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**Agrarian Transformation: Power and Dominance in Markets  
Evidences From Turkey**

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**Abstract**

*This paper argues that there is a dominancy of globalized capital over agriculture after 1980s and thus, the relations of production has transformed to a more market oriented system. New institutions have come into the picture establishing the links between small producers and larger markets. This process of transformation structured globally in which the principles, norms and rules of behavior, regulating the agriculture are restructured by the dominant powers on the basis of mutual dependency and cooperation. The policies consistent to the current neoliberal paradigm are established in the agriculture where the solutions are generalized by ignoring the differences in structures. Finally, the capital gains dominancy over the stages of food system from production to selves. In this paper, the above mentioned process is studied in detail. By using some industry samples from Turkey how this process is settled and functioned is also investigated.*

**JEL Codes:** F01, F15

**Keywords:** Power, vertical integration, tobacco, dairy, poultry, Turkey

## **Tarımsal Dönüşüm: Piyasalarda Güç ve Egemenlik, Türkiye'den Örnekler**

**Özgür Bor**

### **Özet**

Bu çalışma 1980'lerden sonra küresel sermayenin tarım üzerinde egemenlik kurduğu ve böylelikle tarımsal üretim ilişkilerinin daha piyasa odaklı hale geldiğini ele almaktadır. Küçük üreticiler ve büyük piyasalar arasındaki ilişkilerin kurulabilmesi için yeni kurumsal düzenlemeler gerçekleştirilmektedir. Tarımı düzenleyen ilke, norm ve davranış kuralları, egemen güçler tarafından düzenlemekte ve dönüşüm süreci belirlenmektedir. Bu ilke, norm ve davranış kuralları karşılıklı bağımlılık ve işbirliği çerçevesinde küresel ilişkiler içerisine yerleştirilmektedir. Böylelikle tarımsal yapılardaki farklılıkları göz ardı eden ,neoliberal paradigmayla uyumlu, politikalar tarımda uygulanmaktadır. Sonuç olarak sermayenin küresel tarım üzerindeki egemenliği üretimden rafa kadar olan süreç üzerinde sağlanmaktadır. Bu çalışmada bahsedilen süreç ele alınmakta ve Türkiye'den seçilmiş endüstri örnekleri ile de bu sürecin nasıl yerleştiği incelenmektedir.

**JEL Kodu:** F01, F15

**Anahtar Kelimeler:** Güç, dikey entegrasyon, tütün, süt sanayii, tavukçuluk, Türkiye

## **INTRODUCTION**

A structural change has been observed in the global agriculture after 1980s. The globalized capital gains dominance over agriculture and transforms the relations of production to a more market oriented system. Production is materialized mainly for the global markets not for the domestic needs. Similar products have the similar modes of production and agribusiness firms are gaining increasing market power over consumers and producers and the farmers have been subordinated to the workings of the market. This structural change in agriculture is not to be regarded as occurring in an autonomous way but it is recognized through the transformation within power and institutions. Firstly, the markets are instituted in each country and then the links with global networks are established directly or indirectly with the pressure coming from international agencies for the transition where most countries could not resist. Here, the important breaking point in the global agriculture related to the concept of power is the WTO (World Trade Organization) agreement in which agriculture is a special subject that causes delays in the negotiations. The negotiations started in 1986 and ended at the end of 1994 after hard discussions and bargains mostly between the US and EU. The principles, norms and the rules of behavior compliant to the new international order are institutionalized in the WTO, and thus stimulate the transformation mostly on modes of production. Forces of production involve how the production performs and organizes themselves and their capacity to decide, and this is shaped by the social conditions of production. As the structure of production changes, the sovereignty of the farmers on their products shrink and their links to the markets are broken up thus brings upon a de-ruralization. Both the consumption and the production patterns are shaped by the firms where the aim for profit to get ahead the priority of food security. This structural change does not occur by itself. The principles, norms and rules of behavior that are shaping the transformation are placed by the dominant powers and they are institutionalized in the process of WTO. Yet, the process is far beyond the WTO. Thus, in order to understand the scope of the transformation, one can start the analysis by asking four basic questions (Bernstein, 2010: 35-37). These questions are; “Who owns what?” indicating the social

relations on properties; “Who does what?” showing the division of labor in a society; “Who gets what?” pointing at the social distribution; “Who does what with what they get?” indicating the social relations related with consumption, reproduction and accumulation. The answers to these questions lie under the concept of power and it is not easy to understand the process if one does not concentrate on the configuration historically.

Therefore, in order to understand the above mentioned change, this paper argues that the transformation is a process in which the principles, norms and rules of behavior, regulating the agriculture are structured globally by the dominant powers mostly indirectly with their power on institutions, organizations and finance on the basis of mutual dependency and cooperation. The transformation results a change in the modes of production to a more standardized and market based structure where the large agribusinesses gain dominance over producers and processors and at the final stage over consumers. In order to support these arguments, the paper is structured as follows: in the first section it is argued that the transformation did not occur autonomously, but it is structured according to the interests of dominant powers where the cooperation of the others have been provided on the basis of efficiency, productivity and structural adjustment. The second section discusses how the agriculture is transformed to a more market based system. The third section gives some industry evidences from Turkey that summarizes how the mentioned process is settled and functioned.

### **Power and the Political Economy of Agriculture**

Unless a coordination of interests exists, the conflict is inevitable. The quality of the interests is dependent on the existing power. As the level of existing power is given, the actors want to maximize their interests. In order to reflect the expected outcomes of the behaviors, these have to be coordinated in accordance with the goals observed and this is only possible with the rules established to provide the coordination. The states establish systems which would affect the sides involved (Tilly, 2001: 22). As the systems develop, not only the relations between the states are involved in the system, but also the relations with the others which are not involved in the system but affected

from the externalities by the system, are improved and the behaviors affect each other. As the context of the mutual connections grows, the extent of the mutual dependency goes up. The behaviors of the actors have an impact not only on their surroundings but also on everywhere the relation takes place; that is mutual dependency. Mutual dependency, in its simple form, is related to the military, economic, social and cultural relations of the society with others. On the basis where mutual dependency grows, not only the behaviors but also their expected outcomes should be regulated, so rules and principles are needed. The structure of the rules and principles in the regulations are structured by the dominant power or powers and are adopted through their interests. In order to establish and run an order, the foundation of mutual interests and the cohesion of these interests integrated with the behaviors of the society or societies have to take place and this is possible only through cooperation. Cooperation is the consideration of the policies of self and meantime taking into account the choices of the others (Caporaso, 1992: 603). Cooperation requires political harmony and forces the other actors into a change in their behaviors. However, this neither indicates a complete harmony with the policies applied nor means that there would be no conflict. In a way, this is a response to the possible conflicts arising from the potential interests (Keohane, 1984: 52-53). Cooperation enables the continuity and the stability of mutual relations through official arrangements and with various institutions (Strange, 1987: 555). Thus, one can say that the process to WTO and WTO itself is based on the cooperation principle.

Cooperation does not always mean harmony and it does not guarantee that there will be no conflicts. The problem here is the erosion of the potential of the economic power relations. It is not easy to grasp how power is understood since according to Nye (1990: 177) it is easier to sense the power than to define or measure it. Power is the production of causal stimuli and bringing of its consequences together (Scott, 2001: 1). Briefly, it is the controlling of the results by counteracting the priorities of the choices of the self over the others (Strange, 1996: 17). The indicators of power, requires comparison and this comparison brings us to the dominance over the sources of power.

In a broader sense, power is related to the dominance over the resources and these sources are the efficiencies in production, dominance over markets and the resources (Keohane, 1984: 25). Use of power requires causality. In this sense, Keohane and Nye (1986: 86) define power as, “the ability to achieve goals through attraction rather than coercion and it works by convincing others to follow or getting them to agree to the norms and institutions that produce the desired behavior.” Here, one can be interested in the relation between power and open markets. As McKeown (1983: 734) states, it is the power of the hegemonic states that leads to the emergence of open international systems. The dominant state has both the motivation and the capability to create and maintain open systems and the open system will confer special benefits to the dominant power (Keohane, 1976; Stein, 1984: 357; McKeown, 1983: 75). In order to create open systems, the dominant power or the powers can decrease the tariffs and even can force the other small actors to decrease their tariffs, but these do not mean that he can create a system on his own. Thus, the participation of the other big actors has to be provided (Stein, 1984: 358). Increasing openness is increasing trade; increasing trade is the increasing production; increasing production is the increasing gains and thus, economic growth. In order to provide supplies and to reach markets, the dominant power needs open markets and since it cannot create an open system by itself, he needs followers in an international system. Thus, a liberal international order is built through asymmetric bargains. The asymmetric control mechanism work in favor of the dominant states, but of the disadvantage to the weak parties (Baumgarner and Burns, 1975). The struggle of power takes place among the big actors and the rest is forced to obey. In a liberal environment fast factor movements cause instability on the social layers that supply the factors. The factor supply, which is not affected from the external elements in a closed environment, will be open to competition in a free environment and the structures that do not adapt to this situation will vanish due to the increasing competition.

One can realize that, the effect of the above on agriculture is a process which has developed historically. In the post war era, the dominance of the US was seen in the global agriculture. With the help of Food Aid for the developing countries and with the

Green Revolution, the U.S have restructured agriculture and gained an important control over it (Friedman, 2005a). New patterns of regional specialization and trade have emerged. New seed varieties with higher yields have been introduced through the global scale. However, higher yielding varieties need increasing investments, increasing technical know-how and management of the larger units that can be organized through more market-oriented production (Jacoby, 1972: 66-67). The improved seeds were developed to respond to industrial inputs like inorganic fertilizers, pesticides and fuel etc.. These new higher yielding varieties require higher amounts of fertilizer and controlled irrigation (Cleaver, 1972: 177). The use of inorganic fertilizer for a long time leads to the deterioration of the soil, thus in order to maintain productivity, higher quantities of fertilizer are needed. It causes higher use of pesticides as well. Increasing quantities of pesticides and herbicides cause increasing resistance in pests and others and this will pave the way for higher quantities and more powerful pesticides to be used. The need for irrigation creates a demand for higher level infrastructure like increasing demand for pumps. As the scale increases, the demand for improved mechanization like; powerful tractors, harvesters increases as well. Higher mechanization and technological advances result in an increasing demand on fuels. These needs result in the construction of input markets nationally where most inputs are imported internationally. Mostly, the medium and large farms benefit from the green revolution in the developing world and the smallholders cannot afford all the necessary capital investment (Jacoby, 1972: 64; Altieri, 2009), so the scale increases as the smallholders are excluded. Consequently, it paves the way for the international agribusiness. As Cleaver (1972: 179-180) states:

Bilateral and multilateral financing for complementary irrigation systems, fertilizer and tractor imports, and joint production ventures have provide large profits to international agribusiness. Local government grain support prices, overvalued currencies, and special tariff structures have cheapened the costs of importing inputs and have helped increase sales.

Some of the most important outcomes of this era are the industrialization of agriculture on the US model of the energy intensive mass production in agriculture, high input used via national input markets which is bound to the international sourcing, and improving the agribusiness firms mostly from the US and the developed world. Although, most of the developing countries have sufficient domestic resources, they accept subsidized imports mostly from the US and then from the rest of the developed world (Friedman, 2005). As a result, dominancy is established through involvement of the most actors to system where the principles, norms and rules of behavior are determined by the dominant actor that shapes the international system according to her interests by restructuring the behavior of other actors with the cover of cooperation.

The food crisis in the mid-1970s showed that the problem in the agricultural markets was inadequate supply in the mid-1970s but it was excess supply in 1980s. Most of the countries which accepted the previous food crisis as a sign, started a strong protectionism over agricultural production and trade. The EU, who started the implementation of CAP, transformed from a net food importer to a net food exporter and started to compete with the US (Friedman, 2005). As a result, the US has faced increasing protectionism and competition on the markets which has easily supplied her excess before.<sup>1</sup> Therefore, the US has searched for new ways of entrance to the markets by depending on its dominancy over the international organizations and institutions. In 1980s, in the structural adjustment packets of IMF and WB applied in the developing countries, predicted that the industrial production for export, not the agriculture, should be supported in order to increase the revenues from exports (Madeley, 2003: 124). With the help of various programs, both IMF and WB have affected the developing countries to open their highly protected markets for subsidized agricultural product imports of the developed world (Windfuhr and Jonsen, 2005: 6; Friedman, 2005b). Within and right after this process, the international trade, which required a regulation, resulted in the

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<sup>1</sup> In 1980, the price and income support of the U.S to agriculture is 3 billion USD but, it increased to 25 billion USD in 1987. The supports to the agricultural sector by E.U is 16 billion USD in 1980 and it increased to 26 billion USD in 1987. The agricultural products export value of the U.S was 48 billion USD in 1980 but, it decreased to 27 billion USD in 1985 (TEMA, 2004: 2-3).

foundation of WTO and thus the institutionalization of neoliberal policies within the WTO. It is aimed to liberalize the international trade so the countries in the WTO. The Agreement on Agriculture was regarded as one of the great accomplishments in the WTO and the countries agreed to reduce any kind of protectionism on their agriculture and international trade of agricultural products (WTO, 2003).

The market based reforms which have been implemented in many countries, enable the transition process and they result in the integration of the world markets. These reforms aimed adjustment of agriculture (increasing efficiency of factor endowment, production and decreasing fiscal deficits) which is assumed to have a positive impact and is complementary to the macroeconomic adjustment (Oya, 2008: 215). Neoliberalism is deregulation, liberalization, privatization and a close global integration (Crotty, 2000: 362; Sönmez, 2007; Bernstein, 2010: 100-102). Followers of liberalization support that as the state control is removed from the global markets, new information based technical revolution would spread to the globe, increasing productivity gains would lead to higher growth rates and would result in decreasing unemployment and at the same time financilization of the markets would provide lower interest rates and improvement of the global investment. By that way the capital flows from the capital and competent rich developed countries to opportunity rich developing countries (Crotty, 2000: 362). With the withdrawal of state from agriculture, because of the neoliberal policies, the producers have been deprived of the opportunities provided by the state such as; low interest credit, supported input and guarantied consumers (Murphy, 2006: 6). In such cases, it is expected from the private sector to undertake these responsibilities of the state. However, in most of the underdeveloped and developing countries, the private sectors lack in the necessary capital and they cannot provide know-how service, which is normally provided by the Public. Because of this, it is predicted that the opportunities provided by the state in the past such as; credits, various infrastructures, inputs, and price opportunities will be provided in a more efficient way by the entrance of the private companies into the market. However, it is stated in the World Development Report 2008 of World Bank (2007: 138):

...this often did not happen. In some places the states withdrawal was tentative at best, limiting private entry. Elsewhere, the private sector emerged only slowly and partially- mainly serving commercial farmers but leaving many small holders exposed to extensive market failures, high transaction costs and risks. Incomplete markets and institutional gaps impose costs in foregone growth and welfare losses for smallholders, threatening their competitiveness and in many case their survival.

Therefore, one can say that a transformation in which the rules are set up by the dominant actors are existent. The norms, principles and the rules of behavior of the new agricultural order are eligible enough to comply with the new international order. These rules reflect the interests of the dominant actors, structured in the WTO and are established into the new international order through asymmetric bargains and the cooperation of other actors. The cooperation based on efficiency, productivity and structural adjustment is sustained through the inducements and pressures by the international organizations and institutions where the solutions suitable for the agricultural structures of the developed countries are generalized by ignoring the differences in structures.

In order to establish the new principles, norms and rules of behavior, the conceptual attacks against the agriculture of the developing countries aimed to sustain the link between production and open markets and, are mainly based on the inefficiency of small farmers. The sector of agriculture is far away from being attractive for the capital traditionally. There are various reasons for this. First of all, agricultural production depends highly upon the natural conditions. Due to several factors such as; droughts, floods, extreme weather conditions and diseases, it is difficult to hold production under control. Owing to various geographical conditions and diversity of soil, it is not really easy to obtain standard production. High number of small managements also prevents the opportunity of control which would help the standardization of the production. Another factor is the dominance of farmers in production. Any farmer possessing the implements of production can make his own decisions on what to produce, and define the quantity and inputs that he will use and also he can produce his own seeds. Due to the reasons defined above, classical capitalist intensity did not exist in agriculture and

capital has controlled the food chain through dominating over the transformation mechanisms. Here, it is crucial to distinguish between the system of production and the food chain. While production covers the raw material of food, the food chain defines the processing of the product, its marketing, and all the phases that the agricultural product passes before being put on supermarket shelves. Until 1980s, the capital is dominant over the food chain, not over the production, and the values were formed in accordance with the transformation mechanisms that exist in the phase of the food chains. Thus, the only way for the capital to be dominant in agriculture was to alienate the farmer from his own choices. The gradual integration of food markets makes it difficult for average farmers to enter the market of production and input (Boehle and Doering, 2000: 53). The fact that it is getting more difficult to enter product markets means that the producer will confront the price risk, thus, this provides grounds for the big firms to sustain dominance.

Up to now, all discussed above are related with the inefficiency of small self-sufficient farmers. However, there are two important concepts to be questioned related to the inefficiency of small farmers; Small farmer and productivity. When small farmers are considered, the question upon whether the small farmers are the producers who are limited to a certain land area arises. Greenhouse, fresh fruits and vegetable production require relatively less land than the land crops. In this case, the revenue from a very small greenhouse production, possible to harvest a few times in a year would be equal or higher than the revenue from land crops that is received once in a year. When one considers an example like the one given above, the question whether the farmer producing in a very small land is a small farmer or not comes to the mind. Or in the places where the land is scarce, a very small land could be large enough. The second concept of productivity is mainly defined as the quantity produced in a given area. Yet, the seed variety used, available fertilizer quantity and the level of mechanization and even the training of the producers could provide productivity gains. However, this is a technical definition and could be insufficient. Heavy fertilizing requires more irrigation. As the use of fertilizer increases and the new high yield variety seeds are used, the need for

pesticides and herbicides increases, too. Increasing irrigation and use of pesticides would mean more ecocide. The production of the inputs (fertilizers, pesticides, etc.) used and the mechanization (tractors, harvesters, etc.) are energy intensive. Therefore, another definition of productivity calculation of comparing the calories used to produce a unit of food to calories received from that unit of food should be kept in mind

Although the production volume and also the productivity of a small farm is absolutely lower than the larger farm, if total output is considered, small farms are more productive.<sup>2</sup> A farm making a poly-culture farming can produce grains, fruit, vegetables and animal products in the same field so exhibits higher yields than conventional larger scale farms and also does this with much more lower negative impacts on the environment (Altieiri, 2009: 2-4). Small scale farms take better care of natural resources including soil erosion and conserving biodiversity by growing a wide variety of cultivators where the seeds are more genetically heterogeneous than formal modern varieties and genetic marks pass down from generation to generation which provides more defenses against diseases, pests and droughts. Another important point is the use of technical definition ignores the social relations. Farming is also considered to be a whole environment of reciprocal relations and dependency, re-production and protection of social values (Bernstein, 2010).

Despite the assumptions of productivity and scale, the conceptual attacks to the agriculture of the developing world still continue. Although these attacks do not lie on solid grounds, they are used to prepare a climate for the principles and rules of behavior consistent with the new order. When all examined above are summarized, what is seen in 1980's is that Neo-liberal policies have encouraged agribusiness consolidation and there is a global reorganization of agriculture. There is concentration and consolidation of agribusiness capital. The agro-food corporations are gaining more importance not only in trade but also in rules on intellectual property rights, on production methods, on organization, with mergers, seeds, retailing etc.

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<sup>2</sup> The examination of Altieiri (2009) gives an example from the US The smallest 2 ha farm produces \$ 15,104 per ha and netted about \$ 2,902 per ha while the largest farms averaging 15,581 ha yielded \$ 249 per ha and netted about \$ 52 per ha.

## **Transformation of the Agriculture**

The globalization of the world agriculture, have prompted new ways of organizing the agriculture sector. The rules of behavior, principles and norms compatible to the new order are embedded during the process of WTO where the state is removed from the markets, and the markets are liberalized. The role of the state was to regulate the markets and protect the farmers. The state had fulfilled this task through commodity boards, quantitative restrictions, price stabilization policies, product and export incentives and similar subsidies. As the state is removed from these tasks, the rule of the game for the farmers has changed. The private sector fulfills the tasks in which the state leaves and small number of firms dominate the stages of production depending upon their power on finance, management, distribution and retailing.

The agriculture has become industrialized, specialized and integrated. In many countries the production passes from the family based small scale farming to the industrial type agricultural establishments, and these establishments are bound to each other by the production and distribution chains. The industrialization of the agriculture defines the large scale production units that are bound to standardized technology and management users of processors, distributors and retailers with formal or informal arrangements. This is the increasing consolidation and vertical integration over the stages of production. This type of industrialized and capitalist agriculture defines rich large scale farming and agribusiness corporations and there is unequal competition of modernized farmers and agribusiness corporations. (Amin, 2003: 1; McMichael, 2006: 407). The ownership and management of the production and input stage were extended to the production stage and then merged with the processing stage (Hendrickson et. al., 2001: 75).

In this process, some factors are correlated and also trigger each other. One factor is the change in the consumer behaviors. Differentiated consumption demand, increasing demand for the high value crops, high product standards, increasing demand of the ready meals, environmental and food security concerns, urbanization and supermarketization transform the consumers perceptions to the agricultural products and

food (Echoneva and Steffen, 2005; Boehlje and Doering, 2000; Perry and Banker, 2000; Kirsten and Sartorius, 2002). The transformation that results from the changing consumer demands causes specialization in production. These are; the standard production, improving processing and packaging techniques, distance transportation of frozen goods, etc. The agricultural production remains only as a single stage in supply chain in which the supply chain describes the production, standardization, processing, distribution and market shelves that reach the consumers finally. Basically the shelves where the final good is delivered to the consumer are important, and the consumer is not interested in how and where the goods are produced and through which stages it has passed. What the consumer pays attention to while shopping are whether the goods have a standard and a high quality, whether they have been packed to be preserved and whether they are easily consumable or not. This cannot be done without improved specialization in the production stages. Improvement of specialization requires high levels of investment, therefore the low and middle scale producers could not afford it. The improvement of the retailing sector also changes the relation between the consumption and production, where the supermarket shelves are the final places the goods are delivered to the consumer.

For the farmer the situation is distinctive. The farmer is only an intermediate phase in the supply chain. The profitability of a crop production can undoubtedly be an important factor in encouraging its production and area expansion. Normally, farmers base their production decisions on the expectation of the future relative returns available from the various activities that comprise their production choices. Therefore, the farmers attempt to maximize the return in the given area. Since the supply of some of the factors is fixed in short-term, producers would then increase the use of inputs to boost the yield (Bayaner and Hallam, 1996). Input and the output price policies have significant effects on returns and risks. Rational producers are expected to increase the use of inputs in response to crop price increases, suggesting that producers base their decisions on the expected crop prices. Also, it is expected that farmers shift the use of inputs to the higher revenue crop and concentrate on the production of that crop provided and that the anticipated gross revenue is higher. Shortly, the main determinant

of the production decision of the farmer is not the price of the product but the gross revenue from the entire production (Bayaner and Bor, 2006) and here the cost of the inputs have high importance (Bor and Bayaner, 2009). As it is indicated above, the gradual integration of food markets makes it difficult for average farmers to enter the market of production and input so that the producer will confront the price risk. In order to overcome these risks and guarantee minimum revenue, the farmer is forced to enter the negotiations like contracts with the private firms in the absence of state, where the firms sustain credit, inputs and know-how to the farmers and a guarantee price (Rehber, 1998). Yet, there is no food for free. By entering the contracts, the firm directly or indirectly controls the production process (Perry and Banker, 2000: 50) by manipulating the standards of production, production quantity, quality, and the farmer loses his sovereignty over his production (Winson, 1990: 385; Harkin, 2004: 12; Rehber, 1998: 13).

There is a careful selection of the contracting producers and the firms prefer bigger scale producers in order to decrease the transaction costs (Kirsten and Sartorius, 2002: 518; Echanove and Steffen, 2005: 171; Winson, 1990: 390-1; Perry and Banker, 2000: 55; Edleman, 2006: 103-4). The firms search for the farmers who are mechanized, have irrigation and are educated in order to decrease the production and the quality risks (Edleman, 2006: 104). This leads to the social stratification between producers (Watts, 1994). The preferred producers are ready to tend to produce the special crops that the firms demand. Thus, by contracting, the firms establish a direct link with the supply chains.

Technological development, globalization of the markets, environmental and food security concerns, specialized consumer demands lead the transformation of agriculture and this results in a bigger size and less number of firms stimulated from the control of the costs from the farm to the shelves, and searching new ways to increase revenues by expanding their operations. This results in the consolidation and centralization in agriculture. The concentration happens due to the consolidation of firms through mergers, acquisitions and strategic collaborations. As the Agreement on

Agriculture pledged countries to open their markets and shrink the role of the government, the private sector enjoys the opportunities for consolidation and concentration. Consolidation could result in highly concentrated markets and could erode competition and lead to inefficient markets and to higher prices (King, 2001: 2; Harkin, 2004: 2-4).

The improvement of the supply chains and the networking between them provide the formation of large scale firms. Economic decision making and increasing control causes the potential of control and profit to pass to the consolidated processors and input industries. As the markets are more concentrated, there is the existence of market power. Market power is the power to affect the prices and also it is the power to decrease the competition, prevent new comers to the market or to put standards (Murphy, 2006: 5). Market power undermines competition, and on extreme cases it can create monopolies (Harkin, 2004: 3). Increasing market power of the small number of consolidated and concentrated firms over the production, processing and distribution influences the relations of trade, investment and production.

Consolidation and concentration provides the formation of market power. This not only have been shaped by the transformation in the agricultural sector but also shapes the transformation as well. The winners of the transformation are the agribusinesses, and the losers are firstly the small farmers and, as the process is settled, it is the other layers of the society (e.g. small and middle scale processors, consumers etc.). While state economic enterprises are objected to in the WTO due to the fact that they cause degradation in the market and loss of efficiency, the private monopolies take their places and dominate the market as a result of the current policies and even the small firms realize that their market shares shrink as the bigger ones struggle for the higher shares. The market shares are more important than the profits, because the economic power provides survival (Heffernan, 1999). This is not surprising as Schumpeter emphasized 60 years ago that not the price competition but the non-price competition arising from the new goods, new technology, new supply sources and the new organizations should be considered as important (1974: 83-4).

As to summarize the above process, the new international order structured by the dominant actors regulate the institutions of classic agriculture globally and pave way to big agribusinesses to dominate the agricultural markets.

### **Some Evidences From Turkey**

It was mentioned above that the integration of the agricultural markets, centralization and concentration are the inevitable results of the neoliberal policies applied in the agriculture sector and the dominancy of few number of large agribusinesses is observed. These facts are presented by considering the improvements on three industries (poultry, dairy and tobacco) from Turkey. The improvement on these industries clearly summarizes how the above mentioned process is settled and functioned.

The poultry industry in Turkey, is working with contract production model since 1980s with the improvement of the integrated plants. In 2008, there are a total of 10.281 poultry facilities. However, between 2006 and 2008, 9 firms handled 50 % of the total sales, which also have 80% of the total turnovers. These ratios are not surprising when one considers that in poultry industry the cold chain is important, most of the distribution facilities, breeding, feeding, hatcheries and slaughterhouses are owned by the big integrated firms. Also, the firms in the industry came together in order to be institutionalized, and as a result Poultry Meat Producers and Breeders Association was founded in 1992. In the association, there are currently 29 firms and these firms control 90 per cent of Turkey's total poultry and chick production.

One common way to measure the market power is to measure the concentration ratios (CR) in the market. A concentration ratio gives the total market share of the top firms in the market. A  $CR_4$  ratio of 40% or higher shows the market share of the top 4 firms and means that there is little or no competition in the market (Murphy, 2006: 13). In the poultry industry the concentration ratios are high. In 2007, the  $CR_4$  ratio that gives us the market share of the top four firms is 42,4, and the  $CR_7$  ratio for the top

seven firms is 63.4. The CR<sub>4</sub> ratios were 40.65 in 2004, 38.63 in 2005 and 39.21 in 2006 (TEB, 2008). This concentration ratio implies that there is no or little competition in the poultry industry. Therefore, one can say that the firms can determine the price above competitive levels and they can also set rules for the suppliers in order to increase their profits.

In the poultry sector, contract production is commonly used. The firms get into contract relationships with the breeders. The firms do not sign a contract with a breeder who does not sign a contract, prepare a warranty, show a cautioner and especially abide by the rules of the firms. The chick production and hatching takes place inside the firm and then are supplied to the contracted breeders. The firms provide veterinarian facilities like vaccine and drugs with their own veterinarians. Furthermore, the firms provide the feed, bedding and fuel. Yet, the breeders have to deliver broiler to the firms when they are ready to be slaughtered. The firm carves the broilers in its slaughter houses and then market with their refrigerated vehicles. Also, 70 per cent of the total cost of production is the feeding cost, half sourced internationally. The feed is produced in the firms facilities then supplied to the breeders and there is the dominance of poultry firms in the feed production. CR<sub>7</sub> ratio for the top seven firms in feed production is 39.7 in 2007 and all these 7 firms are broiler producers (TEB, 2008). As can be seen, the control of the whole process is on the firm by means of contracting. The firm provides all the inputs but by that way guarantees the price, quality and the quantity. This situation inevitably causes firms to have market power, thus dominancy over the sector. Unsurprisingly, this is proved by the Turkish Competition Authority in his decision in 2009. Turkish Competition authority investigated the poultry sector for the case, if there are arrangements between the largest market shared firms to decrease the supply in order to raise the prices. In his decision, it is stated that within the leadership of the firms that have the largest market share and together with the Poultry Meat Producers, which is founded by these firms, act to take a decision in order to decrease the production volume, and therefore to increase the sales price. Besides, it is proven that these firms decided to hide this application between each other and not to inform the public. The Competition Authority, as soon as it proved this situation, have imposed

large fine to these firms and also gave a notice to the Poultry Breeders Association to end the competition limited practices.

The second sector to be examined is the dairy sector in Turkey where till 1990's a state economic enterprise "SEK" (Turkish Milk Industry Corporation) was regulating the dairy market. SEK was established in 1963 by the Ministry of Agriculture and Rural Affairs of Turkey to help developing milk production in Turkey and offer the highest quality, healthy, hygienic and natural products to the consumers. From 1968 to 1995 SEK operated as a State Owned Economic Enterprise. SEK was a regulatory body to regulate the milk market, but was privatized in the mid 1990s. The aim was to open the market into competition in order to increase the welfare of the consumers by sustaining a decrease in the prices and an increase in the production quantity, but after the privatization process, private companies gained dominance in the market.

**Table 1.** Profit Margins of Retailers and Wholesalers of Some Dairy Products

<b>White Cheese</b>	2000	2001	2002	2003	2004	2005	2006	2007
Whole Sale Price	1,00	1,39	1,87	2,54	2,83	2,74	2,73	3,63
Retail Price	1,31	1,87	2,55	3,20	3,67	3,10	3,20	6,06
Profit Margin (%)	31,00	34,50	36,36	25,98	29,68	13,14	17,21	66,94
<b>Yellow Cheese</b>	2000	2001	2002	2003	2004	2005	2006	2007
Whole Sale Price	1,00	1,40	1,96	2,42	2,81	2,91	3,00	3,23
Retail Price	1,14	1,62	2,18	2,91	3,43	3,71	3,73	4,11
Profit Margin (%)	14,00	15,71	11,22	20,24	22,06	27,49	24,33	27,24

**Source:** TZOB (2008)

The production costs of milk are high in Turkey. The milk producers work with low profit margins because of high production costs mostly on feed and other services (TZOB, 2008: 18). Contract production is commonly used in the milk sector. The producers sell their raw milk to big processors and there is a high concentration in the sector. In 2007 the CR<sub>4</sub> ratios of the largest four firms in the sector is 55 and it was 51,8 in 2001 (Onal, 2008). This situation indicates that the producers have unfair competition in the marketing of their milk and the price is mainly determined by the industrial processors by ignoring the cost of production. The producer revenue consists primarily from the sales of the milk and secondarily from the sales of the animal so the cost of

production is undoubtedly important. However, the progress of the prices of raw milk is significantly lower than the progress of the main costs and also lower than the final goods processed from the raw milk. This situation is observed by the table above.

The prices are the whole sale and retail prices of two important goods produced from raw milk and these goods have an important place in the consumption patterns of the consumers in Turkey. The prices are indexed starting from the year 2000 and then the change is calculated. Like the producers, the milk processors have costs like collecting the milk, transportation, packaging, storing, etc. Yet, as seen from the table above, the profits are held by the retailers. Thus, it is easily understood that the value is acquired not in the production stage but inside the supply chain and the real gainers are not the producers, but the holders of the last stage where the goods are sold to the final consumers. Besides, there is also high concentration values observed in this retail stage too. The CR<sub>4</sub> ratio in the retail sector was 53.9 in 2005 and 57.8 in 2008.

The developments in the tobacco sector properly describe the above progress. Turkish tobacco is oriental type tobacco and highly used in various brands as to provide taste so its supply is important and it was under a government monopoly, called TEKEL (Government monopoly over alcoholic beverages and tobacco). In 1999 Turkey have signed 17<sup>th</sup> stand-by arrangement with the IMF. In the arrangement it was stated that the agriculture policies would be rationalized and the subventions' to the agriculture would be discontinued in stages. In the arrangement, the tobacco remains a special subject and planned some of the TEKEL's establishments to be privatized. Also in order to make a reform in TEKEL and to discontinue the subsidy mechanism to the tobacco it was undertaken to make a legislation (by the Turkish Government to IMF) and tobacco law come into force in 2002. In the 18<sup>th</sup> stand-by arrangement signed in 2002 a preparation of a privatization plan is undertaken as a precondition. Finally the alcoholic beverage establishments are privatized in 2004, other establishments are sold or closed and the tobacco and cigarette establishments are purchased by BAT (British American Tobacco) in 2008 after the privatization process.

The tobacco law undertaken to the IMF by the Turkish Government come into the force in 2002. By that law:

(i) Tobacco and alcohol market regulatory authority which has fiscal and administrative autonomy is established to carry out works regarding the tobacco production, purchase and sale of producers' tobacco, processing, storing, internal and external trade of tobacco and tobacco turnovers, establishing tobacco processing facilities, production license, modification of project, change of localization, closure, all kinds of handing-over transactions and the technical control of all these procedures.

(ii) The tobacco production will be carried out only by the contracts, so a producer who wants to produce tobacco has to sign a contract in order to have a production quota.

(iii) The firms that want to produce tobacco products have to establish new technology and facilities to produce 2 billion cigarettes or 15 tones of other related tobacco products in one shift and only these firms have legal permission to buy and sell tobacco where the others with no permission there are several punishments and fines.

As can be seen above, the sector opens to the competition, but there are several problems. Firstly, only by getting the permission from the Tobacco Authority there can be production and without sales certification, the sales of tobacco and tobacco products are forbidden. Shortly, a farmer in order to produce tobacco needs a production quota and in order to get one he has to make a contract. However, as the authority limits the marketing of the tobacco, the farmer only can make a contract with a few numbers of large firms which are capable of compensating the conditions established by the authority. Thus, the firms have gained dominancy over production through the

legislation and the government monopoly is replaced by a few numbers of international tobacco companies.<sup>3</sup> The result is given below:

**Table 2** Tobacco Producers, Production Area and Quantity in Turkey

		<b>Oriental type Tobacco</b>	<b>Virginia type Tobacco</b>	<b>Total</b>
<b>2003</b>	Number of Producers	330.529	3.769	334.298
	Area (0.1 Hectares)	181.237	2.482	183.719
	Quantity (tones)	144.023	6.105	150.128
<b>2004</b>	Number of Producers	281.565	3.879	285.444
	Area (0.1 Hectares)	189.655	3.056	192.711
	Quantity (tones)	150.817	5.950	156.767
<b>2005</b>	Number of Producers	252.846	2.887	255.733
	Area (0.1 Hectares)	184.681	2.287	188.968
	Quantity (tones)	143.454	4.180	147.634
<b>2006</b>	Number of Producers	220.206	2.208	222.414
	Area (0.1 Hectares)	144.343	1.823	146.166
	Quantity (tones)	114.326	3.308	117.634
<b>2007</b>	Number of Producers	205.560	1.491	207.051
	Area (0.1 Hectares)	143.651	1.253	144.904
	Quantity (tones)	115.178	2.705	117.883
<b>2008</b>	Number of Producers	193.425	857	194.282
	Area (0.1 Hectares)	146.222	650	146.872
	Quantity (tones)	117.364	1.576	118.940
<b>2009</b>	Number of Producers	78.848	1.904	80.752
	Area (0.1 Hectares)	114.674	1.462	116.136
	Quantity (tones)	89.462	3.147	92.609

As understood from the above table, after the tobacco law, there is a sharp decrease in the number of contract producers and production area. Number of producers decreased to 80.752 in 2009 from 334.298 in 2003 which accounts 75.8 per cent. This decrease is significant when one considers that the tobacco producers are mostly living on the underdeveloped regions of Turkey and tobacco production is their main revenue.

<sup>3</sup> The market shares in 2009 are as follows; Philip Morris 44 per cent, BAT 37 per cent, JTI 9 per cent, European Tobacco 7 per cent and Imperial Tobacco 3 per cent. See Tütün Eksperleri Derneği, <http://www.tutuneksper.org.tr>.

## **Conclusion**

There is a structural transformation in the global agriculture and the principles, norms and the rules of behaviors' shaping the transformation are placed by the dominant powers according to their interests. The struggle for the power was between the dominant powers but as the transformation exits, the actors in the arena becomes the agribusinesses bounded to these powers and the control of the power elements move in on them. Thus, the globalized capital gains dominance over agriculture and transforms the global agricultural structure to a more market oriented system. As the countries open their markets and shrink the role of the government, the private sector enjoys the opportunities for consolidation and concentration. Consolidation could result in highly concentrated markets and could erode competition and lead to inefficient markets and to higher prices. As the state dominancy on the markets is removed, private monopolies replace the government monopolies. During that process, the centralization and concentrations increases and a few numbers of firms gain market power and have ability to structure the agriculture and food chain. With their power on finance, organization and management due to their large scales, firms enter in a vertical and horizontal integration that enables them to carry large scale operations which small and middle size farmers, processors and middlemen cannot afford.

The evidences from Turkey help to better understand the process. In the poultry sector, it is easily seen that a few number of large firms have dominancy in the market due to their power on production, finance and organization. Their power provide them to apply noncompetitive practices like to decrease the production volume and therefore to increase the price. Furthermore, through contract production they can control the whole supply process. In the dairy sector, the result of deregulation of the sector by the privatization of state economic enterprises is again the dominance of firms on the sector. Even though, the risk of production is on the producer, real gainers are even not the processors, but the holders of the last stage where the goods are sold to the final consumer, that is retailers and mostly a few number of international retailers are operating in the sector. This indicates how the power is constituted from the scale,

finance and organization. The tobacco sector needs a special attention, because it properly summarizes the power relations explained through the article. The agreements signed with the IMF for debt rescheduling, carries conditionality for liberalization and also commitments to requirements of WTO. Tobacco sector was reconstituted during the process of stand by arrangements with IMF. The deregulation of the sector was a structural benchmark in the arrangements and a preparation of a privatization plan is undertaken as a precondition. The IMF forced the government for a legislation to make a reform in the sector and by that way all the tools that the government have for the regulation of the sector is removed. The result is the dominancy of a few international tobacco firms in tobacco production, sales and marketing.

Due to the efforts to explain the continues increases in global food prices and the increasing food security concerns, only by the effects of biodiesel production and increasing food demand due to a change in food diets of developing countries mainly for animal protein, the effects of the structural transformation on production, processing process should not be ignored. In this process, one can interested in the fate of domestic companies as in some sectors not the transnational corporations but the national ones are dominated. Yet, even the domestic firms have strong links to the agribusinesses through entering direct or indirect cooperation where mostly the interests of these agribusinesses are decisive. In addition, with the state policy consistent with this process could strengthened the domination of private firms over the market, production and prices, thus could leave the small producers vulnerable to market conditions determined by these agribusinesses and could raise the insecurity both for the small farmers and the consumers. This would be not surprising because it is seen that both the consumption and the production patterns are shaped by the firms where the aim for profit to get ahead the priority of food security. Thus, if this process continues, in the future there could be a few numbers of very large firms cooperating with each other to share the sectors and markets globally, working with their sub branches or with domestic firms that have direct links to them in decision making and application. This

pessimistically reminds the famous novel “iron heel” of Jack London, which would probably become a reality in global agriculture in near future.

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