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ITALIAN DEFENCE INDUSTRIES: ISSUES AND PROSPECTS

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1. Introduction

It is clear to anybody who follows Italian events even superficially that Italy is presently undergoing a profound political, economic and social transformation process. The widespread system of corruption and bribery unveiled by the "clean hands" inquiry deeply shocked Italian society, which was already under the pressure of a bleak economic situation. The debacle of the old parties and new coalition brought to power by the first general elections of the so-called Seconda Repubblica in March 1994 did not change the typical vices of the Italian political system: profound fragmentation, endemic instability, endless disputes, confrontational positions, little concern for public interests. The demise of Mr. Silvio Berlusconi's government (after the Northern League joined opposition to call for Mr. Berlusconi's resignation), its replacement by a transitional government led by Mr. Lamberto Dini, and the recent entering in the political arena of Prof. Romano Prodi as the potential leader of a center-left coalition, opened a new phase in the struggle for power of old and new parties. The increasing seriousness of the economic situation, the sharp divisions among political forces on the date for new general elections, the malaise of a society which does not see any light at the end of the tunnel of unemployment, high taxes and inefficient services, are all elements leading to a widespread sense of anxiety and uncertainty. Thus, for the parties and the people the tendency is to look inward, giving little attention to the issues of foreign and security policy or to the specific problems of the defence industries, which are considered within the framework of the crisis touching the whole Italian industrial sector. Potentially negative developments in the Yugoslav crisis, a possible spillover of the war in Bosnia, and the situation of deep instability of the Mediterranean region are the only notable exceptions to the full immersion of Italian parties and public in domestic politics.

However, in the past three years, the institutional and political crisis notwithstanding, Italy has conducted an active foreign policy. One could argue that the activism and the high profile of Italian foreign policy, epitomized by the participation of Italian soldiers in all major U.N. peacekeeping and humanitarian operations around the world, from Northern Iraq to Somalia and Mozambique, was an attempt at regaining the international credibility lost because of the domestic situation. In any case, the conduct of such a foreign policy cast new responsibilities and new burdens on the shoulders of the armed forces. In fact, the effective implementation of those out-of-area missions entails the acquisition of new capabilities and high-technology weapons systems. This requirement, in turn, should open fresh opportunities for the defence industry.

2. The italian foreign, security and defence policy

It has become a truism to say that the fall of the Communist regimes in Central-Eastern Europe, the dissolution of the Warsaw Pact, the German reunification and the disintegration of the Soviet Union have drastically changed the European strategic picture, opening a whole range of new risks -- and imposing new requirements related to their possible impact on European security interests.

Today, the "threat from the East" has dissolved together with all its military scenarios. There is no longer an enemy on the other side of the dismantled Iron Curtain. NATO's flexible and graduated response doctrine, with its concepts of forward deployment and defence, nuclear first-strike option and escalation ladder, has been thoroughly reviewed. The new emphasis is on crisis management and the creation of smaller, multinational and very mobile units with a high level of operational readiness, capable of rapidly reacting to any crisis situation.

Today, European security encompasses a larger set of values and increasingly depends on the synergetic use of military, diplomatic and economic instruments, within the framework of a clear crisis management strategy.

Like other European countries, Italy is now confronted with a series of new issues: the remaining uncertainties of Russia's move toward democracy and a market economy, and the possibility of a further deterioration of the ethnic conflicts in the former Soviet Union; the prospect of a Balkanization of the conflict in the former Yugoslavia involving the intervention of other regional and extra-regional actors; the risks of new crises in the Gulf; the regional repercussions of a setback of the Middle Eastern peace process; the proliferation of weapons of mass destruction, long-range ballistic missiles, and high-tech weapons systems in the Mediterranean region; the eventual spreading influence and access to power of Islamic fundamentalist movements in North-Africa; the growing social disruption potential and security repercussions of widespread migration to Europe as a result of domestic political instabilities, bleak economic prospects and ethnic tensions in the South and East; the deepening of the international connections and the spread of cooperation among mafia-type criminal organizations; the prospect of nuclear blackmail and terrorism.

Italy's situation is complicated by its unique geostrategic traits. Its long coastline, its protruding position in the central Mediterranean (accentuated by Sicily and the islands of Pantelleria and Lampedusa), its proximity to the Balkans and the North-African littoral, and the privileged location of Sardinia are characteristics (some positive and some negative) which combine to give Italy a special strategic value and a higher vulnerability.

On the other hand, this Mediterranean "strait jacket", which somewhat guides and, at the same time, constrains Italian foreign and security policy, is counterbalanced by a clear European "vocation" stemming from the political, military and economic ties deriving from Italy's membership in the EU and the WEU.

The Italian political spectrum (with notable differences between right and left) has long recognized the need for a coherent Mediterranean policy, particularly since the end of the cold war.

Effort to enhance the North-South dialogue, support for the role of the United Nations in situations of crisis, attempts to play an effective and important "brokerage" role in the area mediating between competing powers, efforts to involve the economic instruments of the

European Community in support of the riparian countries of the region are all elements of Italian Mediterranean policy.

As for the defence policy and the role of the armed forces, a series of considerations can be made.

In the last ten years, there has been a gradual but evident transformation in Italian defence policy. This transformation has not altered the basis of this policy that dates from 1949, but has extended its boundaries and created new prospects. Italy has been forced to shift from a mere "defence policy" within the framework of NATO planning to a more comprehensive "security policy" in which threats different from the traditional ones, new risks and national-only contingencies, are considered.

The Mediterranean "dimension" and the out-of-area projection of Italian military policy have received new emphasis while the "Gorizia gap" disappeared as the element by which Italian security and defense policies were to be determined. The Mediterranean region[1] has become the area which the military view as the most probable theatre of a South-South or North-South crisis possibly also involving the Italian armed forces.

Today's threat perceptions and military scenarios also include the following possibilities: the proliferation of weapons of mass destruction (WMD) in the Mediterranean region; the further deterioration of the situation in the Balkans with an eventual spill-over of the Bosnian war; the Italian involvement in a Mediterranean crisis precipitated by other actors; terrorist activities and blackmail, and indirect threats to the country's political or economic system.

The modernization of the Italian armed forces, initiated in the late seventies together with the creation of a 10,000-man Rapid Intervention Force, focused on enhancing their technological level and strengthening their ability to fight a naval and air war in the whole Mediterranean area through, among other programs: (i) the procurement of the GARIBALDI through-deck cruiser with HARRIER VTOL aircraft on board, which provides Italy's first naval power projection capability; (ii) the procurement of the AMX fighter bombers, thus improving the Air Force ability to conduct TASMO (Tactical Air Support of Maritime Operations) missions; (iii) the acquisition of KORMORAN air-to-surface missiles and laser weapons for the TORNADO fighter-bombers; (iii) the modernization of the avionics and the installation of self-protection equipment in G-222 and C-130 transport aircraft; (iv) the conversion of four Boeing 707-368C airliners into tankers, thus further expanding the operational radius of action and endurance of combat aircraft; (v) the leasing of British TORNADO ADV aircraft and the technological upgrade of the old F-104s ASA as interim measures until the time the EUROFIGHERs will be operational.

In summary, the modernization trends show a greater Italian concern for extra-NATO contingencies. They are further manifested by the intention to acquire autonomous means of intelligence and warning (Air Force long term planning includes the procurement of AWACS aircraft and the capability to launch small intelligence satellites) and by the improvements made in the capability for rapid deployment of elite Army units, armed with technologically advanced weapons systems.

[1]. In this context, Mediterranean region is intended to be larger than its geographical boundaries and to include the so-called "arc of crisis" ranging from Morocco to Iran.

3. The decision-making process

The shape of the military instrument should logically derive from a series of successive steps: definition of a military policy in the context of national foreign policy; analysis and assessment of probable, possible and potential threats; definition of the tasks of the armed forces and the objectives they should achieve in confronting the threats; decisions about a specific model of military instrument and, finally, decisions about arms and equipment the armed forces should possess to be able to fulfill their tasks and implement their missions.

In Italy, this approach has not been followed in the past and it seems that it is still not followed today. In the past, the main reasons were: (i) the lack of a national military policy -- the Soviet threat and NATO's defence policy constituted the only true reference point and encopassing framework: (ii) the lack of a fully coordinated interforce acquisition planning, and a central authority (military or political) capable of imposing it; (iii) the poor coordination between the Ministries (Defence, Industry and Foreign Affairs) and the defence industry; (iv) the apportionment of defence expenditures among the three armed forces on the basis of pre-determined percentages with little reference to actual requirements and tasks; (v) an inadequate defence procurement system; (vi) the lack of political control on the acquisition programs; and, (vi) paradoxically, the availability of sufficient funds for defence to meet major NATO requirements.

Today, the lack of a clear defence policy; the lack of a military authority (the Chairmain of the Joint Chief of Staff (CJCS) and the Secretary General/National Armaments Director (SG/NAD)) with the institutional power to force upon the services procurement choices in line with a politically endorsed military strategy; and the lack of a long term defence industrial policy are still characteristic features of the Italian situation.

But the true determinant has now become the limited amount of funds assigned to the armed forces. Today, the shape and pace of Italian acquisition programs are totally dependent on budgetary availability and not on military requirements (no matter how coordinated they are among the services), or on defence industry's needs (no matter how important they are for the survival of a defence industrial base).

In the decision-making process, the CJCS and the SG/NAD have a function of generic guidance and coordination. Each Service's General Staff is responsible for the definition of its own operational requirements, priorities and funding within the framework of long-term procurement plans. The operational requirements are then discussed with the Procurement Directorates (Direzioni Generali) in order to establish military requirements (operational and technical) and define all the elements of the procurement program. The program must be approved by the Parliament either through the Defence Committees (if funding for the program is already included in the defence budget), or through a dedicated defence bill (a so-called "Legge Promozionale" or Promotional Law) if funding has to be found outside the defence budget.

After Parliamentary approval, the program is implemented by the Procurement Directorates which are responsible for the selection of the company or companies best suited to provide the required products.

In this framework, the role of the SG/NAD is important but still marginal. Each armed force has full authonomy on procurement decisions and the Procurement Directorates have the same authonomy on the selection of producers. Only in case of international cooperative programs the SG/NAD is directly involved in government-to- government agreements (MoUs).

This process will be radically changed when the new law which rationalizes functions and responsibilities of the Chairman of the JCS and the SG/NAD presently waiting for Parliamentary approval is eventually enacted.

The law gives the SG/NAD full responsibility in the relationship with the defense industry and for the elaboration of a short and long-term industrial strategy in the field of defense equipment and weapons procurement, to be conducted in close coordination with the Procurement Directorates -- now put under the Secretary General's authority -- responsible for the procurement of armaments and equipment.

The lack of coordination is the single most significant handicap in the relationship between defence and industry. In the words of the former Secretary General, Gen. Luciano Meloni, the situation is similar to that of a big orchestra without a conductor and with groups of very good musicians and some excellent soloists, each one of them, however, playing a different music.[2]

4. The acquisition policy

The acquisition policy should be determined on the basis of each service's requirement, coordinated at the National Armaments Director (NAD) level. In this picture, the defence industries have an important role to play as direct interlocutors.

But the picture is marred by several problems.

The first problem is the lack of a national industrial policy and a long-term strategy of development for the defence industrial sector. The New Defence Model -- which in different versions has been around since 1991 -- has not yet been discussed and approved by Parliament and the uncertainty about its final outcome makes the formulation of any serious industrial planning very difficult. The lack of a reference framework of development of the Italian military instrument, and the lack of a clear assessment of its long-term requirements in modernization procurements, forces the defence industry to operate in a sort of policy vacuum with little certainty about the future and, thus, with scarce incentives to invest in R&D.

This situation is complicated by another serious problem: the disconnection between the on-going modernization programs (many conducted in cooperation with other European partners)

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[2]. "L'Esecutivo, il Direttore Nazionale degli Armamenti e l'industria della difesa: problemi e prospettive". Conference at the Centro Alti Studi Difesa (CASD) by Gen. Luciano Meloni, Secretary General and National Armaments Director, 17 June 1994, p. 10.

and the financial resources allocated for their continuation. Every year, funds for these programs have to compete for their survival, within the framework of declining defence budgets, with other requirements -- some of which, such as the expenditures for military personnel, cannot be reduced. This search for funds, which often continues until the deadline of cooperation agreements, raises doubts about Italy's capacity to fulfill its international contractual commitments. This, in turn, has negative repercussions on its image as a reliable partner and implicitly hinders Italy's participation, or the level and scope of its participation, in international joint ventures for the development of new weapons systems, however significant its eventual industrial and technological contribution may be.

The MOD's (Ministry of Defence) document on the defense budget for 1994, in the section dealing with the expenditures for research and development, states: "We have been forced to allocate fewer resources than needed to modernization requirements, including those deriving from already concluded international agreements. Therefore, the Ministry of Defence has suspended the beginning of some already approved programs and it will evaluate the repercussions of the re-negotiations of the previously mentioned international agreements."[3] In July 1994, the Air Force Chief of Staff, Gen. Adelchi Pillinini, warned that the modernization funds provided for in the defence budget were not enough to finance the Italian participation in the EUROFIGTHER program, and declared he was worried because no decisions had been taken on how and with what means to fund the industrialization of the program and the 1996 production of the aircraft.[4]

As previously said, other important issues in the framework of acquisition policy, which have direct influence on the relationship between defence industries and the Defence Ministry, are: (i) the inadequacy of the 1978 Ministerial Decree which establishes the tasks and responsibility of the NAD; (ii) the overlapping of the roles of the SG/NAD and the Chiefs of Staff of the armed forces in the definition of a national defence industrial policy for defence; (iii) the insufficient coordination among all the Ministries involved in arms research and development, production and procurement; and (iv) the lack of coordination between the NAD and the industry.

In this context, former Secretary General Gen. Luciano Meloni complained that he sometimes learned about negotiations between Italian and foreign companies only after the negotiation process was at an advanced phase, and sometimes even after the agreement had been reached.[5]

The methods used in the framework of the acquisition policy are largely determined by the quasi-monopolistic and specialized character of the Italian defence industrial system. Through a process which was consolidated in the course of many years, and because of their specific know-how and expertise accumulated in past productions, it has now become a praxis to consider, for example: (i) ALENIA as the only producer of advanced combat aircraft, albeit in cooperation with other European partners, and the selected company for radars, a whole range of electronic systems and surface-to -air and air-to-air missiles;; (ii) AIRMACCHI as the preferred company for the procurement of jet trainers and SIAI-MARCHETTI for basic trainers; (iii) OTO MELARA as the company for the production of tanks, naval guns and anti-ship missile systems; (iv) AGUSTA as "the" producer of military and civilian helicopters; (v) BORLETTI as the preferred designer and

3. "Nota Aggiuntiva allo Stato di Previsione per la Difesa", Ministry of Defence, November 1994, p. I-7.
4. Air Press, 27, 4 July 1994, p. 1292.
5. Gen. Luciano Meloni, cit. p. 14.

manufacturer of fuzes; (vi) FINCANTIERI as the chosen shipyards for the costruction of hydrofoils, corvettes and frigates.

In the past, in the naval field, a somewhat unique feature has been the establishment of "clubs" (the MELARA Club for surface vessels and the TRIESTE Club for submarines), i.e. groups composed of a shipyard plus all the companies providing the components and items needed for the construction of a combat ship -- propulsion systems, automation, electronic equipment, weapons systems, etc. The members of the "club" fully cooperate from the earliest stages of planning through the construction period and on to the final hand-over. On the one hand, this adds a notable margin of flexibility in the whole process from R&D to the finished product, and constitutes a significant advantage when the "club" has to compete in the international market. On the other hand, it tends to monopolize the internal market: in other words, the product offered to the armed forces may appears as an offer it cannot be refused, even though it certainly fulfills the established military requirements. More recently, FINMECCANICA and FINCANTIERI formed the 50/50 joint venture "ORIZZONTE" to manage the Italian participation in the "HORIZON" program for the development of the new "European" frigate.

Thus, the acquisition policy, at least in terms of choice of defence producers, tends to follow an almost pre-set pattern and the assignment of a defence contract on the basis of a competition among companies is the exception more than the rule.

On the other hand, there is an evident tendency to acquire weapons systems which have significant potential for export, because this would reduce the unit price of the systems thus allowing either for a larger domestic procurement or more funds for other programs.

The domestic market has never been sufficient for the Italian defence industries, whose survival and development rested on arms exports, particularly to Third World countries in North-Africa, the Middle East, and the Persian Gulf.

Until the eighties, the attitude of Italian governments in support of arms export was of begign neglect or, at best, of lukewarm support. This attitude notwithstanding, the Italian industry was able to gain a fair share of the international arms market. The picture drastically changed when the negative repercussions of the loss of those markets in regions of traditional Italian arms trade and the shrinking of the world arms market combined with the negative effects of the 1990 approval of one of the strictest export laws in the West (Law No 185/90). The outcome was a drastic decrease in arms exports. In 1985, Italy exported armaments for a total of 2,188 billion Lira. By 1991, the exports had decreased to 974 billion Lira, a reduction of 55 per cent.[6] This negative trend continued in the following years and led to extensive lay-offs of defense workers (the defence industry work force has gone from a total of around 50,000 to about 37,000 workers, more than 4,000 of them receiving redundancy payments)[7] and the closing down of some defense companies.

On the other hand, the rigidity of the law is compounded by the great caution and bureaucratic attitude with which the law is applied. In July 1994, the president of the Italian

[6]. Interarma, 7, 9 April 1993, p. 273.

[7]. The numbers vary from less than 39,000 to 37,00. See Air Press, 46, 28 November 1994, p. 2200, and Air Press, 45, 21 November 1994, p. 2142.

aerospace industry AIRMACCHI declared that the law has been applied in such a way that its intent has been distorted, and pointed out that the countries "under a U.N. embargo are 10, while those under the embargo of the Italian Goverment are 22".[8] The past governments showed particular concern about the possibility of being accused by the opposition of favoring the selling of "instruments of death", and their position on this matter has been far from being clear. The Defense Minister of Mr. Berlusconi's government, Cesare Previti, clearly hinted at the need of revising the laws regulating arms export in order to "align the Italian position with that of its European partners in this important field".[9] It is very difficult to predict how the government that will eventually replace Mr. Dini's government will address this important issue. However, it can be argued that consideration will be given to the position of the coalition parties and the mood of the public. On the other hand, the defence industry cannot survive without exports. As previously said, the internal market has never been enough and the near-term prospect is toward a further contraction as a result of declining domestic demand. Thus, it is likely that even the government that will emerge from the next general elections will necessarily be "on the side" of the defence industry in their efforts to export and will probably move to revise the export law. This reformistic attitude will presumably be applied also to the export of dual-use items (sophisticated technologies, innovative industrial production processes, special materiel of strategic importance, etc.), now regulated by Law No 222/92, approved in 1992.

This law is also openly criticized by Italian industrialists who complain that: (i) the law is not sufficiently clear; (ii) the bureaucratic procedures are complex, and the time needed for export licences is too long; (iii) the implementation decrees are still to be promulgated, a fact which complicates and undermines the correct application of the law; (iv) there have been delays in updating the Export List.[10]

The CONFINDUSTRIA (the General Confederation of Italian Industry) expects Law 222/92 to be revised in such a way as to facilitate and expedite procedures and to render it more similar to current legislation in the major European countries. In the meantime, the CONFINDUSTRIA has created a special "Committee for the problems of high technology exports", responsible for coordinating all industry requests and interfacing with the Consultative Committee established by the law.[11]

A few remarks on international cooperation, which has gradually assumed a very important place in Italian acquisition policy, both on a bilateral and multilateral level. It is recognized that the price of a system produced through a cooperative venture will eventually be higher than the price of a similar system bought on the international market. However, political and technological reasons prevail over purely economic considerations -- the latter being very often the predominant factor in the decision-making process. In fact, the Italian aerospace industry would have not been able to participate at a comparable and compatible level with other European

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[8]. Air Press, 27, 4 July 1994, p. 1283.

[9]. Parliamentary Acts, House of Deputies, Defence Commission, 5 July 1994, p. 9 and 19 July 1994, p. 56.

[10]. The list of the dual-use items is prepared by the Ministry of Foreign Trade, which is responsible for granting the export licences.

[11]. The Consultative Committee is composed of two representatives of the Ministry of Foreign Affairs, two representatives of the Ministry of Foreign Trade and one representive each of the Ministry of Defence, Ministry of Industry and Trade, Ministry of Scientific Research, Ministry of Finance and Ministry of Tresury. The Committee is responsible for the final opinion on the requests for export authorization.

partners in the EUROFIGHTER program if it had not previously developed its technological skill and expertise through the production, under U.S. licence, of the F-104 aircraft and participation in the multinational production of the TORNADO fighter-bomber.

On a bilateral basis, the Italian MOD concluded "Accordi Quadro di Cooperazione" (Framework Cooperation Agreements) with ten NATO allies (Canada, France, Germany, Greece, the Netherlands, Norway, Spain, Turkey, the United Kingdom and the United States) and several non-NATO countries (Brasil, China, Egypt, Pakistan and South Korea).

Presently, Italy participates in the following multinational programs for major systems:
(i) EH-101 anti-submarine helicopter in collaboration with the United Kingdom;
(ii) NH-90 medium helicopter in collaboration with France, Germany and the Netherlands;
(iii) EUROFIGHTER in collaboration with Germany, Spain and the United Kingdom;
(iv) FUTURE LARGE AIRCRAFT (FLA) together with France, Germany, Spain and the United Kingdom.
(v) ORIZON frigate in collaboration with France and the United Kingdom;
(vi) FSAF (Future Surface-to-Air Family) anti-air missile systems in collaboration with France within the EUROSAM consortium;
(vii) HELIOS satellite in collaboration with France and Spain.

It is likely that joint ventures and cooperative multilateral programs will become the preferred way of production for major weapons systems. This tendency will be further stimulated by the progressive concentration of industrial capabilities -- at European level, and by specific sectors of production -- through the formation of consortia aimed at the research, development and production of "families" of technologically advanced armaments.

5. Issues and prospects for italian defence industries

It would be difficult to address the issues of the Italian defence industry if no reference is made to the series of elements which were paramount in shaping the present situation.

First element, the defense expenditures.
For 1995, the MOD's request of a 28,319 billion Lira defence budget was reduced by successive cuts to 25,974.1 billion Lira, with a decrease of about 4.2 per cent in real terms with respect to the 1994 budget, considering a 3.5 per cent inflation rate.[12]

Between 1987 and 1995 the so called "Defence Functions" of the Italian defence budget (i.e. the total defence budget minus the expenditures for the "Carabinieri", for external or extra-institutional missions and for pensions), at constant 1987 prices, was reduced by 2,617 billion Lira (minus 17.3 per cent).[13]

[12]. "Nota Aggiuntiva allo Stato di Previsione della Difesa 1995", Ministry of Defence, 20 January 1995., Annex A. See also "Rapporto 1994", Italian Navy, 20 January 1995, p. 55.
[13]. "Nota Aggiuntiva allo Stato di Previsione per la Difesa, 1995", cit., Annex D-2.

In percentage of Gross Domestic Product, the defence budget decreased from 1.94 per cent in 1987 to 1.50 per cent in 1995,[14] one of the lowest budget-to-GDP ratios in the West. In the same period, the Defence Functions decreased from 1.54 to 1.07 per cent.[15] Funds for research and development and modernization programs decreased annualy since 1989. In percentages, and at current prices, the reductions in the last three years were respectively: minus 15.25 per cent in 1992, minus 13.14 per cent in 1993, and minus 9.29 per cent in 1994. The funds allocated for investments were 5,092.8 billion Lira in 1990 and 3,764.7 in 1994 at current prices, a reduction of more than 1,000 billion Lira in five years. In 1995, though funds for R&D were cut by 1.2 per cent, the overall assignment totalled 3,863.3 billion, a slight increase of 98.6 billion (2.6 per cent) with respect to 1994, but a sharp reduction with respect to 1993 in monetary terms.[16]

The budget cuts have forced: (i) the Army to suspend the acquisition of the A-129 attack helicopter and the ARIETE battle tank; (ii) the Air Force to drastically reduce the acquisition programs for the AMX fighter-bomber, the SPADA surface-to-air missile system and the PGMs (Precision Guided Munitions) for TORNADO aircraft; (iii) the Navy to delay the construction of a third AO (a tanker with replenishment at sea capability) and the production of the EH-101 helicopter. Moreover, they forced the cancellation of the prospective acquisition of the PATRIOT missile system and moved the procurement of AWACS aircraft further into an uncertain future. Among the interforce programs, the development of the SICRAL satellite was interrupted.

Second element, the economic crisis.

The Italian economic situation, characterized by a State debt of two million billion Lira (a number with 15 zeros) allows for very little flexibility in the allocation of financial resources. In July 1994, then Defense Minister Mr. Previti stated before the House Defence Commission that it is necessary to gradually increase the defence budget/GDP ratio, thus to approach in the near future the 1.95 per cent level of 1986, and to guarantee the defence industries not less than 55,000 billion of procurement funds in 10 years.[17] However, it is difficult to see how these commitments could be honoured by any government if the economic crisis is not overcome.

Third, fourth, and fifth elements, all connected, the shrinking of the world arms market, the loss of competitiveness of Italian industries vis-à-vis other producers, particularly in the Third World, and the previously cited sharp decline in arms export.

These elements form the background for a correct assessment of the issues confronting the Italian defence industry.

a. The issues.

An issue which worries both the military and the industry is the technological gap of the Italian defense companies vis-à-vis their European competitors, a gap which is felt to be mainly the result of the very low level of resources dedicated to research by the MOD and by the

14. "Nota Aggiuntiva allo Stato di Previsione per la Difesa 1995", cit., Annex D-2.

15. "Nota Aggiuntiva", cit., Annex D-2.

16. "Nota Aggiuntiva", cit., Annex A/3. With respect to 1993, the reductions in modernization funds for the three armed services were as follows: minus 28.2 per cent for the Army; minus 11.5 per cent for the Air Force; and minus 6.5 per cent for the Navy. "Nota Aggiuntiva", cit., pp. I-11 - I-14.

17. Parliamentary Acts, House of Deputies, Defence Commission, Statement of Defence Minister, Cesare Previti, 5 July 1994, pp. 8-9.

companies themselves. The goal is to maintain the general gap within acceptable limits, to defend the existing niches of excellence, and thus be able to participate adequately in cooperative international arms development projects at equal footing.

An important issue concerns the funds allocated for modernization, a sector which is always the first to be penalized and that has been cut more than 50 per cent in monetary terms in the last six years.[18] The defence industries pointed out that the funds allocated in the last defense budgets are insufficient to maintain an industry of about 37,000 workers. And that, in this case, only three options are available: first, expanding the base of the internal market; second, increasing the exports; third, further reducing the size of the defence industrial system, closing factories and cutting down personnel. Furthermore, the defense managers polemically argue that while the defense industries are cutting their structure, the armed forces are unable to do the same by closing their operationally obsolete infrastructures, cutting the cost of the technical and logistic support, and adopting severe restructuring measures even before the approval of the "New Defence Model".

The Italian defence industry suffers from an insufficient competitiveness as a result of the excessive fragmentation of production (about 300 companies of various size and quality) and low investments in R&D. The crisis is complicated by the two previously indicated factors: decline of arms and equipment export and reduction of internal demand. The solution rests in closing the defence market to the less productive companies, to be eventually converted, and in strengthening those presenting significant technological capacities. In other words, the aim should be that of enhancing the capability of selected industries to compete in the European and international market. The search for an impossible self-sufficiency or the implementation of an autarkic defence industrial policy should be abandoned in favor of active and qualified participation in multinational programs, which represent the future of the European production of major defence systems.

In the defence industrial sector, the aggregate offer is anticipating the aggregate demand, and this is occurring outside a coordinated European framework. This trend is particularly risky for Italy because of its political and structural weaknesses. Italy would prefer that the process of rationalization of the European defence industrial base pass through different phases "guided" in such a way to prevent unjustified exclusions and guarantee a balanced presence of all European partners. This implies the firm commitment of European governments for the establishment of precise rules, and compensation measures when necessary. It will also mean a coherent re-industrialization program supported by adequate legislation and funds for those "valid", domestic industrial activities which will find no space in the restructured national defence industrial system and in the European market.

In this context, the development of a closer relationship between defence and industry is of paramount importance. Much has been done, but much can still be done, particularly in terms of better concertation among all concerned institutions. The eventual approval of the law on the new functions and responsibilities of the SG/NAD is expected to facilitate that relationship.

b. The prospects.

[18]. Air Press, 46, 28 November 1994, p. 2200.

The cut of more than 2,000 billion Lira to the defence budget made in the context of the 1995 Financial Law has cast a dark shadow on the hopes and expectations of the military and the defense industry. In 1994, then Italian Prime Minister Silvio Berlusconi declared that the Government will "think about the armed forces in 1995 with specific measures".[19] But many within the military establishment and the defence industry doubt that in the short-term the economic situation of the country will be such as to allow a significant increase of the defence budget and an adequate share of funds for modernization. In fact, conservative forecasts indicate that a reversal of the trend may be possible only in a longer term, unless the international situation suddenly presents new threats to be met by an increase in defense spending.

The expected approval in the near future of the law on the new functions and responsibilities of the chairman of the JCS and of the NAD is bound to bring clarity and direction in the national defence acquisition picture. Apart from the aim of becoming the center of propulsion and coordination of the defence industrial system, the objective of the NAD is to provide an overall industrial strategy and policy. The basic concept is to respect the autonomy of the industries and, at the same time, force them to operate within the rigid rules of an open and competitive market, which the European market is expected to become.

In the recent past, the majority of the Italian defence industries, including all the aerospace companies, have come under the control of FINMECCANICA.[20] This could add flexibility to the industrial system, which now should be able to operate with a single strategy and reduced costs. The new holding is ready to participate in new alliances and joint ventures, preferably where there are specific national interests, but also where there is an opportunity to cooperate with Third World countries. In other words, FINMECCANICA is willing and ready to operate where there are the best market conditions.

The defence industry hopes that the 1990 export law will be revised and a new law on industrial compensations in case of acquisition of weapons systems on the external market is promulgated.

To have accepted becoming a member of the European Armaments Agency, together with France and Germany, has been considered, within and outside Italy, as a sign of a change of attitude and policy, and an indication of the Italian government's "intention to cooperate more closely at continental level" for the harmonization of European production and the standardization of the European weapons systems. In terms of policy, Italy seems committed: (i) to restart the flow of defence investments in connection with the adoption of the "New Defence Model"; (ii) to adopt a firm multi-annual defense expenditures program, thus to prevent medium and long-term projects from being jeopardized by sudden cuts of resources: in other words, to stop reducing modernization funds; (iii) to help the industries which participate in international joint ventures, and (iv) to promote the national arms production abroad, as all industrialized countries do.

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[19]. Air Press, 37, 3 October 1994, p. 1775.

[20]. FINMECCANICA has acquired the companies of the IRI and the defense companies of the EFIM group (Agusta, Agusta OMI, Agusta Sistemi, Breda Meccanica Bresciana, OTO Melara, Officine Galileo e SMA), and more recently WHITEHEAD from FIAT.This has created a defense "holding" with a volume of business of about 4,500 billion Lira, almost 22 per cent of the entire national industry and almost 80 per cent of the volume of business of the national defence industry.

As for concrete projects, the MOD intends: (i) to continue the participation in the EUROFIGHTER development; (ii) to support the HELIOS and POST-HELIOS projects; (iii) to dedicate particular attention to the development of the SICRAL satellite system and its successor; (iv) to continue the participation in the FLA (Future Large Aircraft) joint project and in the development of the HORIZON frigate; (v) to continue the participation in the FSAF and MEADS programs.

6. Concluding remarks

Italian defence industrial strategy is likely to be based on the following assumptions and actions.

The present negative trends (declining defence budgets, increasing cost of high technology, excessive production capacity, reduction of arms export) necessarily pushes toward a thorough restructuring of the whole European defence industry sector, and Italian defence industry in particular.

This step-by-step restructuring process should start at national level and then move to European level. The first step would be the creation of consortia for the implementation of common projects. In the following step, the restructuring would evolve into a system of fusion and acquisition with the aim of creating, for each technological area, companies of adequate size capable of successfully competing in the international market.

The Italian interest is to prevent uncontrolled aggregations in production capabilities prior to a correspondent aggregation in demand in order to preclude the establishment of monopolistic situations. And this could be prevented only if the evolutionary process is politically managed in a coordinated way, taking into consideration the existing structural asymmetries among European defence companies.

There is the widespread feeling, however, that Italy is late in restructuring and suffering from political and economic weaknesses which are bound to handicap the future development of its defence industry.

The overall picture, however, shows also positive elements.

(i) The Italian industry CISE will provide solar cells for NASA.[21]

(ii) ALENIA has concluded important contracts for the supply of: maritime traffic control radars for the Dutch port of Ijmuden and for the Amsterdam Rijnkanaal;[22] air traffic control radars for the airport of Malta,[23] for the airport of Riga in Latvia, for the airspace of Uzbekistan and the airport of Termez;[24] air traffic control radars for the international airport of the Langkawi island in Malasya;[25] a complete radar system to China for the air traffic control coverage of the western

[21]. Air Press, 21, 30 May 1994, p. 1043.

[22]. Air Press, 21, 30 May 1994, p. 1035, and Air Press, 28, 11 July 1994, p. 1371.

[23]. Air Press, 6 June 1994, p. 1089.

[24]. Air Press, 26, 27 June 1994, p. 1243.

[25]. Air Press, 42, 31 October 1994, p. 2015.

part of the country;[26] 3D radars to the Norvegian MOD for the modernization of its air defense system within the framework of the SINDRA 2 program.[27]

(iv) TELESPAZIO has joined the American EOSAT in a venture aimed at providing services for telerilevamento from space.[28]

(v) OLIVETTI and HUGHES NETWORK SYSTEMS have created a new company HOT (HUGHES-OLIVETTI-TELECOM) for the development of satellite communications in Europe.[29]

(vi) AGUSTA will provide 20 AB-206 helicopters to Turkey, while the supply of 40 SF-260 basic training aircraft was completed in May 1994.[30]

(vii) ELMER, a FINMECCANICA's company, has won a contract for the supply of a radiocommunication system for the Norvegian MOD.[31]

On the other hand, a poll conducted in 1993 among Italian decision and opinion makers indicated that 47.6 per cent were against the increase of the defence budget, 75.2 per cent were convinced it was necessary to better manage the resources allocated to the military, cutting waste and the superfluous fat, 60.9 per cent were for a rationalization of defense expenditures in favor of arms modernization and training, and 71 per cent considered the industrial sector to be a special sector for which rigid controls were needed.[32]

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[26]. This is the second phase of the project "MARCO POLO". See Air Press, 44, 14 November 1994, p. 2117.

[27]. Air Press, 44, 14 November 1994, p. 2118.

[28]. Air Press, 25, 20 June 1994, p. 1207.

[29]. Air Press, 27, 4 July 1994, p. 1320.

[30]. Air Press, 26, 27 June 1994, p. 1260.

[31]. Air Press, 28, 11 July 1994, p. 1372.

[32]. "La difesa nella percezione dei diffusori di cultura ed opinione in Italia", Lettera ISTRID, n. 9, 1-15 maggio 1993, pp. 6 e 8.