
The Defense Budget in France: between Denial and Decline

Martial Foucault

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Abstract

Although defense spending is the fourth budget item in France, it is rarely a matter of public debate. During the past three decades, defense has been affected in turn by the desire to rip the benefit of the post-Cold War “peace dividend”, the professionalization of 1997, and the increase of overseas operations after September 11, 2001. These fluctuations occurred in a constrained economic and social context, in which military spending has played the role of the expandable line – irrespective of the majority in power. Even if the new budgetary framework set up by the LOLF (Organic Law relating to the Finance Laws) was supposed to improve spending management, the goals of the 2008 White Paper on Security and Defense quickly emerged as unrealistic, given the rapid deterioration of public finance. After a decade of continuous growth of international military spending, it seems appropriate to examine and question the budgetary choices that will decide of the future of French defense capabilities.

* * *

Le budget de la défense, quatrième poste de dépenses de la République, est rarement soumis à un débat public. Ces trente dernières années, cette question a été marquée tour à tour par le désir de toucher les « dividendes de la paix » au lendemain de la guerre froide, la professionnalisation de 1997 et le durcissement des opérations extérieures après le 11 septembre 2001. Ces fluctuations se sont inscrites dans un contexte économique et social contraint dans lequel les dépenses militaires ont joué le rôle de variable d’ajustement – et ce, quelles qu’aient été les majorités au pouvoir. Alors que le nouveau cadre budgétaire mis en place par la LOLF (Loi organique relative aux lois de finances) devait permettre une meilleure gestion des dépenses, le Livre blanc de 2008 affichait des objectifs qui sont vite apparus comme irréalistes, compte tenu de la rapide détérioration des finances publiques. Dans un contexte international marqué depuis une décennie par l’augmentation des dépenses militaires, il convient de s’interroger sur les arbitrages budgétaires qui décideront demain de l’avenir de la défense de la France.

Introduction

Given the economic situation in France and the effects of the crisis on public finances, and given the inherited charges and ongoing expenditures, French defense faces considerable challenges in the short and medium term. The presidential campaign in the spring of 2012 could theoretically have been an opportunity to provide some answers.

And yet defense policy has been, once again, largely ignored from the public debate.¹ Despite an annual budget of 40 billion euros (the fourth largest after education, payment of interest on the debt and funding for local authorities)² and 320,000 military and civilian personnel, France's defense choices remain the purview of a closed circle of experts or military staff, suggesting that public opinion shares a permanent, apolitical vision of defense issues that does not justify public debate. It is as if Europe's leading military power alongside the UK, a permanent member of the UN Security Council, armed with nuclear weapons and a full member of NATO, arouses indifference in French public opinion concerning its ambitions as a military power and the means to achieve them. But surely France's participation in Libyan and Afghan operations in 2011, mobilizing 7,800 military personnel directly involved in combat operations, should spark a more substantial debate about the country's role on the international stage, along with questions about its capacity to continue these efforts in a near future. And yet, in a poll conducted by LH2 for *Le Nouvel Observateur* on November 4-5, 2011, only 3% of respondents declared that France should give priority to additional defense spending (against 64% for employment and 48% for education). And in a final paradox, when French people are polled every year on the image of the armed forces, the vast majority of them express a very positive opinion of the military.³

These factual elements might suggest that French defense policy is enjoying a period of tranquility, an impression apparently confirmed by the simultaneous existence of a certain budgetary downsizing and a positive

¹ Except for an outline of their vision of defense policy over the coming years in *Revue Défense Nationale* (April 2012), the presidential candidates remained very discreet during the campaign, rendering defense an invisible issue.

² Interest payments on debt account for 48.8 billion euros, transfers to local authorities represent 55.3 billion euros, and the education budget amounted to 62.3 billion euros in 2012 (88.1 billion euros if the ministry of higher education and research is included) – see the report on the evolution of public spending (budget ministry, 2012).

³ DICOD, *Les Français et la défense, 15 ans de sondages*, Paris, French Ministry of Defense.

image. The reality is more nuanced, not to say worrying. Since 2009, the Ministry of Defense has contributed to rationalizing the civil service and reducing manpower, by closing a scheduled total of around 80 military units, transferring 30 others and eliminating 54,000 jobs out of 320,000 personnel (including 250,000 in the uniformed services).

The purpose of this study is to investigate the status of the French budgetary effort in the realm of national defense over an extended period. Such an analysis must start with a review of the political context in which budgetary choices are made. Next, the most detailed possible statistical description of defense ministry budget trends must be established, compared with other principal ministries and for each of the major defense budget categories. Within this perspective, the second part of the study looks at the modern period, emphasizing the chronic difficulties in respecting multiyear military spending bills since 1997, and the impact of these difficulties on the format of the armed forces, their projection capacity, equipment availability and procurement planning. The final part examines the position of France compared with its NATO allies, in order to identify periods of convergence and divergence with respect to budgets in the UK, Germany and the United States.

In the defense arena, the proximity of presidential and legislative elections should have provided the opportunity to more closely define public policy choices and major political orientations in the medium and long term. The situation of national defense merits a careful, detailed examination for at least three reasons: the supposedly central position of defense in the national budget, the efforts to adapt military capability to evolving threats and finally the progress that has allegedly been made in “Europeanizing” defense policies. On all three points, however, reality fails to live up to perceptions and indeed at times seems to be more of an incantation.

Defense Budget: Less than Meets the Eye?

Over a 30-year period, the French defense budget has undergone profound transformations, sometimes against the tide of general European trends, sometimes in spite of clearly identified strategic ambitions, sometimes in return for a drastic re-formatting of the armed forces, and sometimes as a result of a change of government. Long considered as ring-fenced, defense today is one of the most vulnerable ministries to budget cuts. Before analyzing the causes and consequences of these financial adjustments, it is important to recall that defense policy choices reflect not only France's commitment on the international stage and its multi-dimensional role (UN, NATO, EU), but also its strategic vision in the post-cold war environment. In a hypothetical, ideal world, i.e. with no budget constraints, France would occupy a privileged position as a military power with an eye on leadership in the European Union. In the real world, marked by a context of budget austerity, how do so-called military powers manage to maintain their international ranking with declining or stagnating defense budgets? Rather than "mechanically" linking a country's international "posture" with its defense budget, it is more relevant to look at budget decisions for each spending item for each of the services in the longer term. In this way, the French armed forces model, as defined in the 2008 White Paper on Defense, can be evaluated with respect to capacity ambitions and the means to ensure financing thereof.

Some Macroeconomic References

Any discussion of French defense budget choices must start with a review of the public finance context in which those choices were made. There is abundant literature describing the post-1989 period as a period of so-called "peace dividends".⁴ This period corresponded to substantial defense budget reductions among the leading military powers (USA, UK, Russia, France, etc.) in the absence of major geopolitical threats comparable to that of the Cold War confrontation. For example, the US defense effort was reduced by 15.8% (in constant 2000 dollars)⁵ while France cut its defense

⁴ Malcolm Knight, Norman Loayza and Delano Villanueva, "The Peace Dividend: Military Spending Cuts and Economic Growth", *IMF Staff Papers*, vol. 43 n. 1, 1996, Palgrave Macmillan, pp. 1-37; Sanjeev Gupta, Benedict Clements, Rina Bhattacharya, and Shamit Chakravarti, "The Elusive Peace Dividend", *Finance & Development*, Vol. 39, No. 4, 2002.

⁵ Over a longer period, between 1986 and 1997, constant dollar data from the Department of Defense Green Book indicate a 31% decline in military spending

budget by 18% between 1991 and 2001 (i.e. one percentage point of GDP) even despite the brief conflict in Iraq at the beginning of 1991. The 1990-2000 decade was characterized by a worldwide economic growth largely sustained by the opening up of borders, growth of international trade and access to financializing the economy. As a result, the state's role in the economy was reduced, and economic growth was primarily fueled by more intense trading and the quest for productivity gains. This trend led to abandoning the Keynesian notion of the multiplier effect on public spending suggesting that the state support effective demand (consumption) and thus, economic growth through public expenditure. Concretely, this means that, in countries where the share of public investment is primarily driven by the defense effort (capital spending), it becomes more difficult to justify one euro of public spending if it can be shown that the same euro spent on liberalizing the economy contributes more to economic growth. Does the same logic apply to public investment in defense?

The debate is ongoing and the jury is still out. Since the initial empirical work by Emile Benoit,⁶ the link between economic growth and military spending has divided economists. For some, there is a positive, robust relation, whereby the more a country invests in public defense spending, the more sustained economic growth will be. Conversely, other authors question the causal connection between defense spending and economic growth, even if the two aggregates are correlated.⁷ In the case of France, work performed as of today covering different periods concludes that a dual relationship exists: (1) there is no significant positive correlation between defense spending and GDP; and (2) military spending itself depends on a country's economic conditions. All in all, one cannot say that, the more France increases its defense budget, the more it increases the level of wealth generated. Conversely, the higher the rate of GDP growth, the more the level of military spending will tend to increase. In other words, there is a close link between military spending choices and the economic conditions for financing that expenditure. This result is confirmed by a recent study by Malizard⁸ showing that, between 1960 and 2008, the impact of French GDP growth on military spending is greater than the impact of military spending on economic growth. And the study concludes that this effect is persistent over time. This result is consistent with that obtained by Martin, Smith and Fontanel,⁹ who observed that, between 1952 and 1982, French military spending reduced the level of public investment,

between 1986 (high point of the 1980s) and 1997 (post-cold war low point). Over the same period, French military spending dropped 11%.

⁶ Emile Benoit, *Defense and Economic Growth in Developing Countries*, Lexington, Lexington Books, 1973.

⁷ Rati Ram, "Defense expenditure and economic growth", in Keith Hartley and Todd Sandler (eds.), *Handbook of Defense Economics. Defense expenditures and Economic Growth*, Amsterdam, Elsevier, 1995, pp. 251-273.

⁸ Julien Malizard, "Causality Between Economic Growth and Military Expenditure: The Case of France", *Defense & Security Analysis*, Vol. 26, No. 4, 2010, pp. 401-413.

⁹ Martin Stephen, Ron Smith and Jacques Fontanel, *Time-series Estimates of the Macroeconomic Impact of Defence Spending in France and the UK*, in C. Schmidt and F. Blackaby (eds), *Peace, Defence and Economic Analysis*, London, MacMillian Press, 1987, pp. 342-361.

encouraged economic growth and had ambiguous effects on employment. Jacques and Picavet¹⁰ reached a largely identical conclusion and showed a positive relationship in the USA and the absence of any relationship in France.

Based on this deliberately simplified analysis framework,¹¹ several questions call for closer investigation:

- What are the trends in French military spending?
- How does military spending react to macroeconomic conditions?
- Are the trends different if one looks at the defense budget per armed forces branch and per spending category?
- Do partisanship and changes of government influence the level of military spending?
- Do budgetary guidelines on military spending in the form of five-years military program laws (LPM) represent an effective safeguard against public finance adjustment policies?

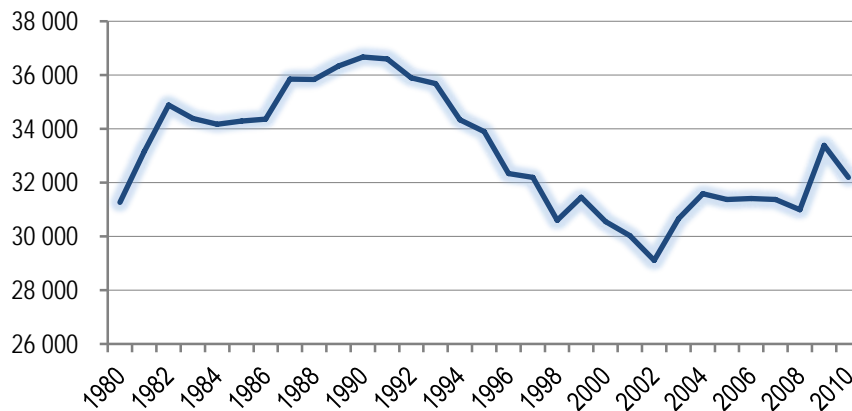
Military Spending Trends in France

The graph below shows how military spending has evolved since 1980 in constant euros. The past 30 years of French budget efforts for defense policy can be divided into three distinct periods: (1) the decade from 1980 to 1990; (2) the period of peace dividends from 1990 to 2002, and (3) defense reinvestment from 2002 to 2010.

¹⁰ Jean-François Jacques and Emmanuel Picavet, "Relations Causales entre les Dépenses Militaires et leur Environnement Macroéconomique: Tests Partiels pour la France et les Etats-Unis", *Economie et Prévision*, Vol. 112, No. 1, 1994, pp. 53-68.

¹¹ Readers interested in these methodological questions on the link between military spending and economic growth can refer to Chapter 10 of Rat Ram (1995), *op. cit.*

Fig.1: Defense Spending Trends in France, 1980-2010
(constant 2000 €, mil)



Source: Ministère de la Défense, DAF, OED.

More surprisingly, in real terms the defense budget voted in 2010 (32.19 billion euros, 2010) is more or less the same as the budget adopted in 1981. At that time, the minister of defense, Yvon Bourges, presented a 17.9% budget increase over 1980, and boasted of a 50% jump in program authorizations to cover orders for ships and 21 Mirages F1s. Thirty years later, on November 16, 2011, Defense Minister Gérard Longuet testified at the Senate committee on foreign affairs, defense and the armed forces “that it is not possible to continue indefinitely along the path of budget deficits. Will defense be an adjustment variable? The answer is clearly no. Will defense show solidarity with national policy? The answer is yes”.¹² This declaration prior to the presentation of the 2012 defense budget illustrates the dilemma that France is facing. The challenge is to find a balance between an ambitious defense policy and diminishing resources – a balance that is becoming increasingly precarious and less and less credible.

Budget Deadlock

In absolute terms, French military spending has decreased over the past 30 years. The 2003-2008 and 2009-2014 military program law reversed this downward trend, at least temporarily. However, if one looks more closely at this defense sector reinvestment, it can be seen that the ratio of the defense budget to GDP and the national budget is more alarming than the “reassuring” statements by successive defense ministers since 2006 might suggest.

The fact is that the ratio of defense to wealth generated has never been as low as in 2008 (1.6% of GDP). In a report prepared by former US

¹² Gérard Longuet, November 16, 2011.

Secretary of State Madeleine Albright¹³ for the May 2010 NATO Summit, 2% was considered to be the minimum threshold to be respected to maintain a credible level of collective security. However, this request is not new; it must be seen in the context of the sometimes tense debates over burden-sharing in financing NATO missions¹⁴. However, if one takes into account the total of capital plus operational expenditure (not including pensions), France has not met the 2% criterion since 1997, as it now stands at 1.7%. There are two simple interpretations.

The first reflects the cyclical economic difficulties that France has faced over more than 30 years. In a period of low economic growth and resulting tension on public finances, the state would be expected to reduce its military commitments to concentrate on other areas (employment, social spending, etc.). However, over the period 1980-2010, GDP growth averaged 1.7% while the defense budget (not including pensions) grew by only 0.15%. If one considers the 15 best years over this period in terms of economic growth, it is striking to note that GDP grew on average by 2.8% while the defense budget only increased by 0.3%.

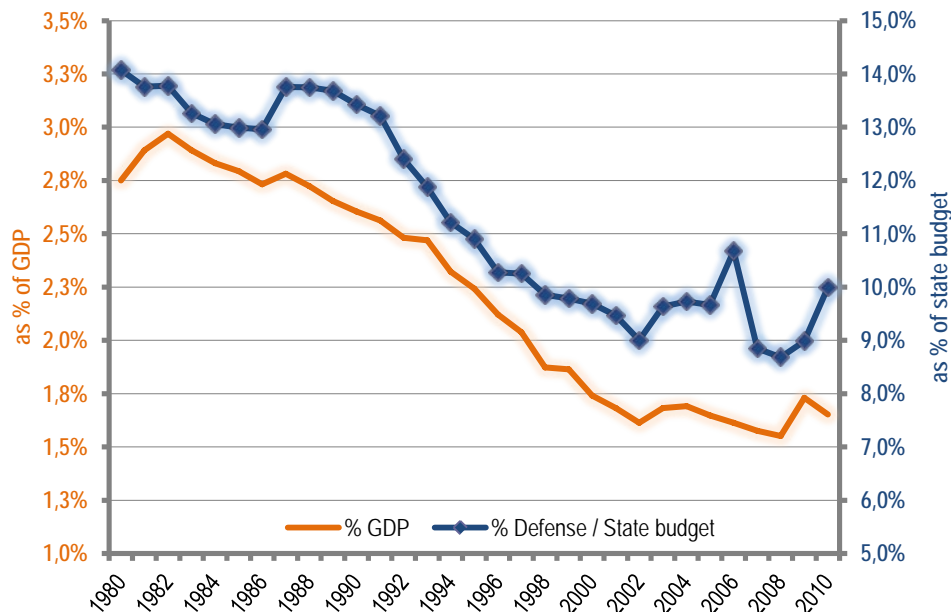
The second interpretation combines the geopolitical situation and the capacity of military expenditure to drive economic growth. As previously mentioned, the level of military spending is justified as a budgetary response to a security imperative in the face of existing or emerging or potential external threats. Thus the period 1980-1990 corresponds to an average increase in real military spending of 1.8%. Conversely, the period of “peace dividends” (1990-2001) saw the French defense effort decline by an annual average of 1.8%. Consequently, there is a close relationship between French military strategy, perception of international threats and budget commitments. Though it is difficult to argue with the decision to invest less in military spending in periods of international stability, it is crucial to note that defense is a sector in which reinvestment cannot be ordained in the space of a few months in response to a conflict situation. The budgetary incrementalism that prevails in modern democracies¹⁵ means that the political processes involved in refinancing the defense sector require several years to launch armaments programs, ensure availability of adequate equipment and achieve an operational armed force. Therefore, any reduction in the defense effort as a share of GDP or a percentage of the budget increases the fragility of the French defense model.

¹³ NATO strategic report, *NATO 2020: assured security; dynamic engagement*, May 2010, accessible at: <http://www.nato.int/strategic-concept/strategic-concept-report.html>.

¹⁴ Martial Foucault and Frédéric Mérand, “The Challenge of Burden Sharing”, *International Journal*, vol. 61, n. 1, 2012, to be published; Hartley Keith and Todd Sandler, “NATO Burden-Sharing: Past and Future”, *Journal of Peace Research*, Vol. 36, No. 6, 1999, pp. 665-680.

¹⁵ Aaron Wildavsky, *The Politics of the Budgetary Process*, Boston, Little Brown and Company, 1964. Budgetary incrementalism designates a linear trajectory of public spending, such that variations in year t correspond substantially with those of year t-1. This process was pertinent prior to adopting the LOLF where almost 89% of credits were voted at identical levels in real terms. Alexandre Siné, *L'ordre budgétaire*, Paris, Economica, 2006.

Fig. 2 : Defense Ministry Financial Effort



Source: Ministère de la Défense, DAF, OED

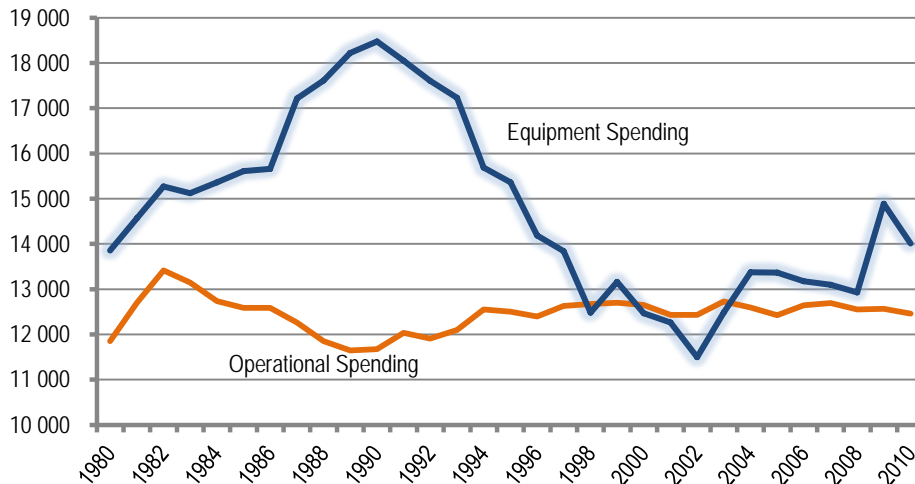
The most recent period (2001-2010) corresponds to a decade marked by a more sustained but uncertain budget effort. The above graph illustrates this situation: the proportion of the defense budget has stabilized again between 9 and 10% of the State budget (compared with 13% in the 1980s), despite the effects of professionalization of military personnel and the introduction of a new financial framework known by its French abbreviation LOLF, which we will come back to in more detail below. Overall, the French State gave the same level of budgetary priority to defense in 2010 as it did in 1998. Over this period, France was involved in multiple operations in Afghanistan, Ivory Coast, Kosovo, Chad and Operation Harmattan in Libya. As of 2011, around 11,000 troops were deployed in operations overseas and 4,300 were prepositioned outside France, compared with 6,300 in 1998.

The Structure of Military Spending

The debate on the structure of military spending has been under way since 1998, the year in which, for the first time, equipment spending rose to the level of operational spending (excluding pensions). From a purely symbolic viewpoint, this convergence between operational and equipment expenditure shows that the French model is based on personnel costs that are practically as high as equipment costs. The ratio between equipment and operational spending has not always been so close to parity. In 1990, for example, for every 10 euros of operational expenditure, 16 euros were spent on equipment. From a strategic viewpoint, the drastic reduction in equipment spending means an inevitable scaling back of French ambitions in terms of force systems. The anticipation of military productivity gains linked to high-technology equipment has not been followed by productivity gains in human resources.

Professionalization of the armed forces in 1996 could in theory have contributed to a partial reduction of the payroll and better utilization of human capital. Though not questioning the operational effectiveness of this reform, Figure 3 seems to confirm that an all-volunteer force, even relatively under-equipped compared with the UK professional forces, costs more than a conscription force relying on the availability of quality equipment. The lack of correlation between the evolution of equipment expenditure and operational expenditure underpins a problem of operational consistency between the expected requirements of a professional force and the impossibility of fielding adequate equipment. Since 1996, the reduction in military personnel could in theory have triggered a process of substitution of capital by work – particularly in the perspective of technological intensification. However, equipment program cost overruns, military inflation and continuous budgetary adjustments make this imperative more uncertain than ever.

Fig. 3. Breakdown of Defense Spending (Excl. Pensions)
(in millions of constant 2000 euros)



Source: Ministère de la Défense, DAF, OED.

By breaking the deflationary logic with respect to equipment spending, the 2003-2008 MPL marked a major effort to recover lost ground. However, it is not certain that the equipment choices voted at that time perfectly satisfied the needs of the armed forces rather than the temptation to offer each of the armed forces a hope of reinvestment, which proved to be short-lived (reduction of 0.8% between 2004 and 2008). The breakdown of equipment credits by branch of the armed forces (cf. Appendix 2) shows a crunch in 2006, particularly for the Navy and Air Force.

Figure 3 raises an issue that has received little attention in France concerning the evolution of equipment spending. In real terms, equipment spending takes account of the inflation rate in the economy. For military goods, however, several authors have shown that the general consumer price index does not perfectly reflect the evolution of the prices of goods and raw materials required to produce military equipment. In the UK,

Kirkpatrick estimated that the increase in a basket of military goods was around 3% greater than the deflator used by the DoD.¹⁶ Consequently, if the UK wished to maintain its military capacities, it would have to increase the value of its equipment budget by 3%. In the USA, the question of military inflation has been studied by Fordham¹⁷ who confirms the difference of about 1 point between the GDP deflator and the military goods deflator. No similar work has been undertaken in France. However, based on INSEE production price indices, it is possible to establish an approximate value for the difference between deflators and evaluate its impact on the defense budget.

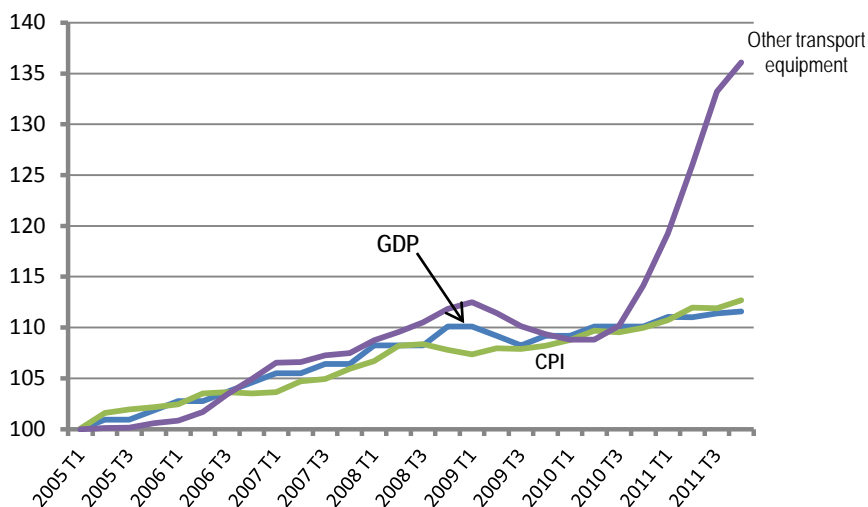
Figure 4 compares the GDP inflator (used by the budget authorities), the consumer price index and the “Other transport equipment” price index. This latter index is derived from category EC4 of French activities which includes naval construction (GC30A), rail construction (GC30B), aerospace construction (GC30C) and military combat vehicles (GC30D). Starting in 2005 (the reference year), the price index for these three economic aggregates evolved in similar fashion, with a slight excess value for the military goods index. The latter index accelerated rapidly starting in the third quarter of 2010, opening up a gap of around 20 percentage points in relation to the GDP index. In other words, as of the 4th quarter 2011, for a value of 1 euro of budgeted defense equipment (i.e. corrected by the GDP deflator), in reality the French defense industry could only produce this charge at a cost of 1.20 euros. Even if this exploratory analysis would merit more detailed examination in France with data specific to the defense industry, the observed inflation in military prices (more intense in technological capital than in labor) since 2010 suggests not only that the evolution of this index in the short term should be carefully monitored but also that it should be taken into account in analyzing the next annual installments of the multiyear military spending bill. This phenomenon is not new, as *The Economist* has confirmed,¹⁸ and extends to all countries with an important defense industry.

¹⁶ David Kirkpatrick, “Is Defence Inflation Really as High as Claimed?”, *RUSI Defence Systems*, October 2008, pp. 66-71.

¹⁷ Benjamin Fordham, “The Political and Economic Sources of Inflation in the American Military Budget”, *Journal of Conflict Resolution*, Vol. 47, No. 5, 2003, pp. 574-93.

¹⁸ “Defence spending in a time of austerity. The chronic problem of exorbitantly expensive weapons is becoming acute”, *The Economist*, August 26, 2010.

Fig. 4 : Inflation of Defense Industry Prices
(base 100 in 2005)

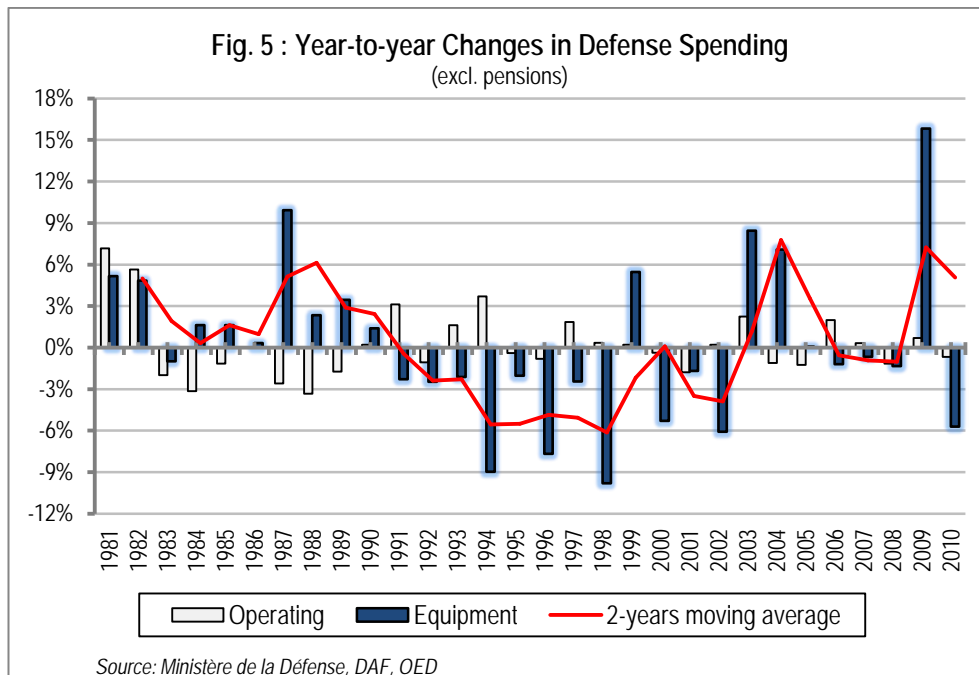


Source: INSEE, Comptes nationaux trimestriels et Indice de prix de production de l'industrie française pour le marché français, 2012.

Contrary to a widely accepted idea in budgetary processes, defense seems to diverge from the dominant model of incremental changes. The sometimes brutal variations in budget volumes from one year to the next suggest that defense is subject to erratic public decision-making processes. This is especially the case for equipment spending. As already shown by Baumgartner and Jones¹⁹ in other domains of public spending in the USA and by Foucault and Irondelle²⁰ in France, defense equipment budget policy is more like a highly sporadic process characterized by slight variations and abrupt jumps. Figure 5 illustrates these annual changes, particularly for equipment spending, which follows a cyclical variation, and shows how equipment spending seems to adjust to operational spending. While operational spending shows little volatility, equipment spending not only fluctuates widely but is also marked by substantial variations (+9.9% in 1987, -9.8% in 1998, +15% in 2009). Alternatively, certain major items of spending are pushed forward, and thus temporarily masked, to the point where they constitute budget “walls” that are impossible to climb. The result is budget cut whereby the government that initially launched the program avoids assuming responsibility for such a decision. Equipment budget reductions of this type are politically less painful than cuts in education or health spending.

¹⁹ Frank Baumgartner and Bryan Jones, *The Politics of Attention*, Chicago, Chicago University Press, 2005.

²⁰ Martial Foucault and Bastien Irondelle, “Dynamique parlementaire de la politique de défense: Une comparaison franco-britannique”, *Revue Internationale de Politique Comparée*, Vol. 16, No. 3, 2010, pp. 465-483.



One way of illustrating this annual equipment spending variation cycle is to plot the two-year moving average (red line) to understand the spending dynamic. Unsurprisingly, the three periods described above (1980-1991; 1991-2002; 2002-2010) act as significant markers in the equipment spending cycle. The period 1991-2002 is revealed as a catastrophic decade in terms of managing, launching (R&D spending) and buying equipment (with the exception of programs launched by Pierre Joxe after the First Gulf War).

Augustine’s Law in France?

The cyclical nature of equipment spending, coupled with military price inflation and revisions to acquisition plans, raises a question already considered in the USA under the name of Augustine’s law. This law, named after the former CEO of Lockheed Martin and Under Secretary of the Army in the 1970s, Norman Augustine, simply refers to the uncontrolled increase in weapon system acquisition costs while defense budgets follow a less rapid or stable upward trend (in constant euros). Augustine summed up this situation in the USA by declaring that “the unit cost of military aerospace products has grown at an astonishing and unsustainable rate throughout history. Consider the case of tactical aircraft. Comparing the evolution of unit cost over time, [...] we observe that the cost of a tactical aircraft has been multiplied on average by a factor of four every 10 years. Extrapolating the defense budget according to the trends of this century, we find that in 2054 the aircraft cost curve intersects the budget curve. So at the present

rate, the entire defense budget [in 2054] will purchase just one tactical aircraft.”²¹

This law merits closer examination and serious consideration in the case of France. This is because, if acquisition methods and cost trends do not change, it is probable that in a few years’ time, the minister of defense will face an impossible choice of having, say, one – but only one – over-equipped frigate with all the latest technology. The increase in unit costs leads to an uncontrolled rise in budgets, which is in contradiction with current budgetary constraints. Consequently, the bean-counter logic which consists of acquiring increasingly costly equipment as a function of increasingly rare resources will soon collide with the military logic that is incompatible with the fact of having just one frigate, even if it is over-equipped. At a more fundamental level, the choice between quality and quantity is becoming an urgent issue in the defense domain, which is a sector unlike any other. This is because, even if the number of defense personnel (-54,000 planned in the White Paper) is reduced, nothing indicates that these savings could be used to boost equipment spending, for at least two reasons: (1) the defense ministry payroll has not dropped since 2008, so no substantial savings can be expected in the short and medium term,²² and (2) military inflation is increasing at a faster rate than deflation in manpower, which cannot converge on zero.

How does Military Spending React to Macroeconomic Conditions?

In the introduction to this section, we raised the issue of the relationship between military spending and economic growth. Even though the theoretical relationship between these two aggregates suffers from a lack of empirical validation in all of the developed countries, it is important to understand the mechanisms which underpin this relationship with respect to the size of public investment induced by the defense sector.

Among the approximately 40 studies²³ devoted to the link between defense and GDP, there are two testable propositions. On the one hand, during a period of war or repeated conflicts, defense spending helps to ensure the security of production conditions on national territory, implying that military spending has a positive impact on economic growth.

²¹ See Augustine’s article on the US aerospace industry under the title “Unhappy Birthday: America’s Aerospace Industry at 100”, *Aerospace America*, February 1997.

²² On the question of manpower, it is important to recall that the French armed forces have been facing recruitment and reenlistment difficulties since 2002, which could intensify if the economic crisis were to disappear. See: Foucault, Irondele et Gelez, *Revue Défense Nationale*, April 2012.

²³ For a list of these works, the reader is referred to Rati Ram, *Defense expenditures and Economic Growth*, K. Hartley and T.Sandler, 1995, pp. 251–273, Kollias Christos, G. Manolas, and S.-M. Paleologou, “Defence expenditure and economic growth in the European Union. A causality analysis”, *Journal of Policy Modeling*, Vol. 26, 2004, pp. 553–569.; Heo Uk, “Modeling the defense-growth relationship around the globe”, *Journal of Conflict Resolution*, Vol. 42, 1998, pp. 637-657 ; A. R Chowdhury, “A causal analysis of defense spending and economic growth”, *Journal of Conflict Resolution*, Vol. 35, 1991, pp.80–97.

Conversely, during peacetime, an increase in military spending will lead to crowding-out with respect to allocating other types of public spending, suggesting zero impact on economic growth.²⁴ Clearly, it is not the military spending itself which would reduce economic growth; however, the resulting crowding-out would affect economic growth, which would benefit much more from investment in spending on education, infrastructure or health. In this indirect sense, defense spending would indirectly hurt economic growth. Between these two conjectures, it is difficult to reach a strong conclusion for France. That is because, with 69% (9.5 billion euros) of total state investment expenditure in 2010, the French defense ministry occupies a special position in the national economy,²⁵ particularly in financing military R&D, whose civilian implications have been clearly demonstrated.²⁶

Based on data compiled since 1980, Figure 6 reveals the ambiguity of the link between military spending and GDP growth. Figure 6a suggests that the impact of military spending (capital and operational) on GDP growth follows a curvilinear relationship such that any drastic reduction in military spending has a negative effect on economic growth but that a positive increase (greater than 0% on the horizontal axis) in military spending reduces GDP growth. Note that the decade 1990-2000 is located in the north-west quadrant of the graph, i.e. in situations of military spending decline and GDP growth. Within this zone, military spending stimulus correlates positively with GDP growth.

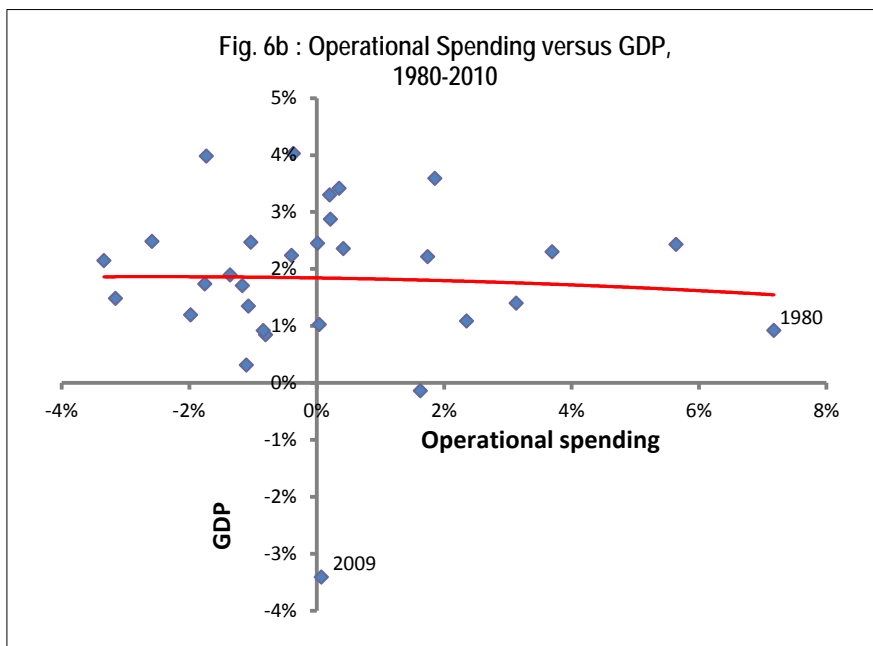
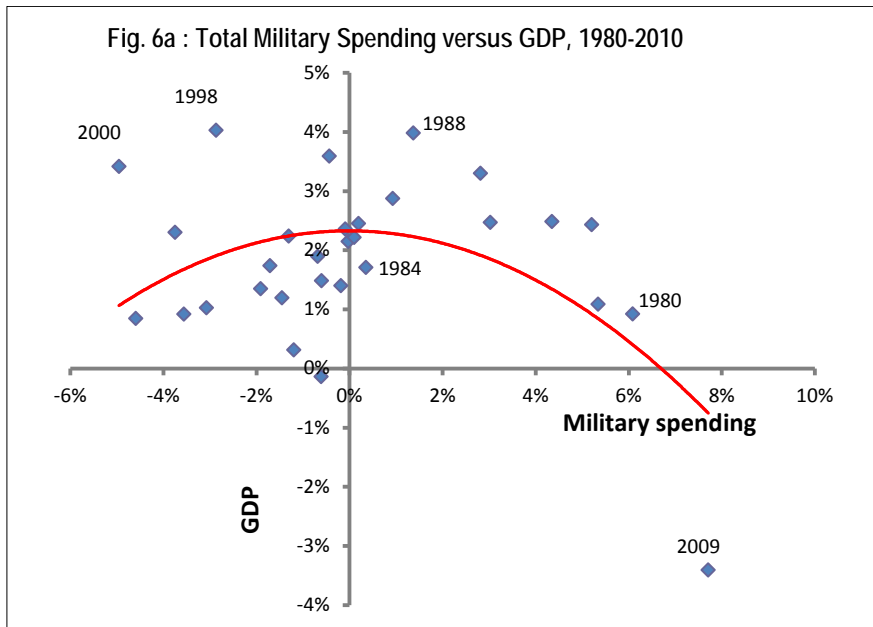
Clearly, correlation does not mean causality, which means that other factors are likely to affect French GDP, such as European growth, economic productivity gains, the level of innovation and technological progress. Is this result surprising? To answer this question with certainty, it would be necessary to have access to budgetary data from earlier periods and in particular to verify the exogenous nature of defense spending (including, for example, an appreciation of external threats). To cast further light on the question, we have shown in Figure 6b the same relationship including only operational spending. Unsurprisingly, the latter plays no role

²⁴ Economic theory often identifies two forms of state intervention in the economy: increased social spending and increased military spending (military Keynesianism). Peter Custers, "Military Keynesianism today: an innovative discourse" *Race & Class*, Vol. 51, No. 4, 2010, pp. 79–94. illustrates this theory based on the economic model used by Europe and the United States, declaring that "*European governments were seen as relying on social spending to promote the regulation of their business cycles, US governments in the second half of the twentieth century frequently relied on expanded military allocations to ensure an adequate level of aggregate demand for commodities*" (p.80).

²⁵ Alexandre Siné, *L'ordre budgétaire*, Paris, Economica, 2006, (p. 45) and Conseil Economique et Social, *Economie de la Défense*, Paris, 2007.

²⁶ Eduardo Morales-Ramo, "Defence R&D Expenditure: The Crowding-Out Hypothesis", *Defence and Peace Economics*, Vol. 13, No. 5, 2002, pp. 365-383.

in GDP growth, a result that is consistent with the findings of Kollias²⁷ in other European countries.



On the other hand, if operational expenditure has had no positive impact on French economic growth over the past 30 years, it can be deduced that investment spending is primarily responsible for the concave relationship (Figure 6a). In other words, the economic logic of defense capital spending would have a distortive effect on wealth creation, since every euro invested in defense is not invested in another public investment

²⁷ Christos Kollias, G. Manolas, and S.-M. Paleologou, "Defence expenditure and economic growth in the European Union. A causality analysis", *Journal of Policy Modeling*, Vol. 26, 2004, pp. 553-569.

domain (infrastructure, transport, R&D). So can one conclude that defense equipment spending automatically hurts wealth creation? In the first place, military spending is not intended to feed economic growth. Also, capital spending comprises almost 20% Research and Development spending (3.3 billion euros), including 1.7 billion euros for Research & Technology. As Bellais and Guichard²⁸ have shown, this expenditure has positive effects on civil research and contributes more globally to maintaining the defense industry and technology base, which represented 165,000 direct jobs in 2010 and at least as many indirect jobs with revenues of around 15 billion euros, around one-third of which is derived from exports (OED, 2011).

Finally, these results raise questions as to the pertinence of the budgetary framework within which these expenditures are allocated. Defense is the only major domain subject to multiyear planning of the credits voted each year. Implemented for the first time in 1960 for the period 1960-64, the French multiyear military spending bill was largely based on US post-war budgetary principles in order to ring-fence the (cold) war effort through regular investment independently of the economic context. While this approach allowed France to establish its nuclear deterrent in the 1960s,²⁹ military spending bills have difficulty in fulfilling their mission, which is to reinforce the control and anticipation of expenditure by providing a multiyear perspective, and to improve financial visibility in the medium term.

²⁸ Renaud Bellais and Renelle Guichard, "Defense, Innovation, Technology Transfers and Public Policy in France", *Defense and Peace Economics*, Vol. 17, No. 3, 2006, pp. 273-286.

²⁹ As former Air Force Chief of Staff Jean Rannou recalls: "To design, develop, produce and test the new weapon systems, it was necessary to open new research centers, create a new industry and test facilities. It was also necessary to devote a considerable financial effort: for more than 10 years, half of equipment credits were devoted to the nuclear deterrent, the time required to build the industrial facilities and the major infrastructure; the proportion subsequently dropped to around 33% for almost 25 years, before falling to around 20% following the force reductions of the 1990s" quoted in Jean Rannou, "La transformation du système de défense : la problématique des équipements", *Politique étrangère*, Vol. 4, 2007, winter, pp. 757-771.

Unworkable Military Program Laws

Every MPL without exception is unveiled to the tune of resolute declarations by the French government, (sometimes moderate) enthusiasm on the part of the general staff, and overly ambitious strategic ambitions. However, compliance with and execution of the 10 previous military spending plans do not fit well with the idea of ring-fenced defense budgets. Since 1994, no spending bill has been respected: through a combination of credit deferrals, program cancellations and public financing crises, the ministry of defense adjusts as best it can to these constraints.

Not only do MPL in theory serve as budgetary safeguards but they are accompanied in this role since 2001 and 2008 by the Organic Law regarding Finance Laws (LOLF) and the General Revision of Public Policy, respectively. Paradoxically, budget tradeoffs between the ministry of finance, the defense ministry and the President jeopardize the respect of each bill, generally for the last annual installment or when there is a change of ruling political party. As Jean d'Albion³⁰ has noted, "the military system is dragging a huge millstone in the form of its need for credits which grows larger every year and which renders all forward-looking declarations ridiculously unrealistic".³¹ A comparison of the initial and amended finance bills with the last three military spending bills shows that there is a certain fuzziness surrounding the execution of equipment credits.

Nonetheless, since 2007 substantial progress has been made in respecting the spending bills. The 1997-2002 MPL (Table 1), which marked a further stage in state disengagement on defense issues since 1991, reached an average execution rate (ratio of available credits to credits actually spent) of 87%, with a particularly catastrophic final installment. For Matthieu Conan,³² the budgetary planning process for defense requirements by means of multiyear spending bills worsens the final results rather than improving them. He supports his demonstration by noting that, in the end, the difference between the actual execution and the credits provided for by the 1997-2002 MPL amounted to approximately one complete annual installment of Title V and VI credits.

³⁰ Jean d'Albion, *Une France sans défense*, Paris, Calmann-Lévy, 1991.

³¹ Quoted by Philippe Hayez, "Le nerf de la guerre", *Pouvoirs*, Vol.2, No. 125, 2008, pp. 29-41.

³² Matthieu Conan, "Budget de la défense et réduction des dépenses publiques", *Revue Française de Finances Publiques*, Vol. 79, 2002, pp. 93-109.

Table 1 : 1997-2002 Military Program Law (in billions of 2002 euros)						
	1997	1998	1999	2000	2001	2002
MPL	14.2	14.2	14.2	14.2	14.2	14.2
INITIAL FINANCE BILL	14.3	12.9	13.6	13.0	12.9	12.3
SPENT	13.4	12.2	12.2	12.4	12.2	11.6
DIFFERENCE	-0.8	-2.0	-2.0	-1.9	-2.0	-2.6
EXECUTION RATE (%)	94.4	85.8	86.1	87.0	86.1	81.8

Source: *Projet de loi de finances pour 2003, No. 230, registered on September 25, 2002*

2002: a Change of Course

At the beginning of his second term in 2002 President Jacques Chirac made quite an impact when he asked his minister of defense, Michèle Alliot-Marie, to submit to parliament a new draft MPL with provision for an average 14.65 billion euros per year for military equipment. The bulk of the effort consisted in substantially improving the availability of equipment and the activity of the forces. It will be recalled that in 2001-2002, the armed forces had been suffering from a loss of morale in connection with an unprecedented strike by the Gendarmes and the degraded situation regarding the operating conditions and availability of defense equipment, as revealed by a parliamentary report.³³

This document highlighted the consequences of budgetary regulation in defense and showed the impact of the low execution rate of the 1997-2002 MPL on the maintenance and replacement of broken-down equipment. This harsh but clear-sighted assessment of operational or projection capabilities of the French armed forces would deserve a more substantial debate during the current presidential campaign in order to confirm or scale back French ambitions on the international stage, as well as within Europe.

In 2009, after reviewing the results of the 2003-2008 MPL, a new budgetary course was set in defense financing. With an overall budgetary envelope of 96.6 billion euros in equipment credits from 2003 to 2008, almost 99% of these credits were actually spent (Table 2). Behind this financial (and therefore political) performance, a certain number of crucial decisions in relation to the desired armed forces model and available capacities remained unresolved.

³³ M. Gilbert Meyer, *Rapport d'information n. 328 sur l'entretien des matériels des armées*, Assemblée Nationale, 2002, available at: <http://www.assemblee-nationale.fr/12/rap-info/i0328.asp>.

Table 2 : 2003-2008 Military Program Law (in billions of 2008 euros)						
	2003	2004	2005	2006	2007	2008
MPL	15.2	16.3	16.3	16.3	16.3	16.3
INITIAL FINANCE BILL	14.5	14.8	15.0	15.4	15.7	15.8
SPENT	14.7	15.0	16.7	16.7	15.8	16.5
DIFFERENCE	-0.5	-1.2	0.4	0.4	-0.4	0.2
EXECUTION RATE (%)	96.5	92.5	102.6	102.3	97.4	101.3

Source: Rapport No. 1378 sur l'exécution de la loi de programmation militaire pour les années 2003 à 2008, Assemblée Nationale.

For example, the 2015 model for the French armed forces appeared difficult to attain without injecting an additional 30 billion euros, spread over six years, to boost annual installments of the spending bill to 20 billion euros per year.³⁴ This was undoubtedly a clear signal that this armed forces model, derived from the 1994 White Paper, was no longer aligned with new geostrategic and economic realities.

Table 3 : 2009-2014 Military Program Law (in billions of 2008 euros)				
	2009	2010	2011	2012
MPL	17.55	17.23	16.04	16.41
INITIAL FINANCE BILL	17.96	15.60	15.42	15.77
DIFFERENCE (IFB)	0.41	-1.63	-0.62	-0.64
IFB EXECUTION RATE (%)	102.3	90.5	96.1	96.1

Source: Assemblée Nationale, Rapport Général du projet de loi de finances, 2012.

Consequently, it is hardly surprising that President Nicolas Sarkozy decided to alter this trajectory which consisted of “trimming and pruning arms program objectives to remain within the outlines of the spending bill in order to squeeze the quilt [of planning] into the suitcase [of the budget].”³⁵ However, in setting up a commission to draft a new White Paper, published in June 2008, the Fillon government and the head of the armed forces, Nicolas Sarkozy, once again fell into the familiar trap of French defense policy: defining objectives and allocating resources incompatible with an achievable model. Contrary to the declaration in mid-May 2009 by minister of defense Hervé Morin, who stated that it was an “excellent draft bill”, claiming that the 2009 defense budget was the “best [...] since 1958”,³⁶ an examination of the first three years of the 2009-2014 military spending bill

³⁴ These arguments have been put forward by three defense experts. Louis Gautier, Stéphane Verclutte and Bruno Tertrais, “Ce qui doit changer dans notre défense”, *Le Monde*, July 15, 2006, available at: <http://www.louisgautier.net/page6/page34/page34.html>.

³⁵ Bastien Irondelle, “Qui contrôle le nerf de la guerre. Financement et politique de défense”, Bezes P. and A. Siné (dir.), *Gouverner par les finances publiques*, Paris, Presses de Science-Po, 2011.

³⁶ Questions to the government, French Senate, May 15, 2009, available at: <http://www.senat.fr/questions/base/2009/qSEQ09050307G.html>.

suggests that the execution of equipment credits will again be heavily disrupted, admittedly due to the effects of the 2011 budget drawdown plan, but also after benefitting from the stimulus plan for FY2009 and FY2010.

The first reason for such a pattern stems from the adoption in September 2010 of the public finance spending bill (LPFP) which cut 2.6 billion euros from defense credits for 2010-2013. Absent the exceptional revenues from the sales of ministry-owned real estate and electromagnetic frequencies (1.02 billion euros in 2010), the figure could have been even higher. It must be underlined that this drastic reduction of 4 billion euros primarily affected equipment credits. Credits of 2.8 billion euros for major programs, excluding the nuclear deterrent, have been pushed back (to an unspecified future date) and equipment maintenance has been cut by 0.5 billion euros. This reduction will, among other things, make it possible to contribute to the national public deficit reduction effort, as well as financing the increase in operational expenditure (+ 1.2 billion euros).

To sum up, in the words of the general rapporteur for the budget in the Senate, there is “a risk of cannibalization of equipment spending by operational spending, to the tune of several billion euros”.³⁷ Through postponement, the government achieves its objective of limiting spending and therefore new funding at the price of a crowding-out effect well known to general staff. By postponing the design or delivery of equipment, the armed forces are obliged either to rely on older equipment with exponentially higher maintenance costs,³⁸ due to the extended lifecycle, or to set up intermediate programs (like the *Mirage* 2000-5 to compensate for late delivery of the *Rafale*) which use up credits for spending not planned under the military spending bill.³⁹ It is not rare that equipment designed for a specific purpose with respect to the geostrategic constraints of year t is less well adapted to year $t+5$, year $t+10$ or even year $t+20$ (*Leclerc* main battle tank), not to mention considerations of a more politico-industrial nature which can call into question the launch or procurement of equipment initiated by the previous administration. The alarm signal had already been given by the auditors of the *Cour des Comptes* (General Accounting Office) who considered that postponing capital spending commitments “eventually leads to structural disarmament where the armed forces would be supplied with equipment that is out of date before entering service and in quantities

³⁷ French Senate, Finance Commission, *Rapport Général n. 107 (Tome III, annex 8)*, Paris, November 17, 2011, available at: <http://www.senat.fr/rap/111-107-331/111-107-3311.pdf>.

³⁸ Several parliamentary reports have alerted the government to the degraded availability of military equipment and the decline in the budget allocated to equipment maintenance. *Rapport d'information No. 328 sur l'entretien des matériels des armées*, Assemblée Nationale, October 22, 2002. *Rapport d'information No. 1922 sur les conditions d'exécution des grands programmes de défense*, Assemblée Nationale, November 17, 2004.

³⁹ Bastien Irondele, *Qui contrôle le nerf de la guerre. Financement et politique de défense*, *op. cit.*

incompatible with operational requirements”.⁴⁰ In concrete terms, this translates into the following equipment procurement revisions:

Table 5: Revisions to Equipment Initially Planned between 2009 and 2014 (quantity)

EQUIPMENT	MSB 2009-2014	REVISION	DIFFERENCE
FELIN (FUTURE INFANTRY SOLDIER SYSTEM)	22,230	17,884	-4,346
CAESAR (FIRE SUPPORT)	69	67	-2
PPT ^a (LOGISTICAL TRANSPORT VEHICLES)	500	287	-213
NH90-TTH HELICOPTER	23	22	-1
RAFALE COMBAT AIRCRAFT	50	66	+16*
MIRAGE 2000D COMBAT AIRCRAFT	5	-	-5
A400 M (TACTICAL TRANSPORT AIRCRAFT)	18**	8	-10

^a/ Porteurs Polyvalents Terrestre (heavy trucks arms program)

* The delivery of 16 additional Rafales compared with the initial schedule implies an increase of more than one billion euros ** This figure corresponds to indications provided by the ministry of defense in preparing the 2009-2014 military spending bill.

Source: *Rapport général commission des finances No. 107, Sénat, p.39*

Major Uncertainties Beyond 2012

In the end, although the 2003-2008 spending bill marked a departure from previous experience, the second and third annual installments of the current spending bill are already jeopardizing the objectives of the 2008 White Paper. It will be recalled that the White Paper provided for a stabilization of total resources in nominal terms (including exceptional resources) for the “Defense” mission from 2009 to 2011, followed by a nominal increase of 1% per year through 2020. The public finance MPL (LPFP) for the period 2011-2014 means that this 2020 target will be called into question or abandoned since the rule requiring a freeze in real terms⁴¹ of payment credits for general budget missions would have considerable financial consequences for defense through 2020. Worse, the rule requiring

⁴⁰ Cour des Comptes, *La gestion budgétaire et la programmation au ministère de la Défense*, Paris, June 1997, p.182.

⁴¹ The variation of defense credits in real terms takes account of the evolution of the general level of prices. Conversely, the variation in nominal terms does not take account of inflation. This is why, unless a country is experiencing zero inflation, a spending freeze in real terms is always greater than a spending freeze in nominal terms.

a freeze in nominal terms of state spending according to the LPPF bill could increase the shortfall for defense if spending on pensions or interest repayments increased faster than expected. The Senate Finance Commission ran a very interesting simulation of these two scenarios. Compared with the assumption of the 2008 White Paper (whose upcoming revision could modify the commitments provided for in 2008), the application of the “nominal-terms freeze” rule implies a shortfall of 15 billion euros through 2020, while the “real-terms freeze” rule would lead to a shortfall of 29 billion euros between 2009 and 2020.⁴²

Although it might be argued that certain equipment programs launched between 2002 and 2007 are still generating strong budgetary pressure today, the gap between commitment authorizations and payment credits continues to grow. Today it amounts to a cumulative shortfall of 46 billion euros (including 30 billion euros for the period 2006-2012) for program 146 equipment credits alone. “In other words, the charge carried forward to the years ahead corresponds to more than three budget years. [...] This tendency could create another “bow wave”⁴³: when the ministry is no longer able to finance the planned programs, cuts will have to be made, which will be operationally catastrophic, industrially dangerous and financially costly, since contractors will in any case be entitled to compensation.”⁴⁴

As a result, there are already question marks concerning the period after 2012: certain economic parameters will force the next government to innovate in the budgetary domain, rather than relying on a military spending bill that is perpetually trimmed back. The perspective of a 1% increase per year in nominal terms will not be enough to compensate for inflation (estimated at 2% per year in future years) which is known to underestimate the evolution of technology-intensive “military” prices. Given this perspective, it is impossible to argue with the conclusion of the general rapporteur of the Senate Finance Commission: “defense spending growth of 1% per year will be just enough to maintain the current level of personnel and equipment”.⁴⁵

A choice will, therefore, have to be made: either the next government decides to reduce the evolution of equipment spending to the growth rate of GDP in order to maintain the current format of the armed

⁴² Senate, Finance Commission, *Rapport Général* No. 107, *op. cit.*

⁴³ Annual performance reports for 2006 and 2007, available at: http://www2.impots.gouv.fr/documentation/rapports/activites/dgi/2006/dgi_rapport_performance_2006.pdf and http://www2.impots.gouv.fr/documentation/rapports/activites/dgi/2007/dgi_rapport_performance_2007.pdf; initial finance bills for 2008, available at: <http://legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000017853368> and 2009, available

at: <http://legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000019995721> and draft annual performance for 2012. Cited in Avis n°3809 presented on behalf of the National Defense Commission, Paris: Assemblée Nationale, October 25, 2011, available at: <http://www.assemblee-nationale.fr/13/budget/plf2012/a3809-tvii.asp>.

⁴⁴ *Ibid.*

⁴⁵ French Senate, Finance Commission, *Rapport Général* No. 107, *op. cit.*

forces, or the format and capacities of the armed forces will have to be downscaled and announced as such. More specifically, it is important to consider the relevance of a review of the operational capacities of the French armed forces, and the adequacy of real (not ideal) budgetary resources versus the requirements of the French armed forces, whether acting on their own or, as seems more likely, in the context of reinforced industrial and military cooperation.

At the end of the day, the defense budget debate should not be limited to a restricted circle of military experts, public finance specialists or contractors anxious to pad out their order books. It concerns a much broader section of the electoral college, where each citizen should be asked for their views on the future of the defense policy implied by the corresponding budgets. Even if public opinion is often suspected by specialists of giving free reign to a “minimalist consensus”⁴⁶ where public views on foreign policy and defense are unpredictable, volatile, unstructured and therefore irrelevant, national and international security issues do generate interest, provided that the terms of the debate are explained. It seems urgent to reintroduce defense issues into the public debate, following the example of François Trucy, special rapporteur on defense, who declared on November 16, 2011: “Do you believe that France can afford abandoning defense, armed forces, the means to ensure its external security? Without a defense budget, there is no presence in the world and no influence on the concert of nations, no voice in the UN security council!”⁴⁷

An Assessment of the New Budgetary Framework

If military spending bills seem increasingly difficult to respect, whether for political or economic reasons, the defense ministry could refer to the new budget framework defined by the Organic Law regarding Finance Laws (LOLF) in 2001. In 2005, for the first time in the Fifthth Republic, parliament held a budget debate before voting on the 2006 finance bill. The debate centered on the effectiveness of public spending and the performance of public organizations and administrations. It was the chance for French parliamentarians to discover a new presentation of public finances resulting from the organic law of August 1, 2001 relative to finance bills, commonly referred to as the LOLF.

Designed to increase the effectiveness of the public authorities' action, the LOLF consists of gradually replacing a culture of resources (“a good budget is a rising budget”) with a culture of results (“a good budget is one that allows predetermined objectives to be achieved at reduced

⁴⁶ Also known as the Almond-Lippmann consensus, inspired by the work of journalist Walter Lippmann and political scientist Gabriel Almond in the 1920s and 1950s, see Ole R Holsti., “Public Opinion and Foreign Policy: Challenges to the Almond-Lippmann Consensus Mershon Series: Research Programs and Debates”, *International Studies Quarterly*, Vol. 36, No. 4, 1992, pp. 439-466.

⁴⁷ Finance Commission, *Rapport général No. 107, op. cit.*, p.77

cost”⁴⁸). In a recent report by the Conseil d’Analyse Economique,⁴⁹ Edward Arkwright recalled the regulatory importance of the LOLF, explaining that “the new procedure should allow a better linkage between the annual budget and the multiyear scope (particularly for three years), in other words, a new balance between the need for reactivity in the short term and the stability and visibility required for longer-term decisions”.⁵⁰ Ambitious on paper, the LOLF at the time represented a real revolution in budgetary affairs⁵¹ and for the defense ministry, the obligation to define performance criteria for every euro spent and voted in the finance bill. The reference to effectiveness, as a source of optimality of resources in defense public choices, should in theory have reduced the chronic failings in weapons program management, the gaps between equipment credits opened and the credits planned under the military spending bill.

For the defense ministry, this change in budget procedures meant that parliament no longer votes on resources but on programs based on quantitative and qualitative results which administrations commit to achieving and which they will be required to account for at the time of the following budget (presentation of Annual Performance Reports). By way of compensation, and in line with the reforms undertaken elsewhere in Europe, they enjoy greater budgetary flexibility, particularly through the fungibility of most credits (except personnel) which makes it easier to achieve the planned results. This is why the defense ministry now presents its budgetary commitments in the form of four programs:

- program n°144: Defense policy environment and forward planning
- program n°146: Armed forces equipment
- program n°178: Preparation and operations
- program n°212: Defense policy support

Despite the ambition to possess criteria to assess the performance of spending committed for each of these programs, this public finance instrument does not seek to evaluate the productivity – in the economic sense of the term – of defense spending. Effectiveness is measured using other parameters. Indicators of activity or resources have often been used to the detriment of effectiveness measurements. The Cour des Comptes audit office extends and feeds into this observation when it harshly declares

⁴⁸ *Rapport d’information No. 220, “LOLF : culte des indicateurs ou culture de la performance”*, French Senate, 2005, available at: <http://www.senat.fr/rap/r04-220/r04-220.html>.

⁴⁹ *Rapport No. 65 du Conseil d’Analyse Economique, “Économie politique de la LOLF”*, Paris, April 2007, available at: <http://www.cae.gouv.fr/IMG/pdf/065.pdf>.

⁵⁰ *Ibidem*.

⁵¹ It will be recalled that France has already had prior experiments in the domain of public administration. However, following the short-lived enthusiasm of the 1970s for rationalization of budget choices and the timed evaluation act of 1998, reform of the State has come to a halt.

that “objectives and indicators [...] seem to be too numerous and inadequately organized to constitute instruments that can be truly used by parliament when voting on defense credits. Some indicators are defective”.⁵²

In 2010, the distribution of defense credits (in euros with pensions) across these four programs was as follows:

Program 144: Defense Policy Environment and Forward Planning		1,704,128,680
01	Strategic analysis	3,688,635
02	Force system forward planning	33,502,179
03	Gathering and exploitation of intelligence concerning the security of France	520,721,869
04	Control of technological and industrial capacities	1,024,843,564
05	Export support	22,686,409
06	Defense diplomacy	98,686,024
Program 146: Armed Forces Equipment		6,722,517,245
01	Deterrent	1,637,288,959
02	Command and control of information	692,770,327
03	Projection – mobility – support	114,280,890
04	Engagement and combat	1,799,353,703
05	Protection and safeguard	309,742,938
06	Preparation and conduct of armaments operations	2,152,925,958
07	Foreign shares and civil programs	16,154,470
Program 178: Preparation and Operations		33,233,618,858
01	Planning of resources and conduct of operations	1,551,754,517
02	Preparation of land forces	12,852,169,964
03	Preparation of naval forces	6,687,278,593
04	Preparation of air forces	9,353,052,365
05	Joint logistics and support	2,122,195,550
06	Extra costs related to out-of-area operations	657,092,265
07	Extra costs related to homeland operations	10,075,604
Program 212: Defense Policy Support		1,465,886,398
01	Direction and stewardship	65,129,617
02	Control function	23,854,922
03	Central management	448,545,229
04	Real estate policy	818,859,272
05	Information, administration and management systems	108,316,116
06	Support for human resources policy	-226,392,222
08	Promotion and enhancement of cultural heritage	51,070,595
09	Communication	40,368,594
10	Restructuring	136,134,275

Source: *Rapport annuel de performance 2010, Ministère du Budget, 2011.*

⁵² Cour des Comptes, *Rapport sur l'exécution budgétaire des lois de finances*, 2005, p.87.

Note that the “Preparation and operations” program accounts for almost 80% of available credits (i.e. 33.23 billion euros). The fact that credits are grouped according to objective now means that each mission leader can make the necessary choices to achieve the objective set at the start of the budget period. For example, the former secretary general for administration at the ministry of defense, Evelyne Ratte, said that the LOLF “would profoundly modify personnel management: the armed forces will have to adapt to management not only in terms of manpower but also in terms of payroll”. And yet the drawdown in defense ministry personnel (29,961 personnel decrease between 2008 and 2011) was not accompanied by a reduction in the payroll (11.2 billion euros in 2008, compared with 11.7 billion in 2011) due to, among other things, the success of voluntary redundancy packages for officers and NCOs (112 million euros) and costly support measures (80 million euros in severance benefits for civilians), not to mention the pension scheme reform.

What lessons can we learn from the first performance-oriented budget years? First, LOLF implementation has not put an end to the recurrent practice of credits being cancelled and opened, whether program authorizations or payment credits. Overall in 2010, 2.8 billion euros were opened in payment credits and almost twice that amount in program authorizations, while 0.6 billion euros were cancelled, half of which affected program 146, armed forces equipment (Table 6).

Table 6: Total Credits Opened and Cancelled, 2010 (millions of euros)

	Opened				Cancelled			
	Program authorizations		Payment credits		Program authorizations		Payment credits	
	Title 2	Other titles	Title 2	Other titles	Title 2	Other titles	Title 2	Other titles
Program 144	4.2	196.8	4.2	109.9	3.0	68.1	3.0	50.7
Program 146	0.2	2,756.8	0.1	1,024.5	7.4	470.3	7.4	331.8
Program 178	544.4	1,005.1	544.4	711.5	2.1	218.2	2.1	188.7
Program 212	82.1	226.3	82.1	365.5	18.2	12.6	18.2	40.6
Total	630.9	4,185.1	630.9	2,211.5	30.7	769.1	30.7	611.9

Source: *Rapport annuel de performance 2010, Ministère du Budget, 2011.*

In terms of performance, a large number of objectives were met or almost met. However, other objectives show effectiveness rates that are low or disturbing. For example, in Program 146, the completion rate concerning equipment for primary armaments operations for the “Protection and Safeguard” force system is only 28%,⁵³ against a target of 85%, with an

⁵³ The annual performance report explains this shortfall with respect to the objective in terms of delays in launching operations, particularly CERES, OMEGA,

average completion lead time for primary armaments operations of 2.87 months in 2010 (3.17 months in 2009) against an objective of 2.25 months. In Program 178, Preparation and Operations, the level of operational training does not completely satisfy the primary requirements expected. Although troops engaged in operations are well prepared, the inadequate level of equipment availability has a negative impact on certain operational competences, particularly in the Navy and the Air Force (tactical transport). Furthermore, the technical availability of equipment on the theaters of operation is satisfactory, but the efforts required to achieve this have a negative impact on training in France, particularly concerning older or smaller aeronautical fleets (*Atlantique 2*, C-160, maneuver helicopters, refueling aircraft).⁵⁴ The solutions that are being implemented imply a high degree of differentiation in force preparation, leading to interruptions in operational tempo between France and the theaters of operation. The process of force preparation is becoming an increasingly acute issue. It seems to clash with the need to contain credits for activity and operations which are likely to lead to specific measures to reduce activity in all three branches of the armed forces in the coming years, unless there is an increase in the budget. In addition, human resources objectives (recruitment, reenlistment, departures) were satisfied but with no reduction in payroll.

Finally, the projection capacity of the French armed forces in the event of a major conflict has often been characterized as overly ambitious and unachievable with the resources available. The objective of the 2008 White Paper⁵⁵ consisted of having a capacity for action as follows: an operational ground force of 88,000 men, including 5,000 men on short-term alert; a force of 10,000 men that can be mobilized on national territory in support of civil authorities, along with resources to ensure sovereignty and presence; projection of 30,000 men deployable within six months at a distance of 7,000-8,000 km for a period of one year and possessing autonomy in the primary joint operational functions (close combat, support, logistics); an operational naval force with the ability to project a carrier battle group, two amphibious or maritime traffic protection naval groups (maritime action group) with associated logistic support, and early warning and surveillance capability; and an operational air force capable of projecting 70 modern combat aircraft, operational support aircraft, transport aircraft in support of the operational ground force, associated logistic support, command and control resources for the air component, as well as two projectable major air bases.

Keeping in mind these objectives, the 2010 performance report concluded that the armed forces globally had the capacity to intervene in a

SIA and strategic ROEM (CLOVIS); schedule slippages, particularly on DNG3D, SCCOA3 and the PHAROS sites for the Segment Sol d'Observation program; and delivery delays affecting the Pléiades ground segment due to satellite launch postponement because of the non-availability of the Soyuz launcher in Kourou.

⁵⁴ *Rapport projets annuels de performance (PAP)*, ministry of the budget, 2008, 2010, 2011.

⁵⁵ Commission du Livre blanc, *Livre blanc sur la Défense et la Sécurité Nationale*, Paris, Odile Jacob, 2008. p.317, Vol 1, 2nd part.

situation threatening the security of France but were not fully able, in capacity terms, to deal with a hypothetical major engagement. Studies performed in 2010 confirmed the deficit in strategic projection capacities (A400M delivery delays), tactical mobility systems (ageing and inadequately sized maneuver helicopter fleet), and above all in technical and logistic support capacities. Prolonged operations in a high-intensity conflict would require a build-up plan and the provision of additional resources in the budget. The Army had difficulties in fully satisfying its “30,000-men” operational contract. The intervention capacities of the Navy were globally below the objectives set by the operational contract, due to the technical non-availability of the aircraft carrier scheduled from June to October 2010, as well as difficulties related to the availability of nuclear attack submarines which form part of the carrier group (escort).⁵⁶

To conclude, the method of analysis of military capacities based on measurements by a performance indicator cannot become an end in itself and take the place of strategic forward planning or long-term military doctrine. Nonetheless, in the longer term the degree of achievement of a key capacity should provide a stable reference frame enabling each of the armed forces to correct capacity shortfalls and avoid working towards an unattainable objective.

The major difficulty lies in developing transverse indicators across the armed forces for operational objectives. In itself, this situation simply reflects the difficulties related to the necessary fungibility of defense budget credits with a view towards functional separation of defense ministry missions. This is why the “Preparation and operations” program still generates strong reservations⁵⁷ from Parliament and the Cour des Comptes audit office because some people believe that it is moving too far from the LOLF framework, while others think that it is too large and therefore ill-suited for functional interpretation, which could ultimately lead to a break-up into multiple missions. This is mentioned to underline the complexity with which performance must be appreciated. While management control today seems to be an activity well understood by Defense staff, performance is beyond the scope of this simple tool and henceforth obliges military personnel to question the balance between jobs and resources. The White Paper offers little guidance in this respect.

⁵⁶ Details concerning achievement levels with respect to commitments in the military spending bill and those included in the initial finance bill are recorded in budget ministry documents known as annual performance projects, which can be consulted on the following site:

<http://www.performance-publique.budget.gouv.fr/la-performance-de-l'action-publique/le-controle-de-la-performance/approfondir/les-projets-annuels-de-performances-pap.html>.

⁵⁷ Interviews performed by Martial Foucault and Pierre Kopp for the report “*La Performance dans les Armées : Définitions et Perceptions*”, Centre d’Etudes en Sciences Sociales de la Défense, Ministry of Defense, 2005, available at: http://www.c2sd.sga.defense.gouv.fr/IMG/pdf/KOPP_performance_armees_2005.pdf.

Budget Choices: “Welfare vs. Warfare”?

The 2011 opinion poll on public spending priorities mentioned in the introduction shows that French people attach greater importance to state involvement in education, employment and health. One might then wonder about the emergence of a French, and European, model opposing military spending (warfare) and social spending (welfare). From a more partisan point of view, the decision to invest massively in social spending would likely increase the probability of victory for a presidential candidate or a political party from the left at legislative elections.

This hypothesis has been validated empirically on numerous occasions over the past 30 years. Globally, there is a partisan bias in favor of social spending for left-wing governments or majority left-wing coalition governments. Conversely, military spending is said to follow the opposite logic, i.e. governments from the right, all other things being equal, are said to favor military spending over increased social spending.⁵⁸ This hypothesis has been very well documented in the USA and has been validated both for military spending as a whole⁵⁹ and for arms program allocations and the occupant of the White House.⁶⁰ In a broader study including 10 developed countries, Klingermann, Hofferbert, and Budge⁶¹ showed that governments from the right tend to invest more in national defense (a result recently confirmed by Koch and Cranmer)⁶², whereas parties on the left have a pronounced “pro-peace”⁶³ inclination and a preference for welfare spending, a dilemma referred to as “guns vs. butter”.

⁵⁸ Thomas Cusack, “Sinking Budgets and Ballooning Prices: Recent Developments Connected to Military Spending”. Discussion Paper of the Research Area Markets and Politics, SP II 2006 - 04, Wissenschaftszentrum Berlin für Sozialforschung, Berlin. 2006.

⁵⁹ Alex Mintz, and Randolph T. Stevenson, “Defense Expenditures, Economic Growth and the ‘Peace Dividend’: A Longitudinal Analysis of 103 Countries”, *The Journal of Conflict Resolution*, Vol. 39, No. 2, 1995, pp. 283-305.

⁶⁰ Karl Jr. Derouen and Uk Heo, “Presidents and Defense Contracting, 1953-1992”, *Conflict Management and Peace Science*, Vol. 18, No. 2, 2001, pp. 251-68.

⁶¹ Hans-Dieter Klingermann, Richard Hofferbert, and Ian Budge, *Parties, Policies and Democracy*, Boulder, CO, Westview Press, 1994.

⁶² Michael T. Koch, and Skyler Kranmer, “Testing the ‘Dick Cheney’ Hypothesis: Do Governments of the Left Attract More Terrorism than Governments of the Right?”, *Conflict Management and Peace Science*, Vol. 25, No. 4, 2007, pp. 311-26.

⁶³ Kenneth Schultz, *Democracy and Coercive Diplomacy*, Cambridge, Cambridge University Press, 2001.

Nevertheless, this demonstration of the role of ideology is not as trivial as these studies suggest. In the event of international conflicts or threats to national security, there is a strong consensus in favor of increasing military expenditure for the sake of the national interest. Conversely, during periods of reduced threat, a left-wing government can exploit a non-reduction in military spending by transforming or “disguising” the decision to maintain military spending levels so as to give the appearance of social policies linked to employment. In reality, this amounts to a policy inspired by military Keynesianism.⁶⁴ Thus, Whitten and Williams⁶⁵ have shown for the first time that progressive governments in 19 developed democracies favor military spending during periods of reduced threat to derive a short-term economic advantage. This empirical study is important because it overturns the simplistic postulate that a left-wing government necessarily gives priority to social spending over military spending. It is necessary to note a certain number of institutional qualifications: some countries have coalition governments, others are rarely involved in high-intensity international conflicts and, finally, the defense industrial base is of marginal importance in most countries.

Starting from this simplified theoretical framework, let us look at the trajectory that France has followed since 1995. Has France given priority to social spending over military spending? Are the trends underpinned by ideological bias? Do periods of governmental “cohabitation” represent a political interlude that “locks down” such partisan bias?

In terms of methodology, the statistical data employed are those provided by INSEE (National accounts) according to the Classification of the Functions of Government (COFOG) which offers the advantage of being based on functional public spending and the disadvantage of being available only from 1995 onwards.

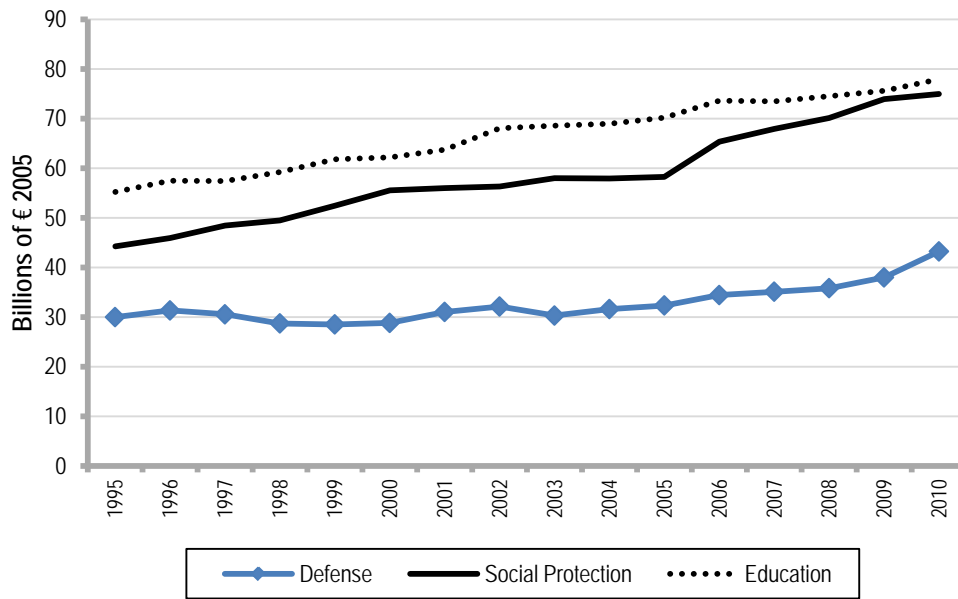
The evolution of public spending in France, expressed in constant euros, has followed a general unbroken upward trend since 1945.⁶⁶ Compared with other public policies, defense spending as a share of total spending by public administrations (state, local public administrations, social security administrations) has increased at an annual rate of 2.31%, compared with 3.35% for social protection and 3.0% for total public spending (Figure 7). In other words, the French model seems to favor welfare spending over warfare spending. However, this presentation is static and provides no elements to analyze the spending dynamic.

⁶⁴ Benjamin Fordham, “The Politics of Threat Perception and the Use of Force: A Political Economy Model of US Uses of Force, 1949-1994” *International Studies Quarterly*, Vol.42, No. 3, 1998, pp. 567-90.

⁶⁵ Guy D. Whitten and Laron K. Williams, “Buttery Guns and Welfare Hawks: The Politics of Defense Spending in Advanced Industrial Democracies”, *American Journal of Political Science*, Vol. 55, No. 1, 2011, pp. 117-134.

⁶⁶ Frank R. Baumgartner, Martial Foucault et Abel François, “A Punctuated Equilibrium in French Budgeting Processes”, *Journal of European Public Policy*, Vol. 13, No. 7, 2006, pp. 1082-1099.

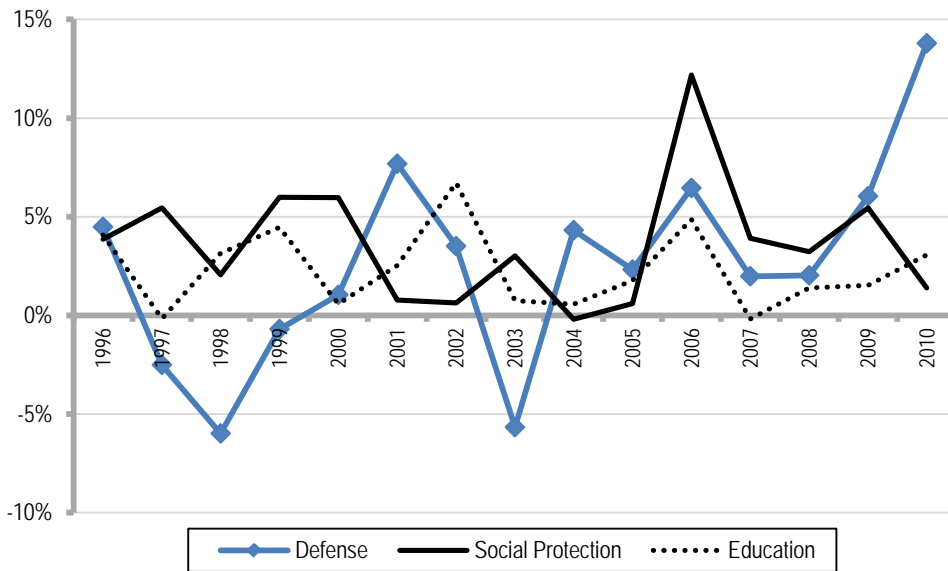
Fig. 7: Warfare vs. Welfare Trend in France (1995-2010)



Source: INSEE, National Accounts

To understand the spending dynamic, it is preferable to analyze annual variations in defense spending and social spending. Figure 8 shows an interesting result: only military spending has seen periods of negative annual growth (1996-2000 and 2002-2003), whereas social spending maintained a positive rate of growth. The 5.6% decline in defense spending in 2003 initially seems to contradict the trends discussed above (Figure 4). The reason for this discrepancy lies in the nature of COFOG-type spending. Unlike the presentation of defense spending in finance bills, the COFOG approach is based on allocated social contributions and does not include spending on the Gendarmerie in the Defense category but in a category called “Interior order and security”. By allowing like-for-like comparisons, the COFOG classification confirms that successive French governments gave greater priority to expenditure on education and social protection than to defense spending between 1995 and 2010.

Fig. 8: Year-to-year Changes in Public Spending (COFOG), France



Source: INSEE, National Accounts

However, the theory that presents partisan influence as the explanation for this preference for social spending lacks credibility in France. If we measure the correlation between the annual change in military spending between 1980 and 2010 and the presence of a right-wing government (coefficient $r = -0.15$), there is no significant correlation. The table below summarizes these observations by highlighting two political dimensions: the political leaning of the government and periods of left/right cohabitation. Two governments stand out clearly as the most proactive in defense, the Mauroy government (1981-84) and the Raffarin government (2002-05). While the socialist prime minister was in power at a time of geopolitical instability and maintained an important defense effort, the defense effort of prime minister Raffarin came at a time of much lower international risk, despite the post-9/11, 2001 period, where France, unlike its major NATO allies, did not take part in operations in Afghanistan and Iraq but was positioned in Ivory Coast (Licorne) and Kosovo (KFOR). The Balladur and Juppé governments, on the other hand, made a major contribution to reducing defense investments, with an average 2.5% decline in military spending and a poorly executed military spending bill.

Table 6: Partisan Effect in the Allocation of Defense Spending

GOVERNMENT	AVERAGE ANNUAL VARIATION IN MILITARY SPENDING
MAUROY (1981-84)	+3.27%
FABIUS (1984-86)	-0.02%
CHIRAC (1986-88)	+2.10%
ROCARD (1988-91)	+0.70%
CRESSON (1991-92)	-1.90%
BÉRÉGOVOY (1992-93)	-0.60%
BALLADUR (1993-95)	-2.53%
JUPPÉ (1995-97)	-2.51%
JOSPIN (1997-2002)	-1.96%
RAFFARIN (2002-05)	+2.56%
DE VILLEPIN (2005-07)	+0.00%
FILLON (2007-2010)	+1.00%
LEFT-WING GOVERNMENT	+0.17%
RIGHT-WING GOVERNMENT	+0.12%
LEFT/RIGHT COHABITATION	-1.15%
PRESIDENT F. MITTERRAND	-0.13%
PRESIDENT J. CHIRAC	-1.96%

Note: The periods considered for each government correspond to those where the budget was voted under their responsibility. For example, the years 1986/87 and 1987/88 have been adopted for the Chirac government (1986-88).

Source: defense ministry data, OED, constant 2000 euros.

Overall, it is difficult to affirm that there is a partisan bias in the process for allocating defense spending in France. Over the period 1980-2010 (cf. appendix), contrary to a widely held opinion, left-wing governments contributed to the defense budget effort (+0.17%) in proportions similar to right-wing governments (+0.12%). This means that national defense interests are more of a non-partisan issue, probably due to the superior interest of the state and an extension of the “grandeur of France” idea. It would also be rash to establish a left-right division in France as a factor explaining defense budget choices. On the other hand, in line with the work of Alesina and Rosenthal⁶⁷ on the fossilizing political effects of cohabitation periods in France or divided government in the USA, French cohabitation initially seems to generate institutional friction with respect to the defense budget. Even if the Prime Minister sets defense policy, the President remains Commander in Chief of the armed forces. Consequently, it is not surprising to observe that a possible divergence of views and, therefore, of budget priorities with respect to this “reserved domain” resulted in a decline in defense budgets during periods of cohabitation (-1.15%), even though this decline was sharper for the period 1997-2002 (-1.96%).

⁶⁷ Alberto Alesina, Howard Rosenthal, *Partisan Politics, Divided Government, and the Economy*, New York, Cambridge University Press, 1995.

International Comparisons: Stable or Downgrade?

The budget trends described in the preceding sections of this document raise questions about France's position today in the concert of European powers and among its new NATO allies. This closing section looks at France's ranking based on a number of defense budget indicators allowing comparisons with other countries.

European Defense and Budgetary Divergence

Since the implementation of the European Security and Defense Policy (ESDP) in 1999, France and the UK have lost their Europeanist enthusiasm and have basically maintained national attitudes and stood firm on strategic positions with variable geometry. Although the Iraq conflict and, to a lesser extent, the NATO operation in Afghanistan showed how European defense lacks a broadly accepted strategic vision, the Iraq war nonetheless relegated the UK's leadership role in the ESDP to a secondary priority. At the same time, however, neither France nor Germany managed to take on a role that was undoubtedly beyond their financial capabilities, and which Germany had never wanted in any case. This is why it is important to treat with caution propositions that aim to accelerate the process of European integration in defense. Two examples illustrate this point.

First, the debate launched by Jacques Chirac at the start of his five-year term concerning the construction of a second aircraft carrier has still not translated into a firm acquisition proposal. The project to build a second aircraft carrier in cooperation with the UK is on ice. On this subject, Nicolas Sarkozy stated on March 7, 2007 that it "does not appear realistic, at least in the medium term, to count on europeanising employment of this type of equipment"⁶⁸ and then signed the so-called Lancaster House treaty in November 2010 which places naval cooperation at the core of a reinforced Franco-British partnership. However, the perspective of a British carrier (Prince of Wales) compatible with the Charles de Gaulle capable of accommodating catapult-launched and not vertical-takeoff aircraft (in order to receive the F-35 fighter) may never see the light of day.⁶⁹ In this case, French aircraft would not be able to operate from the British carrier and vice-versa, as had been initially planned. Once again, Franco-British cooperation since the Saint-Malo agreement seems to have followed a

⁶⁸ Speech by Nicolas Sarkozy, *Notre défense, une priorité*, Paris, March 7, 2007, available at: <http://www.european-security.com/index.php?id=5638>.

⁶⁹ "Porte-avions : menace sur la coopération franco-britannique", *Les Echos*, March 4, 2012.

turbulent path where political intentions do not always survive budget realities.⁷⁰

Table 7: Military Spending in the European Union (% of GDP)

	1990	1995	2000	2005	2010
GERMANY	-	1.3	1.1	1.0	1.1
FRANCE	-	2.5	2.0	1.8	2.1
ITALY	1.6	1.3	1.2	1.3	1.4
SWEDEN	-	2.5	2.3	1.7	1.6
UK	4.0	3.1	2.5	2.5	2.7
EU 15	-	1.8	1.6	1.6	1.6
EU 27	-	-	-	1.5	1.6

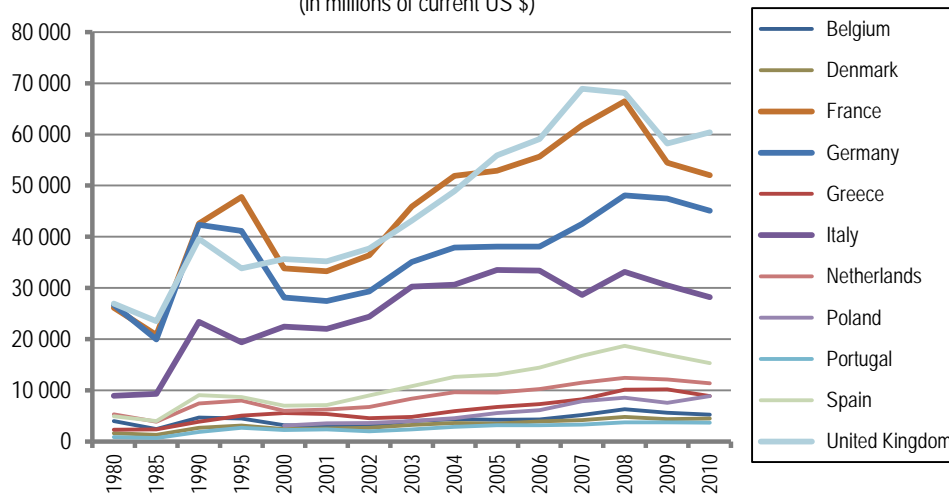
Source: COFOG data, Eurostat (as of April 3, 2012).

http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database

Secondly, to fully understand the zones of tension between member states regarding European defense policy, it is useful to recall the differences that can be observed today in defense budget efforts (Table 7). With the exception of the UK (2.7 %), France (2.1 %), and Greece (2.2 %), every country in the European Union (EU 15) allocated less than 2% of GDP in 2010 for an average EU value of 1.6 %. These figures differ from those presented in the first section of this study because of the definition adopted (cf. Appendix 1) for Eurostat data which closely resemble NATO data but differ from budget ministry data. According to NATO data (Figure 9), the defense budget effort highlights a group of four European countries comprising two “leaders” (the UK and France) and two “followers” (Germany and Italy). It should be noted that all these countries have seen a decline in their defense budgets starting in 2008. Once again, the non-causal link between military spending and economic growth nonetheless suggests that macroeconomic conditions play a non-negligible role in financing defense spending. However, although the 2008 economic crisis had a uniform effect on public spending choices, certain public investments (such as defense) that have been postponed today may well have to be paid for dearly in a few years’ time, considering the well-known budget bow waves observed in France above.

⁷⁰ Guillaume Goessens, “Où en sont les accords de coopération franco-britanniques de novembre 2010 ?”, *Note d'Analyse du GRIP*, March 30, 2012, Brussels.

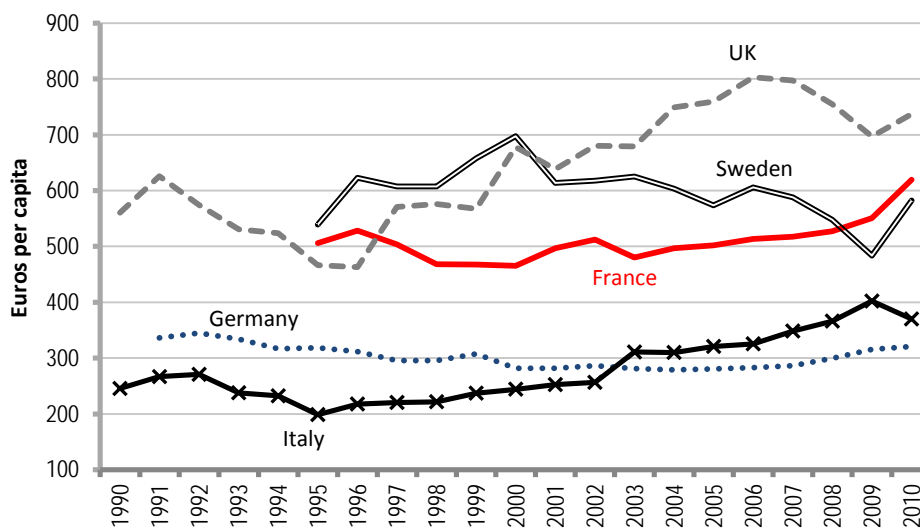
Fig. 9: Defense Spending Trends, NATO
(in millions of current US \$)



Source: NATO, military spending (1980-2010)

Defense spending in proportion to population reveals three distinct groups among the major European military powers (Figure 10). The UK is the country that devoted by far the largest share to defense (730 € per capita) in 2010, followed by France and Sweden (around 600 € per capita). Italy (370 € per capita) and Germany (320 € per capita) are substantially behind the three leading countries. Furthermore, these two latter countries are the only ones that have not launched a defense reinvestment process since 2009 – although the effects of the Bundeswehr reform could modify this observation.

Fig. 10: Per Capita Military Spending



Source: COFOG data, Eurostat (2012).

Nonetheless, in each of these countries, defense remains the largest public investment item of the central state and has followed an upward trend since the attacks of September 11, 2001. Thus, using the table below, we can see how member countries have started a recovery process that has focused on boosting capabilities and developing new programs. With the exception of Italy and, to a lesser extent, Germany, all the leading defense nations in Europe have substantially increased their investment choices compared with the period 2000-2005, to the detriment of operational expenditures, which have grown at a slower pace in 2006-2010 than in 2000-2005.

**Table 8: Defense Budget Trends
(by type of expenditure)**

	OPERATIONAL EXP.			CAPITAL EXP.	
	(2000-05)	(2006-10)		(2000-05)	(2006-10)
GERMANY	+10.2%	+5.9%		-5.9%	+35.9%
FRANCE	+5.5%	+9.6%		+14.7%	+9.2%
ITALY	+21.9%	+6.1%		-13.5%	+44.0%
UK	+11.7%	+11.3%		+6.5%	+19.5%
USA	+58.1%	+10.2%		+36.7%	+51.3%

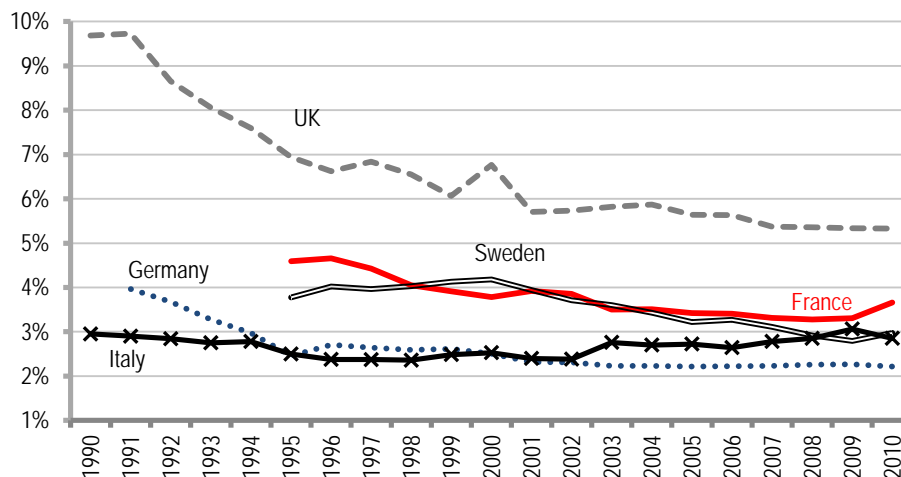
Source: NATO data – *Mémorandum statistique de décembre 2010 (reviewed by the French MoD Financial Affairs Directorate), OED, Annuaire statistique de la Défense 2010/11.*

Furthermore, Table 8 showing NATO data to allow like-for-like comparisons based on purchasing power parity, confirms that the leading European powers react in different ways when adjusting their defense model. It is difficult, looking at these budget data, to establish any European budgetary convergence when, over the same period (2006-2010), a country like Germany increases its equipment spending by 36%, while the French effort amounts to 9.2%. Even if the variations (flows) in Table 8 give no indication as to defense spending stocks, they confirm that the European budget dynamic reflects national decisions, to the extent that they are more aligned with national imperatives than any move towards a European defense policy. Current macroeconomic conditions, marked by budget austerity, certainly reduce flexibility but do not in themselves explain the repeated reluctance of European countries to define the terms of a cooperative strategy that would make their defense budget effort more efficient and, above all, less dependent on economic cycles. At the same time, that would involve surmounting the difficulties of organizing effective industrial cooperation (i.e. unencumbered by the fair return principle), safeguarding national industrial policies and identifying security threats that are common to all 27 countries.

The financial adjustment programs defined as part of the public finance spending bill in France or the Strategic Defense Review in the UK⁷¹ (credits cut by 8% over four years) make uncomfortable reading for the armed forces of these two countries. The quest for budget savings to reduce the public deficit is forcing France and the UK today to redefine the ambitions set forth after the Franco-British summit at Lancaster House, even if the objective in budget terms is to share, by pooling or joint acquisition, certain expenditures, thereby reducing them or deriving more benefit from them. It would be wrong, however, to consider that this episode of budget austerity marks on its own the start of a new era of disinvestment in defense. As Figure 11 shows, the share of military expenditure as a proportion of public spending has been on a general downward trend since the beginning of the 1990s, stabilizing around 5.5% for the UK and 3.5% for France between 2000 and 2010. Considering the degraded state of the public accounts in both countries since 2008, the upcoming announcement of payment credit freezes for the years ahead cannot come as a surprise.

The decision to turn towards the UK as a partner is logical, as France and the UK present shared characteristics in terms of their strategic and budgetary positions. Since France returned to NATO's integrated military command structure in 2007, the rift between the more "Atlantic" UK and the more "European" France has practically closed.

Fig. 11: Military Share of Public Spending



Source: COFOG data, Eurostat (2012)

These two countries account for almost 50% of EU military spending, 50% of arms procurement and 60% of military research.⁷² The uncertainties surrounding shared aircraft carriers, however, do not

⁷¹ Announced in 2010, the *Strategic Defence Review* calls for an 8% reduction in credits in real terms by 2015, manpower cuts of 5,000 for the Air Force, 7,000 for the Army and 25,000 civilians at the ministry of defense. John F. Burn, "Britain Announces Severe Military Cutbacks", *New York Times*, October 19, 2010. Available at: <http://www.nytimes.com/2010/10/20/world/europe/20britain.html>.

⁷² See European Defence Agency statistical data: <http://www.eda.europa.eu/Publications>.

necessarily jeopardize the development of common equipment (missiles and communication satellites). On the other hand, the nature of arms procurement methods, the role of the DGA and its UK equivalent, the DPA (Defense Procurement Agency) and differences in entrepreneurial culture⁷³ bear witness to the structural difficulties in generating substantial economies of scale in the near future.

Global Perspectives: the Specter of European Decline?

On a global scale, the USA retains its status as a military power with a defense budget of \$711 billion, 13 times greater than that of France. Though the comparison between the USA and France is not pertinent in absolute terms, it does reveal diametrically opposing trends over the past 10 years. Beyond France, this observation applies to the whole of Europe.

Table 9. Top 10 Countries Ranked by Military Spending

RANK (2011)	COUNTRY	MILITARY SPENDING*	VARIATION 2010–2011 (%)	VARIATION 2002–2011 (%)
1	USA	711	-1.2	+59
2	China	[143]	+6.7	+170
3	Russia	[71.9]	+9.3	+79
4	UK	62.7	-0.4	+18
5	France	62.5	-1.4	-0.6
6	Japan	59.3	0	-2.5
7	India	48.9	-4.9	+66
8	Saudi Arabia**	48.5	+2.2	+90
9	Germany	[46.7]	-3.5	-3.7
10	Brazil	35.4	-8.2	+19
	World	1738	+0.3	+42

Source : SIPRI military expenditures database

* Military spending expressed in billions of US \$ at current prices and exchange rates.

** Data for Saudi Arabia include spending on internal security.

[] = estimations.

In its most recent report published in April 2012, SIPRI⁷⁴ observed for the first time since 1998 a stagnation (increase of 0.3%) of world military spending, which now totals \$1,740 billion. There is no change in the ranking of the 10 countries with the largest defense budgets, despite the rise of emerging nations (China 2nd, India 7th, Brazil 11th). Only China (+6.7%), Russia (+9.5%) and Saudi Arabia (+2.2%) increased military spending in 2011 in the context of a slowdown in world economic growth and cuts in certain public expenditures. With \$71.9 billion in military spending, Russia is now ranked above France and the UK and has confirmed not only its military rearmament effort but also the export

⁷³ For a review of the practices and improvement considered in the UK acquisition process, the reader is referred to the Gray Report, "Review of acquisition for the Secretary of State for Defence, An independent report by Bernard Gray", London, October 2009, available at: <http://www.mod.uk/NR/rdonlyres/78821960-14A0-429E-A90A-FA2A8C292C84/0/ReviewAcquisitionGrayreport.pdf>.

⁷⁴ Cf. SIPRI (Stockholm International Peace Research Institute), available at: <http://www.sipri.org/media/pressreleases/17-april-2012-world-military-spending-levels-out-after-13-years-of-increases-says-sipri>.

success of its industries (fourth largest exporter in the world). Also, this ranking (Table 9) highlights the low profile of the three European countries over the past 10 years: France, the UK and Germany are the only three countries to have seen an increase of less than 20% for the 2002-2011 period, compared with a global average of +42%, admittedly boosted by the USA (+59%), China (+170%) and Russia (79%). In the long term, according to Vladimir Putin's declarations during the election campaign, Russia seems to be the most proactive country, in that it plans a \$749 billion increase in credits for equipment, R&D and industry support through 2020 (planned replacement of 70% of its military equipment dating from the pre-Yeltsin years).

In the end, a new period seems to be emerging, characterized by clear changes in the balance of military power, with the rise of Asia, the Middle East and Africa, on the one hand, and on the other, the decline, however slight, of the USA (US military spending still represents 41% of the world total) and particularly Europe. This global portrait is a fragile one, closely linked to the intensity of contemporary conflict zones and the nature of national security threats.

Conclusion

Of all the sovereign missions of the French State, defense is certainly the sector which has experienced the most profound transformations over the past 15 years. Often invisible, these mutations have translated into budget commitments of variable size in a new geopolitical context, marked by frequent involvement in often distant regional crises, and in an unstable economic environment.

The budgetary analysis of defense choices helps to illuminate the spending dynamic with respect to strategic, institutional, economic and partisan constraints. Defense has long seemed to enjoy political consensus in the name of higher French interests, symbolized by the independent nuclear deterrent policy. The 2012 election campaign does not seem to have opened up any new divisions. The main candidates, without exception, confirmed their desire for an ambitious defense policy and a reinforcement of the link between the armed forces and the nation. However, it must be acknowledged that defense issues are not one of the priorities to which the French attach a great deal of attention.

Since 1980, successive governments have confirmed defense choices whose budgetary consequences can only be observed in the medium and long term, but whose military impact is all too real. Among the different elements noted in this study, the following points deserve particular attention.

The defense budget adopted in 2010 (32.19 billion 2010 euros) corresponds more or less in real terms to the budget adopted in 1981. Consequently, French military spending has been on a downward trend over the past 30 years if one takes into account its share of GDP (1.7% in 2011) and of state public spending (9.5% in 2011).

Despite being ranked fifth worldwide in terms of the size of the defense budget, France is confronted with an impossible dilemma: either let its military forces decline in the absence of adequate credits, or increase defense expenditure, at a time when governments are under strong pressure to preserve social spending. The welfare vs. warfare logic has already contributed to the stagnation of military credits, particularly equipment credits since 1990, whatever the political leanings of the government – in other words, there is no partisan bias in the process of allocating defense expenditures in France.

Military Program Law – a budgetary planning tool intended to ring-fence defense spending – are unable, or only barely able, to ensure a defense model that is credible and consistent with the 1994 or 2008 White Papers. In this connection, the phenomenon of “military inflation”, corresponding to the cost of producing armaments, seems to be affecting France as much as the USA and is contributing strongly to the deterioration of financing conditions for military equipment procurement, both in terms of commitments and payments. The effects of military inflation are all the more keenly felt as the levels of debt in Western countries have necessitated a spending freeze. With respect to the assumption of the 2008 White Paper (whose upcoming revision could modify the commitments planned in 2008), application of the “freeze in nominal terms” rule would imply a 15 billion euro shortfall by 2020, while the “freeze in real terms” principle would result in the loss of 29 billion euros between 2009 and 2020. The spread between program authorizations and payment credits continues to worsen and today amounts to a cumulated deficit of 46 billion euros (including 30 billion euros for the period 2006-2012) for equipment credits under program 146 alone.

Consequently, the current government will have to make a crucial choice: either it decides to align equipment spending trends with GDP growth rate in order to maintain the current armed forces format, or the format and capacities of the armed forces will have to be downsized and announced as such. More specifically, it will undoubtedly be opportune to review the operational capacities of the armed forces, the adequacy of *real* budget resources versus the needs of the French forces – whether acting alone or, more probably, as part of a military coalition or industrial cooperation – and to undertake a genuine support services reform, in order to identify some exemplary projects and lead them to completion during the term of office.

In reality, the debate that needs to begin over the coming months is not just a debate between defense experts, public fund administrators or contractors anxious to pad out their order books, but rather a broader discussion on the political meaning of the defense budget and, beyond that, on France’s place in international relations.

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