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# Ownership and regulation of the defence industrial base : the French case

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## 1. Introduction

Just a few years ago in most major western countries, the government had direct control over the capital of the large majority of arms companies. Only two countries were the exception: Germany, for historical reasons, and the United States by reason of their economic system. Everywhere else, the predominance of the public sector was the rule (Hébert, 1998a).

In the process of globalisation of the economy, the governments have lost a major part of their sovereign rights in favour of global, continental or regional entities that form the new supports for multinational companies (Fontanel, *in* Hébert, 1998a). Admittedly late, the defence sector is, in turn, entering into this process, for which the most notable demonstration for the defence industry is the privatisation movement it has undergone and the ever increasing role played by institutions such as OCCAR or WEAG and even the European Commission itself.

This transformation of the European arms production system raises a certain number of questions regarding the role that the institutional players will hold in it in the future. Is this the end of the classical notion of the sovereign functions of the State which naturally placed the arms policy among its essential functions (Hébert, 1998a)? If the traditional levers for governmental action and control over arms production becomes significantly and increasingly inoperative, must we then conclude a marginalisation of the role of the State in the process of arms production? And if this is not the case, what

are the means of control that the State will have, or will obtain, in the future for the regulation of an arms production system under transformation and in the process of internationalisation, and its capital, over which the State no longer has control?

This chapter will examine these questions through the specific case of France. It is a very particular case because, while the globalisation which took shape in the 1980's was accompanied throughout by a calling into question of the territorial configuration of the industries and the holding of their capital, arms production in France is, as highlighted by Serfati, one of the rare industries to have retained its national nature and maintained the systemic features inherited from the earlier times (Serfati, in Hébert, 1998a, Serfati, 2001). Although the changes and mergers which took place in 1999 and 2000 undoubtedly softened these words to some extent, it nevertheless remains true that in France, a wide consensus persists for asserting the “superior legitimacy” of State regulation of, and methods of controlling, the arms industry.

The presence of the government in all the economic and social relations in France is a deciding factor and multi-secular. This historical attachment to this presence undoubtedly explains the slow speed and sometimes surprising methods used in the process of restructuring the defence sector. Does the europeanisation of the arms production system signify the end of “the French exception”? Or do the intrinsic characteristics of the system even lend it the ability to ensure the durability of the central role of the government despite the transformations of its international environment?

The recent restructuring of the European arms industry shows a clear trend towards European integration, privatisation of assets and the multiplication of transatlantic links. According to Mabee (1999), this newly globalised arms industry leads to what Crawford describes as the “new economic security dilemma”: the State must face the choice between the desire to take advantage of the fruits of globalisation (the economic dimension) and the desire to maintain State control over the defence industry, thus moving away from problems of diffusion or foreign dependence on crucial technologies (the national security dimension). The objective of the process of restructuring the defence industry is to provide a better balance between national security and economic considerations (Mezzadri, 2000), thereby creating the conditions which would present a way out of this dilemma.

What the recent developments indicate is not the irrelevance of the State, but a change in the relationship between States and the arms industry. In this perspective, the evolution of the geographical scope and nationality of companies, the rationalisation of production capacities and firms' governance issues (public/private, national/foreign) are major and interrelated issues of the process of the restructuring of the defence industrial base (Sachwald, 1999).

## **2. The transformation of the French arms industry**

Governments have traditionally viewed the defence industry as one of the foundations of their security and sovereignty. This has not prevented the fact that industrial consolidations, although initially in an essentially national context, and co-

operation programs have been entered into. These traditional consolidations and co-operations however, until quite recently, have not permitted rationalisations to be effected nor overcapacities to be reduced. The objective of each partner State remaining that of obtaining a industrial *juste retour* from the mutual programs, expanding its knowledge and strengthening its own DTIB (Mezzadri, 2000).

Lately the reduction of national defence budgets, the explosion of R&D expenditure imposed by the growing complexity of the arms systems and the competition of American giants have forced the arms sector to adapt. The horizontal integrations registered in 1999, spectacular in both their rapidity and the sheer amplitude of the economic volumes concerned, have engaged the European arms industry in an irreversible process of europeanisation which, according to Hébert (2000) will render the industrial “national champion” strategies supported by their governments null and void.

New industrial entities (EADS, BAe Systems, Thales) symbolise this acceleration in the process of merger and rationalisation which now largely exceed the respective national contexts (see chapter 9). These new multinational companies, pan-European yet multiplying transatlantic co-operations, do not conceal their ambitions to become global companies. Several authors have argued that the mergers among large defence firms are creating defence industrial firms whose global reach is outpacing the ability or willingness of their domestic government to shape the defence industrial base for either national security or economic purposes (Markusen and Serfati, 2000). This is a development which, in a capitalist system that “*constantly preaches the theology of consumption*” (Fontanel, in Hébert, 1998a, p.22), raises legitimate worries as soon as it concerns arms production. Only land-based armament and naval construction, again often State run companies, are escaping this inexorable transnational movement for the time being, but they are also continuing to accumulate structural crises. It is this that inevitably leads certain observers to assume, a little hastily, a relationship between competitiveness, privatisation and internationalisation.

It will be noted however that the initiative of restructuring on a transnational basis comes mainly from the companies themselves, while the governmental players have difficulty keeping up with and adapting to this change. The initiatives and proposals of the European governmental players with regard to opening up the defence markets (for example, the proposals for amendments to Article 296 or, at the very least, for a more extensive and truer interpretation of it, the creation and development of OCCAR, or the initiatives of WEAG for the creation of an European Armaments Agency) are regularly presented as a means of accelerating the transnational industrial rationalisations and thus of introducing more competition while reducing the costs of the programs. It must nevertheless be acknowledged that under the facts, it is not these governmental initiatives in favour of an opening up of the markets that stimulate the restructuring, but it is the actual restructuring which opens up the markets and drives the governmental players to adapt (Mezzadri, 2000).

The problem is evidently that the movement of industrial concentration, transformed by an implacable financial logic, will not wait. The sluggishness of the governmental players has led certain analysts to think that the large transnational

industrial groups could, in the short term, put the States in competition with one another for the establishment of their headquarters and the setting up of their research or production centres etc. (Fournet, 1998). The ability of a State to regulate the economic activity within its territory would therefore then amount to its being put into competition with other States to keep or attract this activity, by resorting to the traditional levers of industrial policy (taxation, company law and infrastructures etc.).

This development is certainly possible, even if it is, in the case of France at least, highly unlikely. It is no less true that the maintenance or restoration of a balanced dialogue and partnership between the State and its DTIB will still require significant reforms both in the organisation of demand and that of supply (Mezzadri, 2000).

### 2.1. *The deep State roots of the French meso-system of armament*

In the case of France, the public control of arms production, which was also the rule for most of the neighbouring countries, is a situation which goes as far back as the nationalisation movement entered into by the Popular Front government in 1936. Until 1870, the production of arms was undertaken by State run establishments, as a continuation of the arsenals, forges and foundries of the *Ancien Régime*, transformed by the Revolution after 1789 and then by Napoleonic power.

From the end of the 19<sup>th</sup> century on, the heavy demand for arms generated by the increasing tension and the preparation for revenge after the Franco-Prussian war of 1870 could not be met by the supply from the State-run establishments alone. Numerous orders were therefore passed on to the private industry, thereby contributing to its development. This change corresponds to an initial transformation of the French arms production system, conveyed by the Law of 14 August 1885 which liberalises the production and transfer of armaments (Hébert, 1995).

This development movement for private companies was firmly curbed however from the thirties. Between 1933 and 1939, the successive governments effectively adopted a range of measures to strictly regulate the production, commercialisation and export of weaponry. The two striking facts from this period are firstly the creation, in 1933, of a *Direction des Fabrications d'Armements* within the Ministry of War to coordinate and supervise all arms activities, and secondly, the nationalisations imposed by the Law of 11 August 1936 under the Popular Front government, more for political and moral reasons than economic or industrial ones (Dussauge and Cornu, 1998).

During the fifties, and especially with the return of General de Gaulle to power in 1958, the military institution acquired a radically new economic significance, thereby confirming the central role of State institutions and particular nature of their relationship to the economy. From this moment on, the *Direction générale pour l'armement* (DGA) was to occupy a central place in the production of arms. In effect, created in 1961, it was this and the technological agencies under the supervision of the Ministry of Defence, which became the centre of the industrial and technological policy of France, to the detriment therefore of the State Planning Commission (*Commissariat général au plan*), the Department of Trade and Industry or the Ministry of Foreign Trade for example, yet *a priori* more competent in terms of industrial policy (Serfati, 1995).

## 2.2. *The DGA, the heart of the system and a symbol of the omnipresence of the State*

The DGA, at the heart of the French defence system, is the main instrument of specific intervention by the State in the French arms production industry and is more unified and commands more power in the defence industrial market than does, in comparison, the American Pentagon or other European procurement agencies. The DGA not only purchases weapons but operates a substantial share of R&D and development in-house and operates a network of public arsenals. It presides over what Serfati (1995) calls a “meso-system” of arms production (Markusen and Serfati, 2000), characterised by the strength of the intra-systemic relations formed by the industrial groups between themselves and the DGA.

The *Direction des Fabrications d'Armements* created in 1933 was already its distant ancestor but it was only in 1961 that the essential missions that it still retains today were clearly defined. The decree of 5 April 1961, instituting the DMA (*Délégation Ministérielle pour l'Armement*) – renamed the DGA (*Délégation Générale pour l'Armement*) in 1977 – States in effect that *the creation of a Délégation Ministérielle pour l'Armement originates from the new situation created by scientific and technological advances. A rational policy for the production of arms – and namely the production of the latest weapons – requires the concentration of the authority and resources which favour a better use of human resources, a higher yield from the industrial infrastructure and a more effective use of funds* (Dussauge and Cornu, 1998).

From its creation, the DGA has been entrusted with four main missions:

- to develop and implement programs for the research, design and production of arms (and later maintenance, repairs of an industrial nature and modernisations)
- to exercise supervision of the State run establishments and national companies and to regulate the private companies involved in armament programs
- to ensure the organisation and monitoring of the arms programs implemented in collaboration with foreign countries
- to promote arms exports and ensure their regulation, within the context of the policy defined by the government.

Faced from the beginning with the constant impossibility both to provide the armies with the most suitable equipment at the lowest possible cost, and to ensure the existence and development of a national and independent DTIB, capable of meeting the full demand for materials, the DGA has been significantly reorganised on three occasions during the last few years (1986, 1994 and mostly 1997). Despite this successive reorganisation, demonstrating at the end of the day that it will never be possible to reconcile these two conflicting objectives, the DGA still remains an inescapable interface between supply, which it largely determines, and demand, which it adjusts heavily, thereby ensuring the coherence and balance of the meso-system.

This integrational role of the DGA is not however limited to the formative effects of its action on the prime contractors. At the same time as it eliminates competition

between the latter, finances R&D and guarantees a market, the DGA also plays a very active role in the restructuring of the sub-contractor SMBs and also imposes itself as an inescapable player in the regional scale conversion initiatives. It is, in effect, interesting to note the weight of the DGA's regional action in implementing the State-Region Conventions to aid conversion/diversification in the regions which are most affected by the reduction in defence related activities. As a reminder, these conventions aim to implement various initiatives in order to reduce the dependence of the regions on the military:

- the diversification of the SMBs subcontracted for the defence and aerospace sectors
- aid for the modernisation of infrastructures and the restructuring of the former military bases
- collective aid campaigns for the economic development of the most widely affected labour market areas
- support for the creation and reinforcement of industrial areas showing a formative nature
- accompaniment in the training and redeployment of personnel.

As part of these conventions, which currently involve 12 regions, a “regional delegate to the industrial redeployment and restructuring of defence” was made available to the regional prefect, with the task of organising and implementing the initiatives provided for by the convention. The unique characteristic of this system, interesting in itself as it is aimed at the redevelopment of regions which are too dependent on defence, is that the delegates are in fact director generals for armaments (*Directeurs généraux pour l'armement*) provided by the DGA and appointed, as far as this regional mission is concerned, by the Minister for Defence. It is therefore not the Department of Trade and Industry or the Ministry of Finance or Employment, the department for national and regional development, a secretary of State (for SMBs or the industry for example), or any other civil service that is responsible for ensuring coherence between the various local development campaigns aimed at leaving the defence sector, but of course, once again, the omnipresent DGA.

In fact, the DGA's intervention as always had the effect, for the companies operating within the sector, of eliminating most of the uncertainties connected with their activities. If the DGA has been able, despite all opposition, to continue in this role up to present, it is mainly due to a very French practice consisting of favouring the permanent coming and going of civil servants between the State authorities and the management of industrial defence groups which goes well further than the "revolving doors" in the US.

### *The DGA: facts and figures*

On 31 December 1999, the DGA still employed some 36,537 people, divided between public offices – namely program management, testing, expertise, co-operation and export – concerning a little less than half of the total workforce – and industrial activities provided by the Direction des Constructions Navales (DCN, France's naval shipbuilding authority, employing around 16,418 people) and the Service for Aeronautical Maintenance (SMA, around 3,413 employees).

The DGA is the main controlling body for the Ministry of Defence funds, for which it manages around 80% of the investments and subsidies each year, in other words some 71 billion French francs (10.8 billion Euro). Its share in section III (functioning) of the national defence budget is around 6.4 billion francs (0.98 billion Euro). The reorganisation of the DGA instituted in 1997 set itself three main objectives to be achieved within the lifetime of the 1997-2002 “*Loi de Programmation*”:

- To reduce the costs of arms programs by 30% within the lifetime of the 1997-2002 “*Loi de Programmation*”
- To reduce the cost of the DGA's intervention by 30% within the same period
- To increase the export market share held by the French defence industry with a view to attaining 15% of the global market.

Source: DGA, Rapport d'activité 1999, [www.defense.gouv.fr/dga/fr/activites/rapport\\_d\\_activite\\_1999/index.html](http://www.defense.gouv.fr/dga/fr/activites/rapport_d_activite_1999/index.html) , 25 avril 2000 (accessed 11 February 2001).

This practice has enabled a close relationship to be established between the DGA and the firms who are its chief suppliers. The DGA is the “glue” which has held the military industrial complex in France together over the decades (Markusen and Serfati, 2000). This situation still persists today and most of the managers currently presiding over the fate of the new groups resulting from the recent mergers and acquisitions in effect still stem from the high-ranking civil service, thereby reiterating the impression, exaggerated no doubt but widely believed, that the body of civil servants from the *Ecoles nationales d'administration* (ENA) or polytechnics were only created to impose State supervision on the entire economic body. The changes currently underway do not appear likely to call the foundations of the French meso-system of arms production into question (Serfati, 1995), which could lead to some difficulties with European partners, especially in the negotiations regarding the successors of the managers of the new groups, once pan-European.

### *2.3. Panorama of the French arms industry at the dawn of the 21<sup>st</sup> century*

The industrial arms production activities in France are provided on the one hand by private industrial companies and, on the other, by public sector establishments consisting of three categories (Dussauge et Cornu, 1998):

- the State establishments (arsenals): these are services under State control, without legal status and subject to the rules of public law. They are an

integral part of the State and are managed by the DGA, even if certain administrative systems can also provide them with a certain financial independence

- the public establishments: these are companies owned by the State, with legal status and subject to the rules of private law. They have financial and administrative independence
- the national companies: these are companies in which the State directly or indirectly holds the majority of shares. They are governed by the rules of private law and generally take the form of public limited companies.

These three types of establishment still persist today but with respective volumes of activity which have changed slightly as a result of the nationalisations, privatisations, “desarsenalisations” and restructuring. The French arms industry employed 175,160 people on 1<sup>st</sup> January 1999 and is responsible for 30% of the total arms produced within the European Union and in 1996 represented the following within the national economy (Scaringella, 1998 and DGA, 2000):

- 2% of the commercial GDP
- 7% of the industrial activity (i.e. a turnover of around 103.1 billion French francs, or 15.7 billion Euro)
- 5% of exports (41.2 billion French francs, 6.3 billion Euro)
- 4.5% of the total manufacturer's employment (approx. half of these staff belong to the DGA and the nationalised sector companies).

Over the last few years, the French arms industries have seen a highly significant concentration process. The various sectors of activity are being reduced to an increasingly limited number of companies: Aérospatiale (now incorporated into EADS), Dassault-Aviation and Snecma largely dominate the aeronautical sector, GIAT, the SNPE and DCN respectively dominate only the sectors of land armaments, powder and explosives, and naval construction, while the three large companies, Thales (formerly Thomson-CSF), Sagem and Dassault Electronique dominate the defence electronics sector.

The program of the socialist government from the elections in May and June 1981 initially allowed for the complete nationalisation of the arms industry which would have had to be accompanied by a restructuring aiming to keep only a single national manufacturer in each of the fields in question. The left-wing government in fact turned to less extreme solutions respecting the structure of the existing companies and Mitterand's nationalisations finally only affected three of the major arms companies and their subsidiaries.

An initial wave of privatisations, decided upon in 1986-1988 by the Conservative government of Jacques Chirac, affected the arms sector a little, only the Matra and CGE – now Alcatel-Alsthom – groups having been subjected to a true privatisation (Dussauge and Cornu, 1998). It could therefore be considered that a very close relationship between the defence industry and the government dominated until the mid-1990's, and may be summarised as *national champion economics*: the State strongly and

directly tried to influence the behaviour of firms in exchange for subsidies and protection from foreign competition (Sachwald, 1999).

A second wave of privatisation took place in 1993-1995, without, however, significantly affecting the military industrial firms. But, following his 1995 election, the neo-Gaullist President Chirac decided that the privatisation process should be enlarged to encompass most defence companies (Markusen and Serfati, 2000). In fact, the real consolidation movement began only in 1996-1997. Governments implemented large-scale reforms, meanwhile budget cuts went hand in glove with the professionalisation of armies, the reform of the DGA, and the restructuring of the defence industry.

The European restructuring of the arms industry then gave rise to a long and sinuous process of restructuring in France. The holding of capital and the consolidation areas of the French arms industry saw numerous transformations as time went by. One of the strong moments in this recent process was the decision taken in February 1997 by the President of the Republic to merge the large groups in industrial units. It was first concluded with the decision of the Jospin government to place the Thomson-CSF stocks in the hands of Alcatel rather than Matra-Lagardère and, in April 1998, the redefinition of the industrial area, but also a consolidation through cross-participations of the financial links of the arms meso-system with the reduction of the State involvement (Serfati, in Hébert, 1998).

The restructuring of the professional and French defence electronics was done around the Thomson-CSF group, recently renamed Thales, by the merger of the Alcatel and Dassault Electronique within its corresponding core activities, and the merger of the satellite activities of Alcatel, Aerospatiale and Thomson-CSF within the same company, Alcatel Space, 51% of which was controlled by Alcatel and 49% held by Thomson-CSF. At the end of this operation, the public sector remained the holder of a specific share ("golden share") and 46.9% of the Thomson-CSF group's capital, the industrial partners held 22.4%, the remaining 30.7% forming a floating capital. Thomson-CSF (Thales), which currently generates 55% of its turnover (8.2 billion Euro) in defence, 27% in the aerospace sector and 18% in information technology and services, intends to continue its development on a global and European basis. Since the acquisition of the British RACAL in January 2000, Thales has become the second largest group in the United Kingdom defence electronics sector, at the same time opening up new transatlantic prospects to the extent that, as confirmed by its MD, Denis Ranque, "the Pentagon now considers Thomson-CSF to be a European company and no longer a French one"<sup>1</sup>. In addition, in the components manufacturing sector, SAGEM took control of SFIM at the beginning of 1999.

In the aeronautics and space industry, the merger of the activities of Aerospatiale, Dassault Aviation and Matra Hautes Technologies, which came to an end with the introduction of Aerospatiale Matra on the stock exchange, gave rise to a vast aerospace unit, balanced between civil and military activities and achieved in two phases:

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1. Air&Cosmos, no. 1760, 1st September 2000.

- At the end of December 1998, the State gave its 45.76% holding in Dassault Aviation to Aerospatiale. This contribution was the result of a shareholders' pact providing for, in particular, a co-decision between Dassault Industries and Aerospatiale on all strategic subjects.
- The activities of Aerospatiale and Matra Hautes Technologies (50% of Matra BAe Dynamics, 100% of Matra Systèmes d'Information, 100% of Matra Défense Equipements et Systèmes, 51% of Matra Marconi Space, and 50% of Matra Nortel Communications) were then merged within a new group, Aerospatiale Matra, in which the Lagardère group became the favoured strategic partner with 33% of the capital. The State retained around 47% of the capital, the employees a little over 2% and the rest (around 17%) was quoted on the stock exchange. The State also holding the golden share in Aerospatiale enabled it to ensure the strategic interests in national defence within the company.

The new group was to be the second largest European group and the fifth ranking group worldwide in civil and military aeronautics until its incorporation into the new entity, EADS, in October 1999. According to the Ministry of Defence<sup>2</sup>, the two French units created in this way would both, through their weight, expertise and the numerous partnerships entered into with other European groups, become the major and inescapable players for any regrouping on a truly European scale.

Other privatisations may also arise during the financial year of 2001 and, in particular, it is thought that the French government harbours intentions of privatising the engine manufacturer, SNECMA. In any case, the question is no longer a taboo subject, even if the word "privatisation" remains carefully omitted from the official discussions. The possibility of seeing SNECMA's shareholding develop with the acquisition of a foreign company has, in effect, been clearly stated by the MD, Jean-Paul Bechat, in his traditional greetings message at the beginning of 2001<sup>3</sup>.

The transformation of the French arms industry will only actually be achieved however after significant reorganisations within the naval construction (DCN) and land armaments (mainly GIAT Industries) sectors. Unlike the electronics, missiles or aeronautics sectors, the traditional land armaments industry has not been the stage for spectacular industrial alliances. Certain signs indicate however that the restructuring movement on a European level has recently begun.

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2. La politique française d'armement : enjeu industriel, stratégie européenne, capacité opérationnelle, <http://www.defense.gouv.fr/actualites/dossier/d26/contenu.html> (accessed 23 november 2000).

3. Air & Cosmos, no. 1779, 19 January 2001.



## 2.4. A State-driven restructuring process

The French possess a more centralised and directive State than other European countries, facilitated until recently by substantial public ownership of key sectors. In that context, the defence industry restructuring process in France is much more a State-driven process, with the DGA and the government playing a more prominent and initiating role, in contrast with the United States for example, where Wall Street investment bankers, in conjunction with certain key industrial leaders, have taken the initiative in restructuring the American industry, while the Pentagon has primarily played a reactive and supportive role (Markusen and Serfati, 2000). This deep rooted French principle, which is never called into question, of public supervision and control over the arms meso-system, State or publicly owned for decades, in fact covers several objectives (Hébert, 1998a):

- a political purpose, consisting of not wishing to find itself dependent on foreign decisions where arms are concerned
- a technological purpose, aimed at preserving a military technological advance while ensuring maximum confidentiality
- a military purpose, the State's objective being to have a quick ability to mount a powerful defence against any sudden threat
- an industrial policy purpose, to the extent that the concentration of authority within the state for arms production was seen as a gauge of effectiveness.

French policy-makers and business representatives hold the view that prior to being integrated into European groups, the current “national champions” must be merged to achieve the “critical size”. This notion of “critical size” is nevertheless more than questionable in the arms industry, given the considerable gap separating the French groups (or even the European leaders) from the large American groups (Serfati, in Hébert, 1998). This race for the critical size, considered to be an essential condition for maintaining competitiveness, has led to restructuring which has not only caused a horizontal concentration of activities but also significant vertical concentration initiatives, in particular, in the aerospace and defence electronics sector (Mérindol, 1999b). Observed in every western country – out of the fourteen global electronics leaders, six are also managers of aeronautics projects – vertical integration seems to be taking the place of the dominant model, particularly for the French arms industry (Markusen and Serfati, 2000). This trend is worrying however, until inside the close environs of the DGA and the Ministry of Defence, and yet with a ringside seat, which reveals that in other sectors, such as the automotive sector in the 70's and 80's, vertical integrations proved ineffective on an industrial scale and met a pure financial logic of maximising the shareholders' dividends more than the economic objectives of efficiency in the industrial organisation. Even by the admission of close analysts of the DGA, the vertical concentration initiatives are therefore not a model to be followed (Mérindol, 1999b).

Over the three last decades however, a few firms have emerged as national defence champions while deepening and widening the range of their capabilities. Supported by the government, they have been allowed to acquire or to win majority ownership shares in second tier defence-oriented companies. Since the early 1980s, the

relatively poor performance of French national champions in other industries more exposed to international competition was widely recognised, but the State continued to buffer the defence sector from such competition and to support national champions for security reasons, but also by maintaining the illusion that the French arms groups could be at the centre of European restructuring, of which the DGA would be the driving force. Such patronage by the DGA, justified by national interests and sovereignty, plus a persistent lack of industrial entrepreneurship resulting in few new company formations, has generated fewer sub-contractors providing competition or innovation in components or services. When, and if, cutbacks are necessary, the large firms themselves must decide which units are to be eliminated and/or how to increase efficiency in different segments of their production process. This structural characteristic, associated with very little public debate about the level of military spending considered to be a guarantor of national security, an employment generator, and a source of technological leadership and spin-off for the country, appears to play a major role in the defence conversion process and in its slowness (Markusen and Serfati, 2000).

### **3. Adaptation rather than the erosion of the levers of control and regulation**

The transformation movement currently underway in the French arms production system, the most visible aspect of which is the process of privatisation, undoubtedly means thinking of the position of the State in new terms when it comes to controlling this system. Obviously, the resources the State has to control arms production have been radically modified by at least four factors of change (Hébert, 1998a):

- The diversification of activities in the civil sector: the extreme dependence of companies where arms production is concerned contributed to strengthening the hold of the State. The recent development shows however that, in most companies, diversification towards civil activities has been important and sometimes sufficient to enable a civil turnover to exceed military turnover, thus substantially modifying the State-company relationship. The State's hold however remains strong, even in the process of redeployment towards civil-based activities, as we have shown in the system of State-region conventions.
- The process of European integration: while less rapid than in the United Kingdom or Germany, the europeanisation of arms production already affects a far from negligible volume for French companies. This development changes the relationship between the State and the companies. The latter previously had only one point of contact, the French government. Now they have several State contacts which multiplies the possibilities for strategies and negotiation. France, like his EU partners, could have limited powers of negotiation in comparison with several large monopolist groups. The supply could be reduced to one or two major companies while demand could be extended to several ministries (Hébert and Nardon, 1999).
- The reorganisations of the DGA: the role of political power has been progressively diluted within the State/DGA/company triad, leaving the field free for the establishment of ever closer familiar relationships between the

departments of the DGA and the arms companies. This shift towards a system of administered and non-competitive regulation has not been able to curb the drift of the prices of arms systems caused by technological sophistication and the arms race. Seen as the backbone of the French arms system, the role of the DGA as an instrument of State control over this system should, according to Hébert, be fundamentally revised to an image of a State expert agency in the face of europeanised and diversified manufacturers that are less dependent on military production.

- And finally, the privatisation movement, often considered to be central in the current transformation of relationships between the State and the arms industries.

This development will cause new contradictions to surface. The arms policy as part of the industrial policy would only be through the aspects affecting the regional development and regional employment. Now, the diversification of the companies, their structural modifications and the fact that a large part of the activity of the new large groups is now done outside France makes them less dependent on the choices of the State and more independent. Seen from this angle, the weakening of the State's means of action is therefore very real (Hébert, 1998a).

Nevertheless, there is no doubt whatsoever that the very principle of State control has not been called in to question at the head of the State. Some of the current traditional methods are weakened or are disappearing, but others are being introduced or are gaining significance. As Voisin (2000) recently indicated in an article on the economics of regulation published in the *“Bulletin économique de la défense”*, – a body dependent on the French Ministry of Defence – *despite the liberalisation and globalisation movement, the monopoly on legitimate violence will remain the act of the States, whether they act individually or as a coalition. Arms production will therefore remain a regulated activity, even if the methods of this regulation change.* Despite the profound transformations of the arms production system, the State still has significant methods of control in the sense that it remains a decisive economic power and retains, on the one hand, the power to step up certain regulatory methods of control provided for by the law and, on the other, a panoply of budget and finance related tools.

### 3.1. The legislative and regulatory instruments

#### 3.1.1. The regulatory constraint

In the field of arms, the regulatory and administrative constraint is particularly strong to drive the companies to conform to the will of the public authorities. This constraint is exercised mainly through security regulations (authorisation of persons and companies), regulations relating the nationality of company directors (Fournet, 1998), or even through regulations relating to production and the methods of fixing prices.

The State could now reinforce the methods and missions for the General control of armies (*“Contrôle général des armées”*) and government commissioners. General control, directly associated with the Minister of Defence and independent of the military hierarchy, effectively aims to control the DGA but also the public and private

companies, through the government commissioners who are delegated to them. The law confers very wide powers of investigation and control upon them, but their conclusions have, until now, retained a limited reach insofar as the reports remained internal Ministry documents. Greater publicity of these works, namely aimed at Parliament, would strengthen this method of State control over the arms production system. The works of the *Cour des Comptes* (French court with jurisdiction to audit the accounts of public entities) along with the various Parliamentary works are also capable of exercising a role of democratic control in the major area of State action which is armament (Hébert, 1998a).

### 3.1.2. Controlling arms exports

The rules and legislation relating to the control of arms exports carry enormous economic weight. Left-wing declarations in favour of a reduction in the sale of arms at the end of the seventies quickly gave way to a much more aggressive effort to find new clients during Mitterand's term of office. These exports are an essential economic requirement for the survival of the meso-system, as the 1994 white paper and DGA managers recalled with force: foreign clients compensate for domestic market fluctuations without affecting the capacity plans of the companies. Right and left-wing governments committed to measures favouring exports. In this respect, the objective of the DGA is extremely clear and consists of conquering 15% of the global arms market by 2002. This objective was apparently already achieved in 1997 and 1998, prior to collapsing the following year, according to CRS and SIPRI data. However, the year 2000 figure, released by the DGA in February 2001, indicate a rise of 48% in comparison with 1999, renewing the good results noted in 1997-1998. We should point out that the arms exports remain characterized by a deep opacity. Despite the fact that the DGA contests the figures published by the CRS <sup>4</sup>, one notes nevertheless that these data (as well as those of the SIPRI, considering their own methodology) reflect quite accurately the trend illustrated by the official data of the DGA, in value but also in market shares.

It is however interesting to note here that although the exports do indeed provide stability to the market for the companies, several studies contest the size of the profits that they obtain for the national economy: taking into account the public aid and subsidies, the financial advantages granted to buyers and the client bankruptcies covered by the *COFACE* (French equivalent of Export Credits Guarantee Department), lead certain experts to believe that the net surplus achieved through arms exports is negative some years (Hébert, 1998b). In other words, arms exports make the companies wealthier at the same rate as they make the taxpayer more taxed. In April 2000, the Parliamentary mission to gain information about the control of arms exports came to the same conclusion. Showing “their immense surprise” in the face of “the uncertainty which seems to prevail over the global profitability of French arms exports”, the

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4. DGA, "Rapport au parlement sur les exportations d'armements de la France, Résultats 1998", pp. 26-27, <http://www.defense.gouv.fr/dga>, 25 avril 2000 (accessed 12 March 2001).

members of Parliament proposed “establishing an annual balance of exchanges in the defence sector and showing their advantage within the nation's account”<sup>5</sup>.

*Table 1. French arms exports*

	DGA		CRS		SIPRI	
	in billion FFR (1999)	in billion Euro (1999)	in million USD (1999)	World Market Share (%)	in million USD (1990)	World Market Share (%)
1992			2,466	6.54		
1993			1,712	4.69		
1994	17.5	2.67	1,451	4.42		
1995	19.5	2.97	3,065	7.89	812	3.94
1996	29.7	4.53	3,859	10.34	1,989	9.65
1997	43.3	6.60	6,401	15.03	3,389	16.45
1998	41.2	6.28	6,578	18.07	3,840	18.64
1999	30.5	4.65	2,400	7.07	1,701	8.25
2000	45.0	6.86	:	:	:	:

Sources : DGA 2000, CRS 2000, SIPRI 2000, and Le Monde 16 Feb. 2001

### 3.2. The financial and budgetary instruments

#### 3.2.1. The budget

The budget forecast for the year 2001 is 244.7 billion FRF (37.3 billion Euros), making a slight increase of 0.8% compared with the previous financial year. Excluding pensions, the 2001 defence budget remains at 188.9 million FRF (28.8 billion Euros) and fully respects the programs provided for in the “*Loi de Programmation*”, except for the A400M program which will be the subject of a specific treatment failing immediately available funds.

The budgetary choices and the decision to take out equipment loans will remain, in all countries, one of the safest methods of directing the activity of the main arms industries according to the general policies of the State. In this respect, although all the western countries have severely cut their military spending since the mid-eighties, France has succeeded in maintaining the level of its spending on equipment throughout the period without ever eliminating any of the programs provided for by the military planning laws, and apparently without worrying about whether or not these programs, decided upon in the early eighties during the Cold War, still correspond to the new geopolitical situation. In fact, the 1994 white paper on defence provided a doctrinal framework capable of justifying any level of military spending by identifying a multitude of dangers resulting from the collapse of the USSR and by putting forward “six crisis scenarios”, acting as a hypothesis for the use of armed forces.

5. J.C. Sandrier, C. Martin, A. Veyret, “Le contrôle des exportations d'armes”, Commission de la Défense, Documents de l'Assemblée nationale, 2000, n°2334.

Table 2. 2001 defence budget, divided by section

In billion FRF	2000 Initial Law	2001 Forecast	Change	
			FRF current	FRF constant
Section III (Personnel)	105.0	105.5	+ 0.5 %	- 0.4 %
Section V and VI (R&D and Procurement)	83.0	83.4	+ 0.6 %	- 0.3 %
Total	187.9	188.9	+ 0.5 %	- 0.4 %

Source: Air & Cosmos, No. 1763, 22 September 2000

### 3.2.2. R&D

The significance of the State's actual capacity of economic influence by means of the distribution of funds for R&D and aid, which remain the channels through which the State exercises its control over the functioning of the system, should also not be underestimated. Technological innovation in effect remains one of the rare areas in which the neo-liberal policies lend legitimacy to the intervention of the State. It is therefore not surprising to note that the European States continue to finance military R&D on a massive scale. In all European countries, the public budgetary funds for military R&D reached 20% of the total public R&D funds in 1994. Such spending however is far greater in France (but also in the United Kingdom), where this proportion reached more than 40% in 1990.

Table 3. Implementation of military R&amp;D in France in 1996

	Academic laboratories	Civil public laboratories	Military laboratories	Companies	Other	Total
Public financing of military R&D (in billions FRF)	0.2	1.6	10.4	9.8	0.1	22.1
Proportion (%)	1%	7.2%	47%	44.3%	0.5%	100%
Share of the military sector in the R&D carried out (as a %)	0.7%	5.4%	100%	8.8%	3.4%	11.9%

Source: OST

Table 4. Government R&amp;D appropriations (total and defence share)

	Total Government R&D Appropriations [a]		Government R&D Appropriations for Defense [b]		[b] / [a]
	1998 prices		1998 prices		
	<i>mio FRF</i>	<i>mio EURO</i>	<i>mio FRF</i>	<i>mio EURO</i>	%
<b>1975</b>	59 888.46	:	17 869.23	:	29.8%
<b>1976</b>	57 442.66	:	17 839.34	:	31.1%
<b>1977</b>	58 476.91	:	17 895.41	:	30.6%
<b>1978</b>	59 563.39	:	19 827.59	:	33.3%
<b>1979</b>	63 566.91	:	22 447.81	:	35.3%
<b>1980</b>	66 725.75	:	24 351.68	:	36.5%
<b>1981</b>	78 261.33	:	30 091.67	:	38.5%
<b>1982</b>	80 751.56	:	28 578.87	:	35.4%
<b>1983</b>	86 445.05	:	28 242.88	:	32.7%
<b>1984</b>	90 569.76	:	30 260.10	:	33.4%
<b>1985</b>	92 576.37	:	28 955.85	:	31.3%
<b>1986</b>	89 817.21	:	29 563.99	:	32.9%
<b>1987</b>	93 821.78	:	33 677.67	:	35.9%
<b>1988</b>	100 003.36	14 088.53	35 776.41	5 040.20	35.8%
<b>1989</b>	100 230.75	14 483.33	39 140.35	5 655.78	39.1%
<b>1990</b>	103 601.78	14 906.52	42 550.00	6 122.21	41.1%
<b>1991</b>	103 680.55	14 910.81	37 405.61	5 379.49	36.1%
<b>1992</b>	98 426.50	14 761.42	33 493.75	5 023.19	34.0%
<b>1993</b>	95 863.94	14 574.64	32 115.96	4 882.74	33.5%
<b>1994</b>	93 538.91	14 224.74	30 928.73	4 703.42	33.1%
<b>1995</b>	88 331.54	13 716.53	26 733.38	4 151.28	30.3%
<b>1996</b>	87 900.27	13 395.49	25 487.09	3 884.08	29.0%
<b>1997</b>	:	:	:	:	:
<b>1998</b>	:	:	:	:	:

Source : Eurostat, Research and Development, Annual Statistics.

R&D in France is therefore a powerful and privileged instrument for regulating defence activities. In an information report submitted to the French National Assembly in December 2000, the deputy Martine Lignières-Cassou also recalls the fact that “one of the main reasons justifying the research efforts in the defence sector, and also in aeronautics, was based on a concern for national independence”. In a plea for increased public funds for more research which would ensure the coherence of the French defence system and provide the arms industry with the means to acquire the technologies required for future programs, Martine Lignières-Cassou recalls the “formative role of defence research in France” and invites the State to “retrieve its prerogatives in the definition of a research policy and support for innovations, bearing in mind the technological stakes and the consequences of the building, in Europe, of defence based on industrial organisations and research” (Lignières-Cassou Martine, 2000, pp. 9, 10, 117, 131).

### 3.2.3. Global multi-year orders

The principle of global, multi-year orders consists of grouping together the State's commitment, for a given acquisition program, in a single notification covering all the materials. Thus, in the example of the Tigre helicopter program, which anticipates a delivery of two machines in 2003, with eight in 2004 and then ten machines per year until 2011, the system of global, multi-year orders provides Eurocopter with an immediate and irreversible assurance of an order for 80 machines by 2001, along with the regular flow of financing associated with it. In the context of a classical method of acquisition, the State would probably have been forced to negotiate a five-year contract based on a fixed instalment and four annual conditional instalments covering a certain number of machines (Francou, 1998). At the end of this first five-year contract, a new contract would have to be negotiated to continue the program. The disadvantage of this system, at least for the industry, is that the State is in no way committed to ordering the conditional sections nor to continuing the program, while the industry has generally negotiated its prices for the whole contract. By adopting this system of global, multi-year orders, in return the State naturally expects a reduction in its global funding burden due to a reduction in the price of the materials. It also offers the large industrial organisations however better visibility and planning of their capacity plan, with productivity gains and increased flexibility as a result and, thus, an undeniable competitive advantage over competitors.

In addition, Olivier Francou, director policy and sales to the French government of the Eurocopter group, recognises and insists on the fact that this system may have a significant impact on the potential for exporting materials insofar as it makes the program more credible in the eyes of the foreign potential buyer by quickly confirming an immediate and massive use of the material within the national armed forces: the declaration effect is of course very different depending on whether it relates to an order for 2 or 80 machines.

### 3.2.4. The holding of capital

The debate surrounding the methods of State control over the arms production system is often focused on the status of the ownership of the companies' capital: privatisation *versus* nationalisation.

It must first be noted that the privatisations of the public arms companies will in no way reduce their dependence on public aids and public contracts, nor the multitude of existing interpersonal links. They would therefore not cut into the cohesion of the meso-system either. Hébert (1998a) recalls, quite rightly, that nothing can confirm that the private nature of companies can be considered a factor of economic success in itself, while conversely, the ownership of the capital by the State does not necessarily provide the latter with all the resources for a real control over the system. According to Hébert, the privatisation movement is therefore not necessarily as large an amputation of the State's power as it first appears, but could, paradoxically, restore balance to the relations within the arms production system, in the sense of a greater free will for the State in its arms policy choices. In effect, it must be acknowledged that this dependence by companies on the State, by reason of close capitalist links, has always had its opposing

view. This counter-dependence is expressed by a type of protection obligation which the State was supposed to owe the companies, to the detriment of coherent choices of equipment (the purchase of Mirages F1 for the Air Force and Sagaie vehicles for the Army are two examples of this).

Furthermore, even with minority holdings, the State is far from being stripped of its power of influence. In 1997, the new left-wing Jospin government announced that it was willing to permit a reduction in the State-owned share of Thomson to below 50% and to accept a partial privatisation for Aerospatiale. It planned however, to retain a “golden share” sufficient to control long term strategy. In the project to group together the activities of Matra Hautes Technologies and Aerospatiale concluded in 1998, the State's share was slightly lower than 50% but accompanied by a “golden share”, a specific share created to preserve the interests of national defence. Then, in order to enable the transfer of the minority public holding of 46% in Dassault Aviation to Aerospatiale, despite the reluctance of Serge Dassault, the Conseil d'Etat ratified the State's reactivation of its shares with a double right to vote, thus giving it *de facto* 55% of the voting rights.

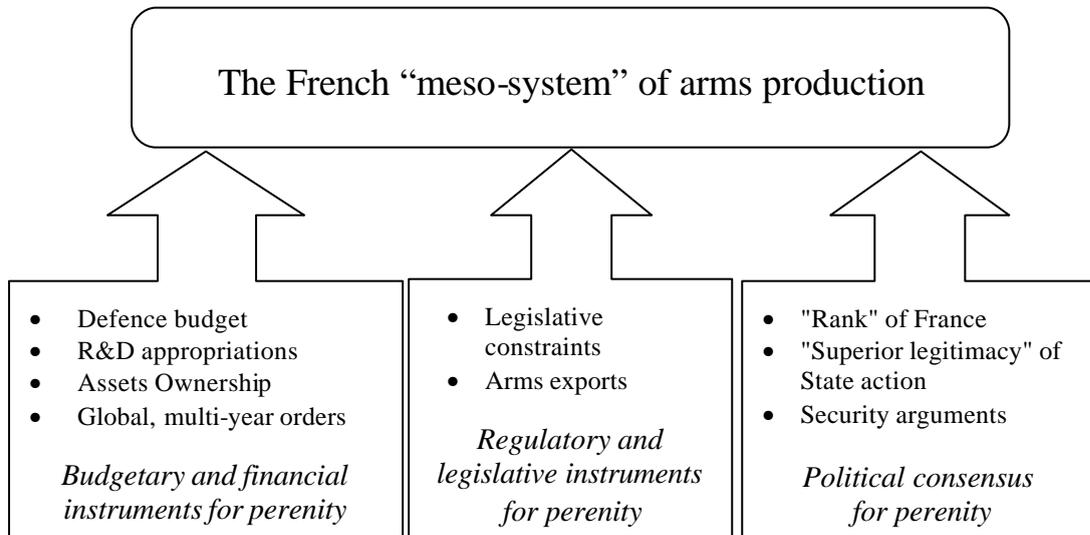
#### **4. Conclusion: perenity of the meso-system and the predominance of the State**

The French arms meso-system therefore obviously has some strengths in adapting and facing changes in the international environment or the technological and economic transformations which affect the conditions for arms production, basically without being called into question. A report by the State Planning Commission (*Commissariat général au plan*) published in 1993 also set the tone by indicating that the restructuring of the arms industry was designed to ensure its “perenity”. A perenity that seems far more to be guaranteed than based on a strong consensus on defence questions and a method for France to “keep its rank” in the world.

Changes in geo-political, economic and technological factors (changes within the civil industry make the arguments about the driving role that research carried out for military purposes would play increasingly hollow) have not, until now, altered the solidity of the arms meso-system and have even less so, called its legitimacy into question. The main reason, according to Serfati (1995), is due to the fact that the French arms production system is based on a triple agreement, a quasi-consensus which enables it to adapt (or give the appearance of doing so) to the transformations described above:

- an agreement of political order: this is based on a permanent subscription of all the political forces to the military doctrine and to the new arms production system
- an agreement on the “rank” of France in the world
- an agreement on the economic and technological level: the groups with a military specialisation have a central position in the national R&D and innovation system which is only scarcely contested.

Figure 2. Instruments for supporting the perenity of the French meso-system of arms production



Source: GRIPDATA 2000

The French arms meso-system has therefore been able to organise itself in the face of political, economic and technological changes in its environment, supporting its "perenity" by means of economic, technological and security arguments.

Recalling the fact that, on an economic level, the production of arms constitutes an extension of the State's military functions, Serfati (1995) insists on a particular feature of France which rests on the fact that the extension of the role of the army has in some way been "codified" in the institutions and in the doctrine of the V<sup>th</sup> Republic, that it has not only contributed to the implementation but in which it became and remains a central element.

The interaction of the political and economic determining factors which founded the arms meso-system at the end of the fifties, therefore remains sufficiently powerful to ensure its cohesion and control by the State, despite the profound transformations of the arms production mechanism elsewhere in Europe or the United States. Furthermore, despite its reorganisation and the redefinition of its missions, the DGA remains the pillar of the arms production system and ensures its perenity.

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