The Firm and the State in the Globalization Process

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Globalization is a process which results from dynamic economic, political, ideological, cultural or religious forces. These forces are simultaneously shaping and reshaping the international division of labor, favoring or opposing capital accumulation, and pushing toward an increasing homogeneity of human behavior and consumption or attempts to resist this movement. However, the author maintains that the driving force is economic. More specifically, the critical agent of globalization is shown to be Transnational Finance Capital (TFC) (involving both Transnational Corporations and Transnational Banks).

First, the characteristics and increasing importance of TFC is examined, which is necessary in delineating a framework for analyzing the relationship between TFC and the State, particularly as it is manifested in the agri-food sector. This framework highlights the fact that dialectical relationships between TFC and nation-States vary in different socio-economic contexts. A qualitative typology is proposed in an attempt to describe the nature of these relationships at any particular moment. The article ends with an application of this typology to different relationship patterns established between TFC and the Portuguese nation-State.

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Introduction: The Concept of Globalization[1]

Globalization has been described as the confluence of various economic changes that can be grouped into three types of phenomena (Borrego, 1981; Dicken, 1992; Dunning, 1990; Kennedy, 1993; Koc, 1994; Ohmae, 1991; Reich, 1991; Ross and Trachte, 1990; and Thurow, 1992).

First, there is the increasingly rapid expansion of international trade[2] which has occurred since the end of World War II, coupled with the quick growth of international production and international marketing channels. This movement was initially fueled by the spread of multinational enterprises (MNE) which located subsidiaries in other countries to take advantage of natural resources, as well as to produce for local and regional markets served by these subsidiaries. More recently, the emergence and rapid development of transnational corporations (TNCs) --which have been accompanied by and stimulated the development of new technologies which lower transport costs, permit rapid communications and create new management methods--have changed this pattern.[3] Thus "an increased proportion of world trade in manufactures is intra-firm, rather than international, trade. In other words, it is trade which takes place between parts of the same firm but across national boundaries" (Dicken, 1992:48). TNCs also control the commodity marketing channels of a large variety of food and raw agricultural products as well as ores, minerals and metals, even when their production is nation-based.[4]

Second, the end of the Bretton-Woods system of financial regulation and the development of new technologies (mainly related to the revolution in global communications) has allowed an explosion of financial flows around the world.[5] These flows are under the control of an increasingly important set of transnational banks (TNBs), which are in large part connected with speculative movements in stock markets and currency exchange rates.

Third, a global tendency toward a homogeneity of human behavior and consumption patterns[6] has formed, fueled by the emergence of a global communications network (used in a broader sense to include the media and cultural industries). This tendency is illustrated by the emergence of global goods such as the "world car," the "world steer" (Sanderson, 1986), the "world soft drink," the "world pizza," in addition to a global culture exemplified by trends in fashion, hair styles, etc. (Friedland, 1990).

In brief, even if interpretations may differ about the nature, importance and theoretical significance of this global shift, there is general agreement that it is qualitatively different from the past, and is intimately connected with the acceleration of international capital flows, the growing importance of TNBs and the emergence and rapid development of TNCs in parallel with new technologies. The close co-operation and -- occasionally -- control developing between TNCs and TNBs constitute what Andreff (1982, 1984) terms transnational finance capital (TFC).

Thus, the globalization process is best conceptualized as resulting from a set of dynamic forces -- economic, political, ideological, cultural[8] or religious -- that, at an ever increasing pace, is shaping and reshaping the international division of labor, favoring or opposing capital accumulation, and pushing toward or resisting an increasing homogeneity of human behavior and consumption. These are the global, local, or regional forces that are acting in the socio-economic and political context of the last three decades of the twentieth century.[8]

My thesis is that the driving force behind these developments is primarily economic. That is, the critical agent of globalization is the set of strategies TFC adopts to adapt accumulation patterns to changing geo-economic and geo-political conditions. On one hand, TNCs are trying to become more competitive in markets that are increasingly globalized; on the other hand, TNBs are striving to dispose of an excess of liquidity. Thus, TNBs fuel TNC development and, by taking advantage of the end of Bretton Woods regulation, contribute to the explosive surge in speculative capital flows already mentioned (see Kennedy, 1993; Resnick, 1989; and Schuh, 1986).

Forces outside the economic arena which contribute to the globalization process -- such as the nation-state at the political and ideological level and cultural or religious forces -- usually lag far behind. The fact that economic forces are primary does not deny the importance of these other forces; on the contrary, they sometimes work to facilitate the requirements of the globalization process[9] or, as is more probable, struggle to resist the homogenization process.[10]

This definition implies that what characterizes the globalization process is more than the increase in commercial relations between different economic spaces or nations; rather globalization involves two main dimensions. The first is the increasing speed of the movement of capital and commodities. The second is the multi-spatial coordination of economic activities which is substantially different from the simple consideration of the signals provided by demand and supply trends in international markets.

By accepting this concept of globalization, we are necessarily faced with many issues needing further discussion and theoretical consideration. Three of these are particularly important. First, the firm and technological progress[11] as the primary agent of the globalization process must be considered. Second, the state and international development agencies should be examined. And third, the debate about structure/agency opposition as it is related to cultural, ideological, and religious factors is important. However, it is my belief that the changing trends of the internationalization of capital that give rise to globalization can be explained essentially by TFC and the dialectical relationships between TFC and nation-states. In other words, the determinants of globalization must be sought in the internal logic of TFC in general and in TNCs' actions in particular, influenced by the dialectical relationships between TFC and nation-states. However, this process must be examined on a case by case basis, considering other dimensions which are not explored in this paper.

It is generally agreed that the dynamic of the capitalist system, among other conditions, implies the constant search for opportunities to expand capital accumulation, and requires the continuous realization of profits. But it would be too easy, as well as unsatisfactory, to explain the role of TFC in the globalization process as resulting simply from an incessant quest for profits and growth of accumulation. Therefore, we must pay more attention to TFC to better understand the significance of the process.

The framework for the analysis proposed in this paper is that TFC strategies and the dialectical relations between TFC and nation-states must take into account variations in socioeconomic contexts arising since the emergence of the globalization process. After a brief overview of theoretical considerations about globalization, attention will be given to the character of TFC and then to the relations between TFC and nation-states.

Theoretical Explanations Of Globalization: A Brief Review

While there may be a consensus about the importance of the globalization process, the theoretical explanations for it are the subject of raging controversy. Dunning (1990:10-11) points out some of these issues,

> Theories abound. Currently there are at least half a dozen contenders for *the* theory or the *leading* theory of international business activity most of which leave businessmen unimpressed since they consider each act of investment a unique phenomenon, so that no particular theory can explain everything.

Dunning sets out six reasons for the shortcomings of major theories. First, the "large number of theories reflects the learning process which any new discipline has to go through in its search for dominant paradigm." Second, the world has changed to the extent that early explanations are no longer valid, which fits well with our argument for the necessity of taking different historic contexts to fully understand globalization into account.[12] Third, earlier theories did not seek answers to the same questions because some were more interested in the 'where' and others in the 'why' or 'how' of foreign production. Fourth, scholars have addressed different issues. For instance, variables which best explain the initial act of foreign direct investment may or may not be relevant in explaining increases in the degree of multinational activity. Fifth, varied approaches to explaining globalization exist. For example, some look at the dynamic of direct foreign investment and others search for the patterns and composition of foreign owned production at a particular point of time. Finally, because of the disciplines they practice, researchers may take different perspectives on international production.

Dunning concludes "there is no such thing as a one for all explanation of international business. Firms change; so do the production and marketing conditions within which they operate." However, despite the futility of a quest for an ultimate theory, it is worthwhile to look at some of the explanations of reasons that lead corporations to develop activities outside their original home base.

Dunning, in earlier research, attempts to synthesize mainstream theories and less orthodox approaches in what he calls the "Eclectic Paradigm."[13] However, this paradigm, as well as most other mainstream approaches, focuses on the micro-economic level (Pitelis, 1989). Even if they provide deep insights and good explanatory power, economic approaches are unsatisfactory when questions are raised from a macro-economic perspective, as Dunning himself recognizes. Other criticism of these mainstream approaches is connected with the fact that they do not deal with what economists designate as extra-economic variables.

In contrast to the approaches outlined above, critical approaches tend to be placed at a macro level, providing good explanations of broader trends and global movements but not giving much attention to the concrete ways that firms globalize, processes which cannot be detected with macro approaches. Thus, there is nothing unusual about more influential critical approaches seeking determinants of globalization in several different areas. Some seek these determinants in large global movements and historical perspectives, much like the world system approach (see So, 1990; Ross and Trachte, 1990; more critical approaches are Howard and King, 1992; and Worsley 1980). Others look to the search for monopolistic profits and rents due to the disproportionate market power of large TNCs (see Hymer, 1976a, b; Barnett and Muller, 1974; Biersteker, 1978; and Newfarmer, 1985; for a critical review see Jenkins, 1991). A third approach sees the determinants as deriving from a New International Division of Labor provoked by the search for global sources of cheap labor by TNCs (see Fröbel et al, 1980; Jenkins, 1984). Still others argue that globalization results from the internationalization of capital driven by the competitive nature of the capitalist mode of production (see Jenkins, 1991). Finally, some emphasize the importance of the centralization[14] of capital as a process of reordering world capitalism, the outcome of the crisis.[15]

These varied ways of looking at the same phenomenon have a clear ideological basis. Critical approaches, though more or less explicitly oriented toward political purposes and ideological principles, place the necessity of identifying the winners and losers of economic changes of globalization at the center of their problematic. Mainstream approaches, on the contrary, consider the market (in its broader sense) as the most efficient allocator of resources and, even when they acknowledge the creation of winners and losers, share a naive and optimist view of the results of market forces. According to the latter viewpoint, general welfare will increase and winners eventually will compensate the losers. Unfortunately winners usually don't compensate losers. and all externalities are not taken into account in finally assessing any increases in general welfare (Thurow, 1992). Additionally, mainstream theorists, with very few exceptions, refuse to recognize that their optimistic and naive point of view is the result of ideological bias, turning any attempt at debate between critical and mainstream approaches into a dialogue of the deaf.

Let us now turn to the characteristics of TFC and the relationship between TFC and nation-states. The notion of transnational finance capital[16] does not imply that banking and industrial capital lose their identity. On the contrary, the internationalization of TFC has been achieved through a rigorous competitive process involving both TNCs and TNBs. Thus, we can assume that TNCs and TNBs share relations ranging from simple collaboration to more complex forms of coordination as well as structures of strict control dictated through networks of intercorporate relations.

The Characteristics of TNCs

In 1971 Hymer, drawing on research by Chandler and Barnard, traced the evolution of modern organizational patterns of firms. First, the old giant mercantilist organizations in international trade, which had contributed to the concentration of capital, (e.g. mining companies and plantations) gave way to small workshops, the forerunners of modern corporations. Hymer (1976b:56) termed the former organizations "dinosaurs, large in bulk, but small in brain, feeding on the lush vegetation of the new worlds (the planters and miners in America were literally *Tyrannosaurus rex*)."

The second stage of the evolution of modern business organizations began with the transition of small workshops to Marshallian family firms. Next, "the family firm, tightly controlled by a few men in close touch with all its aspects, gave way to the administrative pyramid of the corporation" by the early twentieth century, a process accompanied by the rapid expansion of businesses continent-wide through mergers (Hymer, 1976 b:58). This expansion implied a structure with field offices supervised by a head office. National corporations were sub-divided into departments with vertical control supervising the horizontal division of labor provided by the departmental structure (finance, personnel, purchasing, sales, etc.).

However, capitalist development with its disproportionate growth of demand implied that

> [i]f the corporation was to grow steadily at a rapid rate, it had continuously to introduce new products ... Thus, product development and marketing replaced production as a dominant problem of business enterprise. To meet the challenge of a constantly changing market, business enterprise evolved the multi-divisional structure ... originated by General Motors and Du Pont shortly after World War I.
>
> Corporations were decentralized into several *divisions* each concerned with one product line and organized with its own head office. At a higher level, a *general office* was created to coordinate the division and to plan for the enterprise as a whole. (Hymer, 1976b:60 emphasis in the original)

This structure gave greater flexibility to corporations so they could either enter new markets by adding new divisions, or leave by closing down divisions. They could create competing product-lines in the same industry, thereby increasing market share and giving the illusion of competition. "Most important of all, because it [had] a cortex specializing in strategy, it [could] plan on a much wider scale than before and allocate capital with more precision." (Hymer, 1976 b:61)

This structure also facilitated internationalization by the simple addition of an international division. Most large corporations that internationalized had this multi-division structure. However, the expansion of production facilities to several countries posed additional problems of coordination and control. Thus, "largely through trial and error TNCs have groped their way towards more appropriate organizational structures." (Dicken, 1992:192) Even if there is no single pattern of structural organization, several forms of organization are adopted according to such factors as geographical dispersion, age and experience of the enterprise, the nature of operations, etc. (Dicken, 1992: chapter 7).

But going global poses additional problems of coordination; recently "some of the largest TNCs have begun to adopt sophisticated *global grid* or *global matrix* structures which are moving to a globally integrated network structure." (Dicken, 1992:193) Dicken quotes Bartlett and Ghoshal who characterize this structure as

> increasingly specialized units worldwide ... linked into an integrated network of operations that ... [enables] .. them to achieve their multidimensional strategic objectives of efficiency, responsiveness, and innovation ... the strength of this configuration springs from its fundamental characteristics: dispersion, specialization, and interdependence. [This shift is from a] top-down organizational structure in which there is a clear vertical division of control, to a flatter, more complex, networked structure. (Dicken, 1992:193)

Reich, concerned about high value enterprises goes further in this sense, arguing that the new high value firm will be a *web* enterprise that

> has no need to control vast resources, discipline armies of production workers, or impose predictable routines. Thus it need not be organized like old pyramids ... high-value enterprises *cannot* be organized this way. The three groups that give the new enterprise most of its value – problem-solvers, problem-identifiers, and strategic brokers -- need to be in direct contact with one another to continuously discover new opportunities. (Reich, 1991:87, emphasis in the original).

This web enterprise can have several shapes, evolving continuously. Reich (1991:91-94) gives some examples, such as *independent profit centers, spin-in and spin-off partnerships, licensing*, and *pure brokering*. Finally, Reich argues this movement toward the global web implies that "there is coming to be no such organization as an 'American' (or British or French or Japanese or West German) corporation, nor any finished good called an 'American' (or British, French, Japanese, or West German) product." (Reich, 1991:110)

The Increasing Importance of TNBs

In addition to the different models of organization in banking system -- which arose from different historical patterns of banking development in the home countries (see Scott, 1985:85-159), other financial structures are becoming increasingly important.[17] Klemkosky (1989), tracing the evolution of the U.S. financial system, enumerates 54 new financial products included in a number of traditional market instruments such as bonds, mortgages, financial futures and options, equity, preferred stock and mutual funds. Referring to the most significant features of this evolution, he stresses the globalization of the financial system -- which gives corporations the choice of borrowing domestically or in Euromarkets -- as well as the increasing role of financial institutions in purchasing equities.[18]

While not always implemented worldwide, recent U.S. trends illustrate some of the movements that other financial systems will most likely follow. In general terms it can be said that

> one of the major trends of the eighties has been the increasing integration of the international capital markets, caused in part by the recent liberalization of some domestic capital markets.... The globalization of product, factor, and

> financial markets promises to continue into the nineties" due mainly to trends with Japanese and European economies. (Resnick, 1989:35)[19]

Another recent trend that deserves mention is the integration of secondary equity markets during the 1980s. This integration occurred primarily because of "... new developments in global communications technology, deregulatory changes in national markets and a greater awareness by investors of the benefits of international portfolio diversification." (Resnick, 1989:37)

The magnitude of the changes in international financial systems is tremendous. A brief look at the foreign exchange market provides evidence. One estimate put average daily trading volume at $425 billion in 1987, up from $300 billion in 1986 and $150 billion in 1984; current estimates range up to $1 trillion per day in 1989. By comparison, the largest single day's volume on the New York Stock Exchange was $21 billion on October 19, 1987, the day of the crash. It must be remembered that the foreign exchange market is not a specific physical place; rather it is the network of international banks that trade currencies with one another and the foreign exchange brokers and dealers who facilitate this trade ... 24 hours a day." These movements are the source of large benefits for TNBs. [20]

The tremendous growth of world-wide financial flows results from an excess of liquidity, a major characteristic of the crisis of the 1970s which saw the end of the Bretton Woods system (Armstrong et al, 1991). The collapse of Bretton Woods was exacerbated by the 1973 oil crisis, when enormous amounts of petrodollars (Eurodollars which were originated by the crisis) could not easily find places to be used (Aglietta, 1982). Thus, TNBs have been managing this excess liquidity in a global financial system that has lost much of its capacity for regulation. This is one of the most important features of TNBs affecting globalization. Clearly, there was nothing strange about capital flows increasingly fueling the explosion of speculative movements in stock markets and in exchange rate fluctuations, especially since these mainly occurred after the deregulation measures of the eighties (see Aglietta, 1992).

It must also be stressed that TNBs have gained enormous additional power vis-à-vis nation-states. In fact, we can say, along with Susan Stange, as quoted by Wachtel (1986), that Eurodollars "may prove to have been the most important single development of the century undermining national monetary sovereignty." In other words, the creation of money is no more the unique prerogative of the nation-state since TNCs have access to stateless money. [21]

On the other hand, since TNBs control this enormous flow of capital, they are able to influence, almost without restriction, the exchange rates of different currencies. Therefore, the autonomy of nation-states in imposing economic policies is severely limited and, in some cases, completely abolished. The case of Third World debtors which suffered the IMF imposition of structural adjustments plans demonstrates this case.

Towards a Framework for the Analysis of TFC and State Relations

Maizels (1984), drawing on the work of Labys (1980), proposed a conceptual framework for the analysis of primary commodity markets. This framework will be useful in systematizing the factors that must be considered in the analysis of TFC and nation-state relations. Maizels' conceptual framework is only a starting point since there are aspects of these relations with which he does not deal.[22]

The dialectical relationships between TFC and nation-states will be analyzed based on the following considerations. First, it is necessary to locate the analysis in a broad historical context, fully understanding the world economic situation at a particular moment as well as the socio-economic characteristics of any given country. Secondly, analysis of the nation-state only *begins* with the pragmatic features of governmental relations with TFC. Thorough analysis requires that other more general indicators of the host country be taken into consideration, including political, ideological, cultural, and religious aspects of the host country's history and situation at a particular moment, including the composition of internal capital, class struggle, ideological and religious features that influence nationalism, anticapitalism, or further integration in the capitalist world. At any particular moment, these forces in the nation-state can take the role of TFC regulator or facilitator of TFC requirements. Third, what finally determines if a nation-state will act as a regulator or as a facilitator of TFC requirements is not based solely on internal considerations. The historical context and the dialectical relations with TFC will give final form to a nation-state's position. Finally, any analysis of the relationships between nation-states and TFC must recognize how unequal the forces are. That is, not only does TFC have different characteristics and diverse degrees of power but nation-states are also very unequal. With this general framework it is possible to examine more particular factors influencing the relationships between nation-states and TFC.

The Nation-State Versus TFC

It is possible to conceptualize a continuum country situations ranging from complete autarchy to complete openness to external influences of other nation-states and TFC. However, if absolute autarchy nowadays is an abstraction, the absolute absence of regulatory processes by nation-states is equally abstracted. Therefore, all the countries in the world can be found somewhere between these two extreme positions. Consequently, it is useful to consider, abstractly, the factors which can affect the degrees of freedom of nation-states when dealing with TFC. First, the size of the country, i.e., its population and political and economic power impacts its ability to deal with TFC. For example, the Republic of China has incommensurably more power than Burkina Fasso vis-à-vis TFC. Second, a related factor is the size and growth potentiality of the internal market, especially when dealing with TFC desiring to produce goods or services for this internal market. Third, the nature and importance of the raw materials that TNCs seek or the products they wish to commercialize through marketing and distribution channels is crucial The power of OPEC countries became painfully evident during the 1973 oil crisis. If, on the other hand, there are many alternative sources, or technical possibilities to substitute raw materials, the nation-state loses power. Fourth, another factor is the existence of alternative trade links. This factor depends on the world context, and is best illustrated by Cuba's problems when their privileged trade links vanished with the collapse of the Soviet Union. Fifth, the macroeconomic context and the prospects of the country, especially concerning financial resources and the balance of payments, affects the power of TFC vis-à-vis nation-states. TFC power increases when countries are international debtors and desperately need external loans.

Another factor is the experience and ability of nation-state representatives in dealing with foreign trade and the complex system of international legislation concerning contracts with TFC. In addition, the willingness of a nation-state -- as well as the possibility -- to join other nation-states to obtain more bargaining power is important as illustrated by OPEC. The world economic situation and prospects, as well as tendencies toward recession or expansion also play a role. If recession prevails, nation-states might have additional power when opening up sectors to TFC. Finally, the degree of local corruption is an important factor affecting the power of nation-state. If corruption is rampant, regulation will only serve to obtain more bribes without considering the general interest of the population or the environment.

TFC Versus the Nation-State

Following our understanding of the dialectical relationships between the nation-state and TFC, all the factors mentioned above about a nation-state's degrees of freedom can also be considered from the point of view of TFC. However, there are other factors affecting nation-states that depend on TFC characteristics and types of operations. These degrees of freedom include any of the following. One variable characteristic is the amount TNBs speculate with currency exchange. As already mentioned, in an internationalized economy, nation-states are relatively helpless vis-à-vis speculative capital flows. These speculative flows can affect nation-states as the simple result of the internal logic of capital and the normal function of the markets. They can also be the result of the willingness of TNB representatives to put pressure on nation-states reluctant to accept the requirements of TFC. A clear example is TNB networks which forced large debtor countries to accept the IMF imposition of adjustment plans. Small and Third World countries are infinitely more susceptible to being forced to accept such adjustment plans than the U.S., despite the importance of the debt in absolute or relative terms.

Second, the role of transnational trading corporations and TNBs in using speculative strategies in futures and spot markets is also important. Third, the power of TNBs is not only visible when dealing with speculative movements. Thus the Paribas bank in France succeeded in transferring most of its assets to other countries to avoid nationalization during the first socialist Miterrand government in 1981; another example is the 1975/76 British attempt at "deficit financing ... blocked by the financial institutions in the money markets," according to Tomlinson as quoted by Radice (1984). A fourth characteristic is the nature of technologies that TNCs and TNBs provide to nation-states in direct investments and in licensing their use. The more sophisticated and complex the technology, the greater the power of TFC.

Fifth, the control of marketing and distribution channels, i.e. the oligopolistic characteristic of some world markets, also factors into the relative freedom of the nation-state vis-à-vis TNB. We have already mentioned the oligopolistic control of some TNCs over some primary products. Even after nationalization, the power of the nation-state vis-à-vis TFC may not increase because of this control. This also means that Vernon's (1971) concept of the "obsolescent bargain," according to which the power of the nation-state can increase once direct investment is made, can be subverted by oligopolistic control of marketing and distribution channels.

Sixth, the influence of the original home countries of transnational firms must be considered. Even though it is increasingly difficult to identify the origin of a product or the real nationality of a TNC as Reich (1991) points out, there is substantial evidence that country-specific characteristics influence TFC strategies and result, sometimes, in substantial benefits to the original home countries of the TNCs.[23] Finally, most of the new forms of internationalization described by Reich's designation of *global web*, increase the flexibility and the mobility of TFC. Since much of the business of these global webs is related to problem-solving, engineering, auditing, and so on, and since the efficiency and quality of this kind of activity depends on the know-how of the global webs, it is likely that the power of the nation-state vis-à-vis this type of firm will be marginal.

The Globalization of Agricultural Related Activities

Even in its most advanced forms, industrial agriculture has many differences when compared to industry. These specificities are related to the biological character of agricultural production and the need to use a peculiar means of production, land. Furthermore, food commodities are subject to higher levels of regulation by nation-states. Until a GATT agreement is achieved which would interconnect the economic sphere with hygienic and sanitary regulations, the higher regulation of food will continue to be highly visible in international trade, since each nation-state does not want to lose control, causing indirect economic effects.[24]

Another feature pertaining essentially to Third World countries is the level of intervention of international agencies with loans and grants, technical assistance, and imposing models of development emphasizing export production of agricultural commodities (Bergeron, 1992). This intervention sometimes may only have an agricultural dimension but, in other cases, will be part of a package carried out by the IMF or the World Bank as a structural adjustment plan.

An understanding of the globalization of agricultural related activities can only be fully comprehended when it is placed within the more general context of the development of capitalism. The laws of motion of capitalism, that is the necessity to continuously expand the accumulation and concentration of capital, and the growth of the world market (Magdoff, 1976) has wrought profound modifications in the agri-food sector, initially in the advanced societies, and increasingly in Third World countries.

Continuous capitalist expansion faced obstacles in penetrating agriculture, mainly on account of the specificities already mentioned, but also because of the persistence of non-capitalist forms of production, particularly the family farm. However, it seems non-controversial today that capitalist development in agriculture does not require pervasive uniformity in agricultural production relations. Thus it is not necessary to eliminate the family farm to achieve the integration of agriculture into the capitalist sphere. Through the increasing expansion of capitalist relations of production either directly in agricultural activities, or by surrounding agricultural production with capitalist links, thereby diminishing the importance of the non-specific capitalist forms, capitalism has become the norm in the agricultural sector of advanced industrial societies. While the family farm can subsist and maintain its social and economic importance, it increasingly depends on industrial inputs as well as on capitalist forms of marketing and distribution of its products.

This increasing dependence on industrial inputs, which Goodman et al. (1987) designate "appropriationism,"[25] promotes higher levels of productivity pushing agricultural producers onto a "technological treadmill" (Cochrane, 1979) by forcing them to adopt new innovations. This movement was fueled by public and private research and development as well as by extension apparatuses in the industrialized countries. It eventually spread to the Third World, initially with the objective of increasing agriculture productivity to feed starving populations in the form of the Green Revolution. Despite the controversy about the unequal socioeconomic consequences, this movement was supported by international agencies and by U.S. policy.[26]

On the other hand, industrial capital struggles to find substitutes for agricultural products either to avoid dependence on agricultural raw materials or to try to find new business opportunities in what is designated by Goodman et al. (1987) as "substitutionism."[27] Substitutionism creates new conditions for the expansion of global sourcing since industrial capital is most interested in the cheapest source of elementary components that can be used in food processing.[28] However, substitutionism also diminishes the portions of the commodity chains left to family farms.

Capitalist integration is also achieved through forms of production under contract, leaving to the family farm only the parts of the commodity chain that capitalists are less interested in exploiting.[29] Family farmers are left with these pieces for several reasons. These production areas tend to be more risky (e.g. climatic or sanitary), the rotation of capital is too long, and/or family labor can provide necessary skills as well as a form of labor less concerned about timetables. Family labor is better at adjusting to the rhythm of biological production as well as being lower cost than hired labor.

Clearly, appropriationism and substitutionism are useful concepts in understanding the dialectical relationships between TFC and the nation-state as well as the new competitive relations between firms. These concepts can best be seen in the damage that extreme substitutionist strategies create for millions of workers involved in the production of the substituted items as well as for firms producing these items.

The capitalist development of agriculture and agri-food industries has contributed to the spread of mass production of food as evidenced by a series of commodity chains that are increasingly being globalized. These chains constitute what Friedmann (1991) calls food complexes. This concept is important in establishing the connection to the globalization process.

> [S]ince agri-food complexes are centered on transnational, *industrial* capital, the splintering of production within national economies -- that is, intra-sectoral integration across national boundaries - is a phenomenon increasingly general to all commodity chains, and to all nations with sectors linked into them (Friedmann, 1991:84, emphasis in the original).

Simultaneously, from the demand side, distinctive patterns of food consumption have emerged which are related to income distribution and health concerns (Friedland, 1990). Therefore, the food regimes identified by Friedmann (1991) are changing.

Thus, it is obvious that industrial capital, through appropriationism and substitutionism, is the driving force of capitalist development in agriculture and in the globalization of agriculturally related activities. Clearly, these forces shape the characteristics of agri-food complexes and, to a lesser extent, the food regime.

While firms might be the driving force behind the processes identified above, this in no way diminishes the importance of other factors. On the contrary, it is impossible to overlook nation-state intervention concerning capitalist agricultural development or the specific influence of U.S. policy concerning the spread of agri-food complexes.[30] U.S. foreign trade policies included aid programs such as the Marshall plan after the second world war, aid programs directed at Third World countries (e.g. Public Law 480 which has been examined by Morgan, 1979; Tubiana, 1989; Berlan, 1991; and Kenney et al, 1991), as well as the use of political instruments to support U.S.-based interests in agriculture production abroad, including political intervention in foreign countries (e.g. the case of the United Fruit Company and Guatemala).

TFC and Agriculture

As already mentioned TFC may either be involved in all phases of agricultural commodity chains, from production to the final consumer, or it may be present only in some phases. In most cases TFC is present upstream of production, providing inputs, such as chemical fertilizers, pesticides and herbicides, agriculture machinery, technical assistance, high yield hybrid seeds, animal food; and financing structural investments in irrigation and drainage projects, or plantations.[31] However, TFC can also be found downstream from agriculture in processing facilities for food and beverages,[32] as well as in controlling important marketing and distribution channels for primary commodities (see the figures provided by Clairmonte and Cavanagh, 1983: footnote 4).

Finally, TFC is also directly present in some agriculture production activities but to a much lesser degree. In contrast to the overwhelming presence of TFC in upstream and downstream phases of agricultural commodity chains, most effective agriculture production is in the hands of national private or public capital or non-capitalist forms of production. This applies not only to the commodities produced for internal markets but to those that have become globalized, including cereal grains, oil seeds, dairy production, beef, lamb, pork and poultry, fruits and vegetables, wine and forest production.

TFC is rarely directly interested in agriculture production. In fact, even the large TNCs tropical plantations have changed.[33] However, while TFC can still be found in rubber, palm and banana plantations, it is present to a lesser degree in coffee, cocoa, pineapple and tea plantations as well as wine, fruits and vegetables, oil seeds, cotton, livestock and forest production for lumber or cellulose. Thus it can be assumed that it is mainly through its presence in upstream and downstream phases of agricultural production that TFC controls and influences the globalization process.

The evolution of global agricultural commodities has been uneven since World War II, because it has depended upon world demand. Due to the success of industrial inputs in starting the agricultural technological treadmill and improving agriculture productivity, since the 1970s production has been well above world demand. Here demand is used in the economic sense which refers not to the real needs of the world's population but only that which the world population can afford. Thus, it has not been unusual that, following the laws of capitalism, there is a tendency to extensify agricultural production, setting aside agricultural land in the U.S., EC, and other advanced societies.[34] In fact, chemical fertilizers, pesticides, and herbicides are increasingly under attack by environmentalists, and there is pressure for more extensive forms of production deriving from the conjunctural response to the world demand situation, as well as from those who now argue for a different technical model of agriculture production, sustainable agriculture.[35] Tractors and mechanical equipment are also affected by this tendency toward extensification and sustainable agriculture. Byé (1989), for example, reports on the stagnation of tractors and mechanical equipment in Europe since the beginning of the 1970s. These developments have provided a push factor in which the largest TNCs in the chemical sector have begun to relocate themselves to other locations in the commodity chains, mainly through substitutionism, betting heavily on the development of biotechnology (Busch et al, 1991).

Two upstream sectors relating to agriculture have escaped the crisis. These include seed producers such as Pioneer Hi-Bred, DeKalb Agresearch, Lubrizol, Monsanto, and Du Pont (Rastoin, 1989, 1991) and animal food producers effectively controlled in large part by TNCs like ConAgra, Cargill, Ferruzzi, Tyson, and BP Nutrition after its take-over of Ralston-Purina (see Friedmann, 1991; Heffernan and Constance, 1994; Rastoin, 1989). Downstream, TFC is especially important in trading grains and oil seeds, and in processing and trading beef, pork, and poultry products (Cargill, ConAgra, Tyson, Mitsubishi, C. Itoh, Mitsui, Ajinomoto, Nippon Meat Packers). TFC is also gaining importance by increasingly establishing contracts with producers (Heffernan and Constance, 1994).

In conjunction with production changes, there have been changes in the consumption patterns of the high income strata of advanced industrial societies, producing an increased demand for fresh fruits and vegetables in which TFC has played an important role (Friedland, 1990; 1991a). This involves coordinating production on a world-wide basis to guarantee a continuous flow of these products every day of the year, providing technical assistance to production which largely remains in national hands, supplying marketing and distribution channels, and, finally, increasing involvement at the retail level. (See Wrigley, 1991) Marsden et al (1994:137) argue that "after a decade of considerable growth in concentration and internal reorganization, the European food retailing sector is likely to face the need to reinforce its regulatory role over the rest of the food system.") The recent emergence and development of centralized purchasing by large retail chains connected with large hypermarkets, which are much larger than ordinary supermarkets, is giving new shape to this downstream sector of agriculture production.[36]

It must be stressed that the power of large retailers not only affects the fruit and vegetable sector but all foods. The Grenoble team led by Byé, Mollard, and Mounier, found evidence during the 1970s of the increasing power of large retail chains exhibited through price rebates and by requiring agri-industries to produce non-branded products to be sold by these retail chains under generic designations. More recently the power of these newcomers was demonstrated after Portugal became a member of the EC. These large chains not only used the strategies mentioned above but required some agri-industries wanting access to these hypermarkets to "donate" goods such as automobiles to be used for promotional activities.[37]

Connor et al (1985:102) consider this phenomenon the "countervailing power of food distribution." Perez (1989) argues that the growing power of distribution has been a major motive for the agri-food industry's strategy based on the following features. First, firms have increased concentration, i.e., trying to increase their share of the market by increasing production and by merging or taking over other units. Secondly, firms are developing brand name policies which implies innovating marketing techniques.

In brief, the development of TFC is achieved through a highly competitive environment strongly determined by the international context of stagnant demand. These broad tendencies of TFC involved with agriculture provide an introductory background to extend and deepen the analysis of the globalization process. In fact, once established that the unit of analysis is TFC, composed of TNCs and TNBs, it becomes necessary to empirically analyze both how TFC works and its relationships with national labor and capital, and, especially, nation-states. Since most features of the globalization process are so recent, little empirical work of this nature exists.

Findings which concern older TNCs that may already have been the subject of study must be interpreted with the following in mind. The strategies of TFC are dynamic and thus can change in time and space. In addition, TNCs can change by abandoning certain activities and engaging in others. They can be absorbed by other TNCs or can take over other operations.[38] In other words, since such situations are dynamically changing, any analysis must be updated to fully appreciate the dimension of change. This is a large, ambitious, and difficult research agenda since, unlike nation-based analysis, access to information is so difficult that it practically prevents any attempts at quantitative analysis.[39]

The Nation-state and TFC in Agricultural Related Activities

One main feature of the recent tendencies best illustrated by the term "merger mania" is the increasing concentration of capital.[40] Although there is a large number of small firms involved in the globalization of agricultural or food products, relatively few, very large conglomerates control most business in sectors such as grains, animal feed, meat and dairy, and processed food. Furthermore, agriculture and food presently represent only a small part of the activity of these TNCs because of diversification strategies that were the main force behind merger mania,[41] which were also fueled by deregulation policies (Heffernan and Constance, 1994).

The increasing concentration of capital in large conglomerates cannot be denied. They not only own a large number of operations in different subsectors of the agri-food industry, but also have connections (via joint ventures) with other firms located in many different countries.[42] Heffernan and Constance (1994) argue that "the evidence supported the hypothesis that a global agro/food complex is being created by TNCs based on global sourcing of input sites and output markets." They also argue that TNCs have a more global vision of food system coordination than any given nation-state and are the active actors, whereas the nation-states are much more passive 'receivers' of commodities produced through global production systems. It is the ability of the TNC to gather and utilize information that gives it primacy as the global actor. Information dictates where different kinds of production will occur and by whom.

Considering the conditions that shape TFC/nation-state relationships, it will be useful to establish a qualitative typology for further analysis. Because of the difficulties of gathering hard data and the existence of relatively few empirical studies of firms, this typology can only represent a first methodological attempt, which will require further refinement.

Let us conceptualize TFC/nation-state relations in a four-fold table or matrix (see Figure 1).[43] On the part of the TFC, the key elements are its ability to either *adapt to* the regulations of the nation-state (cells A and C) or *impose* its will on the nation-state (cells B and D). As for the nation-state, it can either *facilitate* the activity of TFC (cells A and B), or *regulate* and control the TNC (cells C and D).

This fourfold table must be understood as reflecting only one moment in a dynamic situation. That is, at a particular moment, the relations between a TNC and a host nation-state could be similar to situation C, but could evolve to conditions similar to A, B, or D.

The D case, which illustrates the case between a more regulating host nation-state and a more imposing TNC, is unstable and will probably continue for only relatively short periods of time. That is, the TNC will either accept the regulatory power of the host nation-state, tending to situation C, or prefer to leave the country or choose not to invest there. In addition, the host nation-state could opt to nationalize the TNC's operations. This does not consider the rare situation where nation-states simply do not want contact with TNCs, or, the more common case where TNCs do not want to risk installing operations in a particular country.

Using this typology of the relationships between nation-states and TNCs, future research could focus on finding empirical cases that can be fitted into this matrix. If it is possible to include a significant number of countries and TNCs in the table, the empirical evidence could be helpful to test theories of the state and theories about the impact of TNCs on host countries.

However, one important methodological question remains. What is the dividing line between a nation-state acting more like a regulator than as a facilitator of TFC requirements? And what can be classified as more adapting or more imposing behavior on the part of a TNC? Furthermore, what are the implications of the same regulatory measures if installed by the U.S. or the government of Malta, when confronting a major TNC such as BP?

It is impossible to establish the dividing line with any precision. Neither nation-states nor TNCs have rigid positions but behave along a continuum, ranging from some degree of rigid regulatory positions to more facilitating ones for nation-states and from more imposing to more adapting behaviors for TNCs. In other words, TFC and nation-states establish dialectical and dynamic relationships. However, even without a precise dividing line there has to be a minimum common denominator that allows placement of nation-states or TNCs on one or the other side of this dividing line. This minimum common denominator, however, can best be established empirically; only empirical observation can determine whether a TNC is imposing its requirements on a nation-state and resisting its legitimate (i.e. those in accord with the constitutional laws of the host-country) regulatory systems, or if a nation-state is acting more as a facilitator than as a regulator.[45]

It is much easier to obtain information on nation-states than from TNCs; however, business magazines periodically establish lists of countries ranked by their attractiveness to TFC, thereby providing a qualitative indicator of capital's view of particular nation-states. Such reports can help us understand the position of TNCs when dealing with particular states.

TNC[44]

		+ Adapting	+ Imposing
Nation - State	**+ Facilitator**	A	B
	+ Regulator	C	D

Figure 1.

Let us now turn to illustrating how the typology depicted in Figure 1 might be used. We will use three empirical cases involving Portugal as the host country and three different TNCs, all of which are working in the agri-food sector there; one deals with dairy production, the second with cellulose, and the third with the production of fresh fruits and vegetables. We will also use case material from the literature.

Nestlé has been linked to dairy production in Portugal since the 1930s. During these six decades its relationship with the Portuguese state has had its ups and downs, deriving both from different Nestlé strategies and from changes in the Portuguese nation-state (the most important of which was the fall of the dictatorship after the 1974 revolution).

Nestlé's presence in Portugal is a story of adaptation to changing state dairy policies.[46] During the 1940s, the dairy industry was a private industry but was granted monopsonic sourcing power in established areas of influence. In the 1950s, this power was taken away and, in certain areas, the corporative organization was given charge of collecting operations and subsequent distribution of raw milk to the private dairy industry or to publicly owned pasteurizing facilities which supplied the main population centers with milk. At the end of the 1960s, this "corporatization" of the first segment of the milk chain was extended to the most important dairy areas of the country through a package of legislative measures that separated the private dairy industry from contact with dairy producers. That is, the corporative organization was assigned monopsonic power for collecting raw milk. After the 1974 revolution the corporative organization was dismantled and the cooperative organizations captured this privilege; besides providing almost all of the supply of liquid milk, the cooperatives also competed with private industry for other dairy products, mainly butter and cheese. Finally, after Portugal joined the EC in 1986, this monopsony on collecting raw milk was legally abandoned.

Through this long period of change, Nestlé, even though a very powerful TNC, adapted to the regulatory processes of the Portuguese nation-state as long as the regulations did not affect the TNC's overall operations. Had Nestlé been considering investment in Portugal when some of these changes occurred, Nestlé might have behaved differently. What really matters is that, since Portuguese regulations did not endanger Nestlé, it did not object to changing regulations.[47] This example illustrates a long relationship between the Portuguese state and Nestlé which can placed in cell C of the matrix in Figure 1; here the nation-state acts as a regulator and the TNC adapts to the regulatory impositions of the nation-state even while trying to influence the outcomes.

The second example began in the 1960s when foreign capital (Scandinavian and British) joined Portuguese capital in choosing the country to produce cellulose. The two outside TNCs were taking advantage of an attempt by Portuguese authorities to open the economy to foreign capital, mainly from countries belonging to the European Free Trade Agreement (EFTA).[48] In addition, Portugal offered a very good climate for these TNCs to invest. It had an important forestry base due to reforestation policies initiated in the 1930s, and excellent climatic conditions to rapidly grow pine varieties and especially eucalyptus (in which a field is ready to cut after 8-9 years). There was also a cheap labor force available, with the dictatorship repressing any kind of labor struggles in the 1960s. Furthermore, the TNCs could have access to internal sources of capital.

Contrary to the Nestlé case, the cellulose TNCs did not have to adapt to a high level of regulatory constraint. The result was a very rapid expansion of planting, involving TNC owned and rented land, and private plantations being brought under contract to the TNCs. This movement was fueled by government policies making investments in forestry very attractive. This trend was so substantial that cellulose exports become one of the most important items in Portugal's balance of payments.

Only after environmental and other grassroot movements -- concerned with the environment (cellulose production is a major source of pollution) and the socio-economic impact of a monocultural forestry system --

began to question the explosion of planting were the first significant regulatory measures adopted. The pace of planting also slowed; however, this was due mostly to an international market crisis in the sector, in addition to the opposition movements.

The cellulose example shows the nation-state acting in the role of facilitator. Even when environmental and grass-roots movements began to grow, the government was always careful not to harm the cellulose industry.[49] And, even when regulatory measures were enforced, the lack of expertise and laboratory facilities necessary to evaluate environmental damage gave the TNCs a good basis for legal challenge. Recently, a court decision acquitted the Scandinavian TNC from paying a fine on the grounds that a sole analysis and the method used by the official laboratory was not appropriate (see *Expresso*, May 22, 1993). This example can be placed in cell B in the matrix in Figure 1, even if the TNCs have more recently been moving toward cell A while the nation-state has been initiating moves towards cell C.

The third example is more recent, taking place after the Portuguese economy was opened to the 12 EC member countries according to the requirements of Portugal's 1986 entry into the EC. A French firm decided to invest in southern Portugal to produce fruit and vegetables for export to northern European countries. Production would take advantage of the climatic conditions to obtain high prices for early season produce. The development took advantage of an irrigation system provided by the state as well as the abundant and underemployed labor force in the neighborhood willing to be employed at Portuguese agricultural wage levels, largely below the European average.

The French firm also took advantage of substantial loans and grants to help Portuguese agriculture modernize, managing to obtain considerable financial incentives from EC sources with the agreement of the Portuguese authorities. This example fits cell B of our typology. Another example in the industrial area which follows this pattern is the joint project of Ford/Volkswagen to manufacture vans or minivans in Portugal, an undertaking which received about 750 million ECU mainly from EC incentives.[50]

Examples that fit well in cell A can be found in the literature concerning Singapore or the Export Promotion Zones where "TNC affiliates in the protected offshore sites indeed enjoy a modern form of colonial trading privileges" (Gordon, 1988:57). This occurs when peripheral states, to attract foreign capital, voluntarily adopt a system of rules and agreements extremely favorable to TNCs. Thereby TNCs do not need to impose any particular measures, in a process that Schaeffer (1993) designates "indifferent imperialism."[51]

Conclusions

The overview of TNCs and TNBs and the consideration of the dynamic of the dialectical relations between TFC and the nation-state provides clear evidence that the world economy of the last three decades of the 20th century has seen a shift toward globalization. This global shift raises new theoretical questions about the nature of the state as well as about the prerogatives and imperatives of state action in an era of transnational capitalism.

More specifically, the growth of international trade and the rapid internationalization of increasingly higher volumes of financial flows has been accompanied by substantial changes in the internal structures of firms looking for new strategies based in higher levels of flexibility and mobility in a highly competitive context. All these developments have increased the ability of TFC to escape regulation by nation-states; indeed, it has been noted that historical prerogatives of the nation-state like the creation of money (Eurodollars) has also been assumed by supranational entities like TNBs escaping the control of the U.S. Federal Reserve.[52]

At the agri-food level, globalization means that global sourcing of raw materials has become increasingly important to agri-food industries as well as final products like exotic produce or fresh fruits and vegetables to sell out-of-season in rich markets. This phenomena implies an extremely sophisticated process of coordination, involving time and space, which constitutes one of the main features of the globalization process.

On the other hand, through a highly competitive process involving mergers, take-overs and simple acquisitions by TNCs, agri-food and agri-industrial capital is concentrating capital in a few corporations doing large volumes of business. Thus, TNCs are becoming increasingly important in promoting homogeneity not only of consumption patterns but also of technical procedures and input use at the levels of agricultural production and distribution.

The increasing power and flexibility of TNCs dealing with these products also indicates that nation-states are losing degrees of freedom in the establishment of national agri-food policies. Thus it is not strange that the increasing importance of TFC in shaping production and consumption patterns, besides the exigency of incredible efforts of coordination, demands the establishment of certain standardization of units of measure, standards, and controls. In the process, it is assuming nation-state prerogatives (other than the supranational creation of money like the retailer regulation described by Marsden in this volume) and suggesting the emergence of a transnational state (Friedland, 1991b).

Notes

1. This paper is a result of research conducted at the University of California, Santa Cruz which has been financed by the INVOTAN program of scholarships and by the Luso American Foundation for Development (FLAD). I wish to thank William Friedland for his comments and efforts to improve my English.

2. From 1950 to 1990 world exports have grown from 60,700 to 3,415,300 million US dollars. Using the volume index of exports (1980=100), between 1960 and 1990 the developed market economies grew from 24 to 153 while developing economies had a slower growth from 45 to 138. These figures do not show the uneven growth among developing countries (United Nations, 1991).

3. TNCs are something different from MNEs. The latter is used to describe an enterprise with multidomestic or nationally responsive strategies while the former concerns enterprises which develop globally integrated competitive strategies, seeking not only economies of scale in production but also economies of scope and coordination (Dicken, 1992:143-144; see also Bonanno, 1994).

4. For instance, in 1980, TNCs controlled between 80 and 90 percent of the marketing channels in wheat, coffee, corn, cocoa, pineapples, forest products, cotton, tobacco, jute, bauxite, copper and iron ore, and around 70-80 percent of tea, bananas, natural rubber, crude petroleum, and tin (Clairmonte and Cavanagh, 1983:456). Even more telling, six Japanese companies (the largest Sogo Shosha) accounted for 4 percent of world trade, according to Yoshino and Lipson quoted by Jussaume (1994).

5. "Daily foreign exchange flows amount to around one *trillion* dollars and far outweigh the sums employed for international purchase of goods and services or investments in overseas plants. Indeed, by the late 1980s more than 90 percent of this trading in the world's foreign exchange was unrelated to trade or capital investment" (Kennedy, 1993:51, emphasis in the original).

6. As Levitt (1991:187) put it, "[technology] has proletarianized communication, transport, and travel. It has made isolated places and impover-

ished peoples eager for modernity's allurements. Almost everyone everywhere wants all the things they have heard about, seen, or experienced via the new technologies."

7. Fonte (1991), concerned with symbolic aspects of food, refers to the need to overcome the differentiation between socioeconomic and socioanthropologic analysis.

8. One important feature of this development is the demographic explosion in the poorer parts of the world and the demographic stabilization or decline in the richest (Kennedy, 1993:21-46).

9. McMichael and Myhre (1991:99) stress that "... there is a growing tendency for the state to act more as a facilitator of the requirements of global capital...." Indeed, in a process known as "uneven bargaining power" (Reich, 1991: 295-298) TNCs pit nation-states or regions against one another in order to attract new plants to their territories.

A Mexican case study about the shift toward export-oriented production of melons and watermelons provides a good illustration of ideological, cultural and religious forces.

> A dramatic transformation of the local view of nature occurred, bringing about a shift from behaviours that value rain, the soil, and clean water to a fetishim of these 'green' crop commodities. This process stimulated the 'manufacture' of local meanings such as the regional celebration of the melon and the yearly masses to worship watermelon. (Arce and Marsden, 1992)

10. Muslim fundamentalism is not the sole example. Even in such a bastion of TNCs as Japan, it is well known that ideological and cultural features of the Japanese people make difficult the acceptance of a large number of foreign commodities.

At another level, Whatmore (forthcoming) reminds us that one of the criticisms of the globalization literature "concerns the failure to adequately theorise the spatiality of globalization as a socially contested, rather than logical, process."

11. As Schumpeter (1952:110) put it,

> Was not the observed performance [of capitalist achievement] due to that stream of inventions that revolutionized the technique of production rather than to the businessman's hunt for profits? The answer is in the negative. The carrying effect of those technological novelties was of the essence of that hunt. And even the inventing itself, ...was a function of the capitalist process which is responsible for the mental habits that will produce invention. It is therefore quite wrong - and also un-Marxian - to say, as so many economists do, that capitalist enterprise was one, and technological progress a second, distinct factor in the observed development of output; they were essentially one and the same thing or, as we may also put it, the former was the propelling force of the latter.

12. An excellent example which illustrates this need is the analysis of Detroit automakers by Ross and Trachte (1990), who recognize the validity of the approach of Baran, Sweezy and O'Connor, based on the monopoly theory, through 1970.

But through the 1970s and 1980s the global auto industry and its Detroit center were restructured. One part of this process was broadly anticipated by all models of modern capitalism - the drastic substitution of machines for labor. But one of the central aspects of the global restructuring of the auto industry - the widespread practice of global sourcing and the employment of low cost, low - wage export platforms - was new. (Ross and Trachte, 1990:118)

13. According to this paradigm (Dunning 1988:26), a firm will engage in foreign value-adding activities if and when the following conditions are satisfied:

> [1] It possesses net ownership-specific (*O*) advantages vis-à-vis firms of other nationalities in serving particular markets.
>
> [2] Assuming condition (1) is satisfied, it must be more beneficial to the enterprise possessing these advantages to use them (or their output) itself rather than to sell or lease them to foreign firms: this it does through an extension of its existing value added chains or the adding of new ones. These advantages are called internalization (*I*) advantages.
>
> [3] Assuming conditions (1) and (2) are satisfied, it must be in the global interests of the enterprise to utilize these advantages in

> conjunction with at least some factor inputs (including natural resources) outside its home country; otherwise foreign markets would be served entirely by exports and domestic markets by domestic production. These advantages are termed the locational (*L*) advantages of countries.

14. Centralization is, in Marx's terms, the "concentration of capitals already formed ... transformation of many small into few large capitals" (Andreff, 1984).

15. "Competition leads to the centralization of capital which in turn remakes competition on a larger scale: in capitalism today, this scale is worldwide from the very outset, in tune with transnational finance capital itself" (Andreff, 1984:77-78; see also Andreff, 1982).

16. Understood as

> structuring of capital in manufacturing, commerce, and banking such that there are relatively few obstacles to its free movement from one sector to another. Finance capital involves the existence of an extensive intercorporate network of capital, commercial, and personal relations in which an inner circle of finance capitalists is the embodiment of this network of intercorporate relations .... (Scott 1985:260).

17. Klemkosky (1989) demonstrates the increasing importance of other financial institutions vis-à-vis commercial banks in the US. He lists 13 major institutions in 1988 in a decreasing order of importance: private pension funds, savings and loans, life insurance companies, mutual funds, finance companies, property liability companies, municipal bond funds, mutual saving banks, credit unions, money market funds, mortgage banks, and foundations and endowments. From 1980 to 1988 commercial banks and saving and loans saw a significant reduction in their share of the total financial system while the share of private pension funds, mutual funds, and municipal bonds increased.

18. Aglietta (1992:61) considers the increasing power of investment financial institutions (investisseurs institutionnels) as the most important financial change.

19. In preparation for the European single market "... some 400 banks and finance firms across Europe have merged, taken shares in one another, or cooked up joint marketing ventures to sell stocks, mutual funds, insurance, and other financial instruments." (Reimer et al, 1988, as cited in Resnick, 1989:35)

20. "... in 1987, Bankers Trust earned $593 million from currency trading, Citicorp earned $453 million, and Chase Manhattan showed $232 million..." (Resnick, 1989:40).

21. Creation (or destruction) of money according to Nobel Prize winner Maurice Allais (1993) is one of the main reasons for instability in financial systems.

22. First, Maizels is concerned only with primary commodity markets; second, his approach is focused on relations between TNCs and Third World countries; third, the role of TNBs is not considered; fourth, his framework applies to very large TNCs investing heavily in production facilities and does not consider other, more flexible, TNCs of the web type; finally, Maizel's analysis focuses on the bargaining power of TNCs and governments.

23. Country-specific characteristics are also evident at the financial level. In fact, as Thurow (1992:43) stresses:

> There also is a major mystery in the world's capital markets. Among major countries where there was no country risk, the predicted equalization of capital costs did not occur in the 1980's, despite the existence of what everyone took to be a world capital market. Contrary to what theory would have predicted, local savings rates and local investments were highly correlated -- high local savings led to high local investments.

Country-specific benefits include the concept of competitive advantage of nations (Porter, 1991) or the idea of entrepreneurial culture as a country specific advantage (Casson referenced in Dunning, 1990). "I believe that it is the dynamic interplay between the competitive advantages of countries and the activities of international firms which is likely to be the focus of much of the theoretical work on foreign production over the next decade" (Dunning, 1990:28).

24. There are various examples of barriers to foreign competition being imposed through disguised technical sanitary regulations. For instance, some time after the British joined the EEC, Britain avoided importing French dairy products although this strategy was ultimately defeated by EEC authorities. Similarly Cruz et al. (1991) report on the enforcement of U.S. sanitary controls on Mexican fruits and vegetables during the seasons when these imports hurt U.S. producers.

25. Appropriationism expresses

> the transformation of discrete activities into sectors of agri-industrial accumulation and their reincorporation into agriculture as produced inputs.... [That is,] within changing limits given by technical progress, industrial capitals have taken over *discrete* elements of the rural labor and production processes -- the horse by the tractor, manure by synthetic chemicals, indigenous plant varieties by commercial hybrids .... Historically, appropriationism explains the origins of the agri-industrial inputs sector or 'complex', represented by such capitals as International Harvester, BASF, Pioneer Hi-Bred, and ICI (Goodman, 1991:40, emphasis in the original).

26. More recently, U.S. Agricultural Secretary John Block argued that:

> The push by some developing countries to become more self-sufficient in food may be reminiscent of a bygone era. These countries could save money by importing more food from the United States .... [T]he U.S. has used the World Bank to back up this policy, going so far as making the dismantling of farmer support programmes a condition for loans, as in the case of Morocco's support for their domestic cereal producers. (Ritchie, 1987:5 cited by Schaeffer, 1993).

27. Examples include synthetic fiber for natural fiber; chemical dyes replacing indigo production; industrial sweeteners from cereal processing or chemical synthesis substituting for sugar; margarine substituting for butter, or

> ... the recent expansion of 'fabricated foods' based on new separation techniques of product fractioning ... [that] ... break field crops down into generic intermediate food ingredients (carbohydrates, proteins, fats) for use in downstream food manufacturing ... this recent tendency for substitutionism has had an important effect in undermining long-established agri-food chains. (Goodman, 1991: 38-39).

28. A good example is the use of cassava and citrus pulp (left over after citrus juice processing) as a substitute for grains in animal food. This argument, however, must be nuanced. In fact, the failure of Single Cell Proteins to penetrate the major food and feed markets is not due simple to non-competitive costs as Byé and Mounier (1984, quoted by Goodman et al, 1987:141) argue. Also at work is the "institutionalized drag" of existing food producers who have vested interest in maintaining existing food production processes.

29. As we have seen above, one of the characteristics of the new web firm is the primary place given to global sourcing and sub-contracting. In agriculture this movement corresponds to the increasing importance of production under contract (see Heffernan and Constance, 1994; and Cook, 1994).

30. State intervention in agriculture is a common characteristic shared by all nation-states. In particular, there is R&D, extension programs, and diverse policies providing incentives to capitalist development, as well as repression of workers movements or peasants struggling to end latifundist systems.

31. Examples abound in the well-known names of Bayer, BASF, BP, Hoescht, Du Pont, Monsanto, Pioneer Hi-Bred, Ciba-Geigy, Sandoz, ICI, Rhône-Poulenc, John Deere, International Harvester, Fiat, Renault, Caterpiller, etc. (Heffernan and Constance, 1994), as well as the financing of agricultural development projects by the World Bank or TNBs.

32. Nestlé, Philip Morris, Unilever, ConAgra, Kirin Brewery, RJR Nabisco, IBP, Anheuser-Busch, PepsiCo and Coca-Cola are the ten most important downstream processors, according to

Heffernan and Constance (1994); see also Rastoin and Allaya (1990), who based their analysis on other criteria, and provided a different ranking.

33. As Llambí says:

> ... [T]he transnational corporations developed a new strategy aimed to concentrate capital in the final links of the agri-industrial chain, and to increase vertical integration through various forms of contract arrangements with 'independent' growers and central processing and distribution units... The provision of credit to planters, the introduction of productive technical packages and an oligopolistic control of both the domestic and international markets provide these corporations with great leverage to control the productive and exchange conditions within exporting countries. (Llambi, 1994; see also Girvan, 1987).

34. Extensification pursues less output per acre of land and per hour with less use of chemicals inputs and with less use of tractors and mechanical equipment.

35. According to Rastoin (1989:82), in 1988 the world market in pesticides had, for the first time, a regression (-1.2%). He considers the tendencies will be to decrease the use of insecticides and increase the use of herbicides in addition to more recent products such as nematicides and plant growth regulators.

36. The standardization of varieties and quality patterns required by these centralized purchasers has important effects on traditional local production of fruit and vegetables, thus contributing to globalization through the increasing use of global sources (Moreira, 1991).

37. These practices were reported in the press and were also confirmed by a dairy industry source.

38. Hoffman refers to this "merger mania" as an "avalanche of mergers" that "no one knows where it will end, and no end is in sight." He adds,

> As if merger mania in the domestic economy were not enough, there has been a virtual invasion of foreign investment in the U.S. food manufacturing industry, especially in the last decade ... such acquisitions exceed those made by foreign multinational corporations in most other areas of U. S. manufacturing. Likewise, U.S. food companies have larger foreign holdings than are found in all manufacturing. These developments are internationalizing food manufacturing despite the relatively small volume of international trade in processed food products. (Hoffman, 1983: xvii)

39. Heffernan and Constance (1994) stress that "[f]irst, reliable information on market shares by country was scarce and /or unavailable. Second, reliable and systematic information about the activity of the agribusiness TNCs was scarce or unavailable." (See also Morgan, 1979). We can add that bank secrecy is so well established that TNBs influence is evermore difficult to evaluate.

40. Perez and Oncuoglu (1990) found in the two- year period from 1987-89 that 1576 structural adjustment operations (*operations structurelles*) took place in the 125 leading firms in the world included in the AGRODATA data base. Structural adjustment operations are any major factor that significantly changes the structure of a firm or group. This change can be juridical, financial, technological, commercial or organizational.

41. Hoffman (1983: xviii) distinguishes earlier merger movements in the food industry made for operating reasons:

> ... horizontal mergers to achieve economies of scale and national distribution; product-extension acquisitions to broaden product lines and at times market power; vertical mergers to reduce costs and gain greater functional depts. But operating efficiencies can hardly be claimed for most of the recently formed conglomerates in the food field.

42. Heffernan and Constance (1994) refer to joint ventures involving Russia, Eastern Europe, and the People's Republic of China, the U.S., EEC countries, Canada, Argentina, Australia, Mexico, Brazil , Thailand, Malaysia, South Korea, Taiwan, Philippines, and others.

43. I want to thank Bill Friedland for this suggestion.

44. In this typology we did not consider TNBs explicitly for two reasons: (1) if a TNB initiates operations in a country it should be considered a

special form of a TNC; (2) at the same time, TNB power can exist without any formal branch in host country. This is an invisible power, since it can be expressed either in speculative movements, or through exerting influence inside financial networks that can create a negative business image for a country which does not fulfill TFC requirements. Thomas Grennes (1990) provides a useful analysis of the links between financial markets and world agriculture, and Gary Green (1988) focuses especially on credit.

45. This implies not only knowing the regulatory laws of the host country concerning TNC activity but also determining if these laws are enforced or ignored.

46. For an overview of state intervention on Portuguese dairy sector see Moreira (1984, 1989).

47. When the 1960s legislative package was under discussion, Nestlé was the first important private industry to accept it, thereby breaking solidarity with other private industries, which strongly opposed the package. It is also interesting to note that one of the most influential people involved in the negotiations setting up the package was subsequently employed by Nestlé.

48. This was a period in which Portugal had begun its colonial wars but was politically isolated in international forums such as the U.N.

49. After 1974 the Portuguese capital firms were nationalized.

50. The magnitude of these subsidies resulted in an appeal by the French construction firm, Matra, that was rejected by the E.C. Court of Justice.

51. As Schaeffer (1993:29) points out:

> They do so not because powerful states compel them by force, but because they will be excluded from global capitalist commodity chains if they do not. And today, failure to participate means economic marginalization and ruin, not just for the poor, who have always been treated in this fashion by capitalism, but for middle class and ruling strata as well, as is the case in much of Africa today.

52. See also in this volume Schaeffer´s illustration of the devolution of power to supranational organizations.

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