

# TRANSNATIONAL CORPORATIONS, GLOBAL VALUE CHAIN AND INTANGIBLE ASSETS : SOME HYPOTHESIS

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Comments welcome

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The outline of this unfinished draft with incomplete references is as follows. There are now a growing number of mainstream economists who consider that globalisation renders obsolete the traditional theory of international trade and calls for a new paradigm. In our view, this agenda would require to address not only the role of transnational corporations (TNCs) in the new International division of labour, but also to analyse their transformation in recent years. TNCs are not only larger and more internationalized than other firms. They represent a category of enterprise of their own, based upon a centralisation of financial assets and a specific organisational structure (with the core role for the *holding* company) . Their assets, as assessed by stock markets, are mainly made up of intangibles. As they are given a stock value, intangibles are for a most part 'unidentified', and in some cases (business trouble, financial distress) they become 'unlocatable', reflecting their singular (and for a significant part fictitious) nature as capital. The papers analyses the incredible rise of intangible assets, and connect them to the transformation of the TNCs' global value chain.

## THE NEED FOR A NEW PARADIGM, BUT WHICH ONE ?

In the context of deregulation and liberalisation of markets, International trade and international division of labour have been going through sweeping changes in recent years. For decades, the basic tenet in economics was that international trade flows and foreign investments by firms are determined by the differences in national factors of production 'endowments'. This resulted in an increase in welfare for all the nations participating to international trade. For a couple of years, the mood has changed. With the offshoring of high skill activities, including R&D ones, in emerging countries, the confidence of economists who defended at length the benefits of free trade have been shaken.

The main drivers for this move are Transnational Corporations (TNCs) as they are called by UNCTAD, or Multinational Enterprises (MNEs). Transnational corporations' strategies deeply shape the process of globalisation. A major shift under way is that the dramatic increase in the offshoring of their innovation-intensive activities. As the 'old' division of labour assumed that they sourced in less developed countries FDIs which aimed mainly at taking advantage of low-skilled (and low paid) jobs, recent research converge to observe a dramatic increase in internationalization of their R&D, be it through acquisitions of existing labs, or through Greenfield investments. China and India are the main countries targeted, as they combine a large basis of skilled manpower but low paid, a high quality of their scientific and technological infrastructure (universities, research centers,...), and last but not least, huge domestic markets. 'Offshoring' of R&D and other middle- and high-skills activities by European transnational corporations (TNCs) is accompanied by the 'nearshoring' of the same range of their activities in Mexico by American TNCs, in Central and Eastern Countries (CEE) by European TNCs.

Another major shift in TNCs' strategy affects innovation networks. Significant segments of their global value chain are now outsourced in their home region or in emerging countries. An increasing share of high tech production, but also scientific research is concerned. TNCs contract out with public research institutions and universities for tapping in the scientific knowledge basis, as well as with R&D-oriented Small and medium enterprises (SMEs) for appropriating high value generating innovations. In recent years, they found new ways for capturing for private benefits the positive externalities created by the existence of large public related knowledge infrastructure

This new orientation of FDIs, searching for low paid, high skill workforce, shook the confidence, even among economists the most committed to free trade. Samuelsson has become more sceptical in recent years on the benefits of globalization for the US economy. This, in his view challenges the basic tenets of comparative advantages as formalised in the well-known Stolper-Samuelsson theorem. Krugman does not consider with the same vigor than in 1995 that « *the effects of trade on inequality would eventually hit a limit, because at a certain point advanced economies would run out of labour-intensive industries to lose* » [Krugman, 2007, p.xx]<sup>1</sup>. Blinder thinks that the “*Panglossian equilibrium*” brought about by free trade as described in his earlier papers, is perturbed by two shocks produced by globalization [2007, p.10]<sup>2</sup>. Grossman [with Rossi-Hansberg, 200x] , calls for a *new paradigm* which draws upon international division of *tasks* rather than *labour*.

The reassessment by economists of the basics they long taught to students operates through the inclusion of ‘firms’ into international trade. Actually, firms began to be taken into account, when economists stressed on the role of increasing returns and imperfect competition in the growth of intra-branch trade and vertical specialization [Helpman, Krugman, 1985]. More recently, research compared the ‘two globalizations’ ‘ unbundling [Baldwin, 2006] .

Still, in our view, most of those analysis, despite the inclusion of the role of firms into the Ricardian paradigm, draw upon a contractual approach to the firm. In this theory, residual control is over non-human assets, things such as machinery, inventories, buildings, patents, client lists, firm’s reputation etc. Owner–managers employ labour that cannot work without the physical capital these firms own. Dismissal or resignation of the labour requires them to find other physical capital owning organisations (firms) to employ them. On liquidation of the firm, physical capital can be sold and the proceeds disbursed to the owners (shareholders). In other words, the approach remains influenced by mainstream economics which considers the firms as a combination of factors of production or a nexus of contracts.

Even if we are simply to account for some basic trade-offs (integration vs outsourcing, domestic vs offshoring production), we need a more developed theory of firms. One purpose of this paper is to propose an alternative theory of ‘firms’, and in particular stress on the close interaction between production and finance that was reinforced by the process of globalisation. TNCs are large organisations (mainly) controlled by institutional investors, and their governance structure shapes a strategy of production which is influenced by a ‘financial logic’.

This represents a serious challenge for public policies (which will not be addressed in this paper) . Because of the might and leverage of TNCs, public policies are drawn into a competitive process, sometimes likened to “the race to the bottom”, if they are to attract and/or retain foreign investors. Public policies have increasingly moved from national, to regional and subregional levels. Increased interest for ‘cluster’ policies is one of the reasons that could account for these changes. Meanwhile, despite some claimed mistrust and hostility to National governmental policies, seen as reflecting an excessive involvement of state in economic matters, large technological programs, often defense-, security- and aerospace-oriented, remain key instruments of technology policy in a number of developed countries. In other countries, the programs are more dedicated to civilian purposes (health, environment, transport infrastructure).

## **TNCS AS FINANCIAL HOLDINGS**

Large transnational corporations or Multinational Enterprises (MNEs) have been instrumental in this process. TNCs are not only larger and more internationalized than other firms. They represent a category of enterprise of their own, based upon a centralisation of financial assets and a specific organisational structure (with the core role for the *holding* company). Ever since the process of *corporatization* took place, it has been (or it should have been) needed to distinguish between two overlapping dimensions. The first is the process of production which leads, if the full cycle of advance

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<sup>1</sup> Paul Krugman, Trade and inequality, revisited, 15 June 2007, <http://www.voxeu.org/index.php?q=node/261>

<sup>2</sup> Alan S. Blinder, “Offshoring: Big Deal, or Business as Usual?”, CEPS Working Paper No. 149, June 2007, <http://www.princeton.edu/~blinder/papers/07juneCEPSwp149.pdf>, access 05/05/2008

of means of production and labour -production-sell on the market (with profit) is carried out. 'Firms' are not only a combination of production factors; they are also a governance structure. Neoclassical literature was long to recognize the evidence, and goes on seeing the existence of firms as an alternative to market failures. The contractual approach which underlies new trade theories which address globalisation issues, falls short of accounting the existence of different organizational configurations of firms, governance issues, in particular the way relations between finance and production activities are reorganised by TNCs in their process of globalisation.

If we are to understand the process of financialisation of non-financial corporations (see below) , we need to drop the vision of the firm as a 'nexus of contracts' or as a function of production. The corporate form that took place in the USA at the end of the nineteenth century reflected a broader process taking place in all industrialised countries. It can be described as the creation of the *Joint stock Company*, as the legal and dominant form of large firms<sup>3</sup>. This definitively put an end to the fiction of the neoclassical approach of the producer-owner-of-capital (money and productive capital being confused under the same term, as brilliantly demonstrated by Joan Robinson in the 'Cambridge controversy')<sup>4</sup>.

*Incorporation* of firms, and transition from personal to impersonal forms of ownership and control, gave a strong impetus to investigations of the 'double nature' of firms, both as locus for industrial activity, i.e. production of value through conception and production of goods, and as a financial organisation. Two distinct but related, issues stemming from this evolution have been addressed in academic literature. The first perspective deals with the nature and effects of the separation between management and ownership. Ever since the Berle and Means' seminal findings on the emergence of a powerful class of professional managers insulated from the pressure of stockholder<sup>5</sup>, these issues have triggered a considerable debate in the academic and managerial literature. Sociologists, Lawyers, political scientists entered the debate very early, while mainstream economists turned their attention to this issue only in the 1960s. The other perspective related to the 'double nature' of firm, which is at odds with the hypothesis that capital invested in production is the outcome of saving by the entrepreneurs, investigated what *capital* meant. This debate on the nature of capital deals with two issues raised by the development of joint stock companies: the need to address the conceptual difference between *money* capital brought by shareholders (through stock markets) or through credit by banks) and *productive* capital, amount of money invested in means of production and labour wages, as prerequisite for the production of value. The separation between these two forms of capital is highly challenging as far as their prices are concerned. How existing gaps between their respective prices (or in their values) can be explained, if they only are two facets of a same capital? Indeed, we have to acknowledge that those gaps are inherent to capitalism, if we consider that it is not a mode of economic (and social) organization based on barter 'plus' money, i.e. with money acting as oil lubricating and easing the expansion of exchanges. This view, typical of the neoclassical approach to money as reduced to its function of means of payments, is at odds with capitalism as 'a monetary economy of production' [Keynes, 1933<sup>6</sup>].

Veblen was one of the most acute observers of the transformation of capitalism brought about by the incorporation process. In his analysis of the "Modern Business Capital (title of his *Theory of modern enterprises's* chapter 6) he observes that, while "*capital*" as a stock of the material means by which industry is carried on" by the "received body of [economists'] doctrines", for business, it

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<sup>3</sup> For a comprehensive analysis, see John Scott, *Corporate business and Capitalist class* for a comprehensive analysis, Oxford University press, 1997

<sup>4</sup> The fact that in the early expansion of industrial capitalism in the 18th and 19th *individual* ownership was dominant does not legitimate the confusion between money and productive capital, see below.

<sup>5</sup> Adolf A. Berle and Gardiner C. Means, *The Modern Corporation and Private Property* (New York: Harcourt, Brace & World, [1932] 1968).

<sup>6</sup> Keynes, J.M. 1933, « A monetary theory of production », CW, XIII, 408-411.

means “a fund of money values” [Veblen, 1904, p. Xxx]<sup>7</sup>. In that context, “Corporation's capital is de jure a magnitude fixed in the past by an act of legislature chartering the company or by an issuance of stock by the company under the terms of its charter or of the acts which enable it. But this de jure capitalization is nominal only, and there are few, if any, cases in which the effective capital of a company coincides with its de jure capital [...]. The effective capitalization of any modern company, that is to say, the capitalization which is effective for current business purposes as distinct from the formal requirements of the charter, [that is to say...], as distinct from the de jure capitalization, is not fixed permanently and inflexibly by a past act of incorporation or stock issue. It is fixed for the time being only, by an ever recurring valuation of the company's properties, tangible and intangible, on the basis of their earning-capacity”. (1904, p.xx).

Indeed, Veblen was not the first economist to devote careful attention to these issues. Marx developed at length the notion of *fictitious* (finance) capital. He saw the origin of fictitious capital in the development of the credit system and the joint-stock system, with the active involvement of government through their public debt. He distinguished between the *property* (financial claims on value created thanks to the process of production of goods) and the *productive* (means of production, labour workforce) forms of capital. This duality of the capital was also a source of the fact that “stock companies have an increasing tendency to separate this work of management from the ownership of capital, be it self-owned or borrowed”<sup>8</sup>.

While the separation of ownership and management has vivified a protractable debate for decades, the ‘double nature’ of capital was long an issue of little concern. A possible and partial explanation could be that the former issue has been caught by a range of social scientists, while the later issue become an object of research ‘sliced up’ between separated realms of economists who specialised in finance, industrial economics, microeconomists, etc. who, for various reasons did not exchange with each others.

## INTANGIBLES AS A WAY TO SWELL MONEY CAPITAL

Intangible assets<sup>9</sup> have become a key component of modern economy<sup>10</sup>. Unfortunately, they are defined in various ways which are not similar, and sometimes might be fairly divergent with each other. The basic thrust of this section is that their development – and their creation as accounting and financial category are linked, for a significant part, to perspectives of valorisation (profits) expected by financial markets

### **A loose definition...**

There is no agreed definition among economists, let alone between economists and accountants, on what intangible assets means. We focus in this paper on the evaluation of tangible assets held by business, and leave aside the issue of intangible assets as measured at a national level, as tentatively made by the World Bank. The definition of Intangible capital is defined as the sum of “*human capital and the quality of formal and informal institutions*”<sup>11</sup> [2006, p.14]

<sup>7</sup> ] Thorstein Veblen, "Modern Business Capital" Chapter 6 in *The Theory of Business Enterprise*. New York, Charles Scribner's Sons, 1904, access [http://www.brocku.ca/MeadProject/Veblen/Veblen\\_1904/Veblen\\_1904\\_06.html](http://www.brocku.ca/MeadProject/Veblen/Veblen_1904/Veblen_1904_06.html), May 3, 2008.

<sup>8</sup> K. Marx, Capital, Part V, Chapter XXVII, “The Role Of Credit In Capitalist Production”.

<sup>9</sup> *Intellectual*, Knowledge, and in French, *immatériels*, assets (or capital!) are used as synonymous.

<sup>10</sup> See among many similar observations: “economic success is increasingly based on upon the effective utilisation of intangible assets such as knowledge, skills and innovative potential as the key resource for competitive advantage. The term “knowledge economy” is used to describe this emerging economic structure” [ESRC, 2005].

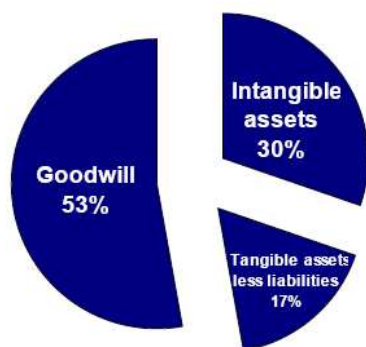
<sup>11</sup> The World Bank, *Where is the wealth of nations?. Measuring Capital for the 21st Century*, 2006, <http://siteresources.worldbank.org/INTEEI/214578-1110886258964/20748034/All.pdf>, access 05/05/2008

The study finds that the share of total wealth in high-income-OECD countries is natural capital : 2%, Produced capital : 17% et intangible capital : 80%. Interestingly (and conceptually challenging) the study also finds that some countries have a negative level of intangible capital, which is “possible by construction because it is calculated as a residual—the difference between total wealth (the present value of future consumption) and the

Three core characteristics are generally agreed upon to define intellectual assets: i) they are sources of probable future economic profits; ii) lack physical substance; and iii) to some extent, they can be retained and traded by a firm. They generally include at least R&D, patents, and trademarks<sup>12</sup>. A seminal study on the contribution of intangibles to the US economy defines intangible investment as “private expenditures on assets that are intangible and necessary to the creation and sale of new or improved products and processes. These include designs, software, blueprints, ideas, artistic expressions, recipes, and the like. They also include the testing and marketing of new products that are a necessary sunk cost of their first sale to customers. It is the private expense to create private rights to sell new products” [Nakamura, 2001, p.2]<sup>13</sup>. Others identify intangible – or restrict it? – to the knowledge economy [Brinkley, 2006]<sup>14</sup> and propose to define the latter in ways that are measurable, i.e., “testable against hard data : Industry sector definitions of knowledge intensive industries and services Occupational based definitions of knowledge workers Innovation related definitions of the share of innovating firms” [p.13]. Others, such as the European Commission through the Meritum Project, proposes that “Intellectual capital is the combination of the human, organizational and relational resources of an organization” [p.10]. The taxonomy includes : a) Human capital defined as the knowledge, skills and know-how that employees “take with them when they leave at night”, b) Relational capital which concerns the resources arising from the external relationships of the firm with customers, suppliers and R&D partners, and c) Structural capital which refers to the knowledge that stays with the firm “after the staff leaves at night”. It comprises organisational routines, procedures, systems, cultures and databases.

**...but an incredible rise in their (stock) market value**

Despite the diversity of definitions given, research findings converge and conclude to the steep rise in the growth of intangible assets in recent years. The importance of intangible assets has sky-rocketed in the last years: from 20% of the value of firms in the S&P 500 in 1980 to 70% nowadays (source xxx). In the UK, figures are more impressive (figure 1) :



Source:

French top companies, those listed on the top market (CAC 40, the like of Dow Jones) are not different from Anglo-Saxon companies (figure 2). Intangible assets (called actifs incorporels in French accounting) reached 427 billion € in 2006, of which 60% is accounted for by goodwill, Intangible assets accounted for 33% of stock market capitalisation of these companies.

Figure 2 : Stock capitalisation vs Book value capitalisation\*

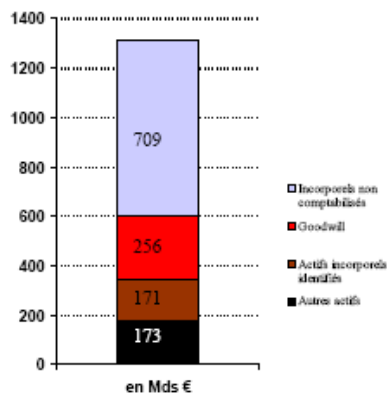
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sum of produced and natural capital” (p.21). It is fair to say that, elsewhere the World Bank acknowledges that “The largest share, intangible capital, consists of an amalgam of human capital, governance, and other factors that are difficult to value explicitly” (footnote p. XX)

<sup>12</sup> OECD, “Intellectual Assets And Value Creation: Implications For Corporate Reporting”, 10 December 2006

<sup>13</sup> Leonard I. Nakamura, “What Is The U.S. Gross Investment In Intangibles? (At Least) One Trillion Dollars A Year!”, Federal Reserve Bank of Philadelphia, Working Paper NO. 01-15 October 2001

<sup>14</sup> Ian Brinkley, Defining the knowledge economy, The Work Foundation [http://www.theworkfoundation.com/Assets/PDFs%5Cdefining\\_knowledge\\_economy.pdf](http://www.theworkfoundation.com/Assets/PDFs%5Cdefining_knowledge_economy.pdf), access 05/05/2008



\*Note : Title given by the authors of the study

Source : Ricol et *alii*, 2007

A striking feature is that, the value of the top 5000 companies reached \$36.2 trillion at the end of 2005 of which \$14.0 trillion represented Tangible Net Assets and \$4.3 trillion disclosed Intangible Assets [Global Intangible Tracker, 2006]<sup>15</sup>. The remaining \$17.9 trillion represents 'Undisclosed Value'. In short, less in market capitalisation, 39% comes from tangible assets, 12% comes from accounted intangible assets, and the remaining (about 49%) comes from undisclosed intangible assets (the same situation prevails in France, figure 2) . The undisclosed intangible assets have been the driving force in the rise of market capitalisation. Since the end of 2001 (until the end of 2005), the Value of the companies increased by \$9.4 trillion: of that increase, \$3.4 trillion has been an increase in Tangible Net Assets, \$1.3 trillion in undisclosed intangible assets (including goodwill) and \$4.7 trillion in undisclosed value [Id.]

### ***Intangible assets, as a creation of the 'markets' (and financial community)***

In a strict sense, the impetus given in recent years to the tremendous rise in intangible assets – and in a larger proportion, to the 'undisclosed' ones – comes from financial markets and the financial community (analysts, brokers, investment banks, etc.). The interest for the category of intangible assets followed the 'discovery' of the rising gap between the book value and the stock market value. As the gap has existed since the creation of stock markets, since perspectives adopted by accountants and financial markets are different (see below), a so high gigantic gap was observed only in recent years. The widening gap is tightly correlated to the Mergers-Acquisitions process that took place in the 1990s and resumed at higher levels between 2003 and 2007, after the 2000-2001 stock market collapse. It seemed necessary to add to intangible assets including in the book value, the value of intangible assets generated by the M&A which was reflected in the premium offered to the acquired company's shareholders. The difference between the purchase price and the sum of the fair value of the net assets is by definition the value of the "goodwill" of the purchased company. There is a broad agreement among professional accountants that it exists a great deal of discretion and judgment in valuing goodwill, and that transparency has not been improved by recent accounting rules such as IFRS316. Opacity is considerable, since, according to a study made in the UK, 21 billion£ out of 40 billion \$ of acquisitions by top 100FTSE in 2006, were unexplained by companies [Forbes 2007]<sup>17</sup>.

<sup>15</sup> [http://www.brandfinance.com/Uploads/pdfs/BF\\_GIT\\_07\\_REPORT\\_Final%20Version%20Low%20Res.pdf](http://www.brandfinance.com/Uploads/pdfs/BF_GIT_07_REPORT_Final%20Version%20Low%20Res.pdf), access 05/05/2008

<sup>16</sup> The daunting task seems evident in the mandate given by IFRS3: IFRS 3's role is to attempt to pin the value down more accurately, defining goodwill as "future economic benefits arising from assets that are not capable of being individually identified and separately recognised".

<sup>17</sup>Thayne Forbes, "IFRS 3: Dark Matter", *Corporate Financier*, 07/03/2007, <http://www.intangiblebusiness.com/Brand-Services/Financial-Services/Press-Coverage/IFRS-3-Dark-Matter~113.html>, access, 05/05/2008

We are here confronted, under the intangible umbrella word, with a very specific type of capital. It does not correspond to any material good or equipment, or to any ‘immaterial’ or intellectual activity. The value of those unidentified intangible assets represented by goodwill is a pure creation of stock markets, which is then transformed into ‘creative accounting’. The fictitious nature of this kind of capital was underlined by Veblen, in his careful analysis of goodwill. That the value of this capital fluctuates according to stock markets’ opinions does not mean that it is a pure stock market issue. Instead, through its ‘institutionalisation’ in the accounting books of large companies, it reflects the inflation of financial assets, whichever their material reality, which act as property claims on value created in the production. It is easy to understand that promises of such earnings, gained and registered through acquisitions, has become a mighty driving force, which reinforces the financialisation of large companies and the resulting reorganisation of their value chain.

## **GLOBAL VALUE CHAIN, RENT CAPTURE AND INTANGIBLE ASSETS**

The rise of intangible assets as an analytical and empirical category is anything but a simple financial game. Instead, it has to be put in relation with the dramatic changes in industrial groups’ strategy that took place in recent years. The Global value chain (GVC) is a useful framework if we are to analyse these changes. Ever since it was introduced in the 1990s, the GVC literature considerably expanded. Other authors use different words to analyse rather similar process: international production networks (Borras, Ernst and Haggard 2000), global production networks, (Ernst 1999; Henderson et al. 2002), global production systems (Milberg 2003), and the French *filière* concept (Humbert, 1983)<sup>18</sup>. We do not restrict GVC to the narrow sense of a description of the steps of transformation from raw materials to the final product. We use the notion to underline that large organisations are able to control significant parts of the process of value creation, hence they are in a position, not only to reap the value created ‘internally’ (in subsidiaries and branches) , but also to capture segments of value created outside of the corporations in which they have enough voting stock to control them. Value capturing can be made through market power, be it informal – when power asymmetry is large enough to constrain the smaller firm *vis-à-vis* the large organisation - or formal, through the latter’s possession of financial and property claims against which rents have to be paid to it. Some of these property claims –patents, copyrights, design rights, trade secrets, trademarks, service marks which fall into Intellectual Property rights (IPR)– are capitalised as intangible assets by financial markets. In our view, they add a new layer to the ‘financialisation’ of TNCs. Only a minority of research have begun to look at the core role of financialisation (Milberg, Palpacuer, Newman) and the purpose of this paper is to bring some inputs to these issues, and underline that the blurring of the frontiers between value appropriation through a direct production process and through rent capture gained momentum at the era of globalisation.

### ***Financialisation of TNCs***

In the 1990s, a double process took place: a dramatic shift in the distribution of value added and a considerable rise in the dividends pay-outs (and gains in stock value). Those processes are so deeply and worldwide established that they can be as an epochal change [Ellis, Smith, 2007]<sup>19</sup>. Also, the rise in dividends served to shareholders is quite impressive (data later). It is part of what is called *financialisation*. We have developed a rather similar approach based on a characterisation of large

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<sup>18</sup> For a review, see Jennifer Bair, “Global Capitalism and Commodity Chains: Looking Back, Going Forward”, *Competition & Change*, Vol. 9, No. 2, June 2005, p.153–180

<sup>19</sup> See Luci Ellis and Kathryn Smith, “The global upward trend in the profit share”, BIS Working Papers, No 231, July 2007, p.3 : “High levels of the profit share are unusually widespread at present. [...] Since 1960, 2004 was the first year for which at least 14 out of the 20 countries in the sample were more than 2 percentage points above their post- 1960 average”.

'industrial groups' (i.e. the set of the holding/parent company and its subsidiaries) as a "*organisational modality of finance capital*" [Serfati, 1996, p.144]<sup>20</sup>.

Financialisation gets many meanings<sup>21</sup>. At a macroeconomic level, it is used by The French school of Régulation (the 'regulationnists') as the emergence of a "wealth based growth regime". Others restrict the use to what happens to the micro-level (firms and households). Others give the word a very broad meaning: « *financialization means the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies* » [Epstein, 2006, p. xx]. In a convergent manner, some observe the emergence of a "coupon pool capitalism". They define it as "*a new generic type where the pool of new and issued coupons becomes a regulator of firm and household behaviour and a regulator of macro economic trajectory [...] . Coupon pool capitalism is constituted when, under specific conditions, the capital market moves from intermediation to regulation of firm and household behavior*" [Froud, Haslam, Johal, Williams, 2001, p. xx and yy.]<sup>22</sup>.

This evolution has to be put in relation with the changes in corporate governance that occurred during the same period. In the early 1980, a shareholder 'revolt' took place against the excess of power held by top executive managers. From an academic perspective, agency theory was critical of the kind of the strong imbalance in the principal (shareholders)-agency (managers) relationship. The latter were said to 'spoil' the former because of asymmetrical information. The very goal of the reforms should be to « *motivate managers to disgorge the cash rather than investing it at below the cost of capital or wasting it on organization inefficiencies* » [Jensen, 1986, p.324]<sup>23</sup>.

Surprisingly, while, GVC initiators have carefully addressed CGV governance issues, with a wealth of details and taxonomy<sup>24</sup>, they have totally neglected the implications of "financialisation".

The following addresses some changes in the governance of the GVC that highlight some aspects of financialisation.

### **Emphasis on rent capture strategy**

In recent years, TNCs have been involved in substantial changes in the management of their GVC. 'Vertical disintegration', 'slicing up of the value chain', 'refocusing on core competences', 'outsourcing and offshoring', are some of the words used to describe the process. A general trend for management has been to drop productions assessed to be insufficiently value creating or/and 'non strategic'. Practically, 'upgrading'<sup>25</sup> by refocusing on the two ends of the value chain has been the objective. This means preserving strategic activities, such as trans-divisional research, technology and business intelligence, etc. Managers have also developed their activities at the lower end of the value chain, that is those activities which increase the control of markets (in the narrow sense of locus for the sale of goods and services) and appropriation of related-value. Central in this strategy is the development of Intellectual Property Rights (IPRs). A study covering over 400 world-class European TNCs found that the average Revenue earned from the licensing of intellectual property reached 12%

<sup>20</sup> Serfati Claude, « Le rôle actif des groupes à dominante industrielle dans la financiarisation de l'économie », dans F. Chesnais (éditeur), *La Mondialisation financière, Genèse, enjeux et coûts*, Syros, 1996, p.143-182

<sup>21</sup> We think that the category of *finance capital* could be useful to analyse the so-called financialisation. We define finance capital both, as a) a *functional* process of valorisation of money capital thanks to dividends, interests, and other forms of revenues of property claims (e.g. IPR), that is to say as money generating more money b) an *institutional* sector, made up of firms the business of which is based on financial activity (the financial industry as distinct from the automotive or energy industry) [Serfati, 1996].

<sup>22</sup> , "Financialisation And The Coupon Pool", *GESTÃO & PRODUÇÃO*, vol. 8, n.3, p. 271-288, Dec..

<sup>23</sup> Michael C. Jensen, "Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers, *American Economic Review*, May 1986, Vol. 76, No. 2, pp. 323-329.

<sup>24</sup> Gary Gereffi, John Humphrey, Timothy Sturgeon, "The governance of global value chains", *Review of International Political Economy* 12:1 February 2005: 78–104

<sup>25</sup> We define this word in the narrow sense of a process allowing firms to increase value created or appropriated, and not in the broader sense given by the literature of the combined process of Upgrading in a Socially Sustainable Way



of the total revenue in 2007<sup>26</sup>. Other expenditures with a strong rise are marketing, advertising, communication, and the expenditures which are aimed at increasing the TNCs' relational capital, a significant, albeit imprecise<sup>27</sup>, component of their intangible capital. Marketing and advertising expenditures have risen so high that they now match technology-related expenditures. It is in particular the case in the French manufacturing industry (figure 3). The trend is unambiguous: between 1996 and 2006, the growth in advertising has been higher (+59%) than the growth in R&D expenditures (33%). As the preference given for advertising in France could reflect the protractable disaffection of French companies for self-funded R&D, it is by no means an exception. An IBM's CEO study, which polled 750 CEOs, respondents ranked R&D as their eighth source for new ideas<sup>28</sup>. High Tech industries are not immune, and rent generating and capturing expenditures gain increasing momentum compared to R&D expenditures. In the computer industry, the two stars, Apple and Microsoft, spent in 2006 hardly more in R&D than in advertising and communication in its retail shops [Mandel, 2006]. Most of the Microsoft R&D budget is spent on commercially orientated projects<sup>29</sup>. In another high tech industry, US pharmaceutical companies spend almost twice as much on promotion as they do on R&D<sup>30</sup> (to be expanded based on the discussion by some reports, including Scherer, 1990, Baker and Chatani, 2002, Pattikawa, 2007). In France, similar data have been released showing that promotion expenditures account for over 12% of the total pharmaceutical business turnover, a figure slightly higher than the share of self-funded business R&D in business turnover<sup>31</sup>.

### **Reorientation of R&D expenditures**

The strategy of Rent-seeking base on IPR (patents, brands...) brings about the kind of Research-development which is undertaken by HT companies. Usually, R&D is seen as an indicator for technological activities. It is now increasingly acknowledged that some expenses accounted as R&D have little to do with research or technological development<sup>32</sup>. As signalled by R&D analysts: *"from a strict R&D standpoint, it's somewhat questionable to count the two-thirds of the pharmaceutical spending that is dedicated to the execution of clinical testing. Similarly, nearly 85% of automotive spending is principally dedicated to the development of tooling for the year's new models. These development funds have historically been included in a company's general R&D funding program and difficult for analysts to financially separate from the company's total research effort. When combined, clinical trials and automotive production tooling account for about 45% of the total spending of the top 25 companies. But while they're essential to the execution of the overall product development program, the actual costs are for mostly low- or non-technical items"*<sup>33</sup>.

<sup>26</sup> The Economist Intelligence Unit 2007, "The value of knowledge. European firms and the intellectual property challenge".

<sup>27</sup> It includes, according OECD [2006] : "brands, customers, customer loyalty, company names, backlog orders, distribution channels, business collaborations, licensing agreements, favourable contracts, franchising agreements", OECD, "Intellectual Assets And Value Creation : Implications For Corporate Reporting", 10 December 2006, p.14.

<sup>28</sup> [Ann Bednarz](http://www.networkworld.com/news/2006/061406-ibm-consulting-services.html) , IBM unveils R&D consulting practice, NetworkWorld.com , 06/14/2006, <http://www.networkworld.com/news/2006/061406-ibm-consulting-services.html>, access 05/05/2008

<sup>29</sup> The Economist (print edition) , The rise and fall of corporate R&D. Out of the dusty labs  
Mar 1st 2007,  
file:///D:/Mes%20documents/MondialisationM2/Themes/Innovation/ShortermFinetinnno/Theeconomist010507shortermism.htm

<sup>30</sup> Gagnon MA, Lexchin J. "The Cost of Pushing Pills: A New Estimate of Pharmaceutical Promotion Expenditures in the United States". PLoS Medicine Vol. 5, No. 1, e1 doi:10.1371/journal.pmed.0050001, access 05/05/2008

<sup>31</sup> Bras, Ricordeau, xxx, 2007

<sup>32</sup> This issue of expenses which should be withdrawn from R&D has been dealt in the defence and aerospace sector in the 1990s.

<sup>33</sup> Global 2008 R&D Report, September 2007 R&D Magazine, <http://www.rdmag.com/pdf/RD79GlobalReport.pdf>, access 04/05/2008,p.14

R&D data on US companies confirm this reorientation towards more short-term development, including activities which would fall in IPR policy rather than R&D *per se*. The trend which has been lasting ever since the forecast index was introduced is worrying enough to lead the authors of the survey: "Will there come a point where U.S. industry no longer conducts directed basic research?"<sup>34</sup>.

## A NEW FIELD OF VALORISATION FOR FINANCE CAPITAL

The stock valorisation of intangible assets proceeded in interaction with what happened in the 'real' – i.e. the productive sphere. Financial assets, which generate revenues (dividends and gains in stock values<sup>35</sup>), now include intangible assets, as long as they are priced by stock markets. TNCs, and among them High technology ones, are a driving force for this increase in financialisation of conception and production activities.

There is some concerns on the bubble, which is often unexplained, of the price of intangible assets. For some, this reflects some 'sort of measure of our ignorance', to paraphrase wordings of Denison long time ago [1962]. "The historically high p/e ratios that we see today are a reflection not of a renewed bubble, or investors' overoptimism, but of the failure of GAAP as a system of financial reporting in the knowledge economy"<sup>36</sup>. In short, there is no irrational exuberance. Researchers tried to build a category taking into account the coming of age of a knowledge economy [Hall, 2001]<sup>37</sup>. They include in the e-Q *index* physical capital, knowledge capital (including IT and software), purchased intangibles, reputational capital, brand name value, human capital to the extent it is not captured in wages, other infrastructural capital, such as the existence of a distribution network. From this perspective, the concern of overevaluation of the (traditional) Tobin Q during the bubble vanishes. So, «financial markets may be failing to properly value and thus reward innovative investments. One step towards the 'knowledge economy' would be to require Europe's publicly-listed firms to disclose their R&D» [Hall and alii, 2007].

Our analysis starts from another perspective than the one that proposes a qualitative transformation of capitalist mode of production of value, set in by the *knowledge economy*. This is not deny the role of knowledge, but ion the daunting task is to define a methodology able to encapsulate and quantify in a specific way this 'factor' of production. Knowledge offers specific attributes, generally identified in the category of collective or public good (non-rivalry, increasing returns of scale, positive externalities), along with low cost of reproduction, etc. This could reflect not a qualitative novelty, but a further contradistinctions between the private ownership under which the process labor of production is mainly carried out – or more precisely run – and the increasing 'socialisation' or collective source of wealth.

The potential divergence between the stock market value and the 'real' value of companies is inherent to the double nature of capital, as recalled earlier in this paper, as the point was strongly made by Keynes: "the volume of trading in financial instrument, i.e. the activity of financial business, is not only highly variable but has no close connection with the volume of output whether of capital goods or of consumption goods" [Keynes, p.222]<sup>38</sup>. This explains why the euphoria a company benefits of on the stock market, ends up when intangible assets reveal themselves as a 'wealth paper'. The perilous shift from 'unidentified' to 'undiscoverable' or 'unlocatable' assets and the resulting evaporation of this fictitious capital is accounted for by a series of factors. One, market

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<sup>34</sup> xxx

<sup>35</sup> Interestingly, in French the gains got by the owner of stocks and resulting from the difference between the price he/she paid for the stock and the price he/she sold it is called *plus-value*. The same word (plus-value) is also used to define the share of the value created by the workforce in the process of production which is appropriated by the employer (the owner of the means of production) (what is called in English the *surplus value*).

<sup>36</sup> Wallison Peter J., « The Future of the Accounting Industry. Introductory Remarks », Washington Publication, [http://www.aei.org/publications/pubID.20755,filter.all/pub\\_detail.asp](http://www.aei.org/publications/pubID.20755,filter.all/pub_detail.asp)

<sup>37</sup> Hall, B. H. , Thoma G. and Torrisi S. (2007), "[The market value of patents and R&D: Evidence from European firms](#)", Working paper 13426, National Bureau of Economic Research, Cambridge, Mass.

<sup>38</sup> Keynes, John M, *The Collected Writings of John Maynard Keynes*, Macmillan, London, volume 5

distress reveals the large range of 'sunk' costs - of which some of them could, from another analytical perspective be defined as 'unproductive' or 'waste' costs – generated by investments in communication, advertising, lobbying, etc. Two, R&D expenditures and vocational and in-company training increase what is called human capital. Two decades of formalization and codification of knowledge have aimed in particular at appropriating the knowledge, skills and know-how of the workers and preventing them to “*take with them when they leave at night*” (definition of human capital commonly given, see OECD, 2006) . Still, the limits of this private appropriation by companies, and through intangible assets are set by the singular status of the 'factor of production' – the wage-earner – in which knowledge is incorporated, who is the real owner of their knowledge and skills. Three, parts of intangible assets, called structural (or organizational) capital refers to the knowledge that stays with the firm “after the staff leaves at night”. It comprises organisational routines, procedures, systems, cultures and databases [OECD, 2006]. As they could really reflect an edge for the organisation (the firm), attempts to give it a market price, called *goodwill*, occurs at the time of mergers or/and acquisitions, which is also the very time when the *unique* attributes of the firm (which is not reducible to its core competences) are seriously fragilised since they are amalgamated or welded with other firms' *unique* attributes. Firms are not nexus of contracts that can be easily rearranged, and failures of M&As to deliver promises are now observed by consulting who strongly advocated them in the 1990s (and in recent years as well) . In case of disappointment, difficulties, or simply impatience, a bear cumulative process takes place, which is the very opposite to the bull process set in the weeks preceding the M&A (and thanks to insiders, even before its announcement...).

(Unfinished paper).