s, when 120 planes a month were being built in Italy and

³² NARA, Washington, RG 469 1259, Memorandum da Vincent Barnett (capo missione MSA Italia) a Chief Military Production Sector, 14 July 1952.

³³ Jacoboni, *L'industria meccanica* (cf. n. 6), 58.

³⁴ NARA; 469 Italian mechanical and engineering sector, April 26 1950

³⁵ Centro per lo sviluppo dei trasporti aerei, *L'aviazione civile all'Assemblea Costituente e nel Parlamento del dopoguerra*, Roma, 1959.

³⁶ MAE, ECA, Office of Information, nov. 10, 1949

³⁷ MAE, busta 20, Italian Embassy Washington, Memorandum

³⁸ In the end, since they both rested on IRI funds, in 1957 Lai and Alitalia united to form single national airflight corporation - Alitalia - holding a monopoly on Italian civil air flights, state controlled and with no foreign capital participation. MAE Busta 20 *Lettera da Bertone (Ministry of Foreign Trade) to Italian Foreign Exchange Office 22 sept 1949*. On Alitalia see, A. Pellegrino, *Quelli della stanza uno: i primi 50 anni dell'Alitalia*, Milano, Libreria Gatti, 1997; C. Falessi, *The Revival*, in "Trasporti aerei" (3-4 1972); A. Mantegazza, *Alitalia and commercial aviation in Italy*, in *Flying the flag. European commercial air transport since 1945*, a cura di H.L. Dienel e P. Lyth, London, Macmillan, 1998.

exports grew incessantly. At the beginning of war, when Italy was taking advantage of its neutrality, production rose to 300 planes a month and important international contracts were signed by Italy's main producers. On 16 January 1940, for instance, the British Secretary of State for air undertook to purchase 300 Caproni CA 313 type aeroplanes and 100 CA 311 aeroplanes without armament to the price of 26,375,000 US \$, while the French government agreed to buy 200 Caproni airframes.³⁹

However, Italy joined its German ally in the war in 1940 and all contracts were lost. When Italy signed the armistice in 1943, and the Germans occupied the North under what was left of the fascist government, state orders were interrupted and air craft production suddenly fell, becoming inconsistent by 1945. "Nowadays" wrote Attilio Jacoboni in the first detailed postwar evaluation study on engineering industry "air craft construction activity can be considered non-existent".⁴⁰ Many factors worked against Italy's air craft industry recovery: the transitory dispositions of 1945 which did not allow Italy to have a civil aviation⁴¹, the technological and scientific delay which air craft building was accumulating in these years when only a few prototypes were constructed and finally the political decision to specifically exclude the aircraft industry from the loads of international and domestic funds which were directed to the engineering industry in general (as shown above). Both the FIM and the ERP, just to mention the biggest aid programs, completely neglected those Italian companies which were building airplanes before and during the war, unless they were going to use the funds to reconvert to other mechanical productions.

Only two Marshall Plan loans were specifically directed to the construction of air crafts spare parts: the largest one (3,1 bn, out of a total of 3,7bn) was allocated to Fiat in order to produce jet engines for military planes and the other to an IRI firm in Naples to produce parts of the fuselage.⁴² The small private producers were left on their own and most of them failed like Caproni, or became state-owned and started manufacturing something else. A very interesting survival case, which kept on producing small biplanes and specialized in repairing American planes after the war, was the Agusta company. In 1952 it entered the pioneer sector of helicopter production through a licensing agreement with Bell and was the first company in Europe to build the Bell 47 model. A very successful story awaited ahead (going through nationalization and relaunch).

Concluding remarks

After the second World War, non-profit aims came into play in shaping Italy's policy towards some engineering companies. As the paper has shown industrial policy was shaped also by social welfare purposes and a political decision to dismiss the aircraft industry. The weakest engineering companies were in most cases rescued by the state and kept alive, even though working at a loss, because of aims not connected with immediate economic returns:

- they guaranteed a job to an enormous amount of workers with little or no alternative otherwise (Italy's had one of the highest unemployment rate in Europe). In the words of a member of Cabinet: "Any aid given to the mechanical sector will have far reaching results, both for industrial recovery and for the purpose of keeping busy a great variety of workers all over the country. The importance of thus helping solve the social problem is self evident."
- they embodied Italy's most active social welfare policy (in the absence of such a policy at the time) and actively concurred in maintaining social peace in a turbulent post-war political climate;
- they invested in Italy's human capital, whose professionalism and technical knowledge could either be treasured or completely lost to future generations;

³⁹ PRO AVIA 15/264

⁴⁰ Jacoboni, *L'industria meccanica italiana*, pp.163; 154-5.

⁴¹ C. Jean (a cura di), *Storia delle forze armate italiane dalla ricostruzione postbellica alla ristrutturazione del 1975*, Giuffrè, 1989.

⁴² Lombardo, "L'apporto dello European Recovery Program (piano Marshall) alla ri-progettazione dell'industria italiana"-

- they represented a bet on the country's future development: it took time, but good results awaited ahead, as the Finmeccanica case shows.⁴³ If Finmeccanica had been shut down, as the Americans wished finding little justification for its very existence, Italy would have completely lost peculiar technological developments paths with no chances for them to survive on their own. As Italy's economic history shows, when a path is interrupted, the technological gap soon becomes paramount (as in the case of the aircraft industry) and failure awaits private investors who try to catch up from scratch (in this latter case the history of Olivetti and electronics is a case in point).⁴⁴

When the so-called Amato Act was passed (18 July 1992) all public companies were transformed into joint stock companies and the government sold their shares to the general public.⁴⁵ EFIM's industrial core, Breda's plants, passed to Finmeccanica, which by that time had become the Italian defence industry's aggregative core. As mentioned earlier, Finmeccanica in the '50s was going through a very harsh financial situation, with continuous losses pushing managers to reorganise the group, get rid of the building sector (through the establishment of a new public company, Fincantieri) and focus production in three industrial sectors: thermo-engineering (Ansaldo group), motor vehicles (Alfa Romeo) and aerospace (Aeritalia), incorporating what was left of the aircraft industry. At the end of the '80s Finmeccanica sold Alfa Romeo to Fiat and bought Stet (an electronic company engaged in spatial technologies, robots and semiconductors) and in the '90s it incorporated a mobile communication company (OTE) and reinforced its electronic and defence production units through the acquisition of Elmer and Breda. By the end of the '90s Finmeccanica was a completely renewed company its annual budget steadily improving, well managed and with new compelling future projects. International agreements were signed which were to become crucial for its future development, the first one with the British company Marconi (telecommunications), the second one with GKN, inaugurating a fortunate joint-venture with AgustaWestland for the production of helicopters, making Finmeccanica one of the most important and successful producers in the world. In more recent years, Finmeccanica has taken full control of AgustaWestland and its various plants in the United Kingdom and has bought AerMacchi (based in Varese) producing military training aircrafts. Today's Finmeccanica turn over places it among the first three European companies in the defence sector.⁴⁶

⁴³ V. Zamagni, *Finmeccanica*.

⁴⁴ Battilani Fauri, *Mezzo secolo di economia italiana*.

⁴⁵ Italy's privatization process between 1992 and 1999 allowed the government to sell assets for \$101.9 bil, while in the same years the UK privatisation turned in \$47,8 bil, France \$59,8 bil and Germany \$61,1 bil. Battilani/Fauri, *Mezzo secolo*, 244-245.

⁴⁶ Finmeccanica has been privatized in 2000, but due to its sensitive and specialised productions in the defence and aerospace sectors, the Ministry of Finance retained a golden share (33.74 per cent) and has not allowed any private investor to buy more than 3 per cent of the share capital. Nevertheless, in 2007 the group was able to return increasing dividends to its shareholders (+17 per cent compared to 2006) while capital gains went up by 8 per cent. Giuliano Balestreri, *Finmeccanica aumento il premio per i soci*, in: *Il Sole 24 Ore*: 18 marzo 2008.