

Transnational corporations as financial groups

Claude Serfati, CEMOTEV (Centre for the Study of Globalisation, Conflicts, Territories and Vulnerabilities), University of Saint-Quentin-en-Yvelines

Abstract

While the current crisis evidenced the strong interrelations between production and finance, and gives a boost to 'financialisation' approach, there is an urgent need to reexplore the nature of large transnational corporations (TNCs)¹. Issues to be explored include the reshaping of international trade and production, close interaction between non-financial TNCs and financial (bank and non-bank) TNCs, the development of global networks, and the strength of relationships entertained by most of them with 'their' governments.

A basic hypothesis of this paper which is focused on non-financial TNCs, is that they cannot be only defined by the fact that they are bigger and more internationalised than others firms. In our view, they constitute a category of their own, based upon a centralisation of financial assets and a specific organisational structure (with the core role held by the *holding* company). TNCs, organised and structured as groups, are a locus for a global valorisation of capital, where productive and financial valorisation are closely intertwined. In the context of a global finance capital dominated macro-economic regime of accumulation, financial logic takes on a preeminent role in TNCs' strategy. Unfettered deregulation of financial markets and multiplication of financial innovations (products and institutions) gave a further boost to the transformation of TNCs, which can be defined as financial groups with industrial activities.

1) INTRODUCTION: TNCs, A CATEGORY OF ITS OWN

The large weight of large non-financial² transnational corporations (TNCs) in the world economy is hardly challengeable. According to UNCTAD, in 2008 there were 82000 transnational corporations with a total of 820,000 foreign affiliates. Their aggregate activity is straightforward. The value-added activity of foreign affiliates worldwide accounted for 11% of global gross domestic product (GDP) in 2007, and sales amounted to US\$ 31 trillion - a 21% increase over 2006 [UNCTAD, 2008]. At the core of this large web, one can find the top 100 Transnational corporations (hence TNCs) which account for the bulk of all the 82000 TNCs with their share of foreign assets, foreign sales and foreign employment out of TNCs' total foreign assets, total sales and total employment being respectively 10%, 16%, and 12% [our computation from UNCTAD 2010]. The prosperity of TNCs, despite crisis, is hardly challengeable. According to the 2010 Forbes world's leading companies, the

¹ Draft paper submitted to the 2010 Conference of the European Association for Evolutionary Political Economy, University of Montesquieu Bordeaux IV, 28-30 October 2010. Comments welcome.

² Non-financial in the meaning given by national account [SNA, 2008, 4.62]: "*Nonfinancial corporations are corporations whose principal activity is the production of market goods or nonfinancial services*".

aggregate profits of the top 100 most profitable companies reached 803,47 billion \$ (to give an indication France's GDP was 1907 €billion in 2009) .

Developed countries are overwhelming the top TNCs' scoreboard; with five countries (the United States, the United Kingdom, Japan, France and Germany) accounting for 73 of the top 100 firms [UNCTAD 2008] . Overall, in 2008 TNCs belonging to developed countries accounted for 92% of 5000 top TNCs foreign assets, and 90, 9% of 5000 total foreign sales [UNCTAD, 2010]. The weight of large world companies in high tech activities is still more compelling. According to a study released by the European Commission, the top 2000 companies (1000 EU and 1000 non-EU), most of them belonging to OPEC countries, invested €372 billion in R&D in the year of reporting (i.e. 2006/7) (Industrial Research And Innovation, 2008). This corresponds to approximately 80% of global business expenditure on R&D.

The real influence of TNCs is not evident only by quantitative indicators. They play a decisive role in the reshaping international trade and production, and the strength of relationships entertained by most of them with 'their' governments gives them a critical edge in the world competition. Dismissing claims that globalization means that global companies had become 'stateless', governments and TNCs have understood in this decade the benefits of mutual cooperation in the context of the exacerbation of economic competition, compounded by financial and economic crisis spreading all over the world for a couple of months.

Finally, a major change in non-financial TNCs which will be centrally addressed in this paper is the role taken by financial activities. It is not only a matter of close interaction *between* them and financial (bank and non-bank) large corporations, as it was carefully analysed by Hilferding in the early 20th century. In his seminal book, he defines finance capital as capital industrial that can dispose over only through the banks, putting industry under the dependence banks. [1910, Chapter 14]. In 21th century capitalism, the main characteristic is no longer the alliance of industrial companies and banks under the dominance of the latter, but the blurring of frontiers between financial and non financial activities *within* non-financial TNCs. In this paper, drawing on previous research, we propose that on-financial TNCs exhibit five major characteristics:

- 1) TNCs cannot be defined, as it is usually the case, only as bigger as and more internationalised than other firms. They constitute a category of their own, which requires additional tools to those used to study 'firms'. Major characteristics which combine to account for their specificity are as follows
- 2) They are organised as groups, a reality that has begun to be seriously addressed by statisticians in recent years (see below), while it has been of little concern for theoretical literature. According to national reporting accounts, the "*statistical definition of enterprise groups, [is as follows] 'associations of enterprises' bound together by legal and / or financial links which imply control*" [Economic Commission for Europe, 2010, p. 4].
- 3) A benefit of a group approach is to provide a framework for the analysis of interrelations between finance and production. TNCs have long developed financial activities, but they were given further opportunity in the last decade. Given the power they hold in international trade and production, the large connections through which they organise world industries and markets, their mode of governance, TNCs represent a category of firms of their own, based upon a centralisation of financial assets and a specific organisational structure (with the core role held by the *holding* company). Their active management of

financial assets has considerably increased in recent years, challenging once well-established categories (e.g. FDI).

4) A major feature and a critical edge of TNCs as financial groups lies in their ability to build an *integrated global* space, with financial and industrial operations being addressed in a combined way. It is a *global* space as it overcomes national boundaries and governmental regulations. It is an *integrated* space, as hundred of affiliates (production, R&D, financial, etc.) are *in fine* under the control of central office which manages resources and capabilities with the objective of giving coherence and efficiency to the process of valorisation of capital. Again, we need analytical tools, different from those used to analyse the reasons why a firm internationalise its activities.

5) From an economics of production vantage point, this integrated global space can be analysed along a global value chain (GVC) approach. This approach goes beyond the observation of techno-productive sequences; it takes into account balance of power among GVC's actors, the role of non-market relations, strategy by TNCs to influence the (de)regulation agenda. Finally, a GVC approach draw attention on the category of rent, its source and sharing among the different companies.

Based on these hypotheses, the main purpose of the paper is to provide some theoretical and empirical reflections on the overlapping of finance and production in non-financial TNCs. This paper is aimed at shedding some light on the numerous and creative channels used by TNCs to develop financial activities, directly, indirectly or not at all articulated with their productive activities. The layout of this paper is as follows. We first address the difficulty of mainstream economists to cope with the singularity of TNCs, and develop our own understanding of TNCs as financial groups. Then, we explain that TNCs can be defined as financial groups with industrial activities. Section 3 gives evidence of the growing interaction between production and financial flows. Section 4 describes the TNCs' active financial management which is based upon a solid tripod (Special purpose entities, Tax havens, Transfer pricing) .

2) TNCs: A THEORITICAL PERSPECTIVE

Orthodox view: from firm to corporate finance

After long being treated as a given³, firms have become the centre of the analysis in economics. Generally, it is assumed that firms exists as a response to market's imperfections, including a) economies of scale (in pure competitive markets, marginal productivity of labour is declining) dating back to Marshall, b) transaction costs (Coase), c) role of specific assets (Williamson) , d) information asymmetry (agency and incentive theories) . Another stream, based on property rights, has added to the understanding of mainstream economics, by establishing an asymmetric situation for those who act as resident claimers and other 'contributors' , mainly wage-earners, to value creation (Grossman, Hart, Moore, henceforth GHM) . GHM define property rights as the right

³ See Samuelsson's aphorism: « *In a perfectly competitive economy it doesn't really matter who hires whom.* » (1975 p. 894), because perfect competition brings about an efficient allocation of resources, Samuelson P. (1957) "Wage and Interest: A Modern Dissection of Marxian Economic Models", American Economic Review No 47 pp. 884-912.

provided by ownership to exclude people from the use of assets. Therefore, this authority over assets translates into authority over people (Hart, Moore, 1990, pp. 1149-50). Such a large authority over people leads Rajan and Zingales to consider that GHM are really Marxists. Still, to follow on this humoristic tone, we would add that a major difference with Marxism is that for GHM, it could be possible for the 'owner' of his/her labour power to exclude the 'boss', as they own their (human) assets (or capital) ⁴.

Most of orthodox theories establish a separation between production (the 'firm') and finance. As the firm or corporation is seen as a "nexus" of contracts, Fama (1988) goes so far as to argue that "ownership of the firm is an irrelevant concept" [Tipgos, 2007]. It became evident in the 1970s that, if the study of relations between firms and finance went on being neglected, research on *public corporations* (that is traded on the stock market) as distinct of private corporations (or the 'firm') would become impossible⁵. It was Jensen, who proposed to take into account those relations in his analysis of public corporations. He draws sympathetically on the literature existing on finance, following the Modigliani-Miller' hypothesis, that Investments and cash flows should be treated as independent of financial policy, [Jensen, 1993, p.868⁶]. Still, he observes that it failed to provide firms with an effective mechanism to achieve efficient corporate investment, because net present value (or more generally, value-maximizing) rule imbedded in modern capital-budgeting procedures are far from universally followed by operating managers [1993, 870]. He observes that the *public corporation* is a social invention of vast historical importance. Its genius is rooted in its capacity to spread financial risk over the diversified portfolios of millions of individuals and institutions and to allow investors to customize risk to their unique circumstances and predilections [1986]. Still, because by nature, organizations abhor control [1993, p.852], internal control systems failed to reach their objectives. Jensen claims that interdependencies exist and should be further investigated between finance (structure of financial claims on the firm's cash flows (e.g., equity, bond, preferred stock, and warrant claims), Governance (exclusively the top-level control structure, and relations between CEOs, boards and top managers) and Organizations (the nexus of contracts defining the internal "rules of the game" between shareholders and managers [1993, p.871].

This attention devoted to public corporations by Jensen does not change the overall neoclassical background of his analysis: the public corporation is a legal fiction which serves as a focus for a complex process in which the conflicting objectives of individuals (some of whom may "represent" other organizations) are brought into equilibrium within a framework of contractual relations. In this sense the "behavior" of the firm is like the behavior of a market, that is, the outcome of a complex equilibrium process. Corporations'

⁴ Cf "We specialize the meaning of residual control rights relative to Grossman and Hart. We suppose that the sole right possessed by the owner of an asset is his ability to exclude others from the use of that asset" [Hart and Moore, 1990 , p.1121]

⁵ The ignorance of the corporation is explained by Fama who extends to the corporation the distinction between ownership of capital and ownership of the firm.

⁶ Cf "Founded on the assumption that firm cash flows are independent of financial policy, the Modigliani-Miller (M&M) theorems on the independence of firm value, leverage, and payout policy have been extremely productive" [1993, p.868]

governance structure must be exclusively oriented to, and based on, financial markets valuation ('shareholder value'), as a rise in stock price does not mean wealth reallocations to shareholders as observed by critics, but evidence that the market for corporate control is benefiting shareholders, society [Jensen, 1987, p.7] . This long-accepted creed in financial markets (which, in passing, resulted in violent charges against employees and unions, suspected to be the main obstacles to organizational defensiveness and innovative change and to destroy value through strikes) sounds rather obsolete since the 2007 financial crisis. Jensen himself recently criticised his faith in stock markets. In a 2010 co-authored paper, he claims that *"Using the experiences of several companies, the authors illustrate the dangers of conforming to market pressures for unrealistic growth targets. They argue that an overvalued stock, by encouraging overpriced acquisitions and other risky, value-destroying bets, can be as damaging to the long-run health of a company as an undervalued stock"* [Fuller, Jensen, 2010].

Rajan and Zingales [2000] are critical of Jensen's: what distinguishes the firm from the market is the web of specific investments built around a critical resource [see also Zingales, 2000]. Finance is not a matter relevant only to corporations, but also to any firm. Hence, capital structure cannot be reduced to a role of financing instruments, but as a glue used to preserve the rents of an organisation from being dissipated by competition among different stakeholders [2000, p. 1647]. The approach proposed by Rajan and Zingales provides insight on the role of power as distinct of property, but it remains based upon methodological individualism⁷ with every agent endowed with individual assets, as it is based upon the contractual theory⁸. They fail short of addressing the multiple interactions between finance and production and remain focused only on a narrow range of finance-related issues (for instance, Zingales' emphasis mainly put on the role of outside equity as a mode of financing is noted in Charreaux, 2002). Despite inclusion of power relations within firms, their analysis underestimates the quite distinct features exhibited by the public corporation (as well as the role of stock markets) compared to other firms.

TNCs as a modality of finance capital: two distinct issues

In previous research, we have underlined the dominance of a financial logic in the strategy of industrial groups (the TNCs); accordingly they can be defined as an *"organisational modality of finance capital"* (Serfati, 1996, p.144). They act as financial centers with industrial activities. Our understanding of finance capital draws on our own reading of Marx, which somewhat differs of Hilferding's seminal input (1910). That strong interactions exist between finance and production, with finance overwhelming the production process throughout 'systemic cycles' is evidenced by long-term development of capitalism as it has

⁷ History of firm begins with a 'Robinson Crusoe'-like story, cf *"Start by assuming that the tanner owns the sewing machine. If access is contractible, and all ex-ante side payments possible, how should he regulate access to it?"* [Rajan, Zingales, 1998, p.388].

⁸ The comments addressed to Hart-Grossman's contractual theory is that their theory should be extended to the agent who owns his/her (human) assets and that it is possible to identify an alternative, possibly noncontractual, mechanism to allocate power. They call it access, defined as the ability to use, or work with, a critical resource [1998].

been claimed by scholars of the *longue durée* (Braudel, Arrighi). As far as firms are concerned, the process of *corporatization* that took place in the USA at the end of the nineteenth century reflected a broader process taking place in all industrialised countries, with the creation of companies in the UK and *sociétés* in France. It resulted in the creation of the *Joint stock* Company, as the legal and dominant form of large firms (For a comprehensive analysis, see Scott, 1997). *Incorporation* of firms and transition from personal to impersonal forms of ownership and control gave a strong impetus to investigations on the 'double nature' of firms. Firms are both a locus for industrial activity, i.e. production of value through conception and production of goods, and a financial organization whose the very objective is to mak money with money. 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 managers in charge of production and owners, keen to valorize the money they have invested in the corporation . The other issue, at odds with the neoclassical hypothesis that capital invested in production is the outcome of saving by the entrepreneurs, was to investigate at an abstract level what *capital* does means. The former issue – the separation between management and ownership - has been addressed and nurtured by a broad range of social scientists, while the later issue - what is capital - 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. Likewise, the need to explore the 'double nature' of capital, both as physical and financial asset, as a unique object of investigation, was an issue of little concern in mainstream economics, after the closing of the 'Cambridge Capital controversy' and the convincing inputs by Keynesians.

A way to address the both physical and financial nature of capital was followed by some scholars of 'industrial groups' [Chesnais, 1994]. F. Morin, following on his research conducted in France in the late 1970s, proposes to describe large 'industrial groups' (i.e. the set of the holding/parent company and its subsidiaries) as an unitary structure of governance made up overlapping but hierarchical levels: the *financial* level which orients and monitors resource allocations (*economic* level), which encompasses the *production* (including work organisation, etc.) level ([Morin, 2006].

Because of the dominant influence of orthodox approach to firms, not only theoretical but also empirical studies on TNCs as financial groups are wanting. Still, the reality of TNCs as a very specific category of firms has become to be recognized by practitioners (e.g. national accountants and statisticians⁹). A group is an entity made up of a number of affiliates owned by a holding company, conventionally defined in the United Nations' International Standard Industrial Classification (*ISIC Rev. 4* in section K class 6420) as follows: "[U]nits that hold the assets (owning controlling-levels of equity) of a group of subsidiary corporations and whose principal activity is owning the group. The holding companies in this class do not provide any other service to the enterprises in which the equity is held, i.e. they do not administer or manage other units". (Such units are always allocated to the financial

⁹ In France, INSEE, the National Statistical institution, has been for years collecting and delivering data on the role of French and foreign-owned groups in the French economy.

corporations sector and treated as captive financial institutions even if all the subsidiary corporations are nonfinancial corporations) (see also box) .

Box : 25 years of Enterprise Group statistics in France Experienced gained and current development [Depoutot, 2004]

In the beginning of the 80s INSEE started to conduct a survey on capital links between corporations. A group of economists from inside and from outside INSEE had emphasized the role of enterprise groups (EG hereafter) in the economy, and the need to collect reference statistics on them. Only private databases of consolidated accounts were providing information on the biggest EGs. Accounting rules on consolidation were not sufficiently uniform to be suitable for statistics. Therefore INSEE had to develop its own definition of an EG, and designed a survey to identify these groups. Statisticians have defined the statistical group as a group of corporations dependent on the same parent company, giving a precise definition of the terms “dependent” and “parent company.” The parent company, called “**group head**,” is a corporation which is neither directly nor indirectly “**controlled**” by any other company and which itself controls at least one other company. The “**core**” of the group is the group head and the companies it controls directly or indirectly. “**Control**” is the ability of the group head to define the strategic orientations of the subsidiary. This control derives from the ownership of the equity capital, through the exercise of the voting rights which allow appointment of directorial bodies

To sum up, considering TNCs as financial *groups*, in which by essence capital under management is made up of both as productive and financial assets, provides on the theoretical side, insights on the relations between finance and production. At the empirical level, the ‘breakdown’ of capital, as a conceptual category, in its two components, financial and productive, can be empirically evidenced with TNCs strategies. Operations can be managed in units that cross multiple countries, while there are, necessarily, separate legal structures for each country [Ridgeaway, 2007]. In this case, the change of ownership has nothing to do with the search for a better efficiency of the production process, as it is the case of usual outsourcing analysed by the literature. The very objective of the change in legal ownership of business units controlled by TNCs is financial objectives-driven.

That this complicates the task of national statistical agencies could be a collateral outcome [Id.¹⁰]. Put otherwise, TNCs boundaries might be looser than expected by mainstream analysis of the firm based upon property rights or transaction costs. The precise knowledge of what are the different units belonging to the TNCs is often hard to get. The chain of ownership of companies is made obscure to the observers because some of them are registered in tax and regulatory heavens ; others are located in developed countries, but controlled through a chain of companies hiding the ultimate owner, etc.; others are unincorporated entities, (branches and other quasicorporations).

¹⁰ Cf “ *The collection of data for a sample of multinational enterprises revealed that these multinational enterprises are very sensitive about the confidentiality of their data* » [Ridgeaway, 2007,p.68]

3) GROWING INTERACTION BETWEEN PRODUCTION AND FINANCIAL FLOWS

Building an world-level integrated space: global valorization of capital

A major feature and critical edge of TNCs as financial groups lies on their ability to build an integrated global space, with financial and industrial operations being addressed in a combined way. It is a *global* space as it overcomes national boundaries and governmental regulations. It is an *integrated* space, as hundred of affiliates (production, R&D, financial, etc.) are *in fine* under the control of central office which manages resources and capabilities with the objective of giving coherence and efficiency to the process of valorisation of capital. This process is in any case, not restrained to the industrial activities of the corporation. As said earlier, it is precisely the blurring of boundaries between industrial and financial activities that reinforces the singularity of TNCs as 'firms'.

Interactions between productive and financial valorization of capital have become more intertwined reflecting the "*TNCs global valorisation of capital logic*" [Serfati, 1996, p.148]. We define the logic of global valorisation of capital, with two distinct definitions attached to *global*: one by the fact that for large TNCs the world has become a playing field for locating and sourcing their activities and inputs, and two by the fact that top managers are offered a wide range of modalities for the valorization of TNCs' financial resources. Hence, valorization of capital could encompass a broad spectrum and a global reach, with at one end implementation of industrial investments (new equipments, etc.), and at the other end, 'pure' financial investments made on financial markets. Between these two 'polar' forms of valorization, other 'mixed' forms resulting from growing interaction between finance and production take place, blurring the boundaries between the two (financial and productive) "spheres". For example, the development of Intellectual property rights (IPRs) does not reflect only successful innovative activities. It also results from the ability by large TNCs, to capture part of the value created by other firms, generally start-ups. This could be made through acquisitions or 'market power' constraining smaller firms to license their patents [Jaffe, Lerner, 2004¹¹]. It is increasingly acknowledged that IPR has become an object of *financialisation* : the explosion of patents in the last two decades has little to do with a Schumpeterian 'gale of creative destruction', rather it evidences that TNCs' strategy is oriented towards extracting rents, defined as regular flows of IPRs-generated revenues. Biopharmaceutical TNCs are strongly involved in this strategy [Montalban, Sakinc, 2009] . In many cases, this resulted in dramatic changes in the management of production and financial activities.

On the side of the production, TNCs have been involved in substantial changes in the management of their Global value chain (GVC). A major goal was to cut down labour costs, refocusing on core competences by dropping non-core activities and maximizing synergies, search of scale economies, cuts in costs through the closure of plants, etc. 'Vertical disintegration', 'slicing up of the value chain' are some of the words used to describe the

¹¹ See "An established firm, frequently one whose competitive position and innovative activity are declining, realizes it has a valuable stockpile of issued patents. This firm then approaches rivals, demanding that they take out licenses to its patents" [Jaffe, Lerner, 2004, p.10].

process. It is still only a part of the story as financial motives, including tax avoidance, are clearly present in GVC restructuring.

The restructuring of GVC and the fragmentation of production processes within global value chains are mirrored by the growing international sourcing of intermediates. The share of intermediate manufactured products in non-fuel world trade was around 40 per cent in 2008 [WTO 2010,p. 2]¹². Trade in intermediate inputs (primary goods, parts and components, and semi-finished goods) takes place mostly among developed countries and represents respectively 56% and 73% of overall trade flows in goods and services over the 1995-2005 period [Miroudot, Lanz, Ragoussis, 2009] .

To sum up, the Intermediates trade is in a large part an intra-TNCs trade. TNCs have been able to increase their grip thanks to network networked forms of organization and coordination, allowing them to capture part of value added created in institutions participating to those networks (small and medium sized firms, public research centres, etc.). The development of an integrated space is evidence by the large share of intra-TNCs trade in the world trade. According to OECD data, in 2006, export propensity by affiliates under foreign control in the manufacturing sector was almost 100% in Ireland, 60% in Finland, almost 40% in France, and only 10% in the USA [Hatzichronoglou, 2010]. Even if it is difficult to get robust measures on that process, according to some estimates, 60% of the world trade consists of internal transfers within multinational companies [Sikka, 2009]. In France, ancient estimates made on 1999 found that 1/3rd of total country's imports, and 1/4th of exports, were realized between affiliates belonging to the same TNC. This large development of intra-company trade is largely an outcome of outsourcing and offshoring, two processes which dramatically affected the organization of GVCs. Still, these flows give support to financial flows.

On the financial side, unfettered initiatives taken by TNCs in the two last decades have resulted in the creation of a complex and opaque web of intra-Tncs relations (below) .

Deciphering the importance of groups: The French case.

Getting empirical evidence of growing interconnections between industrial and financial strategy of TNCs is complicated by the fact that most of national or business accounting methodology used to be based more on enterprises than on group of enterprises. An approach based on the financial links connecting different enterprises involved in industrial activities has begun to be adopted by empirical statistical research. In this context, it is worthwhile to observe that for years, the French Statistical institution INSEE has developed, a methodology aimed at taking into (statistical) account the real influence of groups in the French economy (see box above) . The increase of the weight of groups in the French national economy, as based on this taxonomy, has been impressive during the last decade.

¹² Of course, statistical data reliability on the volume of intermediates traded on a world scale has to be improved. The 2008 WTO report notes that because each time goods cross the frontier, an international transaction is recorded, the compilation of merchandise trade statistics by customs administrations results in the recording of these goods more than once. The impact of this "double counting" can be significant, with the international supply chains which include a number of tasks – as is the case for transport equipment and electronics – resulting in that unfinished goods may cross frontiers several times during the assembly process

As of 2007, their share of business activities is between 80% and 90-95%, depending on the variables used (turnover, payrolls, added value, etc.). (Figure 1)

Figure 1: Share of groups in France's macroeconomic data, 2000-2007

Source: [Banque de France 2009].

Among industrial groups, whose the number is estimated up to 3136 in 2007 [Banque de France, 2009], the weight of large, internationalised groups is overwhelming. While the group structure is adopted by a growing number of enterprises, the French economy is strongly dependant upon a minority of large, internationalised groups (figure 2). The top 136 groups account for only 4% of the total (3136) of French industrial groups, but they account almost for 40% of the workforce, and for over 3/4rd of groups' total turnover and Stockholders' Equity.

Figure 2: Share of top French groups in the total of French groups

Source: Author's illustration, based on Banque de France data (*) and INSEE data (**).

That the group, as organizational structure is designed to drain financial revenues is evidenced by Banque de France's data and compiled in figure 3. One can observe that while the share of holdings in the overall creation in France of value added and workforce payroll (the 'real' activity as it is conventionally called) is quite modest (around 2%), their share is quite essential in interests paid and net financial debt (around 45-50%). Holdings confirm to be a structure (a 'conduit') designed to drain financial revenues. Groups' holdings are built on a 'reversed pyramid' the basis of which is financial, with a very thin top's production-related activities (figure 3) .

Figure 3: The reversed pyramid of holdings

Note : * Endettement financier (Net financial debt) : bank debt + security debt

Source : Author's illustration, based on Banque de France database

FDIs at the crossroads of production and finance

Industrial strategies have driven the dramatic restructuring of their GVC by TNCs that took place in recent years. It is only a part of the story as financial objectives are clearly present in GVC restructuring. In particular, outsourcing through contract manufacturing or any other form is also motivated by 'international tax avoidance' [Gravelle, 2009].

The strong rise in the flows of Foreign Direct Investments (FDIs) (in absolute terms or in proportion of GDPs) is seen as an evidence of the globalization of production process, reflected in the development of offshoring. They are given a different status from Foreign portfolio investments (FPIs) , which are seen as reflecting more short-term, financial objectives, as they are in general carried out at least in emerging-market equity by large mutual funds and privately held hedge fund [Global Development Finance, 2004]. That FPIs have little to do with productive issue is confirmed by a recent study which finds that they are used as a tax evasion device: 2/3rd s of all US FPI is hidden from the authorities, and conversely US FPI is more than two and a half times as large as one might suspect on the basis of official figures [Dharmapala and Hines, 2006]. This finding is confirmed by an IMF's research, stating that huge discrepancies exist between portfolio assets and liabilities in selected offshore centres. Portfolio assets held by foreigners in Luxembourg to be worth

US\$1.5 trillion at the end of 2008; while portfolio investment liabilities reported by the government stood at US\$2.5 trillion [Lane, Milesi-Ferretti, 2010]. A black hole indeed...

Even for FDIs, things are not so clear. Indeed, their real meaning as productive investments is questioned, while the play of financial motivations in FDI operations is addressed [Forssbäck and Oxelheim, 2008]. Some literature has for years drawn attention on the status of cross-border Mergers&acquisitions (M&As), which account for over 80% of FDI between developed countries, and for over 40% of FDIs from Developed to developing countries [Unctad, 200]. M&As do not add – and often subtract – manufacturing capacities, they only involve a change in ownership, and as such they should distinguished from ‘Greenfield’ (creation of industrial capacities) or ‘Brownfield’ (increase in existing of industrial capacities) Investments. M&As reflects the need to carefully distinguish between ownership of capital (and change of) and productive activities (the ‘double nature of capital’), evidencing the extent to which large corporations can carry out their productive and financial (control of ownership) objectives.

Thanks to painstaking research and discussion among statistician accountants, it has increasingly become evident that large segments of FDI foremost reflect financial activities by TNCs. Flows of FDIs are fed by three components: equity, reinvested earnings, intra-company loans. A 2004 World Bank report underlined that intercompany loans and reinvested earnings were often used in 1990–2002 as a means to adjust FDI. Once considered as quite distinct from FPI, FDIs have gone through strong volatility in the 1990s, especially intercompany loans and reinvested earnings, which were nearly as volatile as debt flows. [Global development finance, 2004]. The report listed factors affecting the composition of FDI which are mainly financial-relevant (tax costs, ownership control, investment regulation), the macroeconomic environment being another factor.

More recently and in the same vein, a report commissioned by the French government claimed that “*Direct investment reflects the intra-firm financial activities*” [Fontagné, Toubal, 2010, p.14] because most of the three funding components (equity, reinvested earnings, intercompany loans) are classified as generating direct investment, even when their purpose has nothing to do with creation or acquisition of physical capacities of production (fixed investment) but is purely financial (transfers of funds for fiscal engineering, higher rate of return offered in some countries, etc.) .

Based on a reassessment of inter-company loans and a new methodology recommended by the OECD [2008], data compiled by statistical institutions on FDIs offer stunning conclusions. Basically, data are adjusted by reclassifying intercompany loans according to the country of residence of the ultimate controlling parent of the group. The conventional directional principle on which FDI statistics are compiled is extended to lending between fellow enterprises (defined as entities with no direct links). The recommended rule is that lending and borrowing between resident entities of a resident group and foreign fellow enterprises must be recorded as outward FDI and, conversely, lending and borrowing between resident entities belonging to a non-resident group and foreign fellow enterprises must be recorded as inward FDI.

In the case of France, based on the new methodology, that is reclassifying intercompany loans according to the country of residence of the ultimate controlling parent of the group, figures on inward and outward FDIs become quite different. This greatly reduces the importance of countries, such as Luxembourg, that are known to host large numbers of SPEs as sources or destinations of FDI. In 2007, the first country investing in France...was

France, which accounted for 26, 1% of total inward investments [Terrien, 2009/2010]. Two observations emerge. One, France ranks as the leading ultimate investing country in France in 2008 because of the investments of non-resident subsidiaries of French groups in their French subsidiaries in the form of equity capital investments or reinvested earnings. Two, French TNCs' intra company loans reached as high as 39,6% of total inward FDIs, reflecting the scope of intra-affiliates financial flows.

As it is a step forward in attempts to trace cross-border TNCs' flows, the reform in FDIs' account methodology is a far cry of exhausting all the channels used by large world corporations, e.g. the OECD's recommendations do not apply to equity capital transactions between fellow companies. That means that if a Luxembourg holding company of a French group injects funds into its direct subsidiary, which is also resident in France, this transaction is recorded as inward FDI, even though the ultimate controlling entity is a French TNC. Further research is needed in order to better trace TNCs' strategies.

Intangible assets: unidentified and... in large part, non locatable

A NEW GENERATION OF FICTITIOUS CAPITAL FINANCIAL-MARKETS GENERATED

This is not the place here to develop the hypothesis, addressed at length in previous research, that intangible assets are a creation of financial markets and community. Their considerable swelling since a decade reflects to some point their fictitious value¹³ (or their nature of fictitious capital) [Serfati, 2008]. Rise in interest for the category of intangible assets resulted from the convergence between on the one hand economists, keen to put figures on what they called knowledge capital and, on the other hand the financial community who, from the end of the 1990s onwards, observed of the rising gap between the book value and the stock market value. Equipped with this new category, analysts were able to conclude that intangible assets accounted for as so high as over 50% of large companies' stock market value. Put otherwise, intangible assets, for all the vagueness of the concept, account for the bulk of the financial value of top world companies (figure 4) with a decline in this paper value with the 2008 financial meltdown.

Figure 4: Global Enterprise Value (US\$ billion, 2001- 2008)

Note: according to the report, the data compile 37,000 companies quoted on 53 national stock markets, representing 99% of total global market capitalization

Source: Global Intangible Finance Tracker 2009

This is not to say that they do not reflect the rise of new inputs and drivers in the creation of value. Intangible assets¹⁴ have become a key component of developed countries, and often

¹³ After the wave of 'creative accounting' which thrived in the 1990s, the fictitious nature of the 'value' created by intangible begins to be noticed, even among once-first strong supporters. See this comment posted in a post-financial crisis *Business Week's* paper : "With the stroke of a pen, companies can make themselves appear more financially fit than they are" thanks to "New discretionary accounting rules [which] have made it easier for companies to engage in such behaviour" [Der Hovanesian, 2009]

¹⁴ *Intellectual*, Knowledge, and in French, *immatériels* assets (or capital) are often alternatively used in the literature are used as synonymous. This issue is touched upon later.

identified seen as a 'knowledge economy'¹⁵. Still, their definition is plagued with great imprecision. There is no agreed definition among economists, neither between accountants, on what intangible assets do mean. It has been found more than 80 approaches or frameworks of value and performance measures [Value measurement, n.d.]. Moreover, *goodwill*, defined as the amount above the fair net book value (adjusted for assumed debt) paid for an acquisition, and which account for a significant share of intangible assets, is not informed by companies. As observed by experts in intangible assets "[our] research shows there is very little disclosure of the nature of goodwill. Only a few companies have provided brief details of what the goodwill is, but this is quite uninformative as it lacks any real analysis or insight" [Intangible Business, 2009]. Finally, 'Undisclosed Intangible Asset values', which have no reality, even in companies' books, make up the bulk of intangible assets. They are defined as "*reflecting the overall premium attached to quoted companies by investors*"¹⁶. In more concrete terms, they reflect the mood of the (financial) markets, and when the financial meltdown began, they were severely discounted. The situation of the French blue chips ('CAC 40) as described in figure 5, is quite similar to other OECD countries' TNCs.

Figure 5: Components of French blue chips Stock market value (CAC 40), 2006-2009

Source: Ricol Lasteyrie, 2010

SOME APPEALING FEATURES OF INTANGIBLE ASSETS

The massive offshoring of intermediate services¹⁷, of which a large share of them is made up of intangible assets, further complicating the compilation of statistics on their cross-border flows for national accounts. A consulting company computed that only for branding, value uplift created by moving the most valuable 500 brands in the world to offshore locations would be \$700bn, a 30% uplift in value and equal to the \$700bn spent by Hank Paulson in his US bank bailout [2009 BrandFinance™ Global 500].

There are a lot of reasons, besides those usually linked to the transformation of the production process and the rise in the role of knowledge, why trade in intangible could be so trendy. Intangible assets exhibit at least three features which are appealing to TNCs' management and shareholders:

¹⁵ 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].

¹⁶ Could they even be 'disclosed' to external scrutiny? See a comment by the authoritative *International Accounting Standards Board* : "*Greater transparency in the accounting for intangible assets would potentially undermine the competitive advantage that [...] some entities presently derive from unrecognised and undisclosed (secret) intangible assets that, if presented in the financial report, would cease to provide the level of benefits that would otherwise be expected*", [IASB, 2007] .

¹⁷ As trade in intermediate products increased in the recent years, trade in intermediate service increase was higher than the one in goods, accounting for over 70% of exports in services [Miroudot, Lanz, Ragoussis, 2009]. The share of intermediate to total trade in services is based on 20 OECD countries for which data on trade in intermediate services is available for the entire period 1999-2005.

a) As it is self-evident, they have no materiality, they offer opportunities, including profit-shifting (below) and invoices corresponding to transfers of an output the physical reality of which is impossible to trace by external observers¹⁸. As noted by a top world consulting company, large TNCs could find an opportunity for increasing the active management of their transfer pricing policy. This construction is useful in the inter-company pricing context when the parent wishes to conduct R&D in several countries but wishes to retain legal ownership of the intangibles (and therefore the profit created by the R&D) in a single country. Contract R&D places the risk in the country that will ultimately own the technology [PricewaterhouseCoopers, 2009];

b) Intangible assets are often shared across TNCs' affiliates, making it difficult to allocate an exact price or/and value to activities. Not only are prices and quantities generally not observed, but most of them can be considered as services produced collectively, and the production of a 'unit' of output is difficult to define. R&D, by its nature, produces unique products, whereas measurement of quantity and prices generally relies on standardized products with prices that are repeatedly observed [UNECE 2009]. The case of Sun Microsystems is significant [Lynch, Clayton, 2003]. Attempts by UK statisticians to measure the value of software investment activity to be allocated to the country is impossible, because : a) the software developed in Sun UK is used worldwide within the company; b) much of the internal systems software used in Sun UK is written in North America and Asia. In a generalisation of this case, a manager of the UK Office National of Statistics stated that *"any attempt to measure software capital formation accurately in a firm like this - except at the level of the whole enterprise group on an international basis - is likely to fail"* [Id.,p.52]; c) Their (stock) market value is extremely unstable, paving the way for pure financial opportunities.

What is the content of intangible services traded at the international level? R&D, software, Intellectual property (patents), accounting and management, marketing, are the main services traded between and within TNCs. Here are two examples:

- A dramatic increase in 'management fees'. The rise is all the more daunting that the term 'management fee' is often used rather loosely to describe any inter-company charge for a transaction that is not clearly either a transfer of tangible property or the right to use an intangible property. The term could include charges paid for general administrative or technical services or payments for commercial services that are provided intra-group from one or more providers to one or more recipients [PricewaterhouseCoopers, 2009].

- Offshoring and outsourcing of R&D: R&D activities are increasingly offshored and outsourced from contract R&D firms. In the US, The all-industries ratio of contracted-out R&D to company-funded, company-performed R&D increased from 3,7% in 1993 to 7.8% in 2007. For manufacturers, the ratio reached 8.5% in 2007, up from 3,3% in 1993 [NSF, 2010].

¹⁸ See : « member states encounter considerable problems in getting reliable data about these transactions, particularly when intra-group transfers of R&D results are involved” , Progress report of the eurostat task force on multinational enterprises cases of intra-group transactions irrespective of the kind of entity involved ECE/CES/GE.23/2009/7/Rev.1 17 April 2009.

Geographic separation of the R&D and patent management location is often organised by executive managers, keen to reduce the cost of tax paid by the group ('tax planning').

4) AN ACTIVE FINANCIAL MANAGEMENT BASED UPON A SOLID TRIPOD

Non-financial TNCs have over years considerably developed strategies to manage their financial assets. It is not a new phenomenon, as it had been analysed in the mid-1990s [Serfati, 1996]. Still, the dramatic changes affecting financial markets (deregulation, financial innovations...) coupled with the increase of in-house skills and knowledge in finance increased TNCs' financial activities by a considerable margin. Evidence is provided by the creation of a multitude of entities, the only purpose of which is financial. These entities can be grouped under the name of Special purpose entities (SPEs). Preferably located in tax havens, they are designed to further facilitate the long-lasting practice of transfer pricing by TNCs. SPEs and locations of affiliates in Tax havens were not only an outcome of TNCs' strategy, they were also the result of 'external' drivers (macro-economic policies of deregulation). Transfer pricing is a long practice carried out within the TNCs. Taken together, SPEs, Tax havens and Transfer pricing make up a firm tripod on which financialisation of TNCs rests upon.

Special purpose entities and other organisational innovations

The disconnection within TNCs between their financial flows, be they for payments, cash netting, trade finance, loans/debts, cash pooling, etc., and their goods flows is exacerbated by the creation of hundred, some claim thousands, of Special purpose entities (SPEs), the main purpose is to maximise the profitability of money capital ¹⁹ [IMF, 2006, notes SPE et STN, p15]. Other names than SPEs include "*special purpose vehicles special purpose vehicles, shell companies, special financial institutions, brass plate companies, mailbox companies or international business companies*" [Economic Commission for Europe, 2010].

In their frenetic creation of SPEs, TNCs have benefited from opportunities created by deregulation. After the collapse of Enron, it was revealed that the company had set up 881 SPEs in offshore centers (including 692 in Cayman Islands). In the early 2000s Enron was probably a frontrunner. Despite Enron's debacle and fraud, the lesson was not forgotten and during the 2003-2007 real estate boom, banks created at a large scale such entities and transferred to them the risk generated by their real estate loans to households.

The innumerable SPEs created by TNCs have been keeping up with the centralization of tasks and functions. There is no paradox in having on the one hand a centralisation of control, in particular of financial operations, and on the other hand a decentralization of operations through the creation of hundred of entities dispersed in the world, mainly in low-tax jurisdictions. Trading companies can be created to centralise foreign exchange risk and/or worldwide inventory control, while another SPE, say leasing company could be set up to transfer tax benefits associated with ownership to another party by leasing equipment, etc.

¹⁹A conventional definition of SPEs by OECD (2008) : "Special Purpose Entities (SPEs) are: (1) generally organised or established in economies other than those in which the parent companies are resident, and (2) engaged primarily in international transactions but have few or no local operations".

That does not mean that all these SPEs are registered and classified as financial corporations: the IMF distinguishes between non-financial (shared service centres for administration, marketing, accounting, merchanting, management of patents, etc.) and financial SPEs proper. Most of SPEs are created for financial purposes, and in this context, because they are present in different countries, TNCs draw benefit from the differences between domestic financial markets or between their different segments. According to an IMF report, their financial tasks include [IMF, 2006]:

- Cash pooling centres: A cash pooling system can optimise the use of excess cash and interest yield (by maximizing the return by proper allocation of short-term investments) , reduce interest expense (by minimizing the cost of borrowing by borrowing in different money markets) , and costly intra-company transactions.
- Treasury centres: Treasury centres are usually in charge of managing the treasury activities of their group (Cash flow and cash position forecasting, Banking and cash management, Liquidity management, Funding management, Risk management) .
- Conduits entities whose main activity is to raise funds from international markets and lend the proceeds to their group.

Tax havens

In the last two decades, there was a massive decline in corporation revenues' tax in OECD countries. Between 1999 and 2009, the average corporation revenues' declined to 23, 22%, up from 34, 12% (figure 6). These company-friendly policies run by OECD governments were not sufficient to deter a growing number of countries of acting as tax havens²⁰. Thanks to deregulation of markets and institutions, an important part of SPEs TNCs-controlled are located in tax havens. A significant benefit from the creation of SPEs by TNCs is to ease the development of their 'off-balance-sheet' finance transactions.

Figure 6: OECD Average Corporate Tax Rate

Source : OECD, 2010

It has been observed that, besides 'official' tax havens, many other countries that are tax havens or have aspects of tax havens, have been overlooked by regulatory authority. These jurisdictions include major countries such as the United States, the UK, the Netherlands, Denmark, Hungary Iceland, Israel, Portugal, and Canada. Attention has also been directed at three states in the United States, Delaware, Nevada, and Wyoming. [CRS, July 2009]²¹. Depending on the definition chosen, the world currently has between 30 and 70 "tax havens [NOU Official Norwegian Reports, 2009].

²⁰ According to an OECD definition, four key factors are used to determine whether a jurisdiction is a tax haven: 1. whether it imposes no or only nominal taxes; 2. whether there is a lack of transparency; 3. whether there are laws or administrative practices that prevent the effective exchange with other governments of information for tax purposes on taxpayers benefiting from no or nominal taxation; 4. whether or not it is required that the activity be substantial [OECD 1998].

²¹ Another opportunity for TNCs could be the multiplication of *Free Trade Zones* (FTZs). It is estimated that 3000 FTZs exist in 135 countries around the world with a total turnover in the billions of U.S. dollars.

Tax havens are less in competition than in complementarities with each other, as they have developed expertise and niches to attract finance capital. To give an example of international division of labour by tax havens, a UK government report said that:

- Bermuda is the third largest centre for reinsurance in the world and the second largest captive insurance domicile. It is the leading non-United States supplier of reinsurance to US insurers and reportedly wrote 30 per cent of the 2008 premiums at Lloyds of London (a total of £5.4 billion).
- The Cayman Islands are the world's leading centre for hedge funds and also a significant wholesale banking centre, with high volumes of overnight banking business from the US.
- The British Virgin Islands are the leading domicile for international business companies, with much business coming from the Far East in addition to strong links with the US.
- Gibraltar offers a gateway to the European single market.
- The Crown Dependencies (Jersey, Guernsey, Isle of Man) provide a gateway to route funds to other financial centres, including London; and they also service the financial needs of many UK nationals living abroad [Foot, 2009] .

For obvious reasons, the number of corporations located in tax havens is quite imprecise, but some claim that Tax havens host around 2-3 million corporations [Sika, 2009]. This estimate could be confirmed by tax havens themselves, a number of them boasting to host a growing number of foreign corporations. There are more than 810,000 companies incorporated in the British Virgin Islands. In 2008, Cayman Islands, a United Kingdom Overseas Territory had a population of 47,862, and 93693 companies registered, including hedge funds, with an estimated 35 percent of funds worldwide.

Figure 7: New Companies registration in Cayman Islands, by type and number, 1992 and 2008

Source: Author's Illustration, based on Cayman Statistical Compendium 2008

OECD's countries TNCs are massively present in tax havens. A January 2009 GAO report found that of the 100 largest U.S. corporations, 83 have subsidiaries in tax havens. 99% of major EU companies have operations in tax havens, 75% of the top US businesses use tax havens [Sika, 2009].

To give an anecdotal evidence, in 2008, Goldman Sachs, the role of which in the 2008 financial debacle (and the ensuing Greek sovereign debt crisis) has been documented, has 29 subsidiaries located in offshore tax haven, reported profits of over \$2 billion and paid federal taxes of \$14 million, an effective tax rate of just one percent [Klinger, Collins, Sklar, 2010]. In the USA, TNCs could have been helped by specific, friendly-to-tax avoidance measures. It is the case of the creation of *hybrids*, that is an entity that is incorporated from the host country point of view and a branch from the US point of view (or vice-versa) [Altschuler, 2009]. The advantage of using hybrid is to allow US companies to avoid the current US tax on inter-company payments like interest, royalties, and dividends because a hybrid entity makes this payment invisible to the US because it all occurs within one combined entity. An interesting outcome is that these inter-company payments are invisible

thanks to the ‘check the box’, a measure highly favourable to US TNCs locating affiliates in tax haven²².

Tax planning by TNCs in order to minimise tax costs often goes through the reinvestment of their earnings to benefit from the deferral option. Then, they use this capital either in affiliates’ operations or in their global operations by transferring it through various financial channels [Altshuler and Grubert 2004].

Evidence of Profit shifting

Profit shifting is anything that affects the profits that are subject to the corporate income tax [Huizinga, 2009]. Still, this seemingly obvious definition is challenged. Some have argued that many corporate transactions—including the most elemental financing choice of whether to finance oneself with debt rather than equity—have important, but typically secondary, tax consequences. According to this view, such transactions are primarily motivated by an underlying business purpose. Thus, even though they may generate tax benefits, they are not typically considered instances of corporate tax avoidance. This intuition on how to define corporate tax avoidance has become established in tax law through the “economic substance,” “business purpose,” and other “anti-avoidance” doctrines, etc. [Desai, Dharmapala, 2008].

As the proof of the pudding is by eating it, it could be said that transactions with tax havens are *“done by very smart people that, absent tax considerations, would be very stupid”* [Quoted in Tom Herman, “Tax Report” *The Wall Street Journal*, February 10, 1999, p. A1, by Desai, Dharmapala, 2008, p.170] .

Because of divergences on the theoretical model and the difficulty to collect data, estimates of the revenue losses from corporate profit shifting vary substantially. In the US, where the research is by far the most advanced, estimates range from about \$10 billion to about \$60 billion for US corporations [Gravelle, 2009] . In France, opportunity given to TNCs by a steady decline of capital controls has been so large that, according to a study released by the *Conseil National des Impôts* (National Council on Tax), in recent years large companies paid less taxes in proportion of their revenues than other companies [Conseil des prélèvements obligatoires, 2009] (figure 8). One of the reasons might be the massive location of French TNCs’ affiliates in tax havens. There were in 2009 1470 entities created by the 39 blue chips, that is 14% of all their foreign affiliates [Chavagneux, Rinuy, 2009].

Figure 8: Tax-to-revenue ratio for French business according to the size of companies

Source : Conseil des prélèvements obligatoires, 2009

Agreement exists on the fact that intangible assets are a preeminent driver in profit shifting and location of capital in tax havens. Industries with a high share of intangible assets, the pharmaceutical and medicine industry and computer and electronic equipment industry set the pace of profit shifting [Gravelle, 2009]. Dischinger and Riedel [2008] find that a decrease of tax rate by 1% raises a subsidiary’s level of intangible assets by 1,6% intangible assets by European multinationals over 1995-2005 period. Likewise, Grubert has estimated that

²² In 1997, a procedure was introduced allowing US corporations to create an entity not controlled by US tax services, simply by “checking the box” on a tax form [Altshuler, 2009]

about half of income shifting was due to transfer pricing of intangibles and most of the remainder to shifting of debt [2003].

Profit shifting mainly occurred through transfer pricing policy which is explored in the following section.

Transfer pricing: a theoretical perspective

Transfer pricing (TP) was addressed by economics as existing only in non perfectly competitive markets. Hirshleifer [1956] argued that, absent this condition, the transfer price would be the marginal cost, given certain simplifying conditions. The literature improved the model with two conditions seen as making transfer pricing an unavoidable component for a multidivisional firm's efficiency. First, the agency hazards within multidivisional firms make transfer pricing necessary for internal management, and stem from a lack of congruence between the interests of the agent and the principal. Second, imperfect and asymmetric information justifies the existence of a transfer pricing method even in the absence of other agency problems.

Critics to this mainstream approach to TP are numerous. Its theoretical economic foundation lies on the Hirshleifer Rule: where and when an external market price exists, the TNC's efficient transfer price should be the external market price. Thus, government regulation (designed to assess if TP are 'manipulated') which is based on comparable prices in the external market place is theoretically sound [Eden, 2001]. The main critic is that the integrated global space designed by TNCs means that affiliates are under the centralised control of the parent company. Put otherwise, intra-TNCs relations (exchanges of resources, financial flows, management of workforce, implementation of property rights, etc.) are *by essence* distinct of those existing on an (hypothetic) (external) free market, allegedly ruled by 'arms-length' relations between individual and equal agents. Here are the limits of the neo-institutionalist definition of the 'firms' as an institution created by agents keen to avoid market failures. Firms, all the more large global companies such TNCs, are ruled by specific objectives and constraints (maximisation of profits) which are based on power relations, and the latter are *in fine* connected to property rights. A second critic to the mainstream TP approach is the difficulty to precisely measure an 'arms-length' price, to which transfer pricing could be compared. A growing share of intra-TNCs trade is made of intermediate inputs, largely intangibles, for which it does not exist a pure competitive market with comparable products.

PRACTICE OF TP

Not surprisingly, TP is central in TNCs strategies. They offer an elegant and opaque way to meet their financial goals. The latter include managing cash flows, supporting R&D, funding capital expansion, paying interest on debt, meeting tax liabilities in accordance with overall group tax strategies and funding dividend payments to shareholders [PricewaterhouseCoopers, 2009]. Intangible assets gives a serious opportunity to TP policy by TNCs, as said in a subliminal advise by consulting "*It is not necessary that the asset appears on the balance sheet for it to have significant value for transfer pricing purposes*" [PricewaterhouseCoopers, Id. , p.47].

Surveys of top TNCs reveals that management is fully aware of the very importance of TP. Transfer pricing is the single most important issue for 76% of parent respondents in the pharmaceutical sector, an increase of 19% compared to a similar 2005 survey.

Pharmaceutical companies are nearly twice as likely as companies in any other industry to experience an adjustment of transfer prices, and parent respondents in the pharmaceutical sector said that 56% of transfer pricing examinations since 2003 resulted in adjustments [Ernst&Young, 2009].

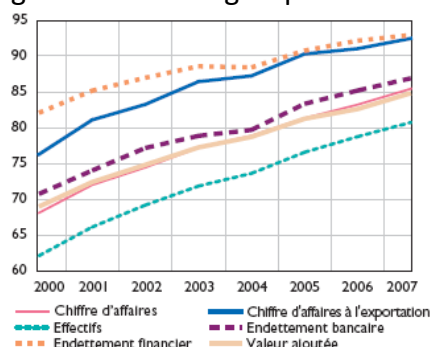
Simple in its principle, TP represents a real challenge for regulatory authorities (e.g. OECD Transfer Pricing guidelines). The strict application of the 'arm's length principle', as said earlier, is often problematic in practice. This difficulty of control by regulatory authorities the magnitude of financial flows generated through TP practices. On the basis of trade statistics, it is estimated that the scale of manipulated transfer pricing in trade only to and from developing countries amounted to roughly 500 US\$ billion in 2006, that is 6,5% of their foreign trade, and almost 50% of their total capital flight [NOU, 2009].

CONCLUSION

This paper contributes, in an exploratory way, to research on finance-production interrelations at the firm level. TNCs, as financial groups, are not simply bigger and larger than other firms. At an abstract level, TNCs, organised and structured as groups, are a locus for a global valorisation of capital, where productive and financial valorisation are closely intertwined. In the context of global finance capital dominated regime of accumulation, finance-logic takes on a preeminent role in TNCs' strategy. At an empirical level, some evidence has been given in this paper that unfettered deregulation of financial markets and multiplication of financial innovations (products and institutions) gave a further boost to the transformation of TNCs as financial groups.

LIST OF FIGURES

Figure 1: Share of groups in France's macroeconomic data, 2000-2007



Source : [Banque de France 2009].

Figure 2 : Share of top French groups in the total of French groups

	Number of groups*	Number of employees (thousands)**	Turnover (bn €)*	Stockholders' Equity*
Total	3 136	8 226	1 897	741
Top groups (>1,5 bn€ turnover)	136,0	3 213	1 497,0	573,0
Top group in proportion of french groups (%)	4,3	39,1	78,9	77,3

Source: Author's illustration, based on Banque de France data (*) and INSEE data (**).

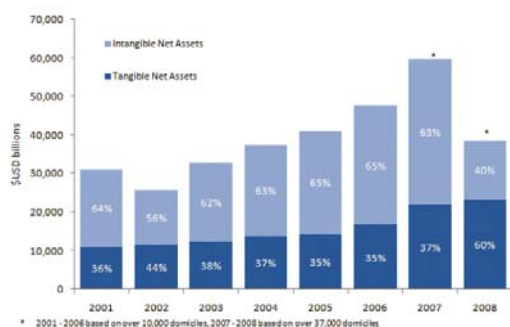
Figure 3: The reversed pyramid of holdings



Note : * Endettement financier (Net financial debt) : bank debt + security debt

Source: Author's illustration, based on Banque de France database.

Figure 4: Global Enterprise Value (US\$ billion, 2001- 2008)



Note: according to the report, the data compile 37,000 companies quoted on 53 national stock markets, representing 99% of total global market capitalization

Source: Global Intangible Finance Tracker 2009

Figure 5: Components of French bluechips Stock market value (CAC 40), 2006-2009

Source : Ricol Lasteyrie, 2010

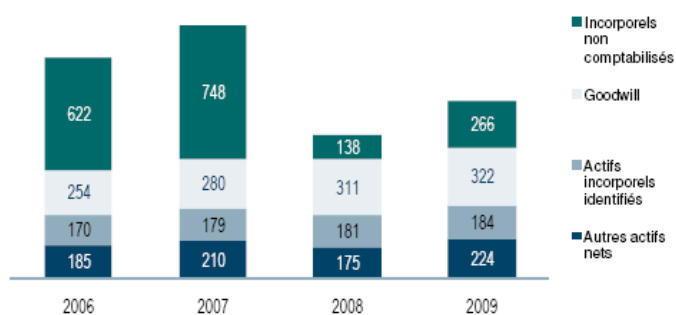


Figure 6: OECD Average Corporate Tax Rate

OECD Average Corporate Tax Rate

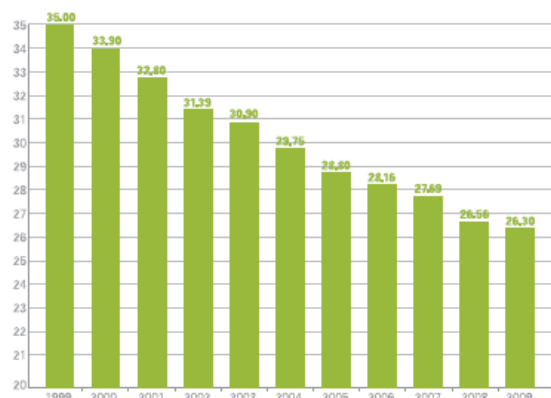


Figure 7: New Companies registration in Cayman Islands, by type and number, 1992 and 2008

	Exempt*	Foreign**	Total	Exempt/total (%)	Foreign/total (%)	Exempt+foreign/total (%)
1992	14371	645	25047	57,3761329	2,5751587	59,9512916
2008	74107	2444	93693	79,0955568	2,60851931	81,7040761

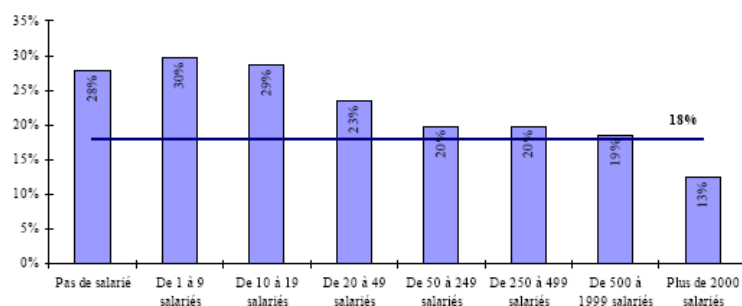
Note:

*: Exempt Company means a company whose proposed activities are to be carried out mainly outside the islands (offshore). An exempted company enjoys benefits under the law which are not available to other companies under the law, chief of which is an exemption from any taxes which may be imposed in the islands for the next twenty years

**: Foreign Company means a corporate body incorporated outside the islands but is carrying on business within the islands.

Source : Statistical Compendium 2008, Author's illustration

Figure 8: Tax-to-revenue ratio for French business according to the size of companies



Source : Conseil des prélèvements obligatoires, 2009

REFERENCES

Altshuler Rosanne [2009] , "Tax Systems in a Changing World", Brussels Tax Forum March 31

Altshuler Rosanne [2009] , "Urban Lessons from the Study of Taxes and the Behavior of U.S. Multinational Corporations", Brookings Tax Policy Center

Altshuler Rosanne [2009], "Lessons from the Study of Taxes and the Behavior of U.S. Multinational Corporations", Tax Systems in a Changing World, Brussels Tax Forum 2009, March 31

- Altshuler, Rosanne and Harry Grubert, 2004, "Taxpayer Responses to Competitive Tax Policies and Tax Policy Responses to Competitive Taxpayers: Recent Evidence," *Tax Notes International*, June 28, 34 (13), pp.1349-1362
- Bath Ganapati [2009], "Transfer pricing, tax havens and global governance", Discussion Paper / Deutsches Institut für Entwicklungspolitik, 7/2009
- BrandFinance [2009], 2009 Global 500
- Charreaux Gérard [2002], « À la recherche de nouvelles fondations pour la finance et la gouvernance d'entreprise », *Finance Contrôle Stratégie*, Volume 5, N° 3, septembre 2002, p. 5 – 68
- Chavagneux Christian, Rinuy Marie-Salomé (2009), « Enquête exclusive : la présence des entreprises du CAC 40 dans les paradis fiscaux », *Alternatives économiques*, 11 mars
- Chesnais F.(1994), *La mondialisation du capital*, Syros, Alternatives économiques, Paris
- Conseil des prélèvements obligatoires [2009], *Les prélèvements obligatoires des entreprises dans une économie globalisée*
- Depoutot Raoul [2004], "25 years of Enterprise Group statistics in France Experienced gained and current development", 18th International Roundtable on Business Survey Frames, Beijing, China - 18 – 22 October
- Der Hovanessian, [2009], "Magic Tricks on the Corporate Books ", *Business Week*, October 21,
- Desai, Mihir and Dhammika Dharmapala, 2008, "Taxes, Institutions and Foreign Diversification Opportunities," Oxford University Centre for Business Taxation Working Paper 08/28
- Dischinger, Matthias, Riedel, Nadine [2010], "The Role of Headquarters Firms in Multinational Profit Shifting Strategies", Munich Discussion Paper No. 2010-12
- Economic Commission for Europe, Conference of European Statisticians Group of Experts on National Accounts [2010], "The treatment of special purpose entities", Tenth session
- Economic Commission For Europe[2009] , "Progress Report Of The Eurostat Task Force On Multinational Enterprises Cases Of Intra-Group Transactions Irrespective Of The Kind Of Entity Involved Geneva, 11-13 May
- Eden Lorraine [2001] , "Transfer Pricing, Intrafirm Trade and the BLS International Price", *BLS WP*,334
- Ernst&Young [2009], "Global transfer pricing survey 2007-2008: global transfer pricing trends, practices and analyses
- ESRC [2005],
- EuBusiness (2009), "Put Delaware, Wyoming, Nevada on G20 tax haven list: Luxembourg PM", 31 March 2009 "<http://www.eubusiness.com/news-eu/1238507221.72>
- Fama, Eugene. 1980. "Agency problems and the theory of the firm." *Journal of Political Economics*, April, pp. 288-307
- Fontagné Lionel, Toubal Farid [2010], *Investissement direct étranger (IDE) et performances des entreprises*, Conseil d'analyse économique, n.89
- Foot M. [2009], Final report of the independent Review of British offshore financial centres Geneva, 26–29 April
- Forssbæck Jens, Lars Oxelheim [2008], "Financial Determinants of Foreign Direct Investment", *IFN Working Paper No. 741*
- Global Intangible Finance Tracker 2009

- Gravelle Jane G.[2009],” Tax Havens: International Tax Avoidance and Evasion”, *CRS Report for Congress*, July 9
- Grubert Harry [2003], “Intangible Income, Intercompany Transactions, Income Shifting and the Choice of Locations”, *National Tax Journal*, vol. 56, March
- Hart, O. and Moore, J. [1990] , “Property Rights and the Nature of the Firm”, *Journal of Political Economy*, Vol. 98, No. 6 (Dec., 1990), pp. 1119-1158
- Hatzichronoglou
- Hilferding Rudolf [1910], *Finance Capital*. A Study of the Latest Phase of Capitalist Development. Ed. Tom Bottomore (Routledge & Kegan Paul, London
- Hirshleifer Jack [1956], “On the Economics of Transfer Pricing”, *The Journal of Business*
- Hirshleifer, J. [1956]. “On the economics of transfer pricing”, *Journal of Business*, p. 172-184
- Intangible Business, [2008], “IFRS 3: The First YearThe FTSE 100’s reporting of acquired intangible assets”
- Profit Shifting Activities in Europe
- Huizinga Harry [2009],” Profit Shifting Activities in Europe”, Brussels Tax Forum March 30-31
- International Accounting Standards Board [2007], Project: Intangible Assets, Board Meeting: 12 December, London
- Jaffe Adam B., Lerner Josh [2004], *Innovation And Its Discontents:How Our Broken Patent System Is Endangering Innovation And Progress, And What To Do About It*, Princeton University Press
- Jensen Michael C., [1987], “The Free Cash Flow Theory of Takeovers: A Financial Perspective, Governance?”, January, "The Merger Boom", Proceedings of a Conference sponsored by Federal Reserve Bank of Boston, pp. 102-143, October
- Jensen Michael C., [1993], “The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems”, *The Journal Of Finance*, Vol. Xlviii, No. 3, July
- Jensen Michael C., Fuller Joseph [2010], “Just Say No to Wall Street: Putting A Stop to the Earnings Game”, *Journal of Applied Corporate Finance*, Volume 22, Number 1, Winter
- Klinger Scott, Collins Chuck, Sklar Holly [2010], “Unfair Advantage The Business Case Against Overseas Tax Havens”, July 20
- Lane Philip R., Milesi-Ferretti, and Gian Maria [2010], “Cross-Border Investment in Small International Financial Centers”, IMF WP/10/38
- Miroudot Sébastien, Lanz Rainer, and Ragoussis Alexandros [2009], “Trade In Intermediate Goods And Services”, *OECD Trade Policy Working Paper No. 93*, November 3
- Montalban Matthieu, SAKINÇ Mustafa Erdem [2009], How financialization shapes productive models in pharmaceutical industry: the domination and contradictions of the blockbuster productive model, <http://ideas.repec.org/p/grt/wpegrt/2009-01.html>
- Morin François [2006], « Le capitalisme de marché financier et l’asservissement du cognitif », *Cahiers du GRES*, 2006-5
- National Science Foundation, *2010 Science and Engineering Indicators*]
- NOU Official Norwegian Reports [2009] , Tax havens and development : Status, analyses and measures, 2009/19
- OECD [1998], Harmful tax competition : An Emerging Global Issue
- OECD [2008], 2008 Edition of the OECD Benchmark Definition of FDI
- Official Norwegian Reports [2009] Tax havens and development Status, analyses and measures, 19
- PricewaterhouseCoopers [2009] International transfer pricing

- Rajan Raghuram G., Zingales Luigi [1998], "Power in a Theory of the Firm", *The Quarterly Journal of Economics*, Vol. 113, No. 2, May, pp. 387-432
- Rajan Raghuram G., Zingales Luigi [1998], "Power in a Theory of the Firm", *Quarterly Journal of Economics*, May 1998
- Ricol Lasteyrie, Profil financier du CAC 40, Juin 2010
- Ridgeway Art [2007], "Data Issues On Integrative Trade Between Canada And The Us measurement Issues For Supply Chains", Joint EFTA/UNECE/SSCU Seminar "Economic Globalisation: A Challenge For Official Statistics" Kiev, 3-6 July
- Riggway
- Scott J. [1997] *Corporate business and capitalist class*, Oxford University Press
- Serfati C. [1996] « 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
- Serfati Claude [2008] , "Financial dimensions of transnational corporations, global value chain and technological innovation", *Journal of Innovation Economics*, n°2, 2008
- Sikka Prem, "The Role of Offshore Financial Centres", *Corruption Forum* 2009
- Terrien Bruno [2010], "A new standard for compiling and disseminating foreign direct investment statistics", *Banque de France, Quarterly Selection of Articles*, n °16, Winter 2009-2010
- Tipgos Manuel A. [2007], "How Wrong Is The Agency Theory As Basis For Corporate
- UNCTAD [2010], World Investment Report 2010, Investing in a low-carbon economy, Geneva
- WTO [2010], "International Trade Statistics 2009"
- Zingales Luigi [2000], "In Search of New Foundations", The Center for Research in Security Prices, Working Paper No. 515, May