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# The Rise of «European Champions» in the Single Market
# A First Assessment

## 1. Introduction

«The European Union will be able to exploit the chances offered by the single market – and this is my firm conviction – only if we decide to create European Champions in areas [...] such as electrical energy, postal services, etc.». [Merkel 2006] These are the views expressed by the German Chancellor, Mrs. Merkel, on 9 May 2006 during the "European Forum" of the WDR, which could be backed up by other positions she has taken – also during last spring. In fact, Mrs. Merkel had already referred to "European Champions" on at least two other formal occasions, such as at the press conference that concluded the European Council in Brussels (23-24 March 2006) and a speech she gave on 2 May, when the first stone was laid for the "N3 – Arnstadt Engine Servicing Centre", in which she specifically mentioned the joint venture between Lufthansa and Rolls-Royce as an example of «European Cooperation».

These statements – the benefits that the Single market and companies capable of growing on a continental basis can bring to our prosperity, and, in a more general sense, the need to develop a «European way of thinking» about competitiveness – taken together have contributed to bringing to the forefront the issue that now goes by the name of "European Champions". Naturally, emphasis needs to be placed on the adjective, since the noun might bring to mind – as if by magic – the "National Champions" of the past: and no one today can reasonably think that this instrument, typical of the industrial policies of European countries during post-World War II years, is still apt for competing in the new international context. So it is not simply a question of vocabulary.

But the question that comes to mind is: in what do the two model-types of "Champions" – the "National" of the 1960s and 70s (and beyond) and the "European" of the 2000s – differ? Like all developing issues, this one is also the subject of lively discussion and at the present time offers no unambiguous definitions that one can subscribe. By simply googling the expression *European Industrial Champions* and patiently looking at the very first pages that come up on the search engine,, one realizes that discussion is still wide open. On the other hand, it is true that with the passing of time important empirical evidence is being gathered that could allow us to make a first attempt at understanding the defining characteristics of "European Champions".

This paper tries to provide a first definition of "European Champions", explaining how they differ from the former "National Champions". It starts – Section 2 – by briefly describing the fundamental transformation of the economic landscape that has been underway for more than a decade now, and explains how this has changed the 'playing field' for European companies. It focuses on the competition brought

about by globalization and by the rise of the new industrialized countries, on the ICT revolution, and on the challenges and opportunities brought about by the Eastern Enlargement of the EU.

The following section – Section 3 – explores the economic and institutional foundations of industrial policy at the EU level. It explains how, traditionally, the European approach to industrial policy was made up of a «triangle» of complementary policy sets: «Competition Policy, Commercial Policy, and Technology Policy». In so doing, it tries to cast light on what are currently its two key objectives: *economic restructuring* and *innovation*.

Section 4 outlines the evolution occurred during the last five years in the thinking of the EU Commission with regard to industrial policy. It notes how the focus on the "horizontal approach" to industrial policy adopted during much of the 1990s was by the start of the new century gradually coupled with an emphasis on "vertical applications" (i.e., by sectors). It further outlines the increasingly prominent role taken by technology policy in promoting European industries in high-tech and high-growth sectors, such as pharmaceuticals and biotech, aeronautics, nanotechnology and the like.

The next two sections provide a basic taxonomy of "European Champions", and explain the different focus in policy that must be accorded to each type. First of all, we have "Champions", which we label "Type I", that have come about – at least at the initial stages – as a result of supranational cooperation and concerted public policy support for the development of technology in «strategic sectors» involving firms from more than one EU country. Thus, section 5 looks at the undisputable success-story of the European industrial policy – Airbus – and asks whether there are other sectors where this approach could be replicated and how this could be reasonably done.

Section 6 notes the emergence of another type of large European companies: the "Type II Champions". These are companies that have been forming under the pressures of the *level playing field* and as a result of consecutive merger-and-acquisition (*M&A*) waves. As such, the industrial policy for this kind of "European Champions" has been – and still is – the completion of the Single market.

Finally, section 7 ends this paper by summarizing the tentative definition of the term "European Champions".

## 2. The Transformation of the Economic Landscape at a Glance

The economic context facing European firms today is significantly different from that prevailing during much of the second half of the twentieth century. Three developments have brought about this remarkable change: globalization and the rise of the 'new' economies; the ICT revolution; and, at home, the consolidation of the Single Market and the enlargement to the East.

Without going into a discussion on the many definitions of the term 'globalization', we shall employ it here to refer to two major trends that have had an enormous impact on the world economic system in the last decade or so. On the one hand, there is the much increased fluidity not only in the movement of global capital, but also in the speed and ease of (re)location of technologies and production processes. On the other hand – and very much influenced by the above – there is the rise of new world economic players (see table 2.1) – above all China, but more in general all the so-called «BRIC countries» [Goldman Sachs 2003] – not only as sources of cheap labour, but also as important markets for Western products and services and growing competitors in the technological race.

**Table 2.1 – G7 vs BRICs in perspective (*billions of $ USA*)**

| | **"BRIC" Countries** | | | | **G6*** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Brazil | China | India | Russia | France | Germany | Italy | Japan | UK | USA | BRIC** | G6*** |
| **2000** | 762 | 1,078 | 469 | 391 | 1,311 | 1,875 | 1,078 | 4,176 | 1,437 | 9,825 | 2,700 | 19,702 |
| **2050** | 6,074 | 44,453 | 27,083 | 5,870 | 3,148 | 3,603 | 2,061 | 6,673 | 3,782 | 35,165 | 84,201 | 54,433 |

* Goldman Sachs analysts removed Canada from the present G7 configuration due to its negligible weight in terms of total GDP

** It is the sum of Brazil, China, India and Russia as reported in the left hand column of the table;

*** It is the sum of G6 in its present configuration, as reported in the right hand column of the table (from France to USA). According to these projections of the GDP, only USA and JAP will continue to be part, from now until 2050, of this (hypothetical) club of the most industrialised countries in the world.

***Source*: Adapted from Goldman Sachs, *Dreaming with BRICs: The Path to 2050*, "Global Economic Paper No 99", 1st October 2003.**

A great facilitator of these globalizing trends has been another major development that merits a paragraph of its own: the revolution in information and communication technologies (ICT). This is considered to have been one of the driving forces of America's "New economy" during the second half of the 1990s (for an excellent review see: Council of Economic Advisers [2001]), and a driving force behind the gap in productivity growth levels between Europe and the US (see for example: European Commission [2002]). Furthermore it is felt that the use of ICT in other industrial or service sectors has been crucial to determine their respective productivity performances [European Commission 2003*a*; O'Mahony and van Ark 2003].

Finally, developments in Europe during the last 15 or so years have also had a tremendous impact on the economic playing field not only of European companies, but also of foreign firms. First, the Single Market has progressively been consolidated through the gradual privatization of state-owned companies, on the one hand, and the increasing – even if patchy – liberalization of markets in various sectors, on the other. The impact on competition within the Single Market has been impressive, with the recent *M&A* wave in the financial and energy sectors being prominent examples (see section 6).

Secondly, the economic importance of the "Eastern Enlargement" cannot be underestimated: it has offered Western companies access to new markets and cheaper resources, while at the same time raising competitive pressures significantly, especially in the border regions; the Eastern countries have not only gained in employment but also in access to new technological know-how. In short, enlargement has brought about new opportunities for a pan-European reorganisation of companies, on condition that goods, services, capital and labour are allowed to freely circulate within the Single Market [European Commission 2001; Sapir 2005].

To sum up, the combined impact of these three developments on European industry are enormous and multifaceted. The EU companies now face increased competition from many fronts – not only, as it was in the 1980s, from the US and Japan (the old "Triad"), but also from the «BRICs» (and from Asian countries in general).

National governments have become increasingly unable to protect and support the once "favoured" firms or sectors. Innovation [Sapir et al 2003; Aghion 2006] has become the main determinant and driver of the ability to add value and to grow.

### 3. THE ECONOMIC AND INSTITUTIONAL FOUNDATIONS OF THE EU NEW INDUSTRIAL POLICY

By the beginning of the 1990s, the substantial changes occurring in the international economy – outlined in the previous section – brought about the need to reformulate the EU approach to industrial policy, making a shift from the policies of the 1960s, 1970s and 1980s in terms of both the aims and the instruments used.

In addition, two other fundamental factors were also pushing for a new industrial policy approach. The first were the new insights gained by economic literature in fields such as endogenous growth theory, determinants of market structure, clusters evolution and production networks, etc (for comprehensive reviews see De Bandt 1999; Navarro 2003).

The second factor regards the institutional changes occurring at policy level, involving complementary competencies between the Member States, on the one hand, and the EU, on the other. Especially worthy of attention are the inclusion into the Treaties – since the middle of the 1980s – of several provisions concerning «Research and technological development» (ESA, 1986) and the «competitiveness of the Community's industry» (the famous ex article 130 of the 1992 Maastricht Treaty, now article 157). All these competencies trace back to a microeconomic perspective.

A more detailed examination of these three factors, only briefly outlined here, would make us stray away from the focus of this paper. Here it suffices simply to note that their combined effect was to redefine the aims of industrial policy away from blanket attempts to rescue declining firms (or sectors) through state subsidies and from a policy of "picking winners" by means of planning methods and financial incentives. The result was the birth of a new industrial policy approach, which had two crucial aims: first, to address *economic restructuring*; second, to encourage *innovation* and the creation of a *knowledge-driven economy*. A presentation of the new industrial policy is explained in the recent handbook edited by Patrizio Bianchi and Sandrine Labory [2006], where the main differences between the new and the old approach are highlighted:

«Until the 1980s the term [industrial policy] meant the direct intervention of the state in the economy (…) Nowadays, the term 'industrial policy' indicates instead a variety of policies which are implemented by various institutional subjects in order to stimulate firm creation, to favour their agglomeration and promote innovation and competitive development in the context of an open economy»

Many scholars have been working for some two decades on the new issues, resulting in a large number of studies that deal with these matters. However, it is worth going back to the 1987 seminal book of the late Alexis Jacquemin, *The New Industrial Organization – Market Forces and Strategic Behavior,* since it offers one of the clearest analyses of the various economic restructuring routes available.

Professor Jacquemin (1987) wrote that the choice of a particular social and economic model would largely depend on whether more stress was placed on the spontaneous setting of market forces or on the strategic behaviour of public and private actors. Using his terminology, economic policy choices, and industrial policy in particular, was largely determined by which of the two contrasting paradigms was dominant: «the efficiency of selection through market mechanisms» or «the role of strategic behaviour (private or public) affecting these same mechanisms» So, he argued, «for those who have full confidence in market mechanisms, the only real requirement is the existence of a healthy macroeconomic environment».

However, he continued, «there is a whole tide of research questioning whether the market alone can efficiently accomplish selections leading to new industrial organisations».

The rest of Jacquemin's book was devoted to developing the latter argument, to arrive at a classic two-level argument in favour of an industrial policy:

(i) «The long list of so-called market failures» (in this context, R&D support in hi-tech sectors is openly mentioned)[1];

(ii) «A second level of argument in favour of a positive industrial policy goes beyond the consideration of failures inherent in certain markets. It concerns strategies that deliberately influence the transformation and the industrial reorganization of sectors and nations».

He used numerous examples from those years (his overview takes into account the US, Japan and, above all, Europe) to make a severe criticism of the methodological approach «based on the idea that competitive processes ensure the survival of the fittest». In contrast with this approach, he provided a detailed study of the «characteristics of an approach that allows for the existence of a strategic dimension in socio-economic behaviour».

Time has shown that several of his intuitions contained great foresight: for instance, his criticism of the domestic policies of Member States that pursued the creation of «National Champions». In his opinion, the time lost by European companies – as compared to those in America and Japan – as a result of such policies led to the need for «[…] *a concerted European industrial policy that will help overcome industry strategies along national lines*, reduce barriers between national champions, and develop a large home European market for industrial applications».[2] This insight, as will be argued in later sections, is even more valuable today because of the further extension of the Single Market (i.e., the 1995 and 2004-07 enlargements) and the current political struggle on economic patriotism (or nationalism).

Dani Rodrik [2004], in his influential paper *Industrial Policy for the Twenty-First Century*, provides a more recent attempt to analyse the role of «policies for economic restructuring». He argues that, in order to encourage diversification, the task of industrial policy «is as much about eliciting information from the private sector on significant externalities and their remedies as it is about implementing appropriate policies». Thus, the right model for industrial policy, according to Rodrik, is that «of strategic collaboration between the private sector and the government with the aim of uncovering where the most significant obstacles to restructuring lie and what type of interventions are most likely to remove them». What is fundamental is to get the policy *process* right, not to focus on the policy *outcomes*. As Rodrik puts it:

> «We need to worry about how we design a setting in which private and public actors come together to solve problems in the productive sphere, each side learning about the opportunities and constraints faced by the other, and not about whether the right tool for industrial policy is, say, directed credit or R&D subsidies or whether it is the steel industry that ought to be promoted or the software industry»;

[1] «Public authorities», Jacquemin's argument goes, «could then favour organizational forms that internalize the external effect of important technological choices and promote the emergence of poles of competition; through financial aids and specific public programs they would be required to support research and development in high-technology industries (microcomputers, aerospace, biotechnology) affected by important fixed and sunk costs […]».

[2] Emphasis added.

As will be argued further in sections 4 and 5, Rodrik's vision of «industrial policy as a discovery process – one where firms and the government learn about underlying costs and opportunities and engage in strategic coordination » is highly important for the success of the EU new industrial policy, which relies heavily on developing strong Research, Technology and Education policies. As Rodrik argues, when industrial policy is viewed as an iterative dialogic process «the traditional arguments against [it] lose much of their force […]. For example, the typical riposte about governments' inability to pick winners becomes irrelevant».

As already mentioned, fostering innovation and contributing to a knowledge-driven economy is the second fundamental purpose of the new industrial policy approach. Here, the «Sapir Report» – a six-point *Agenda for a Growing Europe* [Sapir *et al.* 2003] – must be mentioned first. One of the most important contributions of the «Sapir Report» is its insistence on encouraging «knowledge investments (education, research and development)» and the recognition of the gap between the EU and its main competitor, the US, with regard to resources invested in R&D, registered patents, the number of new successful companies, educational attainments of the population, etc.[3]

More specifically, the «Sapir Report» argued that Europe needs «to boost investment in knowledge» because nowadays «innovation is the driver of economic growth». It further argued that Europe should reach this objective by:

i) substantially increasing «government and EU spending for research and postgraduate education, but at the same time putting the main emphasis on excellence when allocating the new additional funds»;

ii) creating and «independent Agency for Science and Research (EASR), functioning on the model of the US National Science Foundation (but also the Nordic and British research councils) [...] Like the NSF, the EASR should focus on financing bottom-up academic research».

In addition to this influential Report, a large body of economic literature has discussed European R&D policies in the broader context of the Lisbon Strategy (Pisani-Ferry 2005; Pisani-Ferry and Sapir 2006; Aghion 2006). One of the main insights gained from this work is that the more an economy approaches the world technological frontier, the more crucial it becomes for it to invest in R&D and to coordinate its technology policies. The fact that the Lisbon Strategy's aim for Europe to invest 3% of its GDP in R&D by 2010 is unlikely to be met at the current rate is a worrying trend that needs rectifying.[4]

Indeed, as will be argued further in section 4, there is growing evidence that Europe's relative weakness in the technological race has been the key factor behind its main economic malaise of recent years, that is its low productivity growth and level [European Commission 2002; Sapir *et al.* 2003]. Thus, helping both science and business to catch up in this race is most desirable. Moreover, it is possible: following Dosi *et al*. [2005], «re-discovering the use of industrial policies as a device to foster a stronger, more innovative,

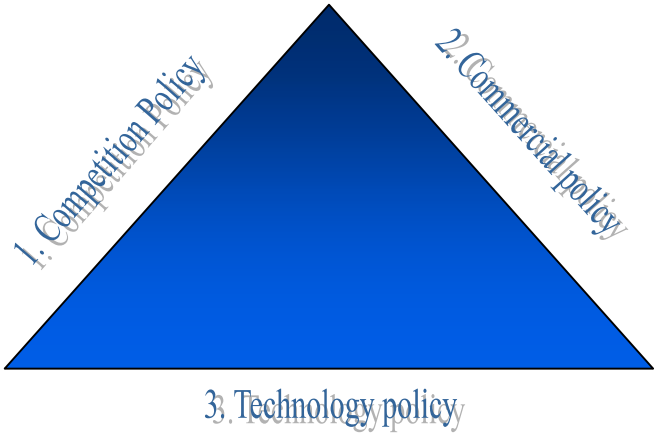
[3] For a summary of the main data published by the "Sapir Report", as well as for a review of Dosi *et al,* on R&D, innovation, and human capital see my paper "The Age of 'European Champions'" (Mosconi 2006). The section entitled "*Doing some R&D sums"* sheds light on the productivity gap between the EU and the US, and advocates for a stronger pan-European industrial policy.

[4] Currently, the EU invests on average about 2% of its GDP in R&D.

European industry» is a suitable proposal, especially «in order to strengthen the European presence in the most promising technological paradigms»[5].

In fact, such an approach, which focuses on technological excellence, would build on the established European tradition of industrial policy, which is a «Triangle» formed by (1) «Competition policy», (2) «Commercial policy», and (3) «Technology Policy» [Cohen and Lorenzi 2000] (see figure 3.1). In other words, it would not involve a paradigm shift, but rather a much-needed adjustment that takes into account the recent technological revolutions (ICT, biotechnologies and life sciences), the growing extension of international markets (the «Asian miracle» and the «enlarged Europe»), and the increasing presence of a double-layered government in the domain of industrial policy (Member States and the EU as a supranational power).

**Figure 3.1 - The European Industrial Policy "Triangle"**




***Source*: Cohen and Lorenzi, Conseil d'Analyse économique [2000].**

Thus, the answer lies in a new industrial policy in Europe that aims to reinforce the third side of the «Triangle» («technology policy»: R&D investment, innovation, human capital), without weakening the other two («competition» and «commercial» policies). «European Champions» would be a suitable means of reaching this balance, provided that two conditions are respected. First, «European Champions» should be encouraged only when there is genuine supranational public and private cooperation in research and innovation, and when they could help build wider networks of excellence in the European economy. Secondly, a policy of «European Champions» should respect the economic strategies that take the Single Market as their natural point of reference: from this point of view, the present M&A wave involving European firms must be considered a great opportunity which cannot be missed.

A final issue that should be considered in light of the European «Triangle» policy and the current M&A wave is the compatibility between competition policy and industrial policy. The widely accepted view now is that competition policy and industrial policy ought to grow together, mutually reinforcing each other. The basis for this view lies in the so-called «productive efficiency argument», which holds that mergers and clusters that lead to a better exploitation of economies of scale need not be regarded as opposed to

[5] For the developments of the so-called "Stanford-Yale-Sussex synthesis", see also: Dosi G., Malerba F., Ramello G.B. and Silva F. [2006].

competition objectives. This is reflected also in the Commission's approach, which when evaluating a merger takes into account the «efficiency advantages that could counterbalance the negative effects on competition» (see European Commission, *Horizontal Merger Guidelines*, May 2004).

However, there is certainly a need for both policies since efficiency gains do not necessarily follow from a merger. It has been argued that market power may lead to production cost increases (e.g. due to lobbying), and a strict competition policy can tackle such issues by providing the necessary benchmarks and enhancing monitoring (Valila 2006).

Thus, as long as the industrial policy supports structural change and technological improvements, it is entirely compatible with the goals of competition policy, since it leads to efficiency gains. As the late Paul Geroski (2005) explained, if pooling forces leads to an operator that is able to compete in world markets – and which is also in the middle of a «chain of production» stimulating other related side-sectors – an industrial policy that creates a (national) champion should not be regarded as an anticompetitive policy. As he concludes, however, «the important point […] is that […] competitive markets produce such champions, not national governments». This view is consistent with the new industrial policy approach of the EU, which will be further elaborated in the next section.

## 4. THE RETURN OF INDUSTRIAL POLICY IN EUROPE

### *4.1. The new industrial policy of the EU: 'A horizontal basis with sectoral applications'*

The origins of industrial policy at EU level closely mirrored the then-accepted practices at member-state level: during much of the 1970s and 1980s, the EU (then EC) fostered a policy of actively and directly aiding certain industrial sectors in their process of structural adjustment, with the primary goals being political and social rather than economic in nature. The clearest example was the assistance given to the steel industry through the ECSC Treaty, which provided the legal basis for the EC to set up a crisis cartel during the period 1980-1985 that established a system of production quotas, minimum prices and voluntary export arrangements with foreign exporters (Maincent and Navarro, 2006).

However, by the beginning of the 1990s, with the Single Market Programme well under way, it was felt that the sectoral approach to industrial policy had run its course. With competition becoming increasingly more intense and global, policy emphasis shifted towards creating framework conditions for all EU businesses to thrive and develop, without governments playing a direct role in picking and promoting specific firms or sectors.

The 1990 Commission Communication entitled 'Industrial Policy in an Open and Competitive Environment: Guidelines for a Community Approach', laid the foundations for the new industrial policy approach of the EU. The central idea was '…the need to concentrate on the creation of the right business environment… [through] a positive, open and subsidiarity-oriented approach' (COM (1990) 556 final, p. 5). EC industrial policy was to 'promote permanent adaptation to industrial change in an open and competitive market… based on the principle of free trade and on the competitive functioning of markets around long-term industrial and technological perspectives' (COM (1990) 556 final, p. 21).

The 1990 Communication criticized the sector-oriented industrial policy of the past, arguing that 'sectoral approaches to industry policy can work during a period, but they entail inevitably the risk of

delaying structural adjustments and thereby creating job losses in the future…' (COM (1990) 556 final, p. 5). Moreover, it felt that 'most "sectoral" policies in practice have been directed more towards social objectives…' (p. 6) and have 'led to grave misallocation of resources and exacerbated problems of budgetary imbalances' (COM (1990) 556 final, p. 19). The Commission felt that 'the role of public authorities is above all as a catalyst and pathbreaker for innovation… [and]… the main responsibility for industrial competitiveness must lie with firms themselves' (COM (1990) 556 final, p. 1).

The Commission recognised that issues affecting specific sectors may have to be tackled at the EC level from time to time, especially in 'areas that can play a key role for the development of the European industry… such as telecommunications, information technology, aeronautics, and maritime industry' (COM (1990) 556 final, p. 19). However, it would remain 'essential that policies aimed at specific sectors are fully consistent with the general principles of industrial policy…' (COM (1990) 556 final, p.19), namely, that a competitive environment is applied to all of them on the same basis.

The policy path set out by the 1990 Communication on industrial policy remained more or less unchanged for over a decade[6]. However, by 2002 there was a change in the line of thinking of the Commission, which began reemphasising 'sectoral applications' of the industrial policy, alongside the creation of 'framework conditions' for businesses. Although it did not involve a complete paradigm shift as in the 1990s, this change in policy focus was substantial enough to warrant our further attention.

To be sure, the policy direction set by the 2002 Communication, entitled 'Industrial Policy in an Enlarged Europe', did not advocate a return to the 1970s-1980s approach of subsidising or protecting specific industrial sectors or firms. Rather, it was a far more subtle policy that aimed to 'take into account the specific needs and characteristics of individual sectors' when applying the broader horizontal policy that 'aims at securing framework conditions favourable to industrial competitiveness' (COM (2002) 714 final, p. 3). The central tenet of the Commission's new policy approach was that an 'industrial policy […] inevitably brings together a horizontal basis and sectoral applications' (COM (2002) 714 final, p. 3).

The question that naturally arises at this point is: what warranted this realignment of the Commission's industrial policy focus? Could the upcoming massive project of the EU – the enlargement to the East – have been a cause for the Commission's concern? A quick reading of the 2002 Communication gives a resounding 'No' answer to that question. The Commission believed that, overall, enlargement was going to be highly beneficial for the EU's industry, both old and new, although some localised problems were likely to occur, for example restructuring of the steel sector in the 'New' Member States or increased competition in labour-intensive sectors in the border regions of 'Old' Member States. Moreover, it felt that although '[…] sizeable differences still exist between the structure of the manufacturing industry in the existing and in future Member States [… there was] growing evidence of catching up and gradual convergence with the industrial patterns prevailing in the EU' (COM (2002) 714 final, p. 13). Essentially, the Commission believed that, '[…] given the increased heterogeneity of wage structures and technological skills in the enlarged EU […]', this process would offer industry new opportunities for 'competitive organisation' (COM (2002) 714 final, p. 14).

[6] The 1993 White Paper on Growth, Employment and Competitiveness; the 1994 Communication, 'An Industrial Competitiveness Policy for the European Union', COM (94) 319 final; 1999 Communication, 'The Competitiveness of European Enterprises in the Face of Globalisation: How it can be Encouraged', COM (98) 718 final.

In fact, at the heart of the Commission's initiative for a new realigned industrial policy was the belief that, although 'European industry is modern and, in many respects, successful… its slow productivity growth is a serious cause for concern', particularly given the future challenges of enlargement (COM (2002) 714 final, p. 2). In particular, the next table (see table 4.1 from O'Mahony and van Ark [2003]) «shows levels in the EU-14 relative to the US for 26 sectors within manufacturing for the same time periods. Many sectors currently show the EU-14 either ahead or at US productivity levels. However, the US is ahead in sectors that have the highest value added per head, in particular in computers, semiconductors and the telecommunication equipment sectors. These sectors show a significant deterioration in the EU relative position compared to the early 1980s».

**Table 4.1 - Labour productivity in EU-14 manufacturing industries relative to the US (US=100)**

| | ***ISIC rev 3*** | ***1979-81*** | ***1994-96*** | ***1999-01*** |
|---|---|---|---|---|
| **Food, drink & tobacco** | 15-16 | 64,5 | 79,7 | 100,6 |
| **Textiles** | 17 | 103,4 | 99,1 | 100,8 |
| **Wearing apparel** | 18 | 66,1 | 67,7 | 61,0 |
| **Leather** | 19 | 95,2 | 88,0 | 89,9 |
| **Wood products** | 20 | 63,0 | 86,8 | 101,3 |
| **Pulp and paper products** | 21 | 76,8 | 104,9 | 120,0 |
| **Printing & publishing** | 22 | 67,0 | 120,3 | 134,5 |
| **Chemicals** | 24 | 54,7 | 70,5 | 78,4 |
| **Rubber & plastics** | 25 | 180,2 | 145,8 | 127,0 |
| **Non-metallic mineral products** | 26 | 121,2 | 142,6 | 148,8 |
| **Basic metals** | 27 | 65,1 | 109,1 | 107,8 |
| **Fabricated metal** | 28 | 108,9 | 108,5 | 111,4 |
| **Machinery** | 29 | 66,5 | 97,4 | 110,8 |
| **Computers** | 30 | 133,3 | 89,8 | 71,9 |
| **Insulated wire** | 313 | 87,3 | 93,7 | 77,6 |
| **Other electrical machinery** | 31-313 | 79,7 | 91,3 | 112,1 |
| **Semiconductors** | 321 | 47,8 | 31,8 | 41,6 |
| **Telecommunication equipment** | 322 | 71,9 | 63,9 | 65,7 |
| **Radio and television receivers** | 323 | 44,0 | 62,8 | 63,1 |
| **Scientific instruments** | 331 | 114,4 | 106,9 | 103,2 |
| **Other instruments** | 33-331 | 42,8 | 49,2 | 47,3 |
| **Motor vehicles** | 34 | 30,0 | 44,9 | 43,7 |
| **Ships and boats** | 351 | 59,2 | 95,8 | 88,7 |
| **Aircraft and spacecraft** | 353 | 46,7 | 71,1 | 71,8 |
| **Railroad and other transport** | 352+359 | 68,8 | 76,4 | 80,4 |
| **Furniture, miscellaneous manufacturing** | 36-37 | 110,5 | 100,8 | 94,4 |
| **Total manufacturing** | **15-37** | **84,6** | **88,0** | **80,3** |

***Source:*** **M. O'Mahony, B. van Ark (2003)**

The Commission feared that unless something was done to reverse these trends, the ambitious goals set by the Lisbon Strategy in 2000 – 'to make the EU the most competitive and dynamic knowledge-based economy in the world' by 2010 – would not be met.

The Communication identified insufficient innovative activity and weak diffusion of ICT as key determinants of Europe's under-performance in productivity growth (COM (2002) 714 final, p. 11). In fact, drawing from the above-mentioned study by O'Mahony and Van Ark, in 2003 the Commission further specified that:

> «Developments in EU industry competitiveness in recent years show considerable diversity. Productivity growth in manufacturing began to decelerate in the mid-1990s and it has since fallen behind the US. The sectors that have contributed to the widening of the productivity gap are mainly high-tech sectors. However, European ICT-producing manufacturing and services have performed extremely well, but productivity growth in ICT-using sectors has not accelerated as in the US. It is clear that ICT has been a key factor in sectoral productivity performance [...]».

In addition, the Commission noted that:

> « [the] EU tends to specialise in medium-high technology and mature capital-intensive industries… [and if it is to] keep the strengths in these sectors, which represent a higher share of total output and employment, the EU should seek to reinforce its position in enabling technologies such as ICT, electronics, biotechnology or nanotechnology, where it is often lagging behind its main competitors» (COM (2002) 714 final, p. 11).

Hence, although the bulk of the 2002 Communication focused on refining the horizontal approach and improving the framework conditions, it already provided a first glimpse of the sectors that were to gain increasing attention in the coming years due to their importance in promoting productivity and economic growth. Speaking in January 2003 at a conference organised by the Commission to present the 2002 Communication, the then-President of the Commission, Romano Prodi (2003), further elaborated on these important sectors. He emphasised:

- *'biotechnology'*;
- *'information and communications sector'* (where 'our leadership in mobile telecommunications is under threat in a new battle over standards and operating systems');
- *'renewable forms of energy'* ('including the use of hydrogen as the alternative medium to store and transfer energy');
- *'defence industry'* ('still fragmented because of a failure of will to build a truly integrated European defence system');
- *'aerospace industry'* ('still split between civil and security applications').

By 2005, the Commission's industrial policy that combined a horizontal approach with sectoral applications was further developed and refined by three other communications.[7] The 2005 Communication was especially clear that:

> «for industrial policy to be effective, account needs to be taken of the specific context of individual sectors. Policies need to be combined in a tailor-made manner on the basis of the concrete

[7] The 2003 Communication, '*Some Key Issues in Europe's Competitiveness – Towards an Integrated Approach'*, COM (2003) 704 final; the 2004 Communication, '*Fostering Structural Change: an Industrial Policy for an Enlarged Europe'*, COM (2004) 274 final; and the 2005 Communication, '*Implementing the Community Lisbon Programme: A Policy Framework to Strengthen EU Manufacturing – Towards a More Integrated Approach for Industrial Policy'*, COM (2005) 474 final.

characteristics of sectors and the particular opportunities and challenges that they face. This inevitably has as a consequence that *whilst all policies are important, in the EU today some policies have greater importance for some sectors than others…*». (COM (2005) 474 final, pp. 3-4, emphasis added).

In light of this, the Commission undertook a screening exercise to assess the competitiveness of 27 individual sectors of the manufacturing and construction industries. The policy areas chosen for screening were those deemed to be particularly important for sectoral productivity growth and international competitiveness. The individual sectors were grouped into four broad categories: (a) food and life science industries (food, drink, pharmaceuticals, biotech etc.); (b) machinery and system industries (ICT, mechanical engineering); (c) fashion and design industries (textiles, footwear); and (d) basic and intermediate product industries (chemicals, steel, pulp, paper). The result was the establishment of 7 major cross-sectoral policy initiatives and a number of new sector-specific initiatives, as summarised in the table below.

**Table 4.2 - A new 'integrated' industrial policy**

| Cross-sectoral initiatives | New sector-specific initiatives |
|---|---|
| (1) An Intellectual Property Rights and Counterfeiting Initiative (2006) | (1) The Pharmaceuticals Forum (2006) |
| (2) High Level Group on Competitiveness, Energy, and the Environment (2005) | (2) Mid-Term Review of Life Sciences and Biotechnology Strategy (2006-2007) |
| (3) External Aspects of Competitiveness and Market Access (2006) | (3) New High Level Group on the Chemicals Industry (2007) and the Defence Industry |
| (4) New Legislative Simplification Programme (2005) | (4) European Space Programme |
| (5) Improving Sectoral Skills (2006) | (5) Taskforce on ICT Competitiveness (2005/2006) |
| (6) Managing Structural Change in Manufacturing (2005) | (6) Mechanical Engineering Policy Dialogue (2005/2006) |
| (7) An Integrated European Approach to Industrial Research and Innovation (2005) | (7) A series of competitiveness studies, including studies on ICT, food, fashion and design industries |

***Source*: European Commission, '*Implementing the Community Lisbon Programme: A Policy Framework to Strengthen EU Manufacturing – Towards a More Integrated Approach for Industrial Policy*', COM (2005) 474 final**.

### *4.2. 'Technology policy and the EU new industrial policy*

What is immediately evident both from President Prodi's list and from the table above is the special attention dedicated to certain high value-added and high-technology sectors, such as pharmaceuticals, biotechnology, or the defence industry, which are considered important to ensure the future competitiveness of EU industry in the knowledge-based economy. Indeed, these and other similar sectors are mentioned in a number of other Commission documents that do not directly address industrial policy, but which nevertheless have important implications for it. For example, the report of the independent expert group on R&D and innovation – the so-called Aho Report entitled 'Creating an Innovative Europe' – argues that

Europe must develop an 'innovation-friendly market for businesses' that '[…] should be focused on large-scale strategic actions… [in sectors such as]: e-Health, Pharmaceuticals, Energy, Environment, Transport and Logistics, Security, and Digital Content' (European Commission, "Aho Report", 2006). The group believed that '[…] public policy can have a significant role [in these key areas], as they have for past successes as GSM and Airbus' ("Aho Report" 2006).

The importance attached to high-technology sectors is not a new feature of the EU industrial policy. In fact, over time, the EU supported a number of major projects designed to enhance the technological base of the European industry, of which Airbus and GSM are some of the most famous and successful examples. Recent years, however, have seen a revitalisation of efforts to support technology and innovation projects, with an important – if not exclusive – impact on European industry. The impetus came from the Lisbon Strategy, especially after its 2005 re-launch, which put the emphasis on growth and employment, with the 'knowledge triangle' – research, education and innovation – obtaining a central role. As the Spring European Council of 2005 put it: '[…] it is important to develop research, education and all forms of innovation insofar as they make it possible to turn knowledge into an added value and create more and better jobs' (Council of the EU, 'Presidency Conclusions of the European Council', Brussels, 23 March 2005, 7619/1/05 REV 1, p. 3). The Commission felt that in order to realise this ambitious goal '[…] a stronger link between research and industry is particularly important' (SEC (2005) 800, p. 2).

For analytical purposes, the EU current tools for what can be broadly termed 'technology policy' can be roughly divided into two categories. On the one hand, there are the tools whose primary goal is to facilitate communication and cooperation among stakeholders and to provide general institutional support. These initiatives include:

i) the *European Technology Platforms* (ETPs)[8];

ii) the *European Research Area* (ERA)[9].

On the other hand, there are policy tools that focus on providing financial support and incentives for technology and innovation, some of which are listed below:

iii) The *7th Framework Programme for Research, Technological Development and Demonstration Activities* (FP7)[10];

[8] ETPs are forums that bring together industry representatives – both from large and small firms – public authorities, private capital as well as other stakeholders, such as consumer groups, with a view to defining research and development priorities, timeframes and action plans for a number of industries and fields (Commission Staff Working Paper, '*Report on European Technology Platforms and Joint Technology Initiatives: Fostering Public-Private R&D Partnerships to Boost Europe's Industrial Competitiveness*', SEC (2005) 800). They are not research ventures themselves, but aim to facilitate cooperation among various stakeholders on strategically important issues that are dependent on major research and technological advances. At the beginning of 2007, there were 31 ETPs up and running, spanning a wide range of technologies, from aeronautics, software development and construction technology to nanoelectronics, textiles and clothing (EU Commission, DG Research, '*Third Status Report on European Technology Platforms at the Launch of FP7'*, March 2007, p. i).

[9] The ETPs have been quite important for the development of the ERA – an initiative that combines three related and complementary concepts: (a) 'the creation of an 'internal market' in research, an area of free movement of knowledge, researchers and technology […],' (b) 'a restructuring of the European research fabric, in particular by improved coordination of national research activities and policies […],', and (c) 'the development of a European research policy which not only addresses the funding of research activities, but also takes account of all relevant aspects of other EU and national policies.' (see: http: //cordis.europa.eu/era/concept.html )

[10] These institutional support measures (ETPs, ERA) have recently been coupled with a significantly increased financial support programme. The FP7, the EU main instrument for funding research in Europe, is worth around Euro 53.2

iv) the *Joint Technology Initiatives* (JTIs)[11]

Of course, there is natural overlap among these policy tools, and there are initiatives that combine both the institutional and the funding aspect, for example, the European Research Council (ERC) (already part of FP7) and the European Institute of Technology (EIT) (likely to draw from FP7 from 2008 onwards)[12].

All in all, as we argued in section 3, the development of a strong EU-level 'technology' policy is a *sine qua non* of a modern industrial policy that aims to support businesses in the knowledge-based society. The range and variety of tools the Commission has developed in order to promote research, innovation, excellence, and human capital, have put the EU on the right track. The increase in the funding for the FP7 is also highly commendable. However, as will be argued in the following section, in order for true 'European Champions' to develop in the high-technology sectors, an even more robust common 'technology' policy – one that further overcomes the segmentation of the 'technology' policies of member states – is required.

## 5. "EUROPEAN CHAMPIONS" OF TYPE I: "THE AIRBUS CASE" . COULD THERE BE OTHERS?

Bringing together all the various insights and policy advice that have been put out by the Commission in various documents on industrial or research and technology policy, we can see which sectors have gained most prominence in the last few years: the ICT, energy, defence, space, biotechnology and pharmaceuticals (see Table 5.1).

billion to be spent between 2007-2013. This represents a 63% increase in the budget allocated during FP6 (2002-2006), which was only Euro 17.6 billion. From the point of view of Europe's industrial policy, of major importance is the focus of the bulk of the funding (Euro 32.4 billion) on 10 major research themes, the majority of which resonate strongly with the sectors identified by the 2002 Commission Communication, by former President Prodi, and by the Aho report: health, biotechnology, ICT, nanosciences and new production technologies, energy, environment, transport (including aeronautics), space,and security. Also very important is the funding dedicated to the ERC, 'the first pan-European funding body set up to support investigator-driven frontier research', which is worth Euro 7.5 billion (see. http://cordis.europa.eu/fp7/ideas/home_en.html). It aims to stimulate scientific excellence by supporting the best creative scientists, engineers and scholars so that they can take risks in their research, and hopes to offer further institutional support through peer review and the setting up of international benchmarks of success. On the economic side, the ERC hopes 'to nurture science-based industry and create a greater impetus for the establishment of research-based spin-offs' (see also: http: //erc/europa.eu ).

[11] For areas where very significant resources must be invested over a longer timeframe than what the FP7 can offer, and where there is a need for public-private partnerships, the Commission proposed launching JTIs. In its 2005 Staff Working Paper, it identified six potential JTIs, based on strict criteria: the strategic importance of the sector and the presence of a clear deliverable; existence of market failure, such as externalities or very high-level risk; concrete evidence of Community value added; evidence of substantial, long-term industry commitment; and inadequacy of existing Community instruments (SEC (2005) 800, pp. 10-14). The possible JTIs identified were in the field of hydrogen and fuel cells, aeronautics and air transport, innovative medicines, nanoelectronics technologies, embedded computing systems, and global monitoring for environment and security – again similar as the other EU documents already mentioned (SEC (2005) 800, pp. 14-18).

[12] Finally, the EU plans to set up the EIT already by the end of 2008. The EIT is seen as a crucial component of the European 'knowledge triangle' of innovation, research and education, which is intended to provide education to MA and PhD students, promote both basic and applied research in areas with a strong innovation potential, and develop strong links with the business community to guarantee the economic relevance of its work. It is planned to be funded from both the FP7 and the Competitiveness and Innovation Framework Programme of the EU

**Table 5.1 - A summary of Commission documents on European industry**

| *Sectors identified*[13] / *European Background Documents* | **Biotech**[1] | **ICT**[2] | **Energy**[3] | **Defence**[4] | **Space**[5] | **Pharma**[6] | **Mech**[7] | **Health**[8] | **Environment**[9] | **Transports**[10] | **Digital**[11] | **Nano**[12] | **Socio-economic**[13] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **EC Communication I.P. (2002)** | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | | | |
| **EC Communication I.P. (2005)** | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | | | |
| **"Aho Report" (2006)** | | | ✓ | | | ✓ | | ✓ | ✓ | ✓ | ✓ | | |
| **Joint Tech Initiatives (2006)** | | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | | | |
| **Competitiveness Report (2006)** | | ✓ | | | | ✓ | | | | | | | |
| **7th FP (2007-2013)**[ψ] | ✓ | | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ | | | ✓ |

***Source:*** **Author's elaboration of EC documents (2002-2007)**

It is evident that the core businesses of firms in these sectors are all very high-tech and R&D-intensive. In order for European companies to develop a leading edge in such sectors, two factors are absolutely crucial: first, they must have access to a high level of financial resources in order to conduct R&D at the required level; second, they must be able to hire excellent researchers, engineers and managers – human capital – who have the right skills and knowledge to come up with new and innovative production,

[13] Legend:

[1] Life sciences and biotechnology
[2] Including embedded computing systems
[3] Including renewable forms of energy (e.g., hydrogen and fuel cells)
[4] As far as FP7 is concerned, Global monitoring for security
[5] Including aerospace industry, the European space program, aeronautics
[6] Pharmaceutical industry, including innovative medicines
[7] Mechanical engineering
[8] Including e-Health;
[9] Including climate change; as far as FP7 is concerned, Global monitoring for environment.
[10] Transportation and logistics, and in the 7th F.P. including Aeronautics.
[11] Digital security and content
[12] Nanoelectronics technologies, nanosciences, materials and new production technologies
[13] Socio-economic sciences and the humanities

[ψ] The European Research Council's Work Program identifies three main research domains: i) Physical Science & Engineering; ii) Life Science; iii) Social Science & Humanities.

organizational and management outputs. As a result, developing strong European Research, Technology, and Education policies, overcoming the segmentation of policies of individual national governments, is key to any «champions-related policies for innovation and growth of economies».

Of course, this is not an argument for returning to the old-fashioned policy where politicians and economists were inclined to "pick winners" i.e. companies or sectors to be promoted and supported with public money. Indeed, today three policies – diametrically opposed to the old approach – must play a fundamental role. First, the strict enforcement of competition policy, not only in terms of mergers control, but also with regard to state aid, should foster the development of excellent European companies able to take on global markets. Second, the completion of the Single market, in particular in the services sector, is crucial for the future development and competitiveness of European industry in general, and not only of European Champions. Finally, well-designed welfare and labour market reforms should be completed in order to accommodate industrial restructuring.

Rejecting the old "picking the winners" philosophy, the argument for strengthening the European Research, Technology and Education policies has a different basis, i.e. the theoretical and empirical insights gained recently with regard to sectors at or approaching the 'technological frontier', heavily dependent on high R&D spending, and subject to externalities as well as to scale and scope effects.

However, the vital question at this point is: are the numerous policy tools and approaches adopted by the Commission over the last few years directed at the same goal, that is, towards the creation of new European Champions (which we label "Type I" or "Airbus-model Champions" because they are big European firms that have stemmed from multilateral governmental cooperation and public funding in very sensitive sectors)? An equally important question is whether they should aim to achieve this goal. Answering these questions is not at all easy, as the liveliness with which the issue is being debated throughout Europe shows. Any attempt to do so, however, must look not only at the (hopefully) pan-European research and technology policy, as we have done so far, but also at the evolution of market concentration.

The literature suggests that in some cases and sectors too low a concentration level cannot be an equilibrium or optimal solution and, despite an increase in the size of the market, the degree of concentration may remain far from zero [Sutton 1998, 2006[14]]. There are four key factors that shape concentration by «bounding it from below», away from the zero value that the idealistic competitive setting requires: the need for R&D spending, economies of scope, a critical size for being innovative, and financial requirements.

Markets where R&D effectiveness is important will see a higher level of concentration, because a fragmentized market may lead to dispersive and unprofitably duplicated research spending. In such a situation, the returns for a high-spending new entrant will be large, making it profitable for one (new) firm to outspend the research outlays of the incumbents. Clearly, then, the case in which only small low-spending firms subsist would not be a stable configuration of the market (see, in particular, Sutton 1998).

The sectors identified by the Commission as needing a joint European presence – biotechnology, ICT, energy, and aerospace – can be seen to a certain extent as the kind of sectors this literature is talking about. These sectors require a strong European presence for at least two different but related reasons. First, the high level of R&D outlay required in order to be competitive in the global market is difficult to attain at the

[14] Then published in: Armstrong M. and Porter R. H. [2007].

national level. Second, the high R&D spending requirement induces the market structure to change, by bringing about a higher level of concentration, which makes it worthwhile for Europe to address this process.

The argument applies for the "Airbus case", whose successful experience can be regarded as the emblematic pathway to follow in other sectors for the emergence of new European Champions. This, however, can be regarded only as a general principle, because we have to bear in mind what Paul Seabright [2005] found in his assessment of the «Airbus experience»: that it has been «a rather special case whose applicability to other project and sectors is fairly limited» due to the technological characteristics of the aerospace sector, i.e. with «high fixed costs of production, variable costs of production that fall significantly with scale, [and] products [that] are somewhat less differentiated than in other comparably high-technology sectors such as motor vehicles and precision instruments».

Thus, although the recent proliferation of policies at the EU level has been of the right kind, there is a danger that their results will in practice be limited for the reasons identified by Seabright above. In other words, the success of Airbus cannot be replicated with ease on all of the 31 ETPs, 6 JTIs, 10 FP7 programmes etc., because not all these sectors have the characteristics of the aerospace programme that have facilitated the accomplishment of Airbus. Therefore, there is a danger that vital funds and other resources allocated at the EU level are being distributed too thinly for them to have a significant effect on the competitiveness of European industry and on the development of European Champions of "Type I". Thus, it is necessary to refocus the EU Technology Policy with this insight in mind, and also to concentrate efforts on those sectors where a genuinely tight «strategic cooperation between the private and the public sectors» [Rodrik, 2004] is likely to emerge.

Having explained in detail the policy context surrounding Europe's firms, what is natural to do at this point is to examine how the wider process of EU integration itself is bringing about a transformation of the European market structure and the creation of a new type of "European Champions" – a type driven and supported by market forces alone.

## 6. THE WORKING OF THE SINGLE MARKET AND THE EUROPEAN CHAMPIONS OF "TYPE II"

### *6.1. European Market Structure: Some Stylised Facts*

We argued in the previous sections that the insight of the late Professor Alexis Jacquemin on the need to formulate «a concerted European industrial policy that will help overcome industry strategies along national lines» – originally formulated in the mid-1980s – has become topical again. Such an insight is even more valid today, in the enlarged Europe of 27 Member States that offers firms the opportunity to reorganise their activities on a pan-European basis.

In fact, the European Champions of what we call "Type I" do not tell the whole story, and in order to complete it we have to look at the European *level playing field*. The Single Market is one of the main accomplishments of the European integration process and, although it is not fully completed (think of the full liberalisation of the services' sector), it is precisely the playing field European firms (especially the major ones) need in order to carry out their growth strategies.

The question that now arises is: Are "Type II" European Champions (EC) spontaneously arising in the Single market by virtue of these strategies?

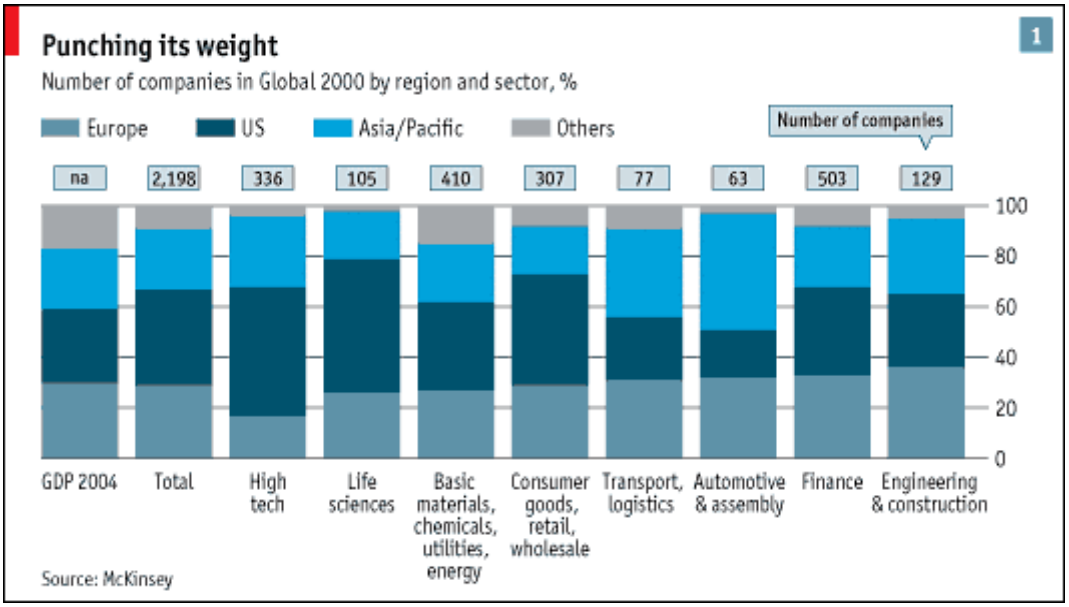
We will try to answer this question in the last section, trying above all to link the ECs that are coming into being with the wave of mergers and acquisitions (M&A) that has swept over the world economy – and the European economy in particular – over the last couple of years.

However, before examining the growth strategies of (big) European firms, we need to briefly analyse the European oligopoly. In doing so, we will compare this structure to that of the US economy (without forgetting, where possible, the Japanese economy and the Asian economy in general), since the basic strategy of each large corporation, wherever it is originally located, is oriented – now more than ever before – towards the global markets.

For the purposes of this paper, we will take the rankings of the largest firms in the world – as published regularly by reputable newspapers, magazines, and research departments of leading financial institutions – as sufficiently reliable proxies of «market structure».

In its recent survey of "European Business" (February 10, 2007), *The Economist*, quoting an analysis by McKinsey, argued that «Europe has 29% of the world's leading 2,000 or so companies, broadly in line with its 30% share of world GDP. It punches its weight in most global industries except IT, where America is leagues ahead» (see fig. 6.1).

**Figure 6.1 – The McKinsey "Global 2000"**




***Source:* The Economist*," Who are the Champions?"*, February 10th, 2007**

In the same survey, referring to *Fortune*'s rankings of world companies, the British weekly wrote again: «Europe has for many years played a large part in global business. A table compiled by *Fortune* (2006) magazine shows that half the world's 30 leading companies by revenue are European. But in two key sectors Europe trails badly: high-tech (which mostly means IT) and life sciences».

In this paper, we aim to extend this «structural» analysis of European industry and finance by using other rankings as well. As we mentioned before, the ultimate end is to cast light on the behaviour of the big European players in a context dominated by the internal market, but without leaving aside their natural tendency to cross the continental boundaries to become worldwide leaders.

Observing first of all the structural indicators of the main economic areas of the world, Europe's (the EU's and the Euro Area's) profile stands out clearly. Table 6.1 shows a GDP and an internal market that are

the largest in the world, even though the gap with the US in terms of GDP per capita is still significant. The gap with the US is also particularly wide in the case of labour productivity, as we mentioned earlier when dealing with the new industrial policy of the EU.

Table 6.1 also highlights a different composition of value added by economic activity, with a higher incidence of industry in Europe and of services in the US: in terms of economic structural dynamics, this suggests that an adjustment is yet to be completed in the EU.

The table also shows that Europe's performance in international trade is excellent: we are talking about an economy with a high degree of openness.

**Table 6.1 – Overview of the major world economic areas: structural indicators**

| 2005 | Unit | Euro area | EU | US | Japan |
|---|---|---|---|---|---|
| **Population, GDP and labour** | | | | | |
| Total population | Millions | 313,6 | 462,3 | 296,5 | 125,7 |
| Labour force participation rate | % | 69,9 | 70,1 | 75,4 | 72,2 |
| Age dependency ratio | % | 49,4 | 46,7 | 49,4 | 50,1 |
| GDP (PPP) | EUR trillions | 8,0 | 11,0 | 10,5 | 3,3 |
| GDP per capita (PPP) | EUR thousands | 25,5 | 23,9 | 35,4 | 26,3 |
| Labour productivity (PPP) | (euro area = 100) | 100,0 | 94,4 | 127,8 | 89,5 |
| Labour income share | % | 66,3 | - | 79,6 | 76,5 |
| **Value added by economic activity** | | | | | |
| Agriculture, fishing, forestry | % of total | 2,0 | 1,9 | 1,3 | 1,6 |
| Industry (incl. construction) | % of total | 26,4 | 26,2 | 22,0 | 29,0 |
| Services (incl. non-market services) | % of total | 71,6 | 71,9 | 76,7 | 69,4 |
| **External** | | | | | |
| Exports of goods and services | % of GDP | 20,3 | 13,5 | 10,2 | 14,9 |
| Imports of goods and services | % of GDP | 19,2 | 13,8 | 16,0 | 13,4 |
| Current account balance | % of GDP | - 0,1 | - 0,6 | -6,4 | 3,6 |
| Net b.o.p. direct and portfolio investment | % of GDP | -0,6 | 0,2 | 6,7 | -1,2 |
| Net i.i.p. | % of GDP | -10,1 | -12,2 | -20,4 | 33,6 |
| **Monetary and financial indicators** | | | | | |
| Credit (market exchange rates) | EUR trillions | 12,0 | 16,4 | 10,1 | 5,6 |
| Total outstanding amounts of debt securities (market exchange rates) | EUR trillions | 10,2 | 12,4 | 20,4 | 7,2 |
| Stock market capitalisation (market exchange rates) | EUR trillions | 5,1 | 8,3 | 12,9 | 4,0 |

***Source*: Excerpts from the European Central Bank, "Statistics Pocket Book" (2007)**

Finally, looking at the monetary and financial indicators, at first sight they seem to reflect Michel Albert's two different «models of capitalism»: the «Rhine model» based on banks, on the one hand, and the «neo-American (or Anglo-Saxon) model» based on the markets, on the other (Albert 1991). However, many things are changing in this regard, and the role of the financial markets in the allocation of resources has

been constantly growing – and will keep growing – even in the countries of continental Europe, as the current wave of *M&A* and the formation of "Type II" ECs demonstrate.

In light of these indicators, we now proceed, first, with the analysis of the rankings of the largest world firms, and then with that of the *M&A* deals. Such analyses are necessary in order to better understand the role played by the European economy in the new international division of labour.

Starting from the "Global 500" of the *Financial Times* of 2006 (see table 6.2), a fact immediately catching the eye at least partially contradicts the optimistic picture presented by McKinsey-*The Economist*. In fact, grouping the "Global 500" (classified according to their «market value») by region (EU/Euro area, US and JAP), we can see that the incidence of European top firms in this list is less than proportional to Europe's weight in the "triad" GDP. In other words, whereas the EU share of this GDP is 44.3%, the share of European companies in the "Global 500" list is only 27.4%. This relation for the US is 42.4% and 44.2% respectively, whereas for Japan it is 13.3% and 9.6% respectively. If we focus on the Euro Area only, hence excluding the United Kingdom, Sweden and Denmark from the EU list, Europe's weight in the "Global 500" drops even further (see table 6.2; for the complete list see also the Appendix A).

We arrive at this conclusion in the following way: from the data presented in table 6.1.we know that the combined GDP value of the EU, the US and Japan is roughly Euro 24.8 trillion (see row on GDP PPP). If we take this value to equal an index of 100, then we know that the EU proportion of it is roughly 44.3%, the US's 42.4%, whereas Japan's is 13.3%. On the other hand, the number of EU firms in the "Global 500" list is only 27.4%[15], which is significantly lower than its proportion of the combined EU, US and Japan GDP value (see table 6.2).

Obviously, these findings depend significantly on the parameter used by the *Financial Times* to compile its ranking, i.e. stock market capitalization (market value), which rewards the countries with the Anglo-Saxon variety of capitalism. Nevertheless, the values presented here do seem to show that there are margins for the growth of a more market-oriented variety of capitalism in Europe.

**Table 6.2 – The "FT Global 500": a focus on Europe**

| | | ***"FT Global 500"* list*** | | | **GDP data†** | |
|---|---|---|---|---|---|---|
| | | **N° of Company** | **Market Value (,000$)** | **% of total (*mkt value*)** | **Nominal Value (,000$)** | **% of the Region in the combined "Triad" GDP** |
| **Europe** | **EU** | 139 | 6,945.0 | 27.4 | 14,6 | 45.4 |
| | **(Euro Area)** | (89) | (3,734.0) | (16.6) | (10,6) | (32.9) |
| **US** | | 197 | 9,897.0 | 44.2 | 13,2 | 41.0 |
| **Japan** | | 60 | 2,155.0 | 9.6 | 4,4 | 13.6 |

***Source*: *adapted from "Financial Times" (2006); † adapted from IMF (2006/2007).**

*Note*: in September 2007, when this paper is presented in Florence, "*FT*" 2007 (as well as "*Fortune*") rankings will certainly be available.

Continuing with the *Financial Times*, but passing from the country list to a sectors list, a clear picture of the present situation can be drawn by grouping the 37 single sectors – with a minimum discretionary margin–

[15] We can take EU (+Euro area), US and Japan GDP to equal 100 and doing the same with the *"FT" Global 500* where we can subtract from the full list the non-EU, US and Japan companies which make up 18,6% of total by market value.

into some fundamental macro-categories at global level (see the following table; for the full list see the Appendix B). From the table it is evident that financial firms are most widespread in the "Global 500" list, followed closely by the high-tech sectors of ICT and Electronics, but also the Pharmaceuticals is in a good position; Oil, Gas and Electricity play a growing important role.

**Table 6.3 – A focus on the main sectors**

| Macro-sectors | Sector | Number of companies | Market value $m | % of total market value |
|---|---|---|---|---|
| **Finance** | | **114** | **5,272,805.20** | **23.5** |
| | Banks | 80 | 3,970,838.50 | 17.7 |
| | Non-life insurance | 20 | 854,592.60 | 3.8 |
| | Life insurance | 14 | 447,374.10 | 2 |
| **ICT & Electronics** | | **89** | **4,292,345.80** | **19.1** |
| | Hardware | 23 | 1,259,890.50 | 5.6 |
| | Fixed line TLC | 18 | 911,769.10 | 4.1 |
| | Mobile TLC | 13 | 581,322.80 | 2.6 |
| | Media | 13 | 453,155.20 | 2 |
| | Software | 12 | 808,222.30 | 3.6 |
| | Electronic equipment | 10 | 277,985.90 | 1.2 |
| **Oil & Electricity** | | **71** | **3,619,731.20** | **16.2** |
| | Oil-Gas producers | 37 | 2,518,334.80 | 11.2 |
| | Electricity | 21 | 618,891.70 | 2.8 |
| | Multiutilities | 8 | 304,478.50 | 1.4 |
| | Oil equipment | 5 | 178,026.20 | 0.8 |
| **Pharma & Healthcare** | | **37** | **2,150,414.50** | **9.6** |
| | Pharma-biotech | 24 | 1,739,919.30 | 7.8 |
| | Healthcare equipment | 13 | 410,495.20 | 1.8 |
| **Automobiles & Parts** | | **12** | **562,424.90** | **2.5** |
| **Aerospace & Defence** | | **8** | **282,048.60** | **1.3** |
| **Chemicals** | | **10** | **278,667.20** | **1.2** |

***Source*: author's elaboration on "FT" *Global 500* (2006).**

At this point, it is advisable to make a more detailed comparison between the EU and the US, using their respective *Financial Times* "Top 500" rankings (see table 6.4). In doing so, we need to bear in mind the trends seen at the global level, in order to better understand the strengths and weaknesses of the European industrial structure, as seen – let us repeat this – from the point of view of its major players.

**Tab. 6.4 - EU 500 and US 500 Market Value**

| Main Sectors (alphabetical order) | EU500 | | US 500 | |
|---|---|---|---|---|
| | N° of Co. | Mkt Value | N° of Co. | Mkt Value |
| *Aerospace* | 7 | 109,466.30 | 10 | 257,530.10 |
| *Automobiles & parts* | 11 | 225,250.90 | 5 | 62,764.40 |
| *Banks* | 75 | 2,093,251.90 | 32 | 1,220,272.50 |
| *Chemicals* | 14 | 196,055.20 | 10 | 176,768.20 |
| *Electricity* | 21 | 406,828.50 | 23 | 316,433.80 |
| *Electronic and electrical equipment* | 3 | 133,575.60 | 7 | 98,697.20 |
| *Fixed line telecommunications* | 18 | 426,845.50 | 6 | 294,343.30 |
| *Gas, water & multiutilities* | 14 | 321,706.80 | 6 | 65,850.80 |
| *Healthcare equipment & services* | 8 | 62,772.70 | 28 | 554,011.70 |
| *Industrial engineering* | 14 | 131,796.80 | 7 | 136,364.00 |
| *Industrial transportation* | 13 | 180,662.70 | 8 | 194,581.80 |
| *Life insurance* | 13 | 268,161.20 | 9 | 144,966.70 |
| *Media* | 30 | 267,426.80 | 22 | 464,162.30 |
| *Mobile telecommunications* | 8 | 218,191.20 | 4 | 113,646.20 |
| *Nonlife insurance* | 17 | 369,131.90 | 22 | 584,569.20 |
| *Oil & gas producers* | 21 | 1,290,193.10 | 21 | 907,134.60 |
| *Oil equipment & services* | 3 | 21,772.40 | 18 | 313,671.80 |
| *Pharmaceuticals & biotechnology* | 15 | 726,145.80 | 20 | 1,019,535.80 |
| *Software & computer services* | 9 | 117,309.00 | 17 | 738,709.80 |
| *Technology hardware & equipment* | 8 | 217,168.20 | 42 | 1,087,585.80 |

***Source:*** **author's elaboration on "FT" (2006) data**

In short, we can see that in the banking sector Europe is dominant both in terms of the number of big players (more than twice as much as in the US) and in terms of market value (almost twice as much as the US). This fact in itself is not surprising if we bear in mind that the roots of the European model of capitalism are based in a strong banking sector (an issue which we will revisit again in section, 6.2, as we describe the consolidation under way in the EU banking system, where some big cross-border mergers are taking place). A greater balance between the EU and the US is evident in the number of big players in the insurance sector as a whole (life and non-life).

As shown in the table, the positions held by Europe in what we have called the "Oil & Electricity" macro-sector – also being characterised by a wave of *M&A* deals today – are excellent as well.

On the other hand, the American leadership stands out in the "Pharmaceutical & Biotechnologies" sector, and is also extended to contiguous sectors (e.g. "Healthcare"), whereas positions are very similar in the more traditional "Chemicals" sector. The other macro-sector where the US is clearly dominant is the "ICT" one, considered in a broad sense through aggregations of a number of sectors. However, while American corporations prevail with regard to hardware, software and the media themselves, the situation is different in the telecommunications sector, where European operators are more significant both in fixed-line and in mobile telecommunications.

We conclude our quick comparison by looking at two manufacturing sectors – "Aerospace & Defence" and "Automobiles & parts" – that are quite important and not only for historical reasons. With regard to the latter macro-sector, a clear European leadership emerges; in the former, the US prevails, although the performance of Europe's EADS, the parent company of the Airbus, should not be overlooked.

Besides the exercise carried out by McKinsey (as reported in *The Economist*) and the one we carried out in this paper using *Financial Times* data, a number of other similar exercises could be undertaken. As we mentioned earlier, the rankings of the main firms in the world are published by other authoritative media, such as *Business Week*, *Fortune* and *Forbes*, and by renowned think-tanks such as, as far as Italy is concerned, Mediobanca's research arm. Each of these rankings has its own peculiarities and uses specific parameters, which lead to some variations in the results. For example, *Business Week* "Global 1200" uses «market value», *Fortune* "Global 500" refers to the «turnover» (revenues) figures, Mediobanca-Ricerche e Studi "Multinationals"[16] uses «sales», while *Forbes* "Global 2000" has developed a «composite ranking from four metrics (sales, profits, assets, market value)».

Although we would not want to repeat such detailed exercises in this paper – the European market structure, seen from the point of view of its top companies, seems to be sufficiently defined – we believe that an overview of all the rankings still has its validity. The key facts can be summarised as follows (some mainly refer to the US, others to Europe):

(i) «bigness is back», meaning that the increasing weight of the *Top 230 (+45), 500, 1200* or *2000* – according to the cases – on GDP can be seen as a sign that the economy is moving towards higher concentration levels;

(ii) at the very top of the rankings, we often find oil and energy companies, telecommunications, as well as banks and insurance companies. However, manufacturing companies in sectors we have often mentioned in our discussion of the EU new industrial policy – such as pharmaceuticals, information technologies, transport equipment, chemicals, mechanical and the like – are also high-ranking;

[16] As Mediobanca's chief economist points out, «Ricerche e Studi (R&S) identifies 230 industrial multinationals in Europe, North America and Japan (133, 64 and 33 respectively) along with 45 international groups in telecommunications and utilities» (Coltorti 2006).

(iii) the process of «creative destruction» *à la* Schumpeter is unanimously considered to play quite an important role. With regard to this, the *Financial Times*, for example, lists scores of firms that every year get in and out of its rankings. For example, there were 68 "newcomers" and an equivalent number of "departures" in its 2006 ranking. To a certain extent, these patterns reflect "sunrise" and "sunset" sectors, as well as the countries' relative position;[17]

(iv) although the weight of the "triad" (US, EU, JAP) is still considerable, the presence of big firms based in the so-called "BRIC" (Brazil, Russia, India and China) countries is now very visible; this reflects the new international division of labour, for example, with the transfer of manufacturing activities precisely towards these countries, as well as towards Eastern Europe;

At this point, we feel that it would be useful to shift our attention from such rankings by size, however defined, to another direction: the ranking of firms by their "degree of innovation". "The World's Most Innovative Companies", a special ranking published by *Business Week* (2006) in partnership with the Boston Consulting Group, is a good starting point for this exercise (see table 6.5). From the 25 firms of the 2006 edition we can draw a couple of lessons about the current state and nature of «innovation» in the world economy.[18] What it shows us, above all, is the extraordinary American leadership and performance – 17 out of 25 companies mentioned are based in North America. This stands in sharp contrast with the scarce presence of European companies in this ranking – it is represented only by Nokia, Virgin, BMW and IKEA. Without wanting to elaborate this matter in detail, it is perhaps worthwhile highlighting the fact that many of these companies are in the high-tech sectors identified as crucial by the Commission in its new approach to industrial policy.

[17] For the 2006 "newcomers", Electricity, Oil prod., Gas & Multiutilities, Banks & General financial institutions come first; quite good positions have been reached by high-tech industries such as Pharma & Biotech and ICT, even if positive performances do not lack in the more traditional industrial and manufacturing activities (e.g., Industrial metals, Automobiles, Beverages, Construction). On the other side, Telecommunications (mobile and fixed line), Food producers and General retailers are the big losers (although a certain number of "departures" occurred in 2006 also amongst the sunrise sectors such as Banking, Electricity, Oil & Gas prod). As far as countries are concerned, Japan has really improved its position with almost 20 "newcomers"; here and there, the BRICs emerge; finally, within Europe, France did very well. Among the departures, the vast majority are from the US: this is why we can say that the "Global 500" looks nowadays less American than in the past.

[18] In *Business Week*'s words: «First, design is a differentiator. Apple again rules the roost (…). Innovation is becoming ever more broadly defined (…) ».

**Tab. 6.5 - *The World's 25 Most Innovative Companies***

| Country | Rank | | Company | Best Practices | | |
|---|---|---|---|---|---|---|
| | **2006** | **2005** | | | | |
| | 1 | 1 | Apple | | ■ | ● |
| | 2 | 8 | Google | | ■ | ● |
| | 3 | 2 | 3M | | ■ | |
| | 5 | 3 | Microsoft | | ■ | ● |
| | 6 | 3 | General Electric | ▲ | ■ | |
| | 7 | 9 | Procter& Gamble | ▲ | ■ | ● |
| | 9 | 19 | Starbucks | | ■ | ● |
| | 10 | 7 | IBM | ▲ | ■ | ● |
| | 14 | 6 | Dell | ▲ | | ● |
| **North America** | 15 | 18 | IDEO | ▲ | ■ | |
| **(USA + Canada)** | 17 | 16 | Intel | | ■ | ● |
| | 18 | 15 | eBay | | | ● |
| | 20 | 13 | Wal-Mart | ▲ | | |
| | 21 | 16 | Amazon | ▲ | ■ | |
| | 22 | new | Target | | ■ | ● |
| | 24 | new | Research in Motion | | ■ | |
| | 25 | 21 | Southwest Airlines | ▲ | | ● |
| **UE** | 8 | 9 | Nokia | ▲ | ■ | ● |
| | 11 | 11 | Virgin | | | ● |
| | 16 | 20 | BMW | ▲ | ■ | |
| | 19 | new | IKEA | ▲ | ■ | ● |
| **Asia** | 4 | 14 | Toyota | ▲ | ■ | |
| **(Japan + South K.)** | 12 | 12 | Samsung | ▲ | ■ | |
| | 13 | 5 | Sony | | ■ | |
| | 23 | 23 | Honda | | ■ | |

▲ Process Innovation
■ Product Innovation
● Business Model Innovation

***Source:*** **adapted from "Business Week" (2006)**

However, what we need to be aware of when dealing with any of these various business rankings is that at any one year they provide only a snapshot of the world economic and market configuration. As the "entry" and "exit" of firms in and out of the *Financial Times* ranking illustrated, these rankings are fluid and subject to the operation of market forces on individual firms. One such very important force of recent years, which has had a great impact on the performance and international standing of European firms, has been the current M&A wave. Thus, we now turn to an analysis of this force on the competitiveness of European industry in general, and on its impact on the development of European Champions of "Type II" in particular.

### *6.2. Cross-border Mergers and Acquisitions (M&As) and the reshaping of the European market structure*

The focus of this section will be on the recent behaviour of some large European firm, and especially on the strategies of growth they are adopting in light of the increasing completion of the "*level playing field"* known as the Single Market.

In many of the sectors we mentioned so far in our discussion, a strong M&A wave has swept through, with many deals being of a cross-border nature and leading to the emergence of what we will label

"European Champions of Type II"[19]. Moreover, as long as the Single Market continues to release its potential through consecutive deepening and widening measures, we can expect this new type of European Champions to consolidate further as a result of future M&A activities.

In other words, we believe, firstly, that the «*trend towards the Europeanisation of Europe's largest companies*», which Véron (2006) recently pointed out, can be further strengthened by these external-growth strategies. Indeed, having analysed the European market share (i.e., the home market share) of the Europe's Top 100 firms, Véron argues that «the share of European sales in their total revenue is almost identical, on average, to the share of US revenue for the US Top 100, at 65%. The share of their national (or, for smaller countries, regional) base is on a rapidly declining trend and stands at 36.9% of global revenue in 2005 against 50.2% in 1997».[20]

Secondly, we feel that these strategies make a crucial contribution to the emergence of those «*global champions*» which Barry Eichengreen (2007) – in his review of the role of institutions that contributed most to European integration from the Treaty of Rome onward (in particular, the Common Market) – called «*firms with the scale and scope needed to compete internationally*».

What are the most important stylized facts that appear from this recent wave of *M&As* occurring in Europe? Several databases are monitoring this phenomenon; hence, in this final section, we proceed to highlight some of the key facts:

(i) Globally, the M&A wave has been witnessed enormous activity since 2005. This wave has also included, Europe, where M&A activity has been playing major role in transforming the industrial scenario of the Continent.[21]. Of course, this does not overshadow the fact that major deals are continuously taking place in the USA (for example, in the last month recent deals include Delta/Northwest, HP/Electronic Data Systems, and as a result of the sub-prime crisis, JPMorgan Chase/Bear Stearns);

Returning our focus on Europe, the competitive pressures exerted by the completion of the Single Market (together with the consolidation of the euro) have been identified – by politicians and economists alike [Merkel 2006; Eichengreen 2007] – as some of the most important forces driving the process that creates European Champions.

(ii) This becomes especially clear when considering the sectors where cross-border deals have been most prevalent in the current *M&A* wave (for a summary see table 6.6): first and foremost are utilities and energy companies, firms in the telecommunications and defence sector, and banks

[19] A first and preliminary analysis is in: Mosconi [2007].

[20] In particular, the study shows that the revenue of Europe's Top 100 companies coming from the European market amounts up to 65% (core Europe + Enlarged Europe), while 35% of revenues come from "the Rest of the World" (Veron, 2006); the same percentage applies for US data (65% of revenue from the US market, 35% from abroad).

[21] According to "The Economist" (which quotes Dealogic, a data firm), *M&As* in Europe during 2006 were worth $1.59 trillion, overtaking the value of deals in America, valued at $1.54 trillion (this trend has been present ever since the first quarter of 2006)**;** more in general, since 2004 the total value of European deals has almost tripled. Again according to "The Economist"/Dealogic figures, worldwide deals in 2006 were bigger than in the past, and are still getting bigger: 14 deals were worth more than $10 billion; Europe, in particular, saw nine deals valued at more than $10 billion only in the first quarter of 2006, as many as during three full years from 2002-04 ( see: "The Economist", 12 May 2007, "*A bid too far"*,p. 13, *"The beat goes on"*, pp. 73-4t). These facts mirror, to a certain extent, what we already pointed out in the other list of stylized fact, i.e. «bigness is back». Notwithstanding the current crisis of private equity – "The Economist" more recently pointed out (*Whiter the great wave?*, January 5th 2008, pp. 51-52) — «in the first half of 2007 deal activity was so rapid that last year [2007] was still the best ever for merger activity» (something around $4.5 trillions). Of course, the current year will end in a quite different manner due to the Wall Street crisis, even if investments made by sovereign-wealth funds from commodities-rich countries will gain importance.

and other financial firms, e.g., insurance companies. These firms are benefiting not only from the increasing completion of the Single Market in these sectors, but also from the birth of the Euro which has been further reshaping the European financial landscape. Pharmaceuticals and biotech are also industry sectors where many deals are occurring: here, high R&D-intensity, and the growing necessity to outspend for this sort of investment, seems to be the main engine. For a brief summary of the main *M&A deals*, by sector, which have occurred in Europe in the last years see table 6.6.

(iii) Overall, the sectors identified in point (iii) are consistent with the high-tech sectors mentioned by the Commission (see section 5), and with those appearing from the rankings of the "*Top Companies"* as published by authoritative media and think-tanks (see § 6.1). So, the underlying strategy of Europe's biggest firms is to concentrate on their core business, therefore using *M&As* to carry out a strategy of «horizontal integration». There seems to be a widespread consensus that a takeover is more likely to pay off when companies are in the same or similar industries, because they tend to offer greater opportunities for exploiting economies of scale and scope (the famous argument for «synergies»).

(iv) Notwithstanding the centrality of a European-oriented *M&A* wave – and the trend towards «the Europeanisation» of European companies – two other perspectives deserve attention. First of all, transatlantic alliances and deals are not rare: examples include the takeover of Lucent Tech. by Alcatel, the joint venture between StMicroelectronics and Intel and, in the financial system, the NYSE's agreed bid for Euronext (the Paris-based stock exchange),[22] creating the first transatlantic stock market (at the same time as Deutsche Börse was withdrawing its proposed merger with Euronext for a pan-European solution). Secondly, step by step, BRIC-based companies are entering the European stage – the successful bids of Indian-based Mittal Steel (for the French Arcelor) and Tata Steel (for Corus, an Anglo-Dutch competitor) spring right to mind. More recently, it is worth mentioning that Tata Motors acquired the two well known luxury carmakers, Jaguar and Land Rover, from Ford.

If at the end of our analysis of the current *M&As* wave we turn to politics and to political economy, we have to raise the issue of 'economic nationalism' (or 'patriotism') and the concomitant policy of protectionism: "The suspicion that national governments were in various forms promoting or defending domestic national champions (or discouraging foreign ones)" – as Massimo Motta and Michele Ruta point out [2007] – "arose in a long list of recent merger cases". One of the assumption behind the behaviours of many European national governments is that the nationality of ownership matters. The "European Champions of Type II", since they are the final outcome of the market-opening activities of firms (beginning from the biggest ones), look more coherent with the EU Treaties than any attempt at protecting "National Champions". It seems then reasonable to argue that, in the medium-term at least, the functioning of the Single Market and the rigorous application of the Competition Policy is the right choice. It is enough to consider a few concrete examples: Endesa (Spain), BNL and Antonveneta (Italy), some entities of the UniCredit and HVB merger (Poland), and Suez (France). In the first three examples, the issue was substantially resolved by the market, whereas in the case of Suez, the merger with Gaz de France was settled using the old fashioned model of government intervention to create a National Champion.

[22] Paris-based Euronext operates bourses in Paris, Amsterdam, Brussels and Lisbon.

**Table 6.6 - A sample of the main «European» cross-border M&As and/or joint-ventures, 2007 and the first five months of 2008**

| Sectors | Main Current M&A | | Past Years |
|---|---|---|---|
| FINANCE (BANKS, INSURANCE, STOCK MARKETS) | Royal Bank of Scotland /Santander/Fortis - ABN Amro[(a)]<br>Assicurazioni Generali – PPF Group (Czech Republic), and Assic. Generali -- Banca del Gottardo<br>UniCredit -- Ukrsotsbank (Ukraine), and AFT Bank (Kazakhstan)<br>Intesa SanPaolo -- BOF Leasing (Slovakia)<br>Crédit Agricole - Cariparma<br>Euronext – NYSE (*transatlantic*)<br>LSE – Borsa di Milano<br>Deutsche Börse -- ISE, International Securities Exchange (*transatlantic*)<br>US Nasdaq Stock Market – OMX (*transatlantic*)[(b)] | | 2006: BNP Paribas – BNL;<br>ABN Amro —Antonveneta[(g)];<br>Crédit Agricole – Emporiki Bank<br><br>2005: UniCredit[(h)] - HVB<br><br>2004: Santander - Abbey National |
| ICT & MEDIA | Thomson Corp. - Reuters<br>News Corporation – Dow Jones (*WSJ*)<br>Telefonica[(c)] – Telecom Italia<br>RCS Media Group – Recoletos<br>Mediaset – Endemol<br>STMicroelectronics – Intel | | 2006: Alcatel – Lucent (*transatlantic*);<br>Nokia – Siemens (*netwok divisions*)<br>Mondadori – EMAP France<br><br>2005: Telefonica - 02 |
| PHARMA&BIOTECH | Schering-Plough – Organon BioSciences (*transatlantic*)<br>Astra-Zeneca – MedImmune (*transatlantic*)<br>Novartis – Alcon (from Nestlé) [i] | | 2006: UCB – Schwarz-Pharma;<br>Nycomed – Altana;<br>Bayer – Schering;<br>Merck – Serono |
| OIL, ENERGY & UTILITIES[(d)] | Enel – Endesa<br>Suez & La Caixa – Agbar<br>ENI – Burren Energy, and ENI – Distrigas [l] | | 2006:Iberdola – Scottish Power<br>2005: Suez – Electrabel<br>AEM & EDF - Italenergia |
| LUXURY GOODS & FASHION | PPR – Puma<br>Luxottica – Oakley (*transatlantic*) | | |
| MANUFACTURING (STEEL, CARS, DEFENCE, ETC.) | Tata Steel (*from BRICs*) – Corus<br>Tenaris – Hydril (*transatlantic*)<br>Fiat's three joint ventures with Severstal (Russia), Tata Motors (India), Chery Auto (China)<br>Finmeccanica SpA -- SELEX Sensors and Airborne Systems, and Finmeccanica – DRS Technologies (*transatlantic*)<br>Brembo – Hayes Lemmerz (*transatlantic*)<br>Porsche – Volkswagen (VW), and previously VW – Scania (—› Man + Scania in the commercial-vehicles division)<br>Tata Motors – Land Rover and Jaguar (UK-based firms owned by Ford and bought by a BRIC's corporation)<br>Pernod Ricard – Vin&Spirit | | 2006: Mittal (*from BRICs*) – Arcelor |
| COMMERCIAL SERVICES (RETAILING & TRAVEL FIRMS, ETC.) | TUI – First Choice<br>Thomas Cook – My Travel<br>Autogrill – Alpha Group Plc (2007), and Autogrill -- World Duty Free Europe (2008), and full control of Aldeasa (2008)<br>Air France/KLM – Alitalia (e) | | 2005: Autogrill (with Altadis) – Aldeasa |
| MINING | Bhp Billinton – Rio Tinto (f) | | |

***Source*: author's elaborations (updated May 2008)**

*Legend:*

(a) Before: Barclays Bank's unsuccessful offer for ABN Amro.

(b) Agreement between Nasdaq and Bourse Dubai to buy OMX, where Dubai receives Nasdaq's stake in the London Stock Exchange plus a 19.9% stake in the U.S. exchange operator.

(c) Together with some of the Italy's biggest financial companies (Assicurazioni Generali, Intesa Sanpaolo, Mediobanca , Sintonia-Benetton).

(d) Domestic M&A (i.e., «National Champions»): Gaz de France (GDF) + Suez.

(e) Air Farnce has since withdrawn its offer to buy Alitalia

(f) Ongoing. On Feb.1 Chinalco (China) in a team up with Alcoa (USA)to buy a strategic 9% stake in Rio Tinto. On Feb. 5, BHP Billton increased its offer for Rio Tinto which was rejected by Rio. BHP is expected to respond with an increased price offer for Rio.

(g) During 2007 Banco Santander acquired Banca Antonveneta through its participation in a three-way break-up bid for ABN Amro. Subsequently, Banca Monte dei Paschi di Siena buys Antonveneta from Santander creating Italy's third biggest bank after UniCredit Group and Intesa SanPaolo.

(h) Additionally, in May 2007, UniCredit acquired Capitalia in Italy's domestic market.

(i) 25% of Alcon (contact-lens and eye drop), an American firm owned by Nestlé, which has an option to sell its remaining 52% btw 2010 and 2011.

(l) After exclusive talks between Suez and Eni to sell Distrigas stake.

Going back to the economics, a final remark should be made: in order to place the current *M&As* wave in the right perspective of the «Enlarged Europe»[23] – the starting point of the new EU industrial policy – it should be read together with the relatively recent trend of increasing Foreign Direct Investment (FDI). As with the *M&A* deals, Europe's very important role clearly emerges, since in the last years it has been leading in the rankings of FDI inflows worldwide.[24]

A quick look at the movement of these investments from the mid-1990s until the first years of 2000 suggests that corporate reorganizations on a pan-European basis – in both manufacturing and services – have certainly been going on. As these investments have concentrated on the countries of the so-called "New Europe" (Central and South-Eastern Europe), it is clear that these reorganizations have benefited especially from the EU enlargement towards Central and Eastern Europe. A further proof that the structural changes occurring are very deep indeed is the fact that for a significant group of these countries of "New Europe" the economic prospects are considered to be very good, especially in the medium-high tech sectors (UniCredit Group 2007).[25]

Without neglecting its fundamental historic and cultural implications – but nevertheless limiting ourselves to the sphere of economics – the enlargement to the East must be considered first of all as a further extension of the European Single market. And the growth strategies of firms and the structural changes occurring in the economy (in manufacturing, *in primis*) would seem to confirm the correctness of the choice to enlarge.

Thus, following the 2004 and 2007 Enlargements, it is natural to expect a process of industrial restructuring in the "wider" Europe that brings about «bigger, fewer but more efficient firms» [Baldwin and Wyplosz 2004]. In fact, as the size of the market broadens, the first impact tends to be the development of a pro-competitive setting with a high number of fragmentised firms. However, this fairly «ideal» perfect competitive market cannot last for long, since the economy moves toward a restructuring process that leads to bigger firms – the kind of "European Champions of Type II" that we have been talking about.

[23] See the (first) Commission Communication of December 2002.

[24] For example, "FDI inflows" in 2005 were as follow: Europe about $430 Bn, $Asia 200 Bn, $North America about 130 Bn, which means a percentage change from 2004 of 99,2%, 27,4%, and 7,5%, respectively.

[25] This direction emerges clearly from the results of the most recent issue of *Sectoral Analyses* (*Outlook 2007- 2008*) edited by the "New Europe Research Network" of the UniCredit Group (Vienna, January 2007). The new industrial specialization in medium to high technology of countries such as the Czech Republic, Hungary, Poland, Slovakia, Bulgaria, Romania, Croatia and Turkey represents the fruit of the growing integration with the Western part of Europe, the historic nucleus of the EU.

## 7. CONCLUSIONS: A TENTATIVE DEFINITION AND TAXONOMY OF "EUROPEAN CHAMPIONS"

This paper has tried to show that there are sound economic arguments for developing a modern industrial policy at the EU level. The rationale lies in the need to facilitate economic restructuring through strategic behaviour whenever market forces fail to do so themselves, and also in order to encourage innovation and the creation of a knowledge economy in Europe. We further argued that this approach does not entail a return to the old policy of "picking the winners", requiring instead the strengthening of the "technology" side of the EU industrial policy "Triangle", without weakening its "competition" and "commercial" policy sides. The paper also tried to show that, during the last few years, the EU Commission has indeed taken a number of steps in the right direction, focusing particularly on the promotion of research, innovation and human capital accumulation in Europe.

We also suggested that "European Champions", which I define as the big European companies that have successfully understood the advantages (scale and free-flow of factors of production) of operating in a Single Market environment, could be a suitable means of promoting this modern EU industrial policy. Of course, this holds, provided that value is genuinely added by supranational public and private cooperation in research and innovation, and that the logic of the Single Market is respected. We believe that when these two conditions hold, two types of "European Champions" can emerge, both of which share three common characteristics: significant size in a high value-added sector, a major presence in the enlarged Single Market (i.e. not limited to one Member State), and the excellence needed to compete successfully in the global knowledge-driven economy.

We labelled the first type of "European Champions" the "Airbus-model Champion", because these big European players are likely to develop when there is focused private-public partnership in R&D-intensive industries or when economies of scale and scope are relevant. As a company resulting directly from the efforts of two or more governments, and in which state-owned assets are substantial, Airbus provides the best model to emulate when the other conditions are right. Alternatively, we could also look at STMicroelectronics (the French-Italian semiconductor maker) for inspiration in the case of ventures of lower scale and size.

The second type of "European Champions" includes those large companies whose driving engine of growth and excellence has been the Single Market. In other words, these are firms which more often than not have resulted from cross-border M&As. Motivated by the need to improve their competitive position through external growth – and to thus withstand the pressures brought on by a widening and deepening Single Market – these firms epitomise the «trend toward Europeanisation».

However, we could also argue that a closer inspection of "Type II (Single Market) Champions" reveals a special type of company that deserves to have a category of its own, i.e. Banks (and large firms in the financial sector, in general). The reason for highlighting this new, "Type III", category is that the birth of "Financial Champions" is very important not only *per se*, but also because it has significant repercussions on the emergence of the other types of Champions, whose R&D development – and, hence, excellence – largely depends on their access to adequate financing facilities. While the importance of the traditional role played by banks in the European model of capitalism cannot be understated, in the age of the euro, the latest M&As

between the major stock markets in Europe and the US seem to point to a greater role for the financial market.

In sum, we must recognise that the boundaries between these three types of "European Champions" are not rigid and can be blurred in certain cases. Best examples of this are provided by the energy or TLC sectors, which are still characterised by former state-owned monopolist firms, partial privatisation, and a patchy process of liberalisation. Another caveat that I think deserves mention is the risk, implicit in the EC documents which stress various industrial sectors, of falling back to the old industrial policy approach of picking the winners. However, if the new approach advocated by the European Commission is to identify the sectors belonging to the technological frontier, where financing the R&D activity is the focus, then we are moving in the right direction. I feel that this does not invalidate this tentative definition and taxonomy, because these classifications remain useful for understanding to what extent the interplay between the EU policies and the market forces can influence the development of European Champions, and the means they should best adopt in each case.

**REFERENCES** (*PROVISIONAL*)


Aghion, P., (2006), *A Primer on Innovation and Growth*, Bruegel Policy Brief, October, www.bruegel.org .

Albert M [1991], *Capitalisme contre capitalisme*, Paris, Éditions du Seuil.

Armstrong M. and Porter R. H. [2007], *Handbook of Industrial Organization*, Volume 3, Amsterdam, Elsevier/North-Holland

Baldwin R. and Wyplosz C. [2004], *The Economics of European Integration*, Maidenhead, McGraw Hill Education.

Bianchi P. and Labory S. (*Eds*.) [2006], *International Handbook on Industrial Policy*, Cheltenham, E. Elgar

«Business Week» [2006], *The Global 1200,* "The World's Most Valuable Companies" – www.businessweek.com

«Business Week» [2006], *The World's Most Innovative Companies*, "Special Report: Innovation", April, 24 – www.businessweek.com

Cohen E., Lorenzi J-H (*Eds*.) [2000], *Politiques industrielles pour l'Europe*, Conseil d'Analyse économique, Rapport 26, Paris, La documentation Française.

Coltorti, F., (2006) *European and Italian Multionationals: Vices and Virtues since the 1980s*, "Review of economic conditions in Italy", No. 1 (January-April).

Council of Economic Advisers [2001], *Economic Report of the President - Transmitted to the Congress January 2001 together with The Annual Report of the Council of Economic Advisers*, United States Government Printing Office, Washington.

De Bandt, J. (1999), *Industrial policy in Europe:practical issues of networking & cooperation*, in Cowling K. "Industrial Policy in Europe - Theoretical perspectives and practical proposal" Routledge, London

Dosi G., Llerena P., Sylos Labini M. [2005], *Science-Technology-Industry Links and the "European Paradox": Some Notes on the Dynamics of Scientific and Technological Research in Europe*, S. Anna School of Advanced Studies, Pisa, May, www.lem.sssup.it

Dosi G., Malerba F., Ramello G.B., and Silva F. [2006], *Information, Appropriability, and the Generation of Innovative Knowledge Four Decades after Arrow and Nelson: An Introduction*, "Industrial and Corporate Change", Vol. 15, Issue 6, pp. 891-901, 2006 Available at SSRN: http://ssrn.com/abstract=1116432 or DOI: 10.1093/icc/dtl028

«(The) Economist» [2007], *Who Are the Champions?*, "A special report on European business", February 10th – www.economist.com

Eichengreen, B., (2007), *Back to Rome?*, www.telos-eu.com

EUROPEAN CENTRAL BANK, (2007), *Statistics Pocket Book*, Frankfurt am Main, March.

EUROPEAN COMMISSION [1990], *Communication on Industrial Policy in an Open and Competitive Environment. Guidelines for a Community Approach* [COM(1990)556], Brussels.

EUROPEAN COMMISSION [1994], *An Industrial Competitiveness Policy for the European Union* [COM(1994)319], Brussels.

EUROPEAN COMMISSION [1998], *The Competitiveness of European Enterprises in the Face of Globalisation – How it can be encouraged?* [COM(1998)718], Brussels.

EUROPEAN COMMISSION [2001], *The Economic Impact of Enlargement*, «Enlargement Papers», No. 4, June.

EUROPEAN COMMISSION [2002], *Industrial Policy in an Enlarged Europe* [COM(2002)714], Brussels.

EUROPEAN COMMISSION [2003*a*], *European Competitiveness Report 2003*, [SEC(2003)1299], «Enterprise publications», Brussels.

EUROPEAN COMMISSION [2003*b*], *Some Key Issues in Europe's Competitiveness – Towards an Integrated Approach* [COM(2003)704], Brussels.

EUROPEAN COMMISSION [2004], *Fostering Structural Change: An Industrial Policy for an Enlarged Europe* [COM(2004)274], Brussels.

EUROPEAN COMMISSION [2005A], *Implementing the Community Lisbon Programme: A policy framework to strengthen EU manufacturing – Towards a more integrated approach for Industrial policy* [COM(2005)474], Brussels, 5 October.

EUROPEAN COMMISSION, (2005b), *Report on European Technology Platforms and Joint Technology Initiatives*, [SEC (2005) 800], Brussels

EUROPEAN COMMISSION, "Aho Group Report", (2006a), *Creating an Innovative Europe*, Brussels, January.

EUROPEAN COMMISSION, (2006b), *Economic Reforms and Competitiveness: Key messages from the European Competitiveness Report 2006*, [COM (2006) 697 final; SEC (2006) 1467/2], Brussels.

EUROPEAN COMMISSION, (2007), *The European Institute Of Technology: Further Steps Towards its Creation*, [COM (2006) 276 final]; *Seventh Framework Program*, http://erc.europa.eu ; *European Research Council Work Program 2007*, http://cordis.europa.eu/fp7 ; *Green Paper. The European Research Area: New Perspective*, [COM (2007) 161 final; SEC (2007) 412], Brussels.

«Financial Times» (2007), *FT Global 500*, www.ft.com

«Forbes» (2007), *The Global 2000*, www.forbes.com

«Fortune» (2006) *Fortune Global 500*.

Geroski, P., *Competition Policy an National Champions*, UK Competition Commission, London, March.

GOLDMAN SACHS [2003], *Dreaming with BRICS: The Path to 2050*, «Global Economic Paper» No. 99, October.

Jacquemin A. [1987], *The New Industrial Organization: Market Forces and Strategic Behaviour*, Cambridge, Mass., The MIT Press.

Maincent, E. and Navarro, L. (2006), *A Policy for Industrial Champions: From Picking Winners to Fostering Excellence and the Growth of Firms*, "Industrial Policy and Economic Reforms Papers No. 2", Enterprise and Industry Directorate-General, European Commission, Brussels, April.

Merkel, A., (2006), *Rede von Bundeskanzlerin Dr. Angela Merkel auf dem WDR Europa-Forum am 9. Mai 2006 in Berlin*, www.bundesregierung.de

Mosconi F. [2006], The *Age of European Champions – A New Chance for EU Industrial Policy*, "The European Union Review", Vol. 11, No 1, March 2006, pp. 29-59.

Mosconi F. [2007], *European Champions: Big Groups Grow Bigger*, "east – Europe and Asia STrategies", N° 13, February, pp. 66-75.

Motta M. and Ruta M. [2007], Mergers *and National Champions*, CESIfo Conference: "Do We Need National or European Champions?", Munich, 16-17 November.

Navarro L. [2003], *Industrial policy in the economic literature – Recent theoretical developments and implications for EU policy*, Enterprise Papers No. 12, European Commission, Enterprise Directorate-General, Brussels.

Neven, D. and Seabright, P., (1995) *European Industrial Policy: The Airbus Case*, "Economic Policy, 21.

O'Mahony M. and van Ark B. (Eds.) [2003], *EU productivity and competitiveness: An industry perspective – Can Europe resume the catching-up process?*, Luxembourg, Office for Official Publications of the European Communities.

Pelkmans, J., (2006), "European Industrial Policy", in Bianchi, P. and Labory, S., *International Handbook of Industrial Policy*, Elgar Publisher.

Pisani-Ferry J. [2005], *What's Wrong With Lisbon?*, "Speeding up European Reform: A Master Plan for the Lisbon Process", Munich Economic Summit (June), CESifo Forum, 2/2005, www.cesifo-group.de

Pisani-Ferry, J. and Sapir, A., (2006), "Last Exit to Lisbon", *Bruegel Policy Brief*, March, www.bruegel.org

Prodi R. [2003], *Industrial Policy in an Enlarged Europe*, Speech delivered at the Conference «Industrial Policy in an Enlarged Europe» by the President of the European Commission, Brussels, 21 January, Speech/03/18.

RICERCHE E STUDI (R&S) (2006), *Multinationals. Financial Aggregates*, Milan.

Rodrik D. [2004], *Industrial Policy for the Twenty-First Century*, John F. Kennedy School of Government, Harvard University, September. < http://ksghome.harvard.edu/~drodrik/ >

Sapir A. (Ed.) [2003], *An Agenda for a Growing Europe – Making the EU Economic System Deliver*, «Report of an Independent High-Level Study Group established on the initiative of the President of the European Commission», Brussels, July (then published by Oxford University Press, 2004).

Sapir A. [2005], *Globalisation and the Reform of European Social Models*, Background document for the presentation at ECOFIN Informal Meeting in Manchester, 9 September, Bruegel Policy Brief, www.bruegel.org >

Seabright, P., (2005), *National and European Champions – Burden or Blessing?*, CESIfo Forum, No 2, www.cesifo-group.de

Sutton, J., (1998), *Technology and Market Structure. Theory and History*, Cambridge, MIT Press.

Sutton, J., (2006), *Market Structure. Theory and Evidence*, Paper prepared fro the Volume 3 of the "Handbook of Industrial Organisation, edited by R. Porter and M. Armostrong, 23 February 2006, http://personal.lse.ac.uh/sutton/, in Armstrong M. and Porter R. H. [2007].

UniCredit Group, (2006), *Sectoral Analyses – Outlook 2007-2008*, UniCredit CEE Research Department, Vienna.

Valila, T., (2006) *No policy isan island - on the interaction between industrial policy and other policies*, "EIB Papers", volume 11 N°.2

Veron, N., (2006), "Farewell National Champions", *Bruegel Policy Brief*, No 4, June, www.bruegel.org

**APPENDIX A**

***FT* "Global 500", 2006 (market value by country)**

| Country | Number of Company | Market value $m | % of total by market value |
|---|---|---|---|
| US | 197 | 9,897,407.0 | 44.2 |
| Japan | 60 | 2,155,662.3 | 9.6 |
| UK | 39 | 2,110,906.2 | 9.4 |
| France | 30 | 1,359,481.3 | 6.1 |
| Germany | 19 | 826,574.1 | 3.7 |
| Switzerland | 11 | 728,616.8 | 3.3 |
| Canada | 22 | 654,998.6 | 2.9 |
| Saudi Arabia | 9 | 494,781.5 | 2.2 |
| Italy | 12 | 486,064.9 | 2.2 |
| Russia | 6 | 408,466.1 | 1.8 |
| Spain | 8 | 378,737.1 | 1.7 |
| Australia | 9 | 324,949.2 | 1.5 |
| Netherlands | 8 | 312,707.4 | 1.4 |
| South Korea | 9 | 269,944.4 | 1.2 |
| Hong Kong | 7 | 269,856.7 | 1.2 |
| Brazil | 6 | 257,124.7 | 1.1 |
| Sweden | 8 | 222,341.7 | 1.0 |
| India | 8 | 182,415.2 | 0.8 |
| Norway | 4 | 135,193.3 | 0.6 |
| Finland | 2 | 113,860.5 | 0.5 |
| Mexico | 4 | 110,435.0 | 0.5 |
| Taiwan | 4 | 108,641.2 | 0.5 |
| South Africa | 5 | 99,034.8 | 0.4 |
| Belgium | 3 | 96,289.5 | 0.4 |
| Denmark | 3 | 79,841.3 | 0.4 |
| Ireland | 3 | 57,672.3 | 0.3 |
| Belgium/Netherlands | 1 | 46,420.2 | 0.2 |
| Austria | 2 | 41,948.0 | 0.2 |
| Israel | 1 | 31,956.9 | 0.1 |
| Singapore | 1 | 27,353.7 | 0.1 |
| UAE | 1 | 25,320.2 | 0.1 |
| Argentina | 1 | 20,881.0 | 0.1 |
| Czech Republic | 1 | 20,583.4 | 0.1 |
| Thailand | 1 | 16,828.8 | 0.1 |
| Turkey | 1 | 16,389.6 | 0.1 |
| **Total** | 506 | 22,389,684.6 | 100.0 |

***Source:*** **"Financial Times" (2006)**

**APPENDIX B**

***FT* "Global 500", 2006 market value by sector**

| Sector | Number of companies | Market value $m | % of total market value |
|---|---|---|---|
| Banks | 80 | 3,970,838.5 | 17.7 |
| Oil & gas producers | 37 | 2,518,334.8 | 11.2 |
| Pharmaceuticals & biotechnology | 24 | 1,739,919.3 | 7.8 |
| Technology hardware & equipment | 23 | 1,259,890.5 | 5.6 |
| Fixed line telecommunications | 18 | 911,769.1 | 4.1 |
| Nonlife insurance | 20 | 854,592.6 | 3.8 |
| Software & computer services | 12 | 808,222.3 | 3.6 |
| General retailers | 20 | 754,803.1 | 3.4 |
| General industrials | 7 | 742,788.2 | 3.3 |
| General financial | 19 | 682,914.3 | 3.1 |
| Electricity | 21 | 618,891.7 | 2.8 |
| Mobile telecommunications | 13 | 581,322.8 | 2.6 |
| Automobiles & parts | 12 | 562,424.9 | 2.5 |
| Media | 13 | 453,155.2 | 2.0 |
| Life insurance | 14 | 447,374.1 | 2.0 |
| Healthcare equipment & services | 13 | 410,495.2 | 1.8 |
| Beverages | 9 | 393,582.5 | 1.8 |
| Mining | 7 | 338,453.5 | 1.5 |
| Industrial metals | 13 | 325,847.9 | 1.5 |
| Gas, water & multiutilities | 8 | 304,478.5 | 1.4 |
| Food producers | 7 | 299,529.4 | 1.3 |
| Aerospace & defence | 8 | 282,048.6 | 1.3 |
| Chemicals | 10 | 278,667.2 | 1.2 |
| Electronic & electrical equipment | 10 | 277,985.9 | 1.2 |
| Food & drug retailers | 8 | 270,921.4 | 1.2 |
| Tobacco | 5 | 270,637.8 | 1.2 |
| Industrial transportation | 8 | 255,482.1 | 1.1 |
| Household goods | 3 | 231,107.4 | 1.0 |
| Personal goods | 7 | 221,541.0 | 1.0 |
| Leisure goods | 7 | 219,408.8 | 1.0 |
| Industrial engineering | 9 | 206,981.1 | 0.9 |
| Travel & leisure | 7 | 201,667.7 | 0.9 |
| Support services | 7 | 179,863.3 | 0.8 |
| Oil equipment & services | 5 | 178,026.2 | 0.8 |
| Construction & materials | 8 | 160,466.1 | 0.7 |
| Real estate | 6 | 140,603.5 | 0.6 |
| Forestry & paper | 2 | 34,648.1 | 0.2 |
| Total | 500 | 22,389,684.6 | 100.0 |

***Source*: "Financial Times" (2006) and author's elaboration**

NOTE ON MACRO-SECTORS:

[A] **FINANCE**: Banks (80) + Nonlife insurance (20) + Life insurance (14) = **114 and 23,5% of total**.

[B] **ICT & ELECTRONICS**: Hardware (23) + Fixed line Tlc (18) + Mobile Tlc (13) + Media (13) + Software (12) + Electronic eq. (10) = **89 and 19,2% of total**.

[C] **OIL & ELECTRICITY**: Oil-Gas prod. (37) + Electricity (21) + Multiutilities (8) + Oil eq. (5) = **71 and 16,2% of total**.

[D] **PHARMA & HEALTHCARE**: Pharma-Biotech (24) + Healthcare eq. (13) = **37 and 9,6% of total**

For [E] Automobiles & parts; [F] Aerospace & defence; [G] Chemicals: see *FT* table.

**ABSTRACT**

This paper shows that there are sound economic arguments for developing a modern industrial policy at the EU level. The rationale lies in the need to facilitate economic restructuring through strategic behaviour whenever market forces fail to do so themselves, as well as to encourage innovation and the creation of a knowledge economy in Europe. We further argue that this approach does not entail a return to the old policy of "picking the winners", requiring instead the strengthening of the "Technology" side of the EU industrial policy "Triangle", without weakening its "Competition" and "Commercial" policy sides. The paper also attempts to show how, during the last few years, the European Commission has indeed taken a number of steps in the right direction, focusing particularly on the promotion of research, innovation and high-skilled human capital in Europe.

Finally, we argue that "European Champions" could be a suitable means of promoting this modern European industrial policy, on condition that value is genuinely added by supranational public and private cooperation in research and innovation, and that the logic of the Single Market is respected.

We believe that when these conditions hold, at least two types of "European Champions" can emerge. This, the paper concludes providing a basic taxonomy: the "Type I" or "Airbus model"; the "Type II" which is the result of the current M&A wave (cross border deals and horizontal mergers, i.e., belonging to the same sector of activity).

"Type II" Champions are the most promising. A table highlighting some of the main "European" operations which have taken place in the EU is provided.

**JEL CLASSIFICATION**: L 10, L50, L52

**KEYWORDS**: Industrial Policy, National Champions, European Single Market, Mergers & Acquisitions, Competition Policy