

Losing the Native Sweet
Declining Sugar Beet Cultivation in Turkey in the 2000s

by

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APPROVAL PAGE

Statement of Authorship

This thesis contains no material which has been accepted for any award or any degree or diploma in any university or other institution. It is affirmed by the candidate that, to the best of his knowledge, the thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

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Abstract

Sugar has been an important commodity since colonial times and integral in the development of capitalism, and sugar beet production remains an important sector in rural development of contemporary Turkey—a country with a large farming population. Yet, the livelihood of sugar beet producers is potentially undermined by Turkey's agreements with the International Monetary Fund (IMF) and other international organizations (IOs) and its passage of the Sugar Law in 2001, all of which are suggested to have negative consequences according to Food Regime perspective. To understand the reasons behind these developments and the consequences at the national and local levels, this multi-method research project analyzes the historical background of the Sugar Law and related legislation; it employs descriptive, correlation, and regression analyses to examine the change in beet production at the national level between 1992 and 2008; and, it draws on 25 in-depth interviews of sugar beet producers in the Afyon/Sandıklı region of Turkey. The sum total of the historical, quantitative, and qualitative evidence suggests that the state and International Organizations are main regulatory mechanisms for the shift from a Fordist to a post-Fordist accumulation regime. Meanwhile the socioeconomic conditions of farmers worsen due to the retreat in state support. It concludes with theoretical implications, including for Regulation theory, as well as the future of agriculture in Turkey.

Keywords: Liberalization, rural development, beet production, Fordism, post-Fordism, Turkey

Özet

Kolonyal dönemlerden beri şeker önemli ve kapitalizmin gelişiminde içkin bir metadır; ayrıca şeker pancarı üretimi, -geniş bir kırsal nüfusu olan- günümüz Türkiye'si'nin kırsal kalkınmasında önemli bir sektördür. Ancak, Uluslararası Para Fonu (IMF) ve başka uluslararası örgütlerle (UÖ) yapılan anlaşmalar ve Şeker Yasası'nın 2001'de geçmesiyle şekerpancarı üreticilerinin geçimleri potansiyel olarak kısıtlanmıştır; Besin Rejimleri'ne göre bunların hepsinin olumsuz sonuçlar doğurduğu önerilmektedir. Bu gelişmelerin, ve yerel ve ulusal düzeydeki sonuçlarının arkasındaki nedenleri anlamak için, bu çok-metodlu araştırma projesi Şeker Yasası ve ilgili düzenlemelerin tarihsel arka planını analiz ediyor; 1992 ve 2008 yılları arasındaki şeker pancar üretimindeki değişimi incelemek için tanımsal, korelasyon ve regresyon analizleri kullanıyor; ve Türkiye'nin Afyon/Sandıklı bölgesinde şeker pancarı üreticileriyle yapılan 25 derinlemesine mülakata dayanıyor. Tarihsel, niceliksel ve niteliksel kanıtların toplamı, devlet ve uluslararası örgütlerin Fordist birikim sürecinden post-Fordist bir birikim sürecine geçişte temel düzenleyici mekanizmalar olduğunu önermektedir. Aynı zamanda devlet desteğindeki gerilemeden dolayı çiftçilerin sosyoekonomik şartları kötüleşmektedir. Araştırma, Düzenleme Teorisi'ni de içeren teorik açılımlar ve Türkiye tarımının geleceği ile sonlanmaktadır.

Anahtar Kelimeler: Liberalizasyon, kırsal kalkınma, pancar üretimi, Fordizm, post-Fordizm, Türkiye

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Abbreviations

AoA	Agreement on Agriculture
ARIP	Agricultural Reform Implementation Project
ASAW	Annual Percentage Change in the Size of the Area Sown with Beet
CP	Compensatory Payment
DIS	Direct Income Support
DP	Deficit Payment (premium payment)
ERL	Economic Reform Loan
IMF	International Monetary Fund
PIPI	Product-Input Price Index
TGB	Turkish Grain Board
TŞFAŞ	Türkiye Şeker Fabrikaları Anonim Şirketi (Sugar Corporation)
WTO	World Trade Organization

Introduction

The main focus of this research is to analyze the process of the neo-liberal transformation in Turkey during the 2000s, which may have caused a decline in the sugar-beet production, and continued at the expense of sugar-beet producers. It is important to provide the local and global dynamics and implications of “neoliberalization” to analyze the process indicated above. I utilize the concept “neoliberalization”, which is defined as a process of interaction in which transnational corporations (TNCs) expand spatially and their productive capacity. The form of this expansion is bound to the interaction over time between the international organizations (IOs), the agents of the expanding production field, national political/legal authorities, and the national/local class configuration. A further discussion of neo-liberalism/globalization will be provided in the Theoretical Framework section in Chapter 1.

Sugar has been an important agricultural staple since the very inception of capitalism in the 15th century. Mintz (1986: 126-133) has examined how sugar during the last half of the 19th century produced from the sugar cane planted in Caribbean Islands, and its byproducts entered the daily primary diet of workers in Britain, as commodities of mass consumption. Hence, sugar, as a commodity produced within the international division of labor in the 19th century, constitutes an inherent link with industrial capitalism in core countries.

Sugar continues to be an important international commodity today. During the 20th century, Cuba has been one of the primary producers of the sugar cane, while the USA has pursued ways of substituting import sugar by producing high-fructose carbon sweeteners (HFCSs). According to Friedmann (1991), U.S. transnational corporations (TNCs) have been investing in generic production of sweeteners,

producing HFCSs which cost less than cane-sugar or beet-sugar. Thereby, U.S. TNCs aimed on the one hand to substitute sugar import, and on the other hand to increase the competitiveness of HFCSs against sugar in the international trade.

While three quarters of the sugar production in the world is out of sugar cane the remainder is out of sugar beet (Aysu 2002:149). European countries have invested in the production of the sugar beet (especially France and Germany) during the 20th century as a way of sustaining employment in the rural regions. The sugar-beet and beet-sugar production in Turkey can be perceived as an attempt of early industrialization since from early years of the Republic of Turkey, sugar factories were established to promote the sugar production industry since late 1920s (Aysu 2002: 158-162). Sugar production is an economic activity that merges agriculture with industry. In the early years of the Republic of Turkey with massive rural population, comprising the 71.3 percent of the total population even in 1970,¹ the concentration on sugar production to promote industrialization might be considered an efficient policy of economic development. According to Yenil and Yenil (1993), sugar-beet production was subsidized, and sugar production was conducted by the State Economic Enterprises (SEEs) along with other agro-industries (e.g. tea, alcoholic drinks and tobacco) until the 1980s. In 1999, over 400.000 households were involved in sugar-beet production (Aysu 2002: 155). Turkey ranks fourth in the sugar-beet production after the USA, Germany and France, thus making sugar-beet an important topic for research.

The sugar-beet production has been very crucial for the small-scale farmers in Turkey because their products were supported through agricultural subsidies, and they are bought by state-owned sugar factories with a guarantee of regular payments.

¹ State Planning Office, "Ekonomik ve Sosyal Göstergeler [Economic and Social Indicators] 1950-2006," <http://ekutup.dpt.gov.tr/ekonomi/gosterge/tr/1950-06/esg.htm>, accessed on 10 September, 2008.

Small-scale farmers in Turkey are a dominant portion of the rural population. Agricultural households which own 20 hectares or more land constitute only 4% (200,000 in numbers) of the total 4.2 million agricultural households in 2000 (Oyan 2003). These figures are similar to the percentage of small-scale farmers' participation in sugar-beet production: in 1999, %90 of 421,626 sugar-beet producers owned lands up to 20 decares (Aysu 2002: 155). Thus, the withdrawal of the state from the agricultural production sphere during the 2000s might have left small-scale farmers in Turkey open to the direct effects of the market actors. Especially, the liberalization of the sugar sector may have deteriorating effects for the farmers who are accustomed to work for the state-owned factories for decades.

This thesis speaks to theoretical debates concerning Food Regime, and Regulation Theory. Food Regime perspective explains the agency of the corporate agro-food industry and IOs in opening up the agricultural sectors of less developed countries (e.g. McMichael 1998). In the case of Turkey, the agricultural liberalization induced by IOs might be in very close relation to the decline of the national sugar industry in Turkey, while it may open room for agro-food TNCs to increase their economic activity and, thereby, their profits. In order to explicate the role of the state as a juridical/political authority, Regulation Theory is very useful because it focuses on the strategies employed by the state to implement reforms within the given socioeconomic structure (e.g. Jessop 2002). This theory is related to my research topic, as the government of Turkey utilizes various economic policies which might be influential in agricultural producers' possible withdrawal sugar-beet production and shift to alternative products. These alternative products are deemed to be more competitive and less dependent on state support. Thus, this shift of production is coherent with the new neoliberal agricultural economy in Turkey.

In order to analyze the effects of the neo-liberal policies on sugar-beet producers I have formalized three main research questions:

- 1) *How is globalization related to the national neoliberal regulations in Turkey's sugar-beet production?*
- 2) *What are the implications of neo-liberal policies on the sugar sector at the national level between 1992 and 2008 in Turkey?* Under this broad question, there are two sub-questions:
 - 2.a) *What is the relationship between the size of the area sown with sugar beet and the number of sugar-beet producers between 1998 and 2007 in Turkey?*
 - 2.b) *What is the relationship between the neo-liberal policies and the size of the area sown with sugar beet between 1992 and 2008 in Turkey?*
- 3) *How did the personal economic outlook of beet producers change in the wake of neo-liberal policies?*

For the first research question, I explain the historical developments which might be related with the implementation of national neo-liberal policies in sugar-beet production. In answering this question, I utilize secondary sources, which analyze the neo-liberal transformation in Turkey's agriculture, and I analyze documents including letters of intent given by government of Turkey to the IMF since 1999, World Bank's projects of agricultural transformation in Turkey, the Agreement on Agriculture signed by Turkey in her accession to the WTO, the Sugar Law, and Agriculture Strategies written by the State Planning Office (SPO).

For the second research question, I utilize the data set present in the web-site of Türkiye Şeker Fabrikaları A.Ş. (TŞFAŞ), the data from Turkstat and other complementary data from various sources for a statistical assessment (correlations

and multiple regressions) of the main trend in the size of the areas sown with sugar beet from 1992 until 2008.

For the third question I have chosen Afyon/Sandıklı, a region in Turkey, where the sugar-beet production has been very high in the 1990s, as a case study to observe the local implications of the neo-liberal policies in agriculture. I conducted 25 in-depth interviews with producers. Besides the interviews, I acquired the volume of sugar-beet production, the number of sugar-beet producers between 1997 and 2007, and the volume and land-size of the alternative products, which were present long before the possible decline in the sugar-beet production in the 2000s, but may have increased in production. For the assessment of the decline in the financial support to the agricultural production, I use figures presented in the Main Agricultural Indicators (State Planning Office, 2008).

The attempt by the Turkish government to restrict the production of the sugar-beet in Turkey during the 2000s can be related with the liberalization in agriculture. One of the main assumptions of Food Regime is that international organizations under the US hegemony influence governments in the peripheral countries to enforce legislations which aim to liberalize their markets, and to extend TNC activities in these countries. In this case, agro-food TNCs may be active in the sugar sector in Turkey and influence beet-sugar production, and therefore sugar-beet production in Turkey. Although the government seems to be at the forefront in this process, there are agents who are of equal importance: agro-food TNCs, international organizations (IOs) such as the World Bank, the IMF and the World Trade Organization (WTO). Also Regulation Theory speaks to this research in that it explains how the government in Turkey might have enforced policies, which promote liberalization and are designed to create consent among the rural population.

Although the general aim of liberalization can be associated with economic globalization, strategies by the government of Turkey to transform the agricultural sector are unique to the social context of Turkey.

The first part of the first chapter is on the historical background of the liberalization of agricultural sector which brought a transformation in beet production. As it provides the context for us to understand the background of the developments experienced by beet producers, it gives us a chance to make some theoretical implications. In the second part of the first chapter, the relevant theoretical framework will be discussed so that it will guide us in interpreting the empirical findings of this research.

The second chapter focuses on the neoliberal policies in Turkey and their implication on beet production at the national level. I will apply quantitative tests (correlations and multiple regressions) in order to identify the reasons of the changes in the beet production sector in Turkey. However, this chapter alone is insufficient to explain what beet producers are experiencing at the local level. With estimations having from the results of the second chapter I will move forward to see the dynamics at the local level.

In the third chapter I will analyze the local effects of neoliberal policies on beet producers. However, I will not elaborate the results of this section in isolation but try to merge them with the information we witness from historical and quantitative information in previous chapters.

Finally, I will conclude by summarizing my findings, discussing the theoretical implications of my research, note its limitations, and provide suggestions for future research.

Chapter 1

Historical Background and Theoretical Framework

1.1. Historical Background of Beet Production and Neoliberal Transformation in Turkey during the 2000s

In order to understand the neoliberal transformation in the sweetener sector, one has to observe the reasons of the decline in the sugar-beet production and of the rise in the “competitive” products, to identify the active agents in this process, and the effects of this transformation on the sugar-beet producing farmers. In this part, the historical background of the neoliberal transformation in Turkey’s sugar sector will be explained to answer the first research question of this study: *How is globalization related to the national neoliberal regulations in Turkey’s sugar-beet production?* To find some answers to this question, first I explain the historical background in Turkey’s agriculture and related case studies on Turkey’s agriculture. Then I present the global and national regulations influencing the neo-liberal transformation in Turkey’s agriculture. Next, I show the changing patterns of agricultural production in Turkey by focusing on potential factors in the change of beet and maize production. After I explain the theoretical framework underpinning the explanations of this research, and case studies related to it, I discuss the implications of the historical background and the theoretical framework to this research.

1.1.1. Agriculture in Turkey’s History and its Neoliberal Transformation

In the case of Turkey, Yenil and Yenil (1993) argue that although agricultural producers from 1945 until 1980s consisted of small-scale farmers, state economic enterprises (SEEs) held the monopolistic position in the agricultural

industry (e.g. sugar beet, tobacco, tea, alcoholic drinks, milk and meat). Also agricultural producers were heavily subsidized by the state. In this structure, beet was a commodity produced by farmers and sold to the sugar factories owned by the states from the Early Republican Era in Turkey. Moreover, sugar factories owned by the state (TŞFAŞ) had been a model which is thought to be the instigator of industrialization of Turkey's society, and part of a wider social project aiming the rural development (Alexander 2002: 131). Even as late as early 1990s, TŞFAŞ “affected the livelihoods of 3 million people and was involved economically with 7 percent of the voting public” (Burrell and Kurzweil 2008: 126).

However, after 1980, Turkey's agricultural sector started to have contacts with the TNCs and IOs which influenced the agricultural production in several ways. The developing relations between Turkey and international organizations (IOs) such as the WTO, the IMF and the World Bank, required the decline in the agricultural subsidies and support prices, and the privatization of SEEs active in the agricultural sector. Yenal (2001) emphasizes that the governments in this period tended to deregulate the agricultural sector by lowering trade barriers, and subsidies to inputs, and by increasing the interests rates of agricultural production credits. Accordingly the number of agricultural staples, receiving support form the state, fell from 22 in 1980 to 10 in 1990. Also, according to Yenal (2001), TNCs increased their role in food-processing and retail marketing through joint ventures with national firms active in the market in the post-1980 period in Turkey. Simultaneously, the share of rural population within the total population fell gradually: from 64% in 1980 to 49% in 1990, and finally to 39% in 2003.² Also the share of agricultural sector in total employment fell from 36% in 2000 to 25% in 2007 (BSB 2008: 172).

² Available on the website of the TURKSTAT at <http://www.turkstat.gov.tr>. Accessed on July 1, 2009.

Simultaneously, the share of export-crops started to increase in the agricultural production. The de-regulation in the agro-food industry along with declining state subsidies, agricultural producers in Turkey entered a new phase in which they engaged agro-food TNCs and contractual form of labor, especially in the nontraditional crop (such as sunflower and maize) production. Aydın (2008) indicates that contract farming of sunflower, and of sweet corn for Cargill in provinces, such as Konya and Orhangazi (Bursa), has extended during the 2000s. Oral (2006: 308-9) indicates that cut flower growing, and production of potato, fruits and vegetables are conducted through contracts between farmers and agribusiness firms.

The project report, Türkiye’de Tarımda Dönüşüm ve Küresel Piyasalarla Bütünleşme Süreci [The Transformation in Agriculture and the Process of Integration with Global Markets] (Islamoglu et al. 2008) is very important because this study focuses on the condition of farmers with the liberalization in agriculture. This research is conducted between 2006 and 2007 through 715 surveys and several in-depth interviews with individuals active in the agricultural sector, such as merchants, representatives from agricultural sales cooperatives and Chambers of Agriculture. The study is on seven main agricultural staples: maize, beet, tobacco, cotton, wheat, sunflower, and grape. The geographical scope of the study is very wide: from Thrace, through Aegean, Middle and Northern Anatolia to Adiyaman and Elazığ. Islamoğlu et al. (2008: 16) found out that with the liberalization in the agriculture, the small-scale farmers were excluded from the agricultural production in Turkey. In their study, the liberalization in agriculture encompasses the withdrawal of the state from agricultural production (phase-out of support prices and

input subsidies), the dissatisfying market conditions for farmers, and increasing debts of farmers to public or private banks.

Contrary to the view that liberalization in agriculture is working against the small-scale farmers, Burrell and Kurzweil (2008) argue that the state intervention in agricultural production through input subsidies and price supports was related with the inefficient agricultural production in Turkey's history because the state supported agricultural staples that would be unprofitable for farmers without the state support. Therefore, the withdrawal of the state's role in agriculture and support crops, having comparative advantage to be produced in Turkey, will bolster the rural development and diminish rural poverty. Likewise, Togan et al. (2005) argue that Turkey's attempt to join the EU would require the adoption of the Common Agricultural Policy of the EU. This policy adoption would improve the competitive capacity of agricultural producers, therefore their welfare. According to them the adoption to CAP and liberalization policies advised by IOs are compatible because the EU reformed its agricultural policy consistent with the WTO regulations.

Related with the process above, the Sugar Law passed from the parliament in 2001. This law included the reduction in quotas of beet-sugar and the increase of high-fructose carbon sweeteners (HFCSs) in the sweetener market of Turkey. Also it regulated the moderation of beet prices, given to farmers, to world sugar markets. The research by Güneş et al. (2004) inquires about the effects of the Sugar Law on beet farmers. Their study was in Ankara/Polatlı and based on surveys with 75 farmers. However, my research differs from this study because my research depends on national level, as well as on local level. Also, the place of the field research of my study (Afyon/Sandıklı) is different from this study. Their conclusion is that after the Sugar Law, most beet farmers in the region faced the financial difficulties and/or

shift of production to other agricultural staples. The authors relate these results to the restriction of beet production quotas. However, when we look at the production capacity of beet-sugar producing factories we see that these factories had supply levels under the allowed quotas by the Sugar Institute. The annual rate of production was between 81% and 92% of the allowed annual quota from 2003 to 2007 (Sugar Institute 2004, 2005, 2006, 2007, 2008). This fact raises the question if there were other factors than just the quota which might further influence the production choice of farmers. Therefore we must focus on the process, which paved the way for the Sugar Law, and on the global and national actors active in this process.

1.1.2. Global Regulations

The Agreement on Agriculture

In the Agreement on Agriculture (AoA), signed by Turkey in 1995, the World Trade Organization (WTO) demands that agricultural subsidies provided by the state to agricultural producers should decline in signatory countries, and that agricultural markets are liberalized in these countries. Its main aim is the gradual reduction of export subsidies, input subsidies, and price supports. However, the implementation of its conditions has been piecemeal, and in coherence with other IOs' relations with Turkey in agriculture. As explained in "Theoretical Framework" section, Food Regime perspective (e.g. McMichael 2000) argues that the role of IOs in the neoliberal transformation of agricultural sector in peripheral and semi-peripheral countries cannot be neglected because IOs are influencing countries to transform their regulations in agricultural sphere.

The sixth article of the AoA (WTO 1995) dictates that signatory countries should decouple direct payments, included in domestic support to agricultural

producers, from production processes.³ They can be made fixed based on land and yield (direct income transfers), or at a level which does not cover all market price (such as premiums or compensatory payments). In the second annex part of AoA, the first paragraph indicates that the allowed domestic supports shall not have the impact of price support to agricultural producers. The fifth and sixth paragraphs indicate that direct payments, allowed in the Agreement, can take form of income support decoupled from production costs. The eleventh paragraph defines payments which aim to compensate disadvantages deriving from the structural adjustment of the producer (compensatory payments). Under Annex 3, the eighth paragraph dictates that market price support is defined that it covers the potential gap between a fixed external price of a commodity and the domestic applied price.⁴

The above defined sixth article and the paragraphs in the Annexes 2 and 3 are consistent with the neoliberal forms of supports in the agricultural sector of Turkey. The condition on reducing price supports is related with transforming beet prices given from the Türkiye Şeker Fabrikaları A.Ş. (TŞFAŞ) as a state economic enterprise (SEE) from price support to prices which are determined according to demand and world sugar prices. This will be further explained in the analysis of the Sugar Law (p.15). Indirect payments listed in the AoA were the compensatory payments, direct income support (DIS), and premiums for certain agricultural staples during the 2000s in Turkey. Also the input subsidies (e.g. fertilizer subsidies) ended during the same period. These are analyzed under the national regulations below.

³ By “decoupling” I refer to the separation of agricultural supports from the factors related with the production. For more information on “decoupling”, see Tilzey (2006).

⁴ AoA available at http://www.wto.org/english/docs_e/legal_e/14-ag.pdf. Accessed on January 4, 2009.

Letters of Intent of Government of Turkey to the IMF

Turkey applied in 1999 to the IMF for credits when it faced serious budgetary deficits (Akyüz and Boratav 2003). However, the IMF imposed structural adjustment policies on Turkey, and these also included agriculture in Turkey. The letters of intent of the government of Turkey after signing a *stand-by* agreement in 1999 make some pledges which concern the agricultural sector. First, agricultural subsidies should end and direct income support should replace them. Second, the government should reduce price of sugar-beet given by the TŞFAŞ to cut government spending. Third, the government should enforce the Sugar Law to regulate the sugar sector more efficiently and to liberalize the sugar markets. And fourth, the government should privatize the sugar factories owned by TŞFAŞ to provide income for government budget. The dates of letters of intent are 11/9/99, 11/18/00, and 5/3/01. As mentioned above, the IMF is another IO (among the WTO, and the World Bank), which is active in the neoliberal reforms in agriculture.

In the Letter of Intent given to the IMF on December 9, 1999, the government promised to eliminate the input subsidies and price supports gradually. According to the same letter, the direct income payments should replace old forms of supports simultaneously, and they will be implemented in 2001 at the national level. Also the support prices for beet in 2000 should accommodated to the inflation rate (Government of Turkey 1999).⁵ The letter on December 18, 2000, envisages that the government should privatize at least six sugar factories, and pass the Sugar Law, which is deemed to sustain reforms in the sweetener sector, in 2001. Also the letter indicates that input subsidies and price supports should end and DIS should replace

⁵ Available at <http://www.imf.org/external/np/loi/1999/120999.htm>. Accessed on January 4, 2009.

them until 2002 (Government of Turkey 2000).⁶ The letter on May 3, 2001, promises to make preparations to provide the ground for privatization of sugar factories, to reduce the beet production quota from 12.5 millions to 11.5 millions, and not to increase the beet prices more than the aimed inflation rates (Government of Turkey 2001).⁷

Economic Reform Loan (ERL) and Agricultural Reform Implementation Project (ARIP) by the World Bank

The government of Turkey signed the ERL with the World Bank in 2000. The ERL included conditions on reforms in macroeconomic structure, social security system, privatization of SEEs, and reforms in agriculture, promised in Letters of Intent given to the IMF, in return of a US\$ 760 million (Aydın 2005: 160). The ERL encompassed the implementation of the DIS and phasing out price supports and subsidies given to agricultural producers (World Bank 2000).⁸ This project was completed in 2005. The completion report of the ERL (World Bank 2005)⁹ touts the complete elimination of input subsidies and support prices, and their replacement by the DIS. Additionally, it indicates the decline in the state purchases of grains (from 4.4 million tons in 1999 to 2.4 million tons in 2002), and the complete phase-out of support prices in beet and the introduction of quotas in beet production with the Sugar Law (explained below).

⁶ Available at <http://www.imf.org/external/np/loi/2000/tur/03/index.htm>. Accessed on January 4, 2009.

⁷ Available at <http://www.imf.org/external/np/loi/2001/tur/02/index.htm>. Accessed on January 4, 2009.

⁸ Available at http://www-wds.worldbank.org/external/default/WDSP/ECA/2004/12/15/FB1944A5BDD9DEA285256F03001638BC/1_0/Rendered/PDF/FB1944A5BDD9DEA285256F03001638BC.pdf. Accessed on January 4, 2009

⁹ Available at http://www-wds.worldbank.org/external/default/WDSP/IB/2005/02/23/000012009_20050223093335/Rendered/PDF/31606.pdf. Accessed on January 4, 2009.

The ARIP, signed in 2001, aims to reduce the over-produced traditional crops in the agricultural sector of Turkey, and to replace them with the products which have comparative advantage in production and create incentives for producers and agro-food industry to increase productivity (World Bank 2001).¹⁰ As policy tools, the Project proposes the replacement subsidies and support prices with DIS and one-time compensatory payments for producers who shift their production from over-produced staples to competitive products. Replacing trade-distorting price supports and input subsidies with decoupled payments in the form of DIS and compensatory payments were already available in the AoA (the WTO 1995). Thus, the implementation of these two policy tools in the ARIP was consistent with the regulations of another IO (the WTO). The rationale behind this replacement is to cover the loss of the farmers, who shift their production, to some extent and ease their shift. But, was this coverage enough? This question will be answered to some extent in Chapter 3.

1.1.3. National Regulations

Consistent with the AoA and letters of intention given to the IMF, the strategy document prepared by State Planning Office (SPO) in 1999, briefly outlines the neoliberal reforms which would take place during the 2000s (SPO 1999).¹¹ This document indicates that Turkey has responsibilities deriving from the pledges made to the WTO and the relations with the European Community. Under the main policies and strategies section, the document stresses the aims in the long-run:

- The development of agricultural production according to the free market and the state's withdrawal from intervention in prices.

¹⁰ Available at http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2000/08/18/000094946_00081705310273/Rendered/PDF/multi0page.pdf. Accessed on January 4, 2009.

¹¹ Available at <http://ekutup.dpt.gov.tr/tarim/strateji/>. Accessed on January 4, 2009.

- Support for the production of agricultural staples, which have domestic and foreign demand, instead of staples which are over-produced.
- The elimination of input subsidies.
- The implementation of the Direct Income Support (DIS).

This document also discusses the necessity of a reform in the Sugar Law of 1956, and argues that the potential new law will conform with the CAP of the EU, pledges made to the WTO and other IOs. Also this new strategy would bring a new market system in the sugar sector consistent with the domestic demand in Turkey.

The Five Year Development Plan for 2001-2005 indicates similar policy aims with the strategies outlined in 1999. It emphasizes in Paragraph 1280 that the agricultural policies in this period should be in line with the commitments made in AoA and coherent with the CAP. Furthermore, this document makes clear in Paragraph 1323 that further quotas on beet production should limit beet production and alleviate its burden on state budget. Finally, in Paragraph 1321 the document points out that the government should bolster the increase in the volume of production of alternative products with the implementation of premium payment system (SPO 2000):¹²

“The increase in production of products such as sunflower, soy, and cotton will be provided through the development of necessary institutional structure and marketing infrastructure, and the implementation of the premium system. Additionally, the building of drying establishments will be induced to improve the production of maize.”

SPO stated in Agriculture Strategy (2006-2010) that the government should continue to implement Deficit Payment (DP), compensatory payments (CP) and to provide DIS. In line with the demands of the WTO, agricultural subsidies provided by the state diminished significantly, and under the DP payment program this

¹² Available at <http://plan8.dpt.gov.tr/>. Accessed on January 4, 2009.

strategy aims to provide premium payments only in agricultural production fields which suffer from demand deficit, such as cotton, sunflower, maize, soy bean, and other oil-seed products (SPO 2004).¹³

The implementation of DIS lasted from 2001 until 2008. The DIS was a part of the Agricultural Reform Implementation Project (ARIP) funded by the World Bank (Aydın 2008). The aim of the DIS was to undercut the agricultural subsidies and price supports, which are considered to be trade distorting, and to introduce a form of direct payment according to the size of the owned land (World Bank Turkey 2008).

The national government decided to implement the CP in 2003 for one-time to agricultural products described as alternative products, which are to be cultivated on the emptied land due to the reduction in the sugar beet quota.¹⁴ These alternative products as described in the directive are maize, sunflower, soybean, and feed-crops. The restricted quota of beet production is due to the regulations made via the Sugar Law.

The Sugar Law

The Sugar Law was enacted in late 2001. The Sugar Law (2001)¹⁵ indicates that this law was legislated to accommodate the demands and standards of the WTO and the EU. The law defines the main framework of the new sugar sector and leaves the technical details on topics such as the price of sugar and beet, and the production quotas to decrees to be issued by the Ministry of Industry and Trade. The Sugar Law describes three groups for the kind of products in the sweetener market: Type A,

¹³ Available at <http://mevzuat.dpt.gov.tr/ypk/2004/92.pdf>. Accessed on April 5, 2008

¹⁴ Available at <http://www.tarim.gov.tr/mevzuat/teblig/pancar/pancar.htm>. Accessed on March 18, 2008

¹⁵ Available at <http://www.tbmm.gov.tr/kanunlar/k4634.html>. Accessed on May 1, 2008.

Type B, and Type C. Type A quota for sweeteners is the yearly quota allowed for HFCS and sucrose sugar producer firms. The production quotas for firms are determined by the Sugar Commission. Type B quota only applied to sucrose sugar producer firms, which corresponds to a security stock. Type C sugar is the volume of sweeteners which override the Type A quota, and are allowed to be exported to international markets. The Decree Related to the Regulation of the Sugar Quotas has been prepared by the Ministry of Industry and Trade in 2002, consistent with the fourth article of the Sugar Law. It regulates the quota on the HFCSs that the quota shall not exceed %10 of the domestic sugar production. According to this decree, the Sugar Commission has the authority to assign production quotas to firms for five-year periods according to the mean of last three year's production performance of the firms. The government has the authority to either reduce this quota down to %5 or increase it up to %15. However, the common tendency of the government in using this authority had been increasing the HCFS quota rather than reducing it (Sugar Institute Activity Reports 2004, 2005, 2006, 2007, and 2008).¹⁶ The President of the Sugar Institute is responsible of the implementation of this decree.

The fifth article of the Decree of Input and Sugar Prices, issued by Ministry of Industry and Trade in mid-2002 consistent with the fifth article of the Sugar Law, demands that the price of the beet is to be determined according to the supply and demand equilibrium in the world sugar markets, as opposed to support prices given by the TŞFAŞ previously. With this new legal application, especially after the year 2003, the price of the beet (TL) followed a low trend when compared with the increase in input prices in the same period (See Figure 1.1.). Like the previous decree

¹⁶ The share of HFCS quotas in the following years are 10% in 2008, 12% in 2007, 14% in 2006, 14% in 2005, 2004 and 2003.

on production quotas, the implementation of this decree is the responsibility of the President of the Sugar Institute.

According to the Sugar Law, the Sugar Institute (Şeker Kurumu) is to be established which is directed by the Sugar Commission. It is assembled by the presidency of the Ministry of Industry and Trade. The Commission is composed of eight members: the president, one general director from Ministry of Agriculture, one general director from the permanent secretary of Ministry of Industry and Trade, one general director from the firm which has the most investment capital in the sucrose production industry, one high level administrator from the union of the PANKOBIRLIK (cooperative of sugar-beet producers), one representative for sucrose producer firms, one representative for HFCS producer firms, and one representative from the Türkiye Odalar ve Borsalar Birliği. All members of the Commission are appointed by the Ministry of Industry and Trade who is approved by the National Assembly along with the whole cabinet.

Sweetener Sector Structure in Turkey

In the sweetener sector in Turkey, Türkiye Şeker Fabrikaları A.Ş. (TŞFAŞ), a state initiative, owns 25 sugar factories and holds the majority of the beet-sugar production. Five beet-sugar producing factories are privatized and are owned by the cooperatives under the umbrella of Pankobirlik: Adapazarı Şeker Fabrikası A.Ş., Amasya Şeker Fabrikası A.Ş., Kayseri Şeker Fabrikası A.Ş., Konya Şeker Fabrikası A.Ş., and Kütahya Şeker Fabrikası A.Ş (Sugar Institute 2004).

In the HFCS industry there are five firms active: Cargill, Amylimum, Pendik Nişasta, Sunar, and Tat Nişasta.¹⁷ Cargill alone holds the 43% of the total HFCS

¹⁷ The quotas for HFCS in 2008 can be accessed at <http://www.sekerkurumu.gov.tr/icerik.aspx?id=13>. Accessed on May 3, 2008

production quota at the national level. Additionally, Cargill owns the half of the Pendik Nişasta and the other half belongs to Ulker Group, a local firm.¹⁸ Combined with the shares at Pendik Nişasta, Cargill has nearly the 51% of the total production quota given to HFCS producing companies. Amylum, has about the 31% of the total production quota. Tate & Lyle, a UK based TNC especially active in the sweetener sector, holds 63% of the Amylum firm since 1998.¹⁹ The combined share of Amylum and Cargill in the 2008 production quotas in Turkey is over 80% of the total HFCS production quotas at the national level. In 2006, 680,000 tons of maize out of 3,850,000 tons of total maize output in Turkey have been processed by the HFCS firms (Sugar Institute Activity Report, 2006). In this light, we can argue the HFCS processing firms are profiting from the expansion of maize production in Turkey which has been described as an alternative product (explained below) by the government of Turkey.

Debates on the Sugar Law and the Sugar Sector in Turkey

The government decided to close the Sugar Institute in 2004. However, Şeker-İş, the union of workers at sugar factories with around 28,000 members, filed a suit against the government due to its act and the Constitutional Court decided to cancel the decision to end the authority of the Sugar Institute. The major concern of Şeker-İş was that the HFCS producing firms would produce more than the allowed quotas if the Sugar Institute did not supervise the sugar sector.²⁰ Şeker-İş further sued the Sugar Institute and the government for increasing the quota of HFCS production above 10% in 2005, 2006, and 2007. The State Council decided that the conditions to

¹⁸ Available at http://www.cargill.com.tr/history_tr.html. Accessed on April 12, 2009

¹⁹ Available at http://www.amylum.com/TateAndLyle/our_business/history/history_timeline.htm. Accessed on June 15, 2009.

²⁰ The process of the case is available at the web-site of Türk-İş, http://www.sekeris.org.tr/yazi_ayrinti.php?yazi_no=332. Accessed on May 7, 2009

increase or decrease the quota for HFCS production were not defined, and cancelled the government decisions of HFCS quota increases for all years subject to the case. However, the government did not implement the court decisions, and Şeker-İş took the case to the European Court of Human Rights in 2008.²¹

Another debate which generates confrontation in the sugar sector is the status of the land where the factory of Cargill in Orhangazi/Bursa was built in 1998. A wide arrange of non-governmental organizations, ranging from Bar of Bursa through the Bursa branch of Union of Chambers of Architects and Engineers of Turkey to the environmental groups, sued Cargill in 2004 because the land of its factory was not allowed for industrial activity and the factory was polluting the environment. Since then, there were four court decisions which forbid the industrial activity of Cargill at its factory in Orhangazi/Bursa, but none of them were implemented by the government, other local administrators, and mayor. The case is still ongoing and followed by further suits filed against the government and governmental agencies due to their lack of implementation of court decisions.²²

Although we witness reactions to the developments in the sugar sector from Şeker-İş, and various non-governmental organizations at the local level, we cannot see an overt and organized reaction on the side of farmers. Çarkoğlu and Kalaycioğlu (2007: 106-107) suggest that the protest potential in Turkey, using the legal means such as petitioning and legal demonstrations, was low in 1990 when compared with developed countries. In terms of protests such as boycotts and wildcat strikes, Turkey's potential was not the lowest. However they argue that "once anti-system movements lost their attraction, protest potential seems to have rapidly eroded in

²¹ The process of the case is available at the web-site of Türk-İş, http://www.sekeris.org.tr/yazi_ayrinti.php?yazi_no=335, accessed on May 7, 2009

²² The process of the case is available at the web-site of Bar of Bursa, <http://www.bursabarosu.org.tr/sayfalar.php?sayfa=163>, accessed on May 15, 2009.

Turkey in the early 2000s.” Thus we may relate the lack of protests by farmers to this declining trend of protests in Turkey if we assume that farmers did not benefit the changes in beet production in the 2000s. Also, there is the possibility that farmers benefitted from the changes in beet production and did not protest. We have to wait for the analyses at the national and local levels in following chapters to answer this question.

1.1.4. Beet and Maize Production in the 2000s in Turkey

Push and Pull Factors for Sugar-Beet Producers

There are push and pull factors for the farmers who may retreat from the beet production. The push factors for farmers for retreating from the sugar-beet production might have been low beet prices in the face of rising input prices, perhaps as a result of the laws and policies previously discussed. During the 2000s the prices of sugar beet did not rise because price supports ended in 2003 with the legislation of Sugar Law. Meanwhile agricultural input prices were rising due to the suspension of the agricultural input subsidies.

Pull factors for the withdrawal from beet production are the incentives given by the government to provide the shift from over-produced products (beet in this case) to new products considered to be comparatively advantaged. These incentives include DIS, CP and DP. The result of these policies might be that more and more farmers have started to withdraw from beet cultivation (see Figure 1.2.). DIS started in 2002 and increased over years while DP (premium payments) increased during the 2000s and input subsidies for fertilizer phased out after 2002 (see Table 1.1.).

Maize Production in Turkey in the 2000s

Maize production in Turkey in the 2000s is important for two reasons in this research. First, agricultural policies in this period encouraged the production of maize, among other alternative products, through policy tools such as CP and DP. Second, maize is the main input of HFCSs, produced by Cargill.

While the beet production declined during the 2000s, the production of maize increased as well as the area sown with maize extended (see Tables 1.2. and 1.3.). It is possible to relate this increase in the maize production to the government incentives to the maize production. The CP, implemented in 2003 for the cultivation of alternative products in the vacant fields due to the restriction of beet quotas, favored primarily maize production as it gave the highest financial support to maize.²³ The declaration made from the Ministry of Industry and Trade, 13,000 farmers, obtaining a cumulative field size of 75,000 thousand decares in 2000 villages, applied for CP and their first preference among the supported alternative products was maize.²⁴ The other form of support in maize production is the DP for maize producers. Erdal and Erdal (2008) conducted a quantitative study on the effect of premiums in the cultivation of alternative products between 1980 and 2006 in Turkey. Their conclusion is that the premium payments in the 2000s had a positive influence on maize production. From the evidence on CP and DP in maize production we can conclude that these two political tools had positive influences in the improvement of maize production.

²³ For the amounts of financial support given to alternative products, see <http://www.dunyagazetesi.com.tr/haberArsiv.asp?id=126637> accessed on May 15, 2009.

²⁴ For the declaration, see <http://www.sanayi.gov.tr/webedit/gozlem.aspx?sayfaNo=1521> accessed on May 15, 2009.

Table 1.2. Maize Production (tons) between 2002 and 2007 in Turkey

Years	2002	2003	2004	2005	2006	2007
Production (tons)	2,100,000	2800,000	3,000,000	4,200,000	3,811,000	3,535,000

Source: Sugar Institute Activity Report 2008.

Table 1.3. Size of the Area Sown With Maize between 2004 and 2007 in Turkey

Years	2004	2005	2006	2007
Area Sown with Maize (decare)	1,550,000	2,000,000	2,598,913	2,690,132

Source: Turkstat.

The study of Islamoğlu et al. (2008) on maize producers in their report included a total of hundred surveys with maize producers in Adapazarı, Bursa, Samsun, and Adana. According to the surveys, 72% of the maize seed purchased by farmers is Pioneer brand, while 10% of it is Monsanto brand (Islamoglu et al. 2008: 262). According to Rural Advancement Foundation International (RAFI 2000) the top two global seed companies are from U.S.: Pioneer (DuPont) and Monsanto. According to Islamoğlu et al., 89% of maize farmers sell their products to merchants and do not seem to have any contractual relations with Cargill. However, merchants, especially buying maize in Sakarya and Adana, sell their maize to Cargill. In this process, the relation between the producer and the merchant depends on an unwritten agreement. Therefore, the price paid to farmer is not guaranteed and the producers may face the risk of not getting their money sufficient to cover their expenses (Islamoglu et al. 2008: 255, 256). As a result of this process, only 49% of maize producers indicated that they extracted profits from maize production (2008: 263).

Having explored the historical background of the neoliberal transformation in Turkey's agriculture, and especially in the sweetener sector, from the 1990s on we now turn our attention to theories that may help us explain the historical background and other following two chapters.

1.2. Theoretical Framework

In the previous section, I have focused on the historical background of agricultural policies in Turkey and the neo-liberalization process. As we have seen, neoliberal policies are advised by IOs and implemented by the government of Turkey during the 2000s in the broader agricultural sector, and the sugar and beet production sectors. This section briefly explains the theoretical mechanisms which are utilized in the following chapters.

The theoretical perspectives to be evaluated are Food Regime, and Regulation Theory. The Food Regime focuses especially on the global regulation in agricultural sectors, and its impacts on rural populations. Regulation Theory, however, focuses more on the national aspects of regulation in the changing regime of accumulation. It is necessary because it emphasizes the state mechanism as the key link between the global regulation by IOs and their impacts on rural populations engaged in agricultural activity for their livelihoods.

What is “neo-liberalism”?

In this research, “neo-liberalization” is conceptualized as a process of interaction in which TNCs expand spatially and their productive capacity while the form of this expansion is bound to the interaction over time between the IOs, the agents of the expanding production field, national political/legal authorities, and the national/local class configuration. Under neo-liberalization TNCs do not expand in a monolithic pattern, but according to the interaction indicated above.

Wallerstein (2005: 133) argues that neoliberalism has three constituting elements that differs it from developmentalism in the post-WW II era: 1) reducing wage levels, 2) externalizing the costs of production, and 3) reducing the taxes that

are collected for social expenditures. To do these, developed countries needed opening of borders for the free movement of goods and capital. According to him this process was named “neoliberalism” in theory and “the Washington Consensus” in policy implementation. Thereby, neoliberalism is the liberalization of national economies and opening for the transnational activity of capital forces.

Current neoliberalism is the continuously changing fragmentation of production processes within which leading corporations dominate high-value production processes, as put forth by Gereffi (2001). For the environment, in which fragmentation of production and expansion of TNCs can occur, trade liberalization is necessary which,

not only opens up world markets to these [of corporate agro-food capital] interests but also guarantees global sourcing and facilitates the internationalization of production through joint ventures, direct investment in foreign branch plants and the creation of export platforms (Potter and Tilzey 2007: 1293).

Linked with this liberalization project, the Uruguay Round Agriculture Agreement of the WTO has conditions which prescribe the reduction in “domestic support”, increased market access, and allow the elimination of export subsidies mandatory for signatory countries. However, the approach to neoliberalism developed by Tilzey (2006) interprets neoliberalism as a conglomeration of multiple projects which are locally bounded and shaped according to varying state-society and capital-class configurations. This model has the capacity to explain the agency of the national political/legal authority and of the national/local class configuration rather than employing a strict structuralist perspective which construes the IOs and the TNCs as active agents in the globalization, but attributes no role to the local/national policies and social groups.

In this research, an approach similar to Tilzey (2006) is going to be employed in order to analyze the national implications of neo-liberal policies in the sugar-beet producing sector. This approach will enhance the analytical capability of this research in that it emphasizes: 1) the connection between economic globalization and national regulation; 2) the role of the state/government in implementing the liberalization of agricultural market in Turkey; 3) the impacts of these policies on the local level; and 4) the local answers to these policies.

The Food Regime Perspective and the Contemporary Corporate Food Regime

Food Regime perspective prioritizes the historical relation between the change in the capitalist accumulation regime and the regimes of agricultural production at the international level (McMichael 2009a). Although it attempts to explain the major underpinnings of the international food regimes it recognizes the contingency and variance at the national/local level. The first food regime under the British hegemony from the second half of the 19th century to the early 20th century depended on the free trade regime between Europe, European colonies, and settler states, such as in America and Australia (ibid.). During the post-WW II period until 1970s (the second food regime), the USA protected its domestic agricultural producers and turned the surplus production into food aid under the Marshall Plan to LDCs (Friedmann 1991). However, after 1973, the USA transformed its policy into agricultural export subsidization. The USA pursued also import-substitution policies in agricultural production where TNCs produced primary low-value agricultural staples and lower their costs through generic production in adding fertilizers, chemicals and in creating transgenetic crops. In this way, producers from less

developed countries (LDCs) which have higher production costs and market prices could not challenge the competition of U.S. low-value agricultural crops.

For the contemporary corporate agro-food industry in the global economy, “food is no longer simply something produced by farmers and bought by consumers, but a profitable product of capitalist enterprise, transnationally sourced, processed and marketed” (Friedmann, 1991). Friedmann (1991) disagrees with the main argument of dependency theory, that the pre-industrial or low-profit industrial economic activities are located in the periphery. She asserts that this does not match the neo-liberal order of agro-food industry under the U.S. hegemony. Agricultural production has been one of the major dynamics in the U.S. corporate economy. One of the examples is the increase in the HFCS production in the sweetener sector. The consumption of HFCSs increased in the face of declining sucrose (made from sugar beet or sugar cane) consumption and import. The production of soy oil produced from soybean, displacing other vegetable oils, followed the same path of import substitution in the sweetener sector. According to Friedmann (1991), the World Bank and the IMF policies induced the export crops produced in LDCs in the face of increasing indebtedness of LDCs during the neoliberal capitalist era. Therefore, “[...] what to produce must refer to potential export earnings” (Friedmann 1991: 86).

McMichael (2008, 2009b) argues that trade liberalization in agriculture, and the eradication of state subsidies to peasant agriculture are two elements of the neo-liberalization. Within this project, regions of agricultural production are integrated into the global production and consumption networks in which transnational corporations have overall gains in the free trade regime (McMichael, 2000). Raynolds et al. (1993) indicate that during the 1980s Mexico, Puerto Rico, and Dominican Republic applied policies which favored the production of high-value

export crops while these policies induced small-scale farmers producing traditional crops to produce nontraditional export-crops under contractual relations with agro-food TNCs. These countries' policies were privatizing state economic enterprises, and cut in public support in agriculture, such as production subsidies and public investment. While authors indicate that small-scale farmers were worse off with the liberalization in agriculture in Mexico and Dominican Republic, they acknowledge that Puerto Rico was a country producing export-crops well before the structural adjustment policies in the 1980s, and less likely to be influenced negatively by continuing producing export-crops. Also, Bryceson (2002) argues, depending on her case study on sub-Saharan Africa, that liberalization policies in this region were related with the de-peasantization in this region due to the declining material opportunities in rural regions.

Food Regime Perspective is directly related to my research because the reforms from the 1990s on in Turkey under the scrutiny of the WTO, the IMF and EU design the elimination of input subsidies to farmers, and the limitation of over-capacity production of some crops (beet in my case), while the ground of activity for agro-food TNCs (e.g. contractual agreements between farmers and TNCs, retailing sector of agricultural products) is extended in the agricultural sectors affected by the very same reforms (Aydın 2005: 158-163). Thereby as the IOs (i.e. the World Bank and the IMF) promote neoliberalization in agricultural sector by structural adjustment loans, the state stands as an actor which facilitates the application of neo-liberal policies (McMichael and Myhre 1991).

According McMichael (1998), the corporate strategy rests on excluding the local small producers in Southern countries as well as in Northern countries, from the market by the corporate low-price primary products, and re-integrating small

producers in LDCs by establishing contractual agreements on export-crops production (e.g. vegetables and fruits). Consequently the domestic agricultural sector in LDCs becomes highly vulnerable due to the monocultural production practices in export-crops. These corporate strategies consider the geopolitical conditions and vary in their practices from one locality to another as well as corporations differ from in each other in their practices. Also, Phillips (2006) acknowledges that agro-food TNCs are involved in different economic activities: production, distribution and trade, and marketing. Therefore, we should not construct a monolithic understanding of agro-food TNCs but have to differentiate various forms of activities of different TNCs in the general process of “neo-liberalization”.

The new international division of labor, where LDCs become producers of high value export-crops producers and TNCs produce low-value agricultural staples, leads to a specialization of production between the North and South (McMichael and Myhre 1991). From this perspective, the IMF and World Bank policies and financial loans are tools which encourage LDCs to transform their production of traditional low-value crops to high value export-crops. The IMF advises structural adjustment policies to LDCs if they aim to stabilize their financial accounts via the loans from World Bank in return of Structural Adjustment Loans (Raynolds et al. 1993). Thus, Myhre and McMichael (1991), and Raynolds et al. (1993) point out the importance of the regulatory mechanisms of IOs in the restructuring of the rural spheres in LDCs.

Besides the IMF and the World Bank, as IOs active in the restructuring of agricultural policies in LDCs, the WTO is another IO which has an important role in the building of the corporate agro-food regime (McMichael 1998, 2008, 2009a, 2009b). The WTO plays a key role in the liberalization of national markets in the

neo-liberal world economy. McGinnis (2003) regards the WTO as an IO which aims to eliminate protectionist trade barriers of national states and to contribute to the welfare of the world's poor by providing a free trade environment. As a consequence of liberalized national markets, commodities meet consumers at low prices due to the environment of competition in open markets. Therefore, the WTO comprises the base for increasing wealth of societies and peace. According to McGinnis (2003), strict regulations threaten the WTO and provide benefits for protectionist "interests groups".

The de-regulationist approach of McGinnis is countered by the arguments of Peet (2003: 160-4), in that the WTO propagates the free trade as a policy receipt which enhances the welfare level of LDCs. Although the WTO focuses on economic growth rates as a result of free trade, it keeps silent on the impacts of the free trade policies on unemployment in the LDCs' societies. The democracy based on consumer's choice is a consumer's democracy which is devoid of democratic rights of laborers in LDCs. He further asserts that LDCs, either dependent to the export of raw materials and agricultural products or to the export of highly competitive industrial commodities, do not benefit from free trade as much as developed countries (DCs) do. This is due to the susceptibility of prices of primary products and due to the pressure on LDCs which try to attract FDI by lowering the labor standards. According to Peet (*ibid.*), the comparison of Taiwan and Mexico, the former having dominantly domestic capital investments, and the latter having significant amounts of FDI, demonstrates that increasing trade liberalization and FDI do not prove to sustain higher rates of economic growth when compared with domestic capital investment.

Parallel to the claims made by Peet (2003), Moellendorf (2005) argues that LDCs suffer from trade liberalization and have to be compensated for the damages

caused by trade liberalization policies to infant industries and vulnerable producers in domestic economies. Furthermore, the WTO shows tolerance to the protectionist trade policies and subsidies provided to domestic producers by DCs. McMichael (1998: 108) takes this one step further and argues that the WTO is “an enforcement mechanism of market rulers for globally dominant states and corporations”.

According to McMichael (1998), trade liberalization, where small farmers face the competition from large agro-food corporations, is only one side of the coin. The other side of the coin is the protection of intellectual property rights of generic agricultural products, which decrease the costs of production at a significant degree and renders small agricultural producers uncompetitive. The research and development of generic products can be conducted only by large agro-food corporations with sufficient capital and these innovations are protected under intellectual property rights up to twenty years by TRIPS agreement under the WTO. However, Phillips (2006) contests the “instrumentalist” approach towards the WTO by McMichael in that the WTO is rather a platform of political struggle. To do this she gives the example of the EU and Japan’s resistance to the U.S. agro-food industry. However, still we can argue that the WTO is a platform in which the DCs are contesting each other but the voice of LDCs is not heard in this process. This kind of a political struggle among the DCs does not promise a policy framework for the amelioration of the disadvantaged position of LDCs.

The EU is another organization, which is not international but regional and relevant to this research, because Turkey seeks EU membership and has begun implementing the conditions of integration. In the rural sphere Turkey is expected to apply the Common Agricultural Policy (CAP) in its agricultural policies. McMichael (2009a) indicates that the EU began to shift its agricultural support policy from price

support to direct-payment support which is decoupled from production. This decoupling process took place during the 2000s as a result of accommodation to the conditions in the Agreement on Agriculture of the WTO for trade liberalization in agriculture (Rieger 2005). While Potter and Tilzey (2007) consider the application of neoliberal policies prescribed by the WTO as a penalization of small-scale farmers in developing countries, Rieger (2005) asserts that the decoupling process in the CAP will lead to an economically more efficient rural policy which would prevent a trade-distorting agricultural structure. Thus, Turkey's attempt to join the EU and application of neoliberal policies in agriculture, which reduce production support and increase decoupled payments, are two interconnected processes.

McMichael (2008) argues that the policies advised by the IOs and applied by governments in the Global South were related with the dispossession of small-scale farmers by their integration into the corporate agro-food complex. Also, the role of IOs in the sweetener sector in Turkey cannot be ignored since the Sugar Law was enacted in line with the accommodation to the regulations of the IOs to liberalize Turkey's trade regime (Sugar Law 2001). These regulations encompass the reduction of agricultural subsidies provided by the state, and the portion of the beet-sugar in the sweetener market in the face of the rising quota of HFCSs, of which majority is being produced by Cargill.

A contrary view to the Food Regime perspective is that macroeconomic stability via adjustment policies will contribute to the rural development (Burrell and Kurzweil 2008). Hence the state intervention in agricultural sector should be reduced; commodity prices should be set free; and farmers should be let to choose production in which they consider comparative advantage. With the alleviation of state's trade distorting interventions government spending in agriculture would

decline and macroeconomic stability would be sustained. Also with the alleviation of state intervention in Turkey's rural development the political rent mechanisms, which guarantee political support from rural populations in return of government support, diminishes (Burrell and Kurzweil 2008). This perspective especially emphasizes the positive impacts of restructuring policies among the rural populations in "transition" economies.

As a TNC active in the agro-food industry, Cargill is involved in the HFCS production in Turkey. Therefore, the next empirical chapter will provide suggestive evidence either for the picture drawn by McMichael (1998) and Friedmann (1991) or for the perspective presented by Burrell and Kurzweil (2008) because the HFCSs emerge as foreign competitor to the domestic beet-sugar production in Turkey. The more HFCSs are consumed within the domestic markets the less beet-sugar is consumed, leading to the deterioration of the beet-sugar industry. As the share of beet-sugar declines in the sugar sector, small-scale producers, who used to produce sugar-beet, are given incentive by the regulation of the Ministry of Agriculture and the Ministry of Industry and Trade to produce export-crops such as soybeans, sunflowers and maize. The main interest of this research is whether small-scale producers, in the wake of neoliberal policies, shifted their production from beet production, especially in Afyon/Sandıklı, that has the inland climate inadequate to raise export crops, and what the consequences of this shift are if any.

Regulation Theory

Jessop (1990: 219-221) argues that a hegemonic state project as a form of capital accumulation (be it import substitution industrialization, or neo-liberal export-led growth) has to create consensus which will attract "certain particular

interests of subordinate social forces” (e.g. workers, farmers) to claim to be “national” while the hegemonic project (neo-liberal structural adjustment in the case of my research) is not an epiphenomenon of the economic structure since it has to take the interests of the subordinate groups into consideration. The state has to be formalized as an ensemble of political and economic regimes which include the dynamics of social institutions and social forces. Social institutions and forces might shape the accumulation regime while the state attempts to shape these institutions and forces (Jessop 2002: 3-6). Another contribution of this perspective is that we can conceptualize the regimes of accumulation before neo-liberal policies (Fordism) and with neo-liberal policies (Post-Fordism). The Fordist regime of capital accumulation places the national-popular consent into its center when it regulates economic and social redistribution mechanisms, considering wage as a source of national demand. However, under the Post-Fordist regime of accumulation, the wage is considered as a cost of production rather than a source of national demand. This change in the regime of accumulation is related with the increasing emphasis in “competitiveness”, and disrupts the compromise in the “industry-finance-labor relations” (Jessop 2002: 72, 105).

Regulation Theory is criticized by Myhre and McMichael (1991) because it only focuses on national regulation in application of neoliberal policies. Myhre and McMichael (1991) argue that Regulation Theory does not conceptualize the global regulatory mechanisms (IOs) which influence individual state’s policy choices. For them, the state’s agency in the post-Fordist regime of accumulation is that states are mere facilitators for the application of global regulation. However, Raynolds et al. (1993), from the same perspective of Food Regime as Myhre and McMichael (1991), argue that national states occupy the “pivotal agency” because they are the key actors

in implementing the global regulations. Their argument, which is different from the Regulation Theory and Myhre and McMichael (1991), is that they attribute equal importance to both, the state agency as means of national regulation, and IOs as means of global regulation. In this research, the perspective of Reynolds et al. (1993) is utilized in the analysis of IOs and the state. However, this necessitates the utilization of Food Regime and the Regulation Theory at the same time.

The implication of the Regulation Theory for this research is that the government declares other forms of support (the CP, the DP, and the DIS, mentioned in the previous section) in the framework of neo-liberal transformation in order to gain the consent of the rural population of 27.6 million people in the year 2000 as we witness the restriction of the sugar-beet production, the dismissal of subsidies, and the fall of prices of the sugar-beet. In this respect, the government of Turkey considers the interests of the agricultural producers while it attempts to liberalize the agricultural sector. Aydın (2005: 157-8) emphasizes the concern of the state apparatus in Turkey to consolidate its political legitimacy in the rural counterparts of Turkey because they constitute a significant portion of the society (39% of the total population in 2003). If we want to grasp the patterns of neoliberal policies and their results we have to turn our attention to other cases in different countries.

Case Studies on the Effects of Neo-liberal Transformation on Small-Scale Producers

Among the case studies which focus on the local implications of neo-liberal transformation in the world economy, Cook (2004) traces the trade route of papaya which is an important export-fruit in Jamaica and exported mainly to the EU and USA. Papaya emerged in the 1980s as a fruit which is thought to cover the foreign debts of Jamaica since sugar and banana production in Jamaica lost its

competitiveness in foreign markets. Echanove and Steffen (2005) argue that the contractual agreements between the TNCs and local small export-crop producers (grains, vegetables and fruits) in Mexico are at the disadvantage of producers because the neo-liberal policies undercut the state support and subsidies to local producers. When the conditions in the international trade in export-crops becomes tougher, TNCs externalize the costs in their contracts with the farmers by implementing harder conditions for producers (e.g. giving less financial support, hardening production standards). Without state support, local producers continue to work through the contracts with the TNCs for small producers alone lack sufficient materials and finance for production.

Bryceson (2002) focuses on the market liberalization policy's effects on the rural communities in sub-Saharan African countries (e.g. Ethiopia, Sudan, Zimbabwe) and concludes that these policies resulted in depeasantization of the rural regions from which individuals migrate with hopes of obtaining livelihood in urban areas. Biles et al. (2007) concentrate on the food-retailing TNCs' effects on small-scale agricultural producers in Yucatan, Mexico. They find that the networks established at local, national, and international levels encompass various actors, such as government officials, local officials, intermediaries, TNCs and local producers. The consequence of this network establishment is that the small-scale agricultural producers cannot find adequate markets due to the preference by retailing TNCs in favor of large-scale producers. This process leads to deterioration of the small-scale farmers in the rural regions.

Another case study is on the neoliberal transformation in rural Egypt during the 1990s. The IMF program in Egypt started in 1991 which required liberalization in agricultural policies, such as reduction in input subsidies and price support by the

state. Also the Law 96 was legislated in 1991 and put into effect in 1996 and changed the nature of land tenure (Bush 2002a). Bush emphasizes that this new law was supported from USAID (a major US foreign aiding agency) and the IMF. Bush (2002b) analyzes the effects of these policy changes in his research in two different villages. The effects of these two simultaneous acts were that a significant portion of the small-scale tenant farmers could not continue with agricultural production because of rising land rents. Even if small-scale tenants shifted their production from traditional to nontraditional crops, which were induced by the government as an impact of IMF program and were deemed to be competitive by USAID, they were not better off than before. Only large landowners could benefit from the changing land tenure and promotion in the production of nontraditional crops.

Contrary to the case studies on the negative impacts of liberalization in agriculture on developing countries' rural spheres, Ciaian and Swinnen (2008) analyze the agricultural supports in the new 10 EU-member states (EU-10) after 2004 in Central and Eastern Europe (the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, The Slovak Republic, Slovenia, Bulgaria, and Romania) and find out that state supported agricultural production was inefficient to increase the welfare of the rural populations in the region from the 1990s onwards. Although they applied liberal policies in the 1990s after the fall of communist regimes, they did not totally eliminate subsidies and support prices in agricultural production. The authors argue that the further liberalization of the agricultural sector in the region in line with the WTO regulations would enhance the efficiency of production, which would benefit the farmers, because, without the state support, producers would prefer to produce staples which have comparative advantage and therefore more profitable. They further suggest that this liberalization would be consistent with the recent EU

reforms of agricultural sector in the 2000s in line with the WTO regulations as Rieger (2005) stressed the decoupling in the agricultural supports in the EU.

This research attempts to discover if these case studies are similar to the beet case in Turkey. In some of the case studies the trade liberalization corresponds to the worsening of the conditions of the small-scale producers in LDCs because these producers cannot cope with the conditions brought by the TNCs and international organizations. Neoliberal policies may have influenced small-scale beet producers in Turkey as small-scale farmers in Mexico and sub-Saharan Africa. The subject of this research is to find out whether beet producers are better or worse off after the application of neoliberal policies. As in the case of Mexico, small-scale farmers in Turkey have started to produce nontraditional crops. Besides the similarities between Turkey and Mexico in the neo-liberal transformation of agriculture, these two countries are quite similar in macro-economic accounts. First, both have similar levels of per capita (PPP) GDP ranks in 2005, 2006 and 2007 (around US\$ 11.000, US\$ 12.000, and US\$ 13.000, respectively), while these figures are very close between Mexico and Turkey during 1990s and 2000s (IMF, 2008, World Economic Outlook Database). Second, Turkey and Mexico are countries which have highest economic inequality after the USA among thirty OECD countries; Mexico ranks second, and Turkey ranks third (OECD, 2008). In the light of these macro-economic figures, Mexico and Turkey are both developing countries. Also like Jamaica and sub-Saharan Africa, the rural sphere in Turkey has been transformed in line with the neo-liberal restructuring in agricultural sector. As was the case in Mexico, this research aims to inquire whether the neo-liberal transformation in agriculture is influencing the type of production and the economic outlook of small-scale farmers. Finally, as in the case study on the neoliberal transformation in Egypt's rural sphere,

the transformation in Turkey are influenced by IOs and applied via national regulatory mechanisms (Law 96 in Egypt and Sugar Law in Turkey). Here, too, the impacts of these national regulations on small-scale beet producers are the main research subject. However, as a country attempting to join the EU, Turkey might also be similar to Central and Eastern European countries that joined the EU after 2004 in that old forms of state support (e.g. price supports, and input subsidies) prevented the efficient agricultural production

1.3. Discussion

Low beet prices, rising input prices, and incentives given to the production of the “competitive” alternative products depicts the shift from a Fordist regime of accumulation in agricultural production, in which state-intervention and support is substantial, to a neoliberal regime of accumulation in agricultural economy, in which the market mechanisms are dominant. The enactment of the Sugar Law has been in line with the regulations of the WTO, the IMF and the World Bank as indicated by the Law (Sugar Law 2001). The increasing HFCS quota in the sugar sector of Turkey has caused a decline in the share of the beet-sugar and therefore in the production of beet. While beet producers are influenced from this neoliberal transformation, Cargill and Amylimum -as agro-food TNCs- increased their HFCS production capacity. Food Regime (McMichael 2008) assumes that TNCs extend their productive capacities and benefit from the neoliberal regulations, induced by IOs. Therefore, the main focus of this research is to explicate to what extent and how sugar-beet producers are influenced by the neoliberal transformation as Cargill and Amylimum as agro-food TNCs benefit from this process.

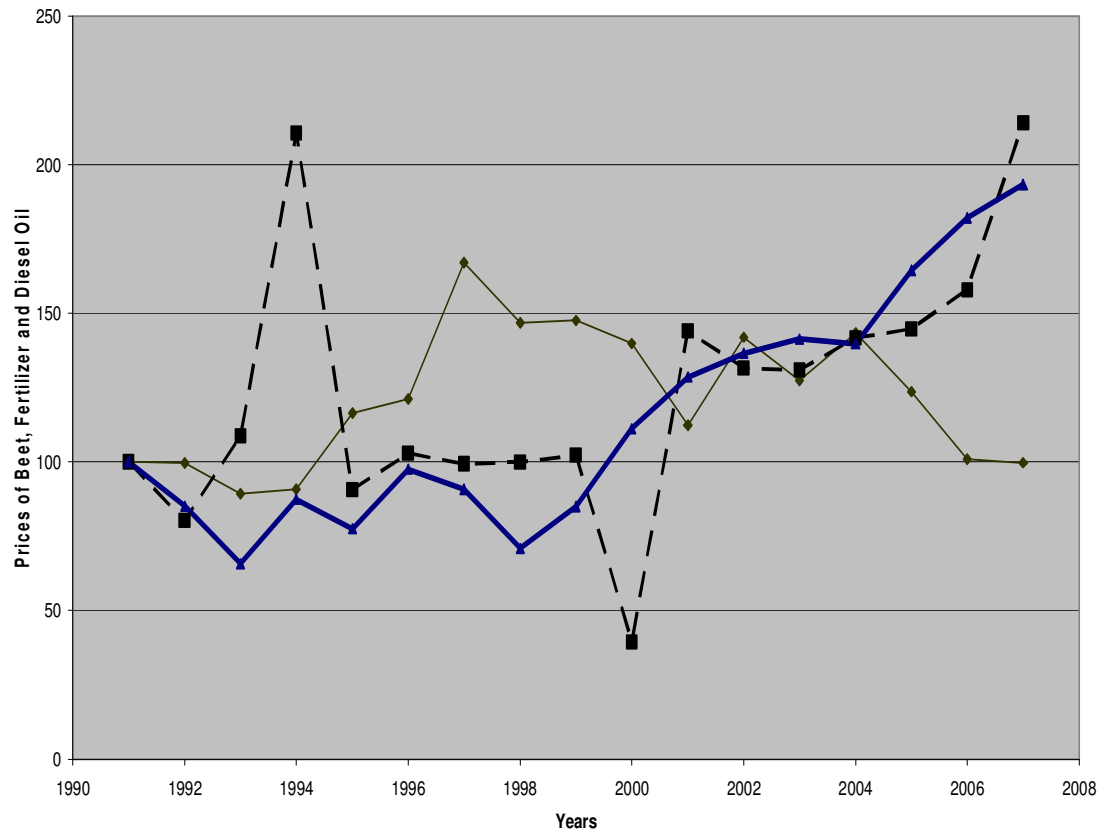
Push and pull factors for sugar-beet producers to withdraw from sugar-beet production are factors which are created by national regulations, induced by IOs, to gain consent and provide the shift in the rural sphere from a state-supported agricultural economy to a market-dominated agricultural economy. Regulation Theory (Jessop 1990, 2002) asserts that the state has to regard the interests of the social forces in implementing strategies geared to change the regime of accumulation. In this research, the shift from a state-supported regime of accumulation to a neoliberal one will be explained through Regulation Theory. Phasing out price supports and input subsidies, and implementing DIS, DP, and CP are strategies which aim to free the government from spending in agricultural subsidies and to create consent on the side of agricultural producers at the same time. Furthermore, the government did not implement any of the court decisions against Cargill and the increase in HFCS production quotas. We can witness here again the agency of the state in implementing the neo-liberal of accumulation although the local social dynamics (such as Şeker-Iş, several civil society organizations in Bursa) show resistance to these policies. Also, the involvement of the IOs (IMF, WTO, and World Bank) in these policies fits to the analysis of Food Regime in that the World Bank as an IO participates in the liberalization of the agriculture in Turkey. In other words, while the application of Food Regime is to explain the connections between global regulation and national regulation, the application of Regulation Theory is to explicate the strategies employed by the government.

The results of this research may be compatible with the arguments made by Yenil and Yenil (1993) on the transforming agricultural sector in Turkey since the 1980s. We can witness the increase in the capacity of TNCs in the sweetener production sector, as Islamoğlu et al. (2008) show how Cargill benefits from the

increase in the production of maize. Also the results may be overlapping with Bryceson (2002) on depeseantization in Africa, and Biles et al. (2007) on the disadvantaged small-scale farmers within the corporate retailing system. Cook (2004) gives information how Jamaica became a major export-crops producing country, as this research might find out that beet producers shift their production to alternative crops. If the results of this research indicate that the phase-out of state support in agriculture did not benefit small-scale beet farmers, like it did not favor small-scale peasants in Mexico (Echanove and Steffen 2005), then it will be possible to verify the impact of the state on the impoverishment of small-scale farmers in Turkey through neoliberal policies, like it was in rural Egypt (Bush 2002a, 2002b). However, it is also possible that the application of neoliberal policies increased the socioeconomic conditions of beet producers or farmers who shifted to alternative products, like Burrell and Kurzweil (2008) suggested in their analysis on the negative impacts of state-intervention in rural development.

The process of neoliberal transformation in the sweetener sector includes various factors as depicted above. These factors include international organizations' (IOs) regulations, national government's regulations and TNCs' investments which affect the level of economic development of sugar-beet producers. Thereby, the aim of this research is to shed light on the effects of the neoliberal transformation on the beet producing farmers. In order to do this, the following two chapters focus on the impacts of neoliberal policies at the national and local level in beet production and provide evidence to Food Regime perspective, or the liberal perspective proposed by Burrell and Kurzweil (2008).

Figure 1.1. Prices of Beet, Fertilizer, and Diesel Oil (TL) from 1991 to 2007 in Turkey (1991=100)



Notes: Thin Line=Beet Prices; Broken Lines= Fertilizer Prices; Thick Line=Diesel Oil Prices
Sources: Turkstat; Aysu (2002: 155); Selçuklu Chamber of Agriculture

Table 1.1. Agricultural Support Payments between 1999 and 2007 in Turkey

Tablo IV.2- Tarımsal Destek Ödemeleri
(cari fiyatlara, milyon dolar)

Table IV.2- Agricultural Support Payments
(at current prices, in millions of dollars)

	1999	2000	2001	2002	2003	2004	2005	2006	2007 (*)	
DGD Ödemeleri ve Alan Bazlı Tarımsal Destekleme Ödemeleri (**)	0	0	0	1.248	1.692	1.743	1.754	1.856	1.863	DIS Payments and Other Area Based Agricultural Supports (**)
Prım Ödemeleri	235	313	275	133	180	207	464	759	960	Premium Payments
Hububat Prımı Ödemeleri	0	0	0	0	0	0	153	84	329	Cereal Premium Payments
Çay Prım ve Budama Desteği	0	0	21	27	26	49	84	99	109	Tea Premium and Trimming Support
Hayvancılık Ödemeleri	2	18	40	50	84	147	257	462	537	Livestock Payments
Tarım Reformu Uygulama Projesi	0	0	0	56	34	22	22	10	27	ARIP
Tarım Ürünleri Sigortası	0	0	0	0	0	0	0	1	38	Agricultural Insurance
Kırsal Kalkınma Amaçlı Tarımsal Destekler	0	0	0	0	0	0	0	0	68	Rural Development Supports
Gübre Girdi Desteği	292	192	99	0	0	0	0	0	0	Fertilizer Input Support
Diğer (***)	0	0	0	0	0	0	31	49	283	Other (***)
Toplam	529	523	435	1.513	2.016	2.168	2.764	3.321	4.215	Total
Toplamı/Cari GSMH, yüzde	0,28	0,26	0,30	0,83	0,85	0,72	0,76	0,82	0,86	Total/GNP, percent

Kaynak: DPT

Source: SPO

* tahmin

* estimate

** alan bazlı mazot ve gübre desteklemeleri dahildir.

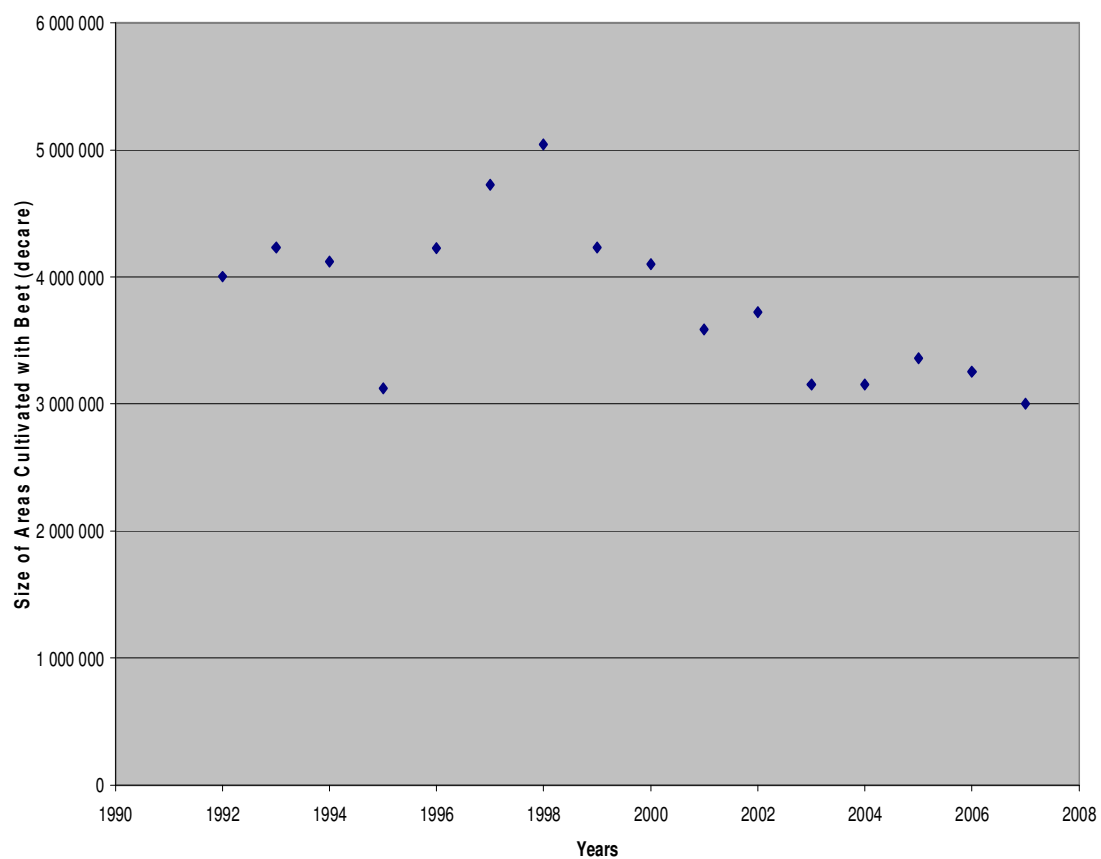
** includes area based fertilizer and diesel support

*** 2007 yılında 300 milyon YTL kuraklık desteği vardır.

*** includes a 300 billions TRY drought support

Source: Main Agricultural Indicators, SPO 2008

Figure 1.2. Size of Areas Cultivated with Beet between 1992 and 2007 in Turkey



Source: Turkstat

Chapter 2

Sugar Beet Production at the National Level in Turkey

Introduction

In the previous chapter I discussed the relations between the IOs and Turkey in the agricultural sector. In this chapter I look for an answer to the question if neoliberal policies influenced the beet production at the national level in Turkey, and how they did. And in the following chapter I will discuss the local impacts of these policies on farmers in Afyon/Sandıklı. This topic is theoretically important because we have the opportunity to analyze which dynamics are influential in economic neoliberalization of agriculture. It is politically important because it has impacts on rural population in Turkey during the 2000s.

This chapter aims to explain the influence of the developments on the beet production at the national level. To do this, I ask one broad question: *what are the implications of neo-liberal policies on the sugar sector at the national level between 1992 and 2008 in Turkey?* Under this broad question, there are two sub-questions:

2.a) *What is the relationship between the size of the area sown with sugar beet and the number of sugar-beet producers between 1998 and 2007 in Turkey?*

2.b) *What is the relationship between the neo-liberal policies and the size of the area sown with sugar beet between 1992 and 2008 in Turkey?*

The hypothesis 1 (H1) for the first sub-question (2.a) is as follows: *“the number of sugar-beet producers is related positively with the size of the areas sown with sugar beet between 1998 and 2007”*. The H2 for the second sub-question (2.b) is that *“the decline in the price of the sugar beet and the rise in the price of inputs, as proxies of neo-liberal policies, are related negatively to the cumulative size of*

area sown with sugar beet in Turkey between 1992 and 2008". Below I will discuss the theoretical framework underpinning these hypotheses.

Firstly, I discuss the theoretical framework underpinning potential explanations in this chapter. Secondly, I will discuss the data and methods to be utilized. Next, I present the results of the statistical tests. Finally, the discussion part evaluates the results along with the previously presented historical evidence and makes a transition to the next chapter on the local analysis.

2.1. Theoretical Framework

One of the push factors for farmers to retreat from the beet production might be that the price of beet were kept low by the government in the face of rising agricultural input prices due to the suspension of the agricultural subsidies during the 2000s (See Figure 1.1.).²⁵ The result of these policies may have been that more and more farmers have started to withdraw from beet cultivation. Also, low beet prices, rising input prices, and incentives given to the production of the "competitive" alternative products may depict the shift from a Fordist regime of accumulation in agricultural production to a neo-liberal regime (Post-Fordist) of accumulation. In the former state-intervention and support is substantial in agricultural economy, as in the latter market mechanisms are dominant (Jessop 2002: 105).

Conceptualization of "neo-liberalism"

As discussed in the previous chapter, the approach to neoliberalism developed by Tilzey (2006) argues that neoliberalism is a conglomeration of multiple projects. These projects are locally bounded to varying state-society and capital-class

²⁵ For the decline in the input subsidies of fertilizer, see Table 1.1.

configurations. The advantage of this model is that it has the capacity to explain the agency of the national political/legal authority and of the national/local class configuration. Employing a strict structuralist perspective, which construes the IOs and the TNCs as active agents in the globalization, would neglect the role of the local/national policies and social groups.

Food Regime Perspective

The Food Regime perspective argues that rural production is integrated into the global production and consumption networks where TNCs have great benefits (McMichael 2000, 2008). Food Regime is related to my research because the reforms from the 1990s on in Turkey under the scrutiny of the WTO, the IMF and EU aim the phase-out of input subsidies and support prices, and reduction in over-produced crops (beet in this case) while the space of agro-food TNCs' operations (e.g. contractual agreements between farmers and TNCs, retailing sector of agricultural products) expand (Aydın 2005: 158-163). Thus, as IOs (i.e. the World Bank and the IMF) promote neoliberalization in agricultural sector through structural adjustment loans, the state is a pivotal agent in the implementation of these policies at the local level (Raynolds et al. 1993).

Turkey's contacts with TNCs and IOs in the 1980's in the agricultural sector instigated the liberalization of agricultural sector and the privatization plans of SEEs (Yenal and Yenal 1993). During this period, agricultural producers worked under contract with agro-food TNCs, especially in the alternative crop production (such as sunflower and maize). Aydın (2008) indicates that contract farming of sunflowers, and of sweet corn for Cargill in provinces such as Konya and Orhangazi (Bursa) have continued throughout the 2000s.

As a competing perspective to Food Regime, Burrell and Kurzweil (2008) argue that the liberalization in Turkey's agricultural sector and the decline of the state intervention will pave the way for the economic development in the rural spheres of Turkey. Thus, this work is suggestive of a rival hypothesis: *the decline in the price of beet and the rise in the price of input, as proxies of neo-liberal policies, are related positively with the beet production in Turkey at the national level during the 2000s.* Because their perspective is related with the developments at the macroeconomic level, such as the negative impacts of state support in agriculture on the state budget, we have to include macroeconomic indicators (GNI per capita (PPP) in my case) in our analyses. Consequently, they would potentially suggest that with neo-liberal policies in beet production would lead to economic efficiency and increase the beet production in Turkey throughout the 2000s. Below, I conduct statistical tests in order to find which perspective is supported by the evidence I present.

2.2. Research Questions and Hypotheses

The second research question in my thesis is as follows: *what are the implications of neo-liberal policies on the sugar sector at the national level between 1992 and 2008 in Turkey?* Under this broad question, there are two sub-questions:

2.a) *What is the relationship between the size of the area sown with sugar beet and the number of sugar-beet producers between 1998 and 2007 in Turkey?*

2.b) *What is the relationship between the neo-liberal policies and the size of the area sown with sugar beet between 1992 and 2008 in Turkey?*

The hypothesis 1 (H1) for the first sub-question (2.a) is that *the number of sugar-beet producers is related positively with the size of the areas sown with sugar beet between 1998 and 2007*. The time space is between 1998 and 2007 because I was not able to find data on years previous to 1998 at the regional level. The importance of this test derives from the hypothesis 2 (H2) for the research question 2.b (see below) as that hypothesis intends to point out the reasons of the decline in the area sown with the beet. The test of H1 for the research question 2.a aims to explain that the decline in the size of the area sown with the beet is related with the retreat of agricultural producers from the beet production. Thus, if the hypothesis is true, I will be able to argue that the reasons for the change in the cumulative size of area sown are also related with the change in the number of beet producers. Otherwise, according to H2, one might argue that the change in size of area sown with beet might not present evidence for the change in the number of producers because I am not able to present data on the number of producers earlier than 1998 due to the lack of data.

The H2 for the second sub-question (2.b) is: *the decline in the price of the sugar beet and the rise in the price of inputs, as proxies of neo-liberal policies, are related negatively to the cumulative size of area sown with sugar beet in Turkey between 1992 and 2008*. The reason I conduct the test of H2 between 1992 and 2008 is the lack of information for previous years. By testing this hypothesis I may reach some implications on the extent of neoliberal policies' role at the beet production at the national level.

2.3. Data and Methods

Data

The data set for the test of H1 (*the number of sugar-beet producers is related positively with the size of the areas sown with sugar beet between 1998 and 2007*) consists of quantitative indicators of the size of area sown with beet (in decare) and the number of beet producers in twenty-five provinces of beet production between 1997 and 2007. Annual provincial numbers of beet producers and annual provincial sizes of the area sown with beet are present in the web-site of Türkiye Şeker Fabrikaları A.Ş. (TŞFAŞ).²⁶ Because the annual change in percentage will be utilized in the test of H1 the year 1997 will not be included and the cases will start with the year 1998. Therefore this data set includes 247 cases.²⁷ Also the same data set is utilized for the descriptive analysis of the comparison of beet production in 1998-2002 and 2003-2007 periods.

The data set for the test of H2 (*the decline in the price of the sugar beet and the rise in the price of inputs, as proxies of neo-liberal policies, are related negatively to the cumulative size of area sown with sugar beet in Turkey between 1992 and 2008*) includes of the size of the area sown with beet, beet prices, fertilizer prices and diesel oil prices, all at the national level, GNI per capita (PPP), and the official development assistance and official aid total between 1992 and 2007. In the test of H2 will be based on the size of area, beet price, fertilizer price, diesel oil price, GNI per capita (PPP), and the official development assistance and official aid. Thereby, the data set will start with the year 1992 and it will include 17 cases (years). The

²⁶ <http://www.turkseker.gov.tr> accessed on December 22, 2008.

²⁷ Normally the number of cases should be 10 years x 25 regions = 250 cases. But 2006 data for the regions Ilgin, Eregli and Bor are missing; therefore the number of the cases available is 247.

annual sizes of the area sown (decare) between 1992 and 2008 at the national level is available in the Agriculture section at the web-site of the Turkstat.²⁸

The prices of fertilizer and diesel oil, as an indicator of energy, have been utilized as variables in calculating the productivity of beet producers previously (Akçay and Uzunoğlu 2006). Aysu (2002) emphasizes the comparison of the change in beet prices to the change in input prices in his descriptive statistical analyses. The data on the annual beet prices were available on the same web-site only for the years between 1994 and 2006. Thus, I have acquired the data on beet prices for the years 1991 and 1993 from the quantitative indicators presented by Aysu (2002: 158). When both sources for beet price are compared there are some very small differences in terms of quantitative indicators. Also I have obtained the indicators on the yearly yield of beet production in kilograms in one decare at the national level between 1991 and 2006 from Turkstat.

The data on annual fertilizer prices between 1991 and 2003 has been acquired from the web-site of the Ministry of Agriculture of Turkey.²⁹ The data on the annual fertilizer prices between the years 2004 and 2007 are complemented with the data from the web-site of Selçuklu Chamber of Agriculture.³⁰ For the calculation of the fertilizer price the following two types of fertilizers are taken cumulatively into consideration: DAP and URE. DAP is an azo type of fertilizer and URE is a phosphor type of fertilizer. Both types of fertilizers are used in beet cultivation, according to the information provided by Pankobirlik.³¹ I have taken DAP among

²⁸ Available at <http://www.turkstat.gov.tr> (accessed on February 25, 2009). It was not possible to use the data set at the web-site of TŞFAŞ because it does not include the years earlier than 1997.

²⁹ Available at www.tarim.gov.tr/uretim/istatistikler/girdi/girdifiyati/gubre/gubre_fiyat.htm (accessed on February 25, 2009). The fertilizer price for the year 2000 was missing; therefore the figures in Aysu (2002: 158) are utilized for the year 2000. His data is taken from the archives of the Union of Agricultural Chambers of Turkey.

³⁰ Available at www.selcukluziraatodasi.org/arastirma/mazotgubrebugday.html (accessed on February 25, 2009).

³¹ www.pankobirlik.com.tr

other azo type of fertilizers because farmers I have interviewed often referenced this type of fertilizer when they were complaining about the increasing fertilizer prices. And I have chosen URE as a phosphor type of fertilizer because only the yearly prices of this type of phosphor fertilizer were available in the sources I was able to reach. I have taken the information on how many kilograms of fertilizer should be used in one decare of beet cultivation from the website of Pankobirlik.

As for the data on annual diesel oil prices, the data between the years 2000 and 2006 is taken from the web site of the Presidency of the Strategy Development of the Ministry of Agriculture of Turkey.³² The data for the diesel oil price on 2007 was available at the same web-site of Selcuklu Chamber of Agriculture. When both sources are compared, the annual prices of diesel oil between 2002 and 2006 are the same.³³ The missing data for the annual change in the price of diesel oil between 1991 and 1999 was taken from the quantitative indicators presented by Aysu (2002: 158).³⁴ I have taken the information on how many liters of diesel oil is approximately used in beet cultivation in one decare from the study report on diesel oil usage and diesel oil subsidies in Turkey (Dellal et al. 2007).

The data for the GNI per capita (PPP), and the official development assistance and official aid are available in the World Development Indicators.³⁵

Dependent Variables

The dependent variable in H1 (*the decline in the number of sugar-beet producers is related positively with the decline in the size of the areas sown with*

³² Available at sgb.tarim.gov.tr/Tarim_Politikalari/tarimsal_veri_kitabi/traktor_mazot_fiyatlari.htm (accessed on February 25, 2009)

³³ Selcuklu Chamber of Agriculture presents data between 2002 and 2008; available at <http://www.selcukluziraatodasi.org/bugdaygubremazot.html>. Accessed on March 12, 2009.

³⁴ The data on diesel oil prices between 1991 and 1999 might be considered as a problem because the data is from a different source as we do not have the chance to compare with another source. However, as long as there is no other data available this is the best data to utilize.

³⁵ Available at www.worldbank.org/data. Accessed on April 15, 2009.

sugar beet between 1998 and 2007) is measured as the annual percentage change in the size of the area sown with beet (ASAW) in all 25 regions between 1998 and 2007. The dependent variable in H2 (*the decline in the price of the sugar beet and the rise in the price of inputs, as examples of neo-liberal policies, are related positively to the decline in the cumulative size of area sown with sugar beet in Turkey between 1992 and 2008*) is measured as the natural logarithm (LN) of the size of the area sown with beet at the national level between 1992 and 2008.³⁶

Independent Variables

The independent variable in H1 is measured as the annual percentage change in the number of beet producers in all 25 regions between 1998 and 2007.

The first independent variable in H2 is operationalized through one indicator: Product-Input Price Index (PIPI). The PIPI is calculated according to the following formula:³⁷

$$\text{PIPI} = \frac{(\text{Annual Beet Price} \times \text{Annual Yield of beet in kg in one decare})}{(\text{Annual Fertilizer Price} \times 10) + (\text{Annual Diesel Oil Price} \times 12.18)}$$

In the tests, PIPI will be utilized instead of testing the effects of the prices separately because the relativity of the beet price to fertilizer and diesel oil prices have been strongly emphasized by interviewed farmers, not the separate prices of them (see Section 3.b. in Chapter 3). Reforms during the 2000s aimed the phase-out

³⁶ The size of the land has been calculated through LN instead of taking the natural land measures in decare in order to reduce the skewness in the distribution of the land according to years between 1992 and 2007.

³⁷ All indicators are at the national level.

of price supports in beet and their replacement with free market prices. Moreover, input subsidies (for fertilizer) may have declined due to the same reforms. National government and IOs giving incentive to these policies expected that farmers stop over-producing beet, and shift to alternative products (see Historical Background in Chapter 1). Therefore, the PIPI variable stands as a proxy of neoliberal policies in beet production, and measures the lucrativeness of beet production for farmers.

In calculating the prices of beet, fertilizer and diesel oil the year prices in 1991 are taken as the base by calculating back the inflation rates (as the GDP being the deflator according to the World Development Indicator statistics) in Turkey.³⁸ The annual beet price has been multiplied with annual yield in kilograms in one decare. The fertilizer price per kilogram is multiplied with 10 because, according to the information available at the website of Pankobirlik, both azo type and phosphor type of fertilizers should be used in 10 kilograms in one decare separately in beet production. Finally, I have multiplied diesel oil price per liter with 12.18 because, according to the information available in the study report by Dellal et al. (2007), the approximate usage of diesel oil in one decare in beet production is 12.18 liters.

I will examine the relationship between the PIPI (from 1992 and to 2008) and the LN of the size of the area sown with beet at the national level (from 1991 to 2007). The reason of comparing different time periods (1991-2007 and 1992-2008) for these two variables is the *lag effect of prices* on the farmer's choice of production. For instance, the prices of the year 1992 are influential in the preference

³⁸ The calculation is as follows: If we assume that the inflation rates in 1992, 1993 and 1994 have been 40% and 60% and 55% respectively and the prices of beet in these years have been "x", "y" and "z" respectively then;

The price of beet in 1992 according to 1991 = $x / (1.4)$;

The price of beet in 1993 according to 1991 = $y / (1.4 * 1.6)$ and;

The price of beet in 1994 according to 1991 = $z / (1.4 * 1.6 * 1.55)$

I have applied this calculation to the consecutive years. The inflation rates are available at <http://www.worldbank.org/data>, accessed on March 10, 2009 (see Table A2.7. in the Appendix)

of the farmer what to produce in 1993. Therefore, the change in prices in 1992 will be compared with the change in the size of the area sown in 1993.

The second independent variable in H2 is the LN of the annual official development assistance and official aid that Turkey received from IOs. This variable stands as a proxy of global regulations because as Food Regime suggests (Raynolds et al. 1993) that IOs give financial credits and aid with the condition of liberalizing agricultural economies by borrowing countries. Thus, I test the relationship between the LN of the annual official development assistance and official aid, the PIPI, and the LN of the annual size of the area sown with beet at the national level.

The third independent variable in H2 is the LN of annual GNI per capita (PPP) (from 1991 to 2007).³⁹ I have taken the data from the World Development Indicators.⁴⁰ This variable stands for another proxy for neoliberal policies besides PIPI. Remembering that one should take macro-level indicators into consideration in the analysis of socioeconomic development (Burrell and Kurzweil 2008), this variable improves the explanation brought by the test of H2 because it may reflect the effects of macroeconomic development in beet production. In other words, by including this variable we have the chance to see how macroeconomic development is related with beet production.

Statistical Analyses

To test H1, first, I will compare a time space of five years (the period for sale of the harvest) from 1998 until 2002, with another time space of five years from 2003 until 2007. The means of twenty two regions in the annual change of size of sown

³⁹ I have used LN form instead of the natural measure (\$) in order to reduce the skewness, as it was in the case of area sown with beet at the national level (See Footnote 12). The same *lag effect* is also valid for this IV.

⁴⁰ Available at <http://www.worldbank.org/data>, accessed on May 1, 2009.

area (beet) according to two five-year periods will be compared to depict the picture of change before and after the implementation of Sugar Law and the phase-out of beet price supports in 2003.⁴¹ Also a paired sample t-test will be conducted in order to measure the significance of the comparison of means. We have to be cautious in interpreting the test results because the means of the ASAW will be different than the total mean change in these periods. The reason for looking for annual change than the total change in these periods is that it reflects of a clearer picture of the trend of the change in the size of area sown (Babbie 2004: 405).

In the second step of the analysis, I present correlations between the annual percentage change in the numbers of the producers (the IV) and the ASAW (the DV) between 1998 and 2007 in every region in order to show the association between these variables.

In the test of the H2, first, I conduct a simple regression model between the PIPI (DV) and the LN of the annual official development assistance and official aid (IV) in order to see to what degree global regulations are related with national regulations. Then, I conduct a multiple regression models which include the PIPI, the LN of GNI per capita (PPP), the LN of the annual official development assistance and official aid, and the LN of the area sown with beet at the national level between 1992 and 2008. The reason to include the LN of the annual official development assistance and official aid in this multiple regression model, although it was in the simple regression model above, is to see if this variable is related with the PIPI and the LN of the annual size of the area sown with beet, or just with PIPI. In other words, we control if PIPI is an intervening variable between the the LN of the annual official development assistance and official aid, and the LN of the size of the area sown with

⁴¹ Three regions (Eregli, Bor, and Ilgin) will not be included in the test because the data for these regions are available only for 9 years.

beet. Moreover, I conduct correlation tests between three variables to see the extent of the relationship between the IVs and the DV.

The indicator of beet prices requires an explanation for the sake of a clearer understanding by the reader. Under free market mechanisms, the expected result of increasing producers and supply would be the decline in the price of that particular product.⁴² However, because beet prices are determined by the state-owned sugar factories, this relation between supply and price in liberal markets does not exist. Instead, a reverse relation is present: lower beet prices may constitute a disincentive for producers to continue beet production and this may lead to the decline in the cumulative area sown with beet. Furthermore, the prices of agricultural inputs have risen during the 2000s because the government cut its subsidies.

2.4. Results

The ASAW between 2003 and 2007 declined approximately 8% and between 1998 and 2002, it declined approximately 4% (see Tables 2.1). The 4% difference between these two five year periods suggests that a more severe decline in the size of the area sown has been experienced in the period between 2003 and 2007 than the prior five year period. This decline is marginally insignificant in the two-tailed test (0.058) (See Table 2.2.). However, if we consider that the significance level is at .1 in a one-tailed test, consistent with my hypothesis, this test can be considered significant (0.029). Also the 2003-2007 is the period of the application of neo-liberal policies in the sugar-beet production. This suggests that the beet production experienced a severer decline in the 2003-2007 period, than in the 1998-2002 period.

⁴² Or, in the reverse case, as supply levels are low prices tend to increase.

Table 2.1. The Comparison of Means of the Annual % Change in Area Sown in 22 Regions between 1998-2002 and 2003-2007 in Turkey

	The annual Change in Area Sown in 22 Regions between 1998 and 2002	The annual Change in Area Sown in 22 Regions between 2003 and 2007
Mean	-0.036	-0.079
SD	(0.20)	(0.12)
Number of Cases	110	110
Note: The standard deviation is in parentheses.		
Source: TŞFAŞ		

Table 2.2. Paired Samples T-Test of the Means of the Annual % Change in Area Sown with Beet in 22 Regions between 1998-2002 and 2003-2007 in Turkey

Mean of the annual Change in Area Sown in 22 Regions between 1998 and 2002	t	Df	p (two-tailed)
0.043 (0.24)	1.915	109	0.058
Note: The standard deviation is in parentheses.			
Source: TŞFAŞ			

It is important to note that the region of Afyon (which is my case study for the local implications of neo-liberal policies, and to be examined in greater detail in the Chapter 3) has approximate annual percentage changes in the area sown. While its mean between 1998 and 2002 in this region is -7%, its mean between 2003 and 2007 is -6%. In this case Afyon does not appear to be a deviant case which goes against the argument that the decline of 2003-2007 is greater than 1998-2002.⁴³ However it is important to indicate that the year 1998 had the highest rate of beet production at the national level. Then we witness a decline of production back to the levels of production in early 1990s (see Figure 1.3.). Thereby we can argue that beet production in Afyon declined to the levels of production in early 1990s, but it

⁴³ However, if the producers in Afyon experience a continuous trend of decline at approximate levels in 1998-2002 and 2003-2007 periods, we can hypothetically argue that the findings of the field research in Afyon/Sandıklı (see Chapter 3) would depict a more positive picture in terms of beet production than other regions because other regions experienced severer decline in beet production in 2003-2007 period as reflected in Table 2.1.

continued to decline further after 2002 due to the phase-out of price supports and increasing input prices.

The correlation between the ASAW and the annual percentage change in the number of beet producers in twenty five regions between 1998 and 2007 is positive and high (0.618), and is statistically significant (see Table 2.3.). Even when the regions of Alpullu and Eregli are filtered, due to their seemingly outlier position, the correlation is still positive, high (0.453) and statistically significant (see Table A2.1. in the Appendix). When we look at the standard deviation of the cases (see Table A2.2. in the Appendix) and years (see Table A2.3. in the Appendix), we can see a considerable amount of variation among means of the cases. Hence we can argue that the percentage change in the number of beet producers and the ASAW are strongly related. This argument will help us to interpret the results in the test of H2.

Table 2.3. Pearson Correlations between the ASAW and the Annual Percentage Change in the Number of Beet Producers in Twenty Five Regions between 1998 and 2007 in Turkey

Pearson Correlation	Annual Percentage Change in the Number of Producers
ASAW	0.618***

Notes: *p<.05, **p<.01, ***p<.001, two-tailed
Source: TŞFAŞ

In the Model 1 test of H2 (See Table 2.4.), the relationship between the LN of the official development assistance and official aid, and PIPI is negative and significant at the p<.001 level (.006). With every 1 LN unit increase in the LN of the Official Development Assistance and Official Aid, PIPI decreases by 3 units. This result indicates that the profit margin of beet declines as the financial sources from IOs to Turkey increase. Because financial flows from IOs require the application of IOs' regulations, we can argue that these regulations influence the profit margin of beet production negatively.

Table 2.4. Coefficients from the Simple Regression of PIPI on the LN of the Official Development Assistance and Official Aid between 1992 and 2008 in Turkey

	Model 1
LN of the Official Development Assistance and Official Aid	-2.89** (.903)
Constant	73.061
R Square	.407
N	17

Notes: (1)*p<.05, **p<.01, ***p<.001, two-tailed

(2) Standard Errors are in parentheses.

Sources: Turkstat, Aysu (2002: 158), Ministry of Agriculture, Selçuklu Chamber of Agriculture, World Development Indicators

For the test of H2, I run in Model 2 a simple regression test between PIPI and the LN of the annual size of the area sown with beet. The relation between them is positive and significant at the $p<.005$ level (.017). With every 1 unit increase in the PIPI the LN of size of the area sown with beet at the national level increases by 0.01 LN units (see Table 2.5.). This result implies that the profit margin of beet production is positively related with the extent of beet production in Turkey. This also indicates that the decline in the beet production in the 2000s is related positively with the decline in the profit margin of beet production, consistent with H2.

The tests of H2 in models 3 and 4 (see Table 2.5.) are conducted to evaluate the relation of the LN of the official development assistance and official aid with the LN of the size of the area sown with beet. The level of significance of the LN of the official development assistance and official aid in Model 3 (.043) decreases in Model 4 (.44) when PIPI is controlled. Also the level of significance of PIPI (.15) is higher than the one of the LN of the official development assistance and official aid in Model 4. These two models imply that PIPI is the intervening variable between the LN of the official development assistance and official aid, and the LN of the size of the area sown with beet.

For the test of H2 in Model 5 (see Table 2.5), I conduct a multiple regression test which includes the PIPI, the LN of the GNI per capita (PPP) as the IVs, and the LN of size of the area sown with beet at the national level as the DV. In Model 5, the level of significance for the overall model (.008) increases when compared with the Model 2, which has only PIPI as the IV. The relation between PIPI and the LN of the area sown with beet is positive and significant at the $p < .05$ level (.02). With every 1 unit increase in the PIPI, the LN of size of the area sown with beet at the national level increases by 0.01 LN units. However, the relation between the LN of the GNI per capita (PPP) and the LN of the area sown with beet at the national level is negative, and also significant at the $p < .05$ level (.04). With every 1 LN unit increase in the LN of the GNI per capita (PPP), the LN of size of the area sown with beet at the national level declines by 0.34 LN units. It is also important to note that the significance of the LN of the GNI per capita (PPP) is slightly lower than PIPI in Model 5 (.04 and .02 respectively). Also the standardized coefficients of PIPI and the LN of the GNI per capita (PPP) have similar figures to the Pearson Correlation scores between these two IVs and the DV (see Table 2.6). When we look at the Pearson Correlation coefficient between the two IVs, it is not significant.⁴⁴ As a proxy for neoliberal policies at the macroeconomic level, GNI per capita (PPP) increases, while beet production declines in the 2000s. Also, according to the results of Model 5, PIPI declines with the declining beet production at the national level. Therefore two results seem to be consistent with H2.

⁴⁴ For the minimums, maximums and standart deviations of the variables, see Table B2.1.

Table 2.5. Coefficients from the OLS Regression of the LN of the Size of the Area Sown with Beet at the national level on PIPI, the LN of the Official Development Assistance and Official Aid, and the LN of the GNI per capita (PPP) between 1992 and 2008 in Turkey

	Model 2*	Model 3*	Model 4*	Model 5**
PIPI	.014*	-	.01	.012*
	(.005)	-	(.007)	(.005)
LN of the Official Development Assistance and Official Aid	-	-.054*	-.024	-
	-	(.025)	(.031)	-
LN GNI per capita (PPP)	-	-	-	-.335*
	-	-	-	(.151)
Constant	14.887	16.173	15.412	18.939
R Square	.326	.245	.355	.501
N	17	17	17	17

Notes:

(1) *p<.05, **p<.01, ***p<.001, two-tailed

(2) The standardized coefficients of PIPI and the LN of the GNI per capita (PPP) in Model 5 are .498 and -.425 respectively.

(3) Standard Errors are in parentheses.

Sources: Turkstat, Aysu (2002: 158), Ministry of Agriculture, Selçuklu Chamber of Agriculture, World Development Indicators

Table 2.6. Pearson Correlations between the LN of the Area Sown with Beet, PIPI, the LN of the Official Development Assistance and Official Aid, and the LN of the GNI per capita (PPP) between 1992 and 2008 in Turkey

	LN of the Area Sown with Beet	PIPI
PIPI	.571*	1
LN of the Official Development Assistance and Official Aid	-.495*	-.638**
LN of the GNI per capita (PPP)	-.510*	-.172

Notes: *p<.05, **p<.01, ***p<.001, two-tailed

Sources: Turkstat, Aysu (2002: 158), Ministry of Agriculture, Selçuklu Chamber of Agriculture, World Development indicators

2.5. Discussion

These statistical results indicate that the official development assistance and official aid, as proxies of global regulation by IOs, are related negatively with PIPI, which measures the profit margin for beet production. Then, the proxies of the neo-liberal policies at the national level (the calibration (decreasing) of beet prices in accordance with international market and the cut of subsidies given to inputs) are

related positively with the decline in the cumulative size of the area sown with beet and the number of beet producers, when we consider the low beet prices and the rising input prices during the 2000s (see Figures 1.1.). Also, Figures A2.1. and A2.2. enable us to see the dispersion of the cases labeled according to years. The years after 2000 are characterized with declining PIPI as well as declining size of area sown with beet. However, we can see that the GNI per capita (PPP) has a negative relation with the size of the area sown with beet, so that beet production declines as the macro-economic indicators are increasing in Turkey during the 2000s.

Here, it is necessary to analyze the relationship between PIPI and the size of the area sown with beet over a trend graph. In Figure 2.1., we can see that PIPI parallels with the size of the area sown with beet between 1992 and 1996, in 1998, 2000, and between 2005 and 2008 can be explained with PIPI.⁴⁵ However, in 1997, 1999, and the period 2001-2004, PIPI and the size of the area sown with beet follow reverse trends. In order to smooth out the fluctuations during financial crises and have an idea of the long term trend, moving averages of every year are depicted in Figure 2.2.⁴⁶ In this graph, we see that PIPI does not parallel with the size of the area sown with beet between 1998 and 2000 because the former is increasing while the latter stays the same or declines. This reverse trend might be related to the new introduction of contract farming in beet production in 1998, so that beet production is limited to the contracts and the change in input and beet prices did not influence the size of the area sown with beet in this period. Also the fluctuations in PIPI between 2000 and 2004 in Figure 2.1. are reflected in the fluctuation of PIPI in Figure 2.2., especially in 2003 and 2004. Because the rise in input prices and low beet prices are

⁴⁵ PIPI is lagged by one year.

⁴⁶ For one year point, I summed that the value of that year, the previous, and the following. Then I divided the sum by three because three years are summed (e.g. for the moving average in 2000, I summed 1999, 2000, and 2001 and divided the sum by three). Because there were no previous or following years in 1992 and 2008, these years are shown as they are in Figure 2.1.

both related with the neo-liberal policies applied by the state, the state in Turkey in the reduction of the beet production is the pivotal actor at the national level. The role of the state is further discussed in Chapter 3.

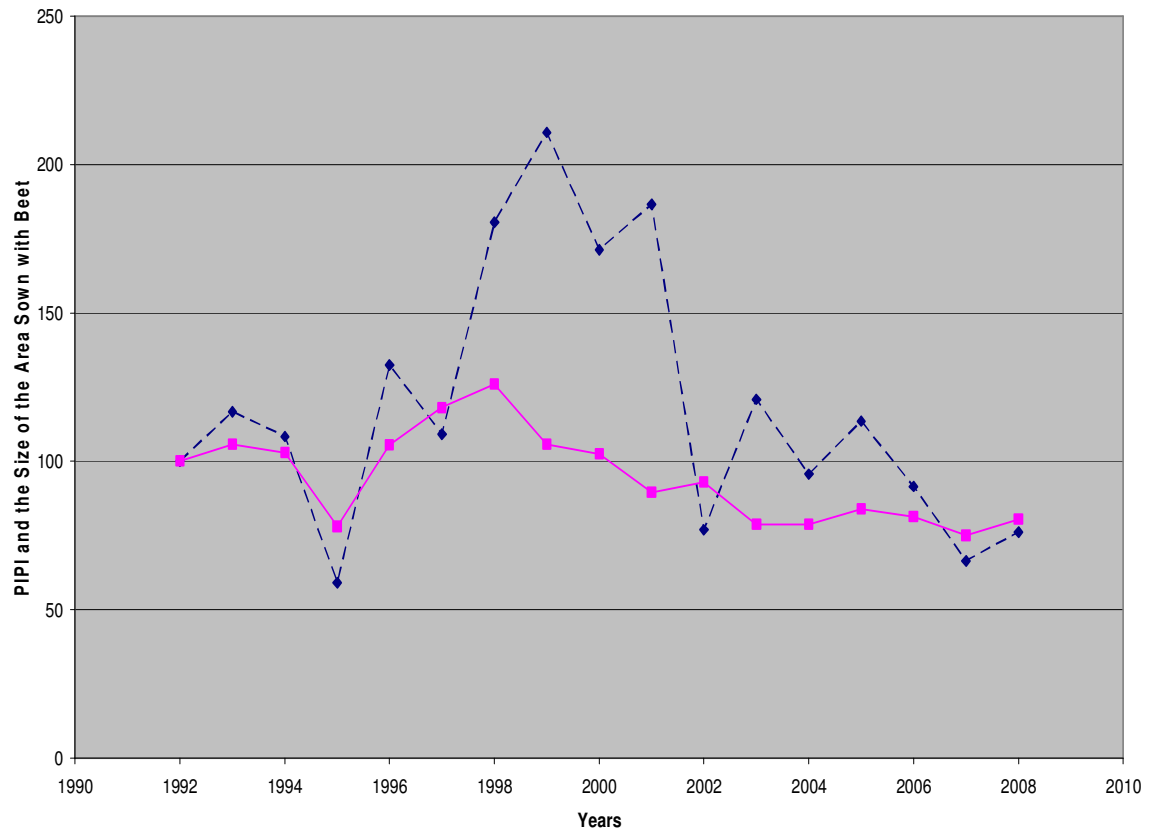
In order to understand the explanatory capability of Food Regime in this story we have to remember that these neoliberal policies at the national level indicated above are related with the regulations and policies of the IMF, the World Bank, and the WTO, as explained in the introduction part of this chapter. Also, the beet production sector has experienced serious decline in the 2000s in Turkey. Food regime would argue that neo-liberalization would diminish nationally established sectors in a country, and agriculture in this case (McMichael 2008). As presented in this chapter, the official development assistance and official aid by IOs, as proxies of global regulations by IOs, are negatively related with the profitability of beet production (i.e. PIPi). Also, the proxies of neo-liberal policies at the national level presented in this chapter (low beet prices, rising input prices) show that they are related positively with the decline of beet production. Moreover, the increase in the economic welfare indicators (GNI per capita (PPP)) as another proxy of neoliberal policies has a negative relation with the beet production during the 2000s. Hence, the potential rival perspective (Burrell and Kurzweil 2008), that the elimination of price support and input subsidies have a positive relation with beet production, is not much supported. However, in this case, another rival perspective can be developed; it may be argued that the economic welfare of farmers have increased with their withdrawal from beet production and their shift to more “competitive” and profitable products. Thereby we have to turn our attention to the impacts of the neo-liberal policies at the local level during the 2000s.

Although the decline in the beet production at the national level gives us ideas on how the beet sector is influenced, it lacks information on the impacts of this development at the local level. This chapter only gives us ideas on the reasons of the decline of the beet production. Within the framework of the Food Regime, based on previous studies (McMichael 2000, 2008) and as well as the evidence presented in this chapter, we can only say that the neo-liberal policies indicated above are related with the decline in the production of an agricultural commodity (beet), although there are some years remain unexplained in the visual comparison of PIPI and the size of the area sown with beet (See Figures 2.1. and 2.2.). But to grasp how the economic position of farmers has changed during the 2000s with the declining beet production, we have to focus on the local implications of these policies which cannot be seen within this chapter if one examines it isolated from the following chapter.

Therefore an inquiry at the local level is necessary to search for the implication of these at the local level. Also the inquiry on the local level may provide indicators which may not be consistent with the analysis at the national level (e.g. increase in the level of beet production). Furthermore, the analysis at the local level provides information on the transformation experienced by the producers if there was a change in the patterns of beet production. Only then we can reach a conclusion whether the socioeconomic conditions have deteriorated or ameliorated in the Turkey's rural sphere. So we can further measure the applicability of Food Regime or its rival's (Burrell and Kurzweil 2008) hypothesized perspective (*the application of neo-liberal policies in Turkey during the 2000s are related positively with the personal economic outlook of farmers whether they produce beet or shifted to an alternative product*) on the change of the farmer's socioeconomic conditions after the

implementation of neo-liberal policies during the 2000s. In the next chapter, I will discuss the case of Afyon/Sandıklı in order to examine the impacts at the local level.

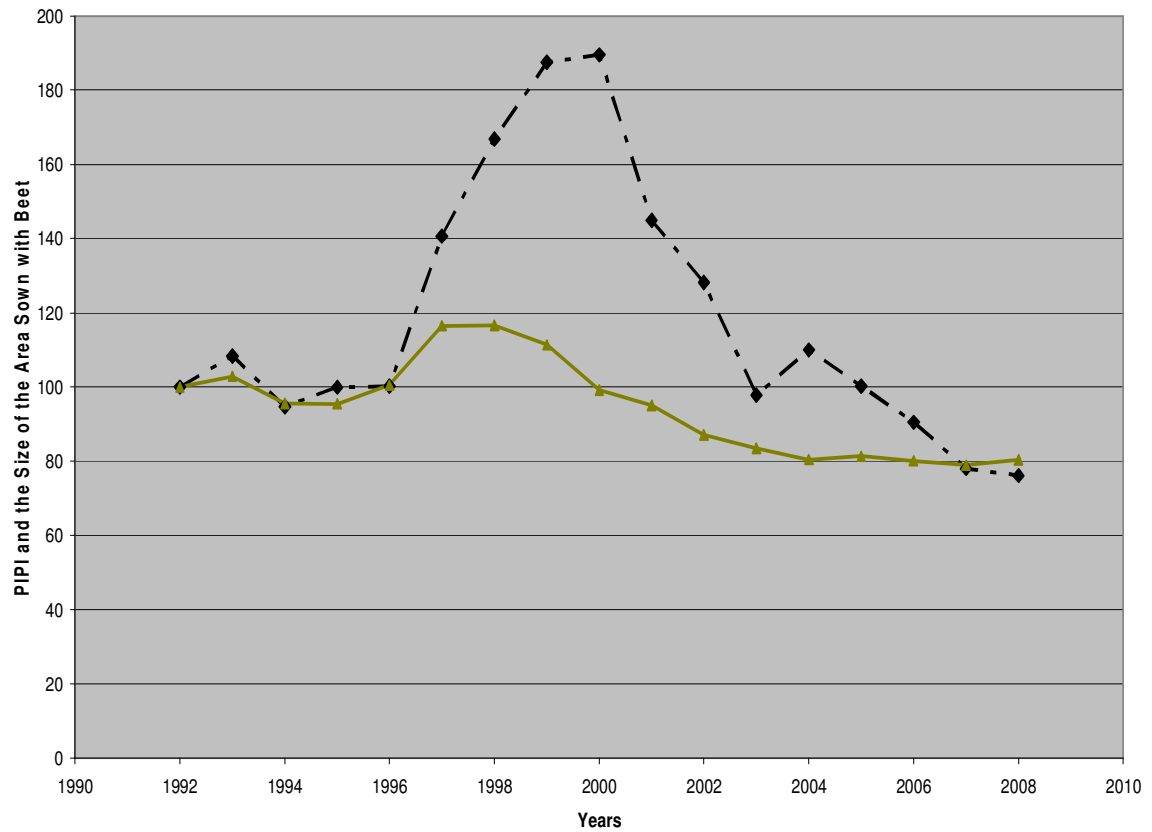
Figure 2.1. PIPI and the Size of the Area Sown with Beet between 1992 and 2008 in Turkey (1991=100)



Short Lines= PIPI; Line=The Size of the Area Sown with Beet

Sources: Turkstat, Aysu (2002: 158), Ministry of Agriculture, Selçuklu Chamber of Agriculture

Figure 2.2. Moving Averages of PIPI and the Size of the Area Sown with Beet between 1992 and 2008 in Turkey (1991=100)



Short Lines= PIPI; Line=The Size of the Area Sown with Beet

Sources: Turkstat, Aysu (2002: 158), Ministry of Agriculture, Selçuklu Chamber of Agriculture

Appendixes A and B for Chapter 2

Appendix A

Table A2.1. Pearson Correlations between the ASAW and the Annual Percentage Change in the Number of Beet Producers between 1998 and 2007 in Turkey (Eregli and Alpullu filtered)

Pearson Correlation	Annual Percentage Change in the Number of Beet Producers
ASAW	0.453***
Notes: *p<.05, **p<.01, ***p<.001, two-tailed	
Source: TŞFAŞ	

Table A2.2. The Comparison of the Means of the Annual Percentage Change in the Size of the Area Sown and the Annual Percentage Change in the Number of Beet Producers according to Regions between 1998 and 2007 in Turkey

Region	The Mean of the Annual Percentage Change in the Size of the Area Sown between 1998 and 2007	The Mean of the Annual Percentage Change in the Number of Beet Producers between 1998 and 2007
Ayfon	-.0668 (.0745)	-.0649 (.151)
Agri	-.060 (.124)	-.0644 (.1364)
Ankara	-.064 (.120)	-.057 (.159)
Alpullu	.026 (.527)	-.001 (.540)
Eregli*	.007 (.290)	.013 (.290)
Bor*	-.147 (.147)	-.102 (.237)
Burdur	-.083 (.084)	-.037 (.194)
Carsamba	-.056 (.196)	-.050 (.215)
Corum	-.041 (.097)	-.065 (.126)
Elazig	-.072 (.069)	-.035 (.160)
Elbistan	-.102 (.111)	-.052 (.247)
Ercis	-.026 (.216)	-.052 (.222)
Erzincan	-.049 (.087)	-.039 (.169)
Erzurum	-.065 (.122)	-.068 (.143)
Ilgin*	-.066 .094	-.047 .159
Kars	-.081 (.218)	-.082 (.202)
Kastamonu	-.039 (.117)	-.057 (.1)
Eskisehir	-.079 (.095)	-.077 (.152)
Kirsehir	-.077 (.135)	-.062 (.283)
Malatya	-.015 (.235)	-.064 (.150)
Turhal	-.072 (.082)	-.066 (.084)
Mus	-.065 (.059)	-.016 (.192)
Usak	-.057 (.119)	-.059 (.129)
Susurluk	-.041 (.159)	-.044 (.276)
Yozgat	-.077 (.113)	-.079 (.152)

Table 2.2. The Comparison of the Means of the Annual Percentage Change in the Size of the Area Sown and the Annual Percentage Change in the Number of Beet Producers according to Regions between 1998 and 2007 in Turkey (cont'd)

Total	-.059 (.170)	-.053 (.204)
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Notes:

The standard deviations are in parentheses.

* Regions with data available only for 9 years not like the rest of the regions with data available for 10 years.

Source: TŞFAŞ

Table A2.3. The Comparison of the Means of the Annual Percentage Change in the Size of the Area Sown and the Annual Percentage Change in the Number of Beet Producers according to Years between 1998 and 2007 in Turkey

Year	The Mean of the Annual Percentage Change in the Size of the Area Sown	The Mean of the Annual Percentage Change in the Number of Beet Producers
1998	.089 (.126)	.1 (.111)
1999	-.195 (.137)	-.192 (.153)
2000	.046 (.297)	.038 (.302)
2001	-.153 (.054)	.178 (.173)
2002	.018 (.074)	.032 (.109)
2003	-.141 (.081)	-.053 (.148)
2004	-.017 (.068)	-.162 (.107)
2005	.018 (.219)	-.111 (.199)
2006*	-.124 (.05)	-.126 (.05)
2007	-.134 (.104)	-.245 (.094)
Total	-.059 (.170)	-.053 (.204)

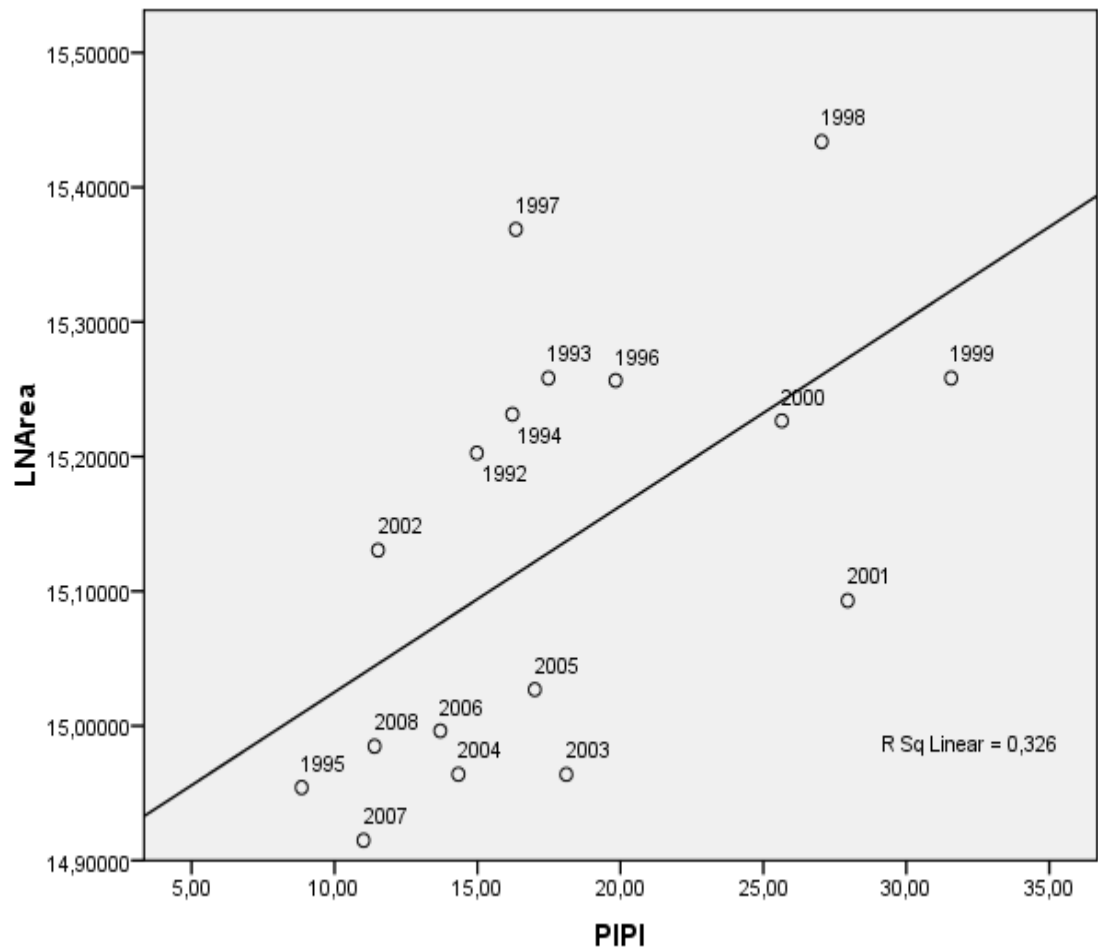
Notes:

The standard deviations are in parentheses.

* Year with data available only for 22 regions not like the rest of the years with data available for 25 regions.

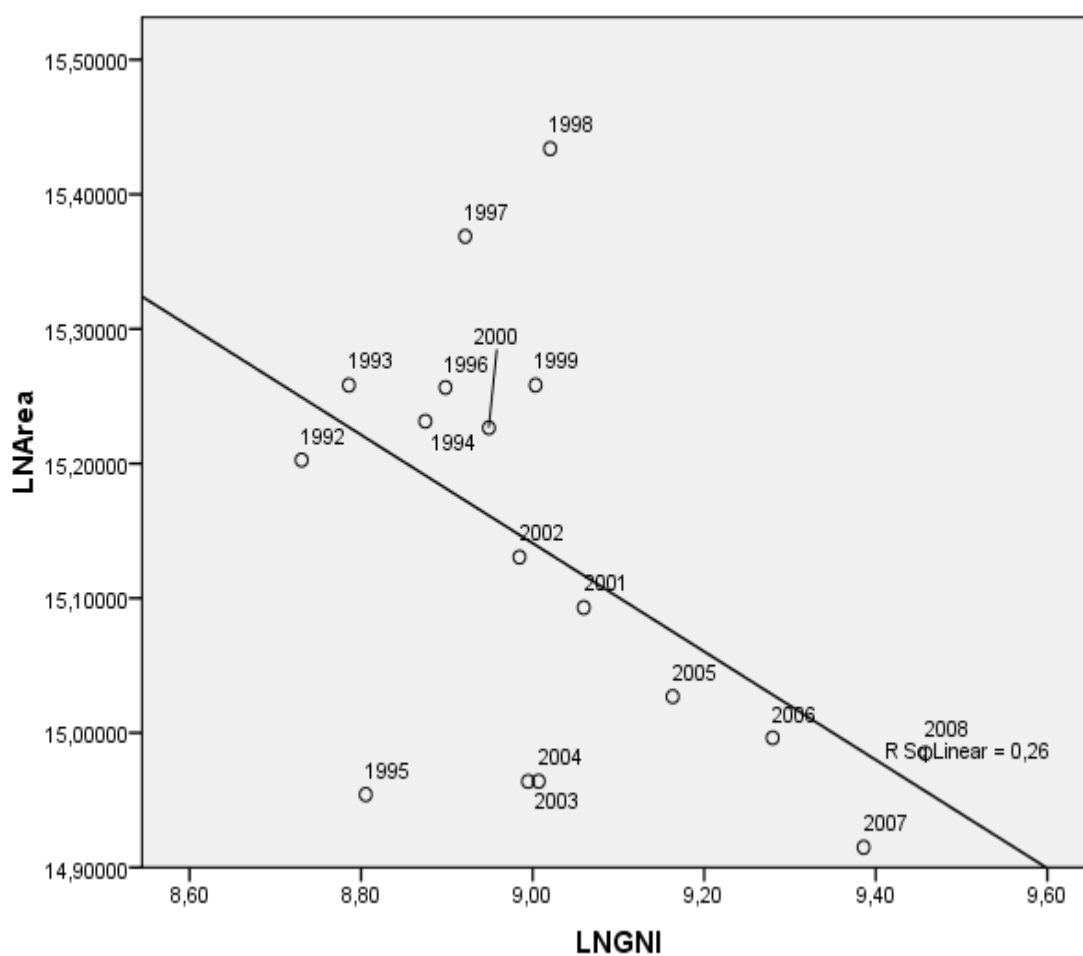
Source: TŞFAŞ

Figure A2.1. The Scatterplot for the PIPI and the LN of Size of Area Sown with Beet at the National Level between 1992 and 2008 in Turkey



Sources: Turkstat, Aysu (2002: 158), Ministry of Agriculture, Selçuklu Chamber of Agriculture

Figure A2.2. The Scatterplot for the LN of the GNI per capita (PPP) and the LN of Size of Area Sown with Beet at the National Level between 1992 and 2008 in Turkey



Sources: Turkstat, World Development Indicators

Table A2.4. Inflation Rates in % between 1992 and 2007 in Turkey

Years	Inflation rate in %
1992	64
1993	69
1994	103
1995	89
1996	69
1997	86
1998	69
1999	54
2000	49
2001	53
2002	37
2003	23
2004	12
2005	7
2006	9
2007	8

Source: <http://www.worldbank.org/data>, accessed on March 10, 2009

Appendix B

Table B2.1. Minimums, Maximums and Standard Deviations for LN of the Size of the Area Sown with Beet, PIPI, and the LN of the GNI per capita (PPP)

Variables	Minimum	Maximum	Mean	Std. Deviation
LN of the Size of the Area Sown with Beet	14.914	15.433	15.133	.159
PIPI	8.85	31.57	17.823	6.578
LN of the Official Development Assistance and Official Aid	15.71	21.20	19.089	1.449
LN of the GNI per capita (PPP)	8.73	9.46	9.018	.202

Sources: Turkstat, Aysu (2002: 158), Ministry of Agriculture, Selçuklu Chamber of Agriculture, World Development Indicators

Chapter 3

The Case of Afyon/Sandıklı: *People Call Potato “Gold”, You Know?*

Introduction

In the last chapter, I have analyzed the reasons of the decline in the beet production at the national level. Although this analysis might give ideas about why beet production declined during the 2000s in Turkey, it does not reflect the impacts of this at the local level. Moreover, it does not provide us information on what has changed in the life of farmers after they reduced or stopped beet production.

This chapter involves the local impacts of neoliberal policies in beet-production on farmers in Afyon/Sandıklı during the 2000s. First, the chapter provides the context for the changes in agricultural production, and particularly in beet production, in Afyon/Sandıklı. Then, this chapter evaluates theories relevant to this chapter. Third, hypotheses, and data and methods in order to test these hypotheses are taken into consideration. After the part on the findings in the field research on beet producers in Afyon/Sandıklı, the chapter concludes with a discussion, leading to the conclusion of the thesis.

The project report, Türkiye’de Tarımda Dönüşüm ve Küresel Piyasalarla Bütünleşme Süreci [The Transformation in Agriculture and the Process of Integration with Global Markets; the details of the report are discussed in the Chapter 1] (Islamoglu et al. 2008), focuses on the local effects of neoliberal policies in agriculture in seven agricultural products, and has important implications for this research. The part of the research on beet-production encompassed surveys with 100 beet-producers from six regions (Adapazarı, Polatlı, Çumra, Erzurum, Beylikova, and Samsun) between 2006 and 2007. When the farmers are asked about the prices and market stability of the alternative products to beet, 99% of them responded that

there is no stability in price and markets of the alternative products (Islamoglu et al. 2008: 407). This is because a lot of farmers shifted to the alternative product so that the profitability of the alternative product declined. In another question on the preference of the farmers on whether they would return to beet production if the quotas on beet-production would be raised, only 1% of farmers responded that they would not return to the beet-production because the alternative product is more profitable than the beet production (p.413).

My case for analysis is going to be Afyon/Sandıklı because the region has a high number of sugar-beet growers, and there has been a significant decline in the number of producers (Afyon ranking fifth in numbers after Turhal, Burdur, Eskişehir, and Iğın in 1997). Also we saw in last chapter that Afyon experienced a continuous trend of decline at approximate levels in 1998-2002 and 2003-2007, periods while the mean decline in other regions was severer. Therefore if this research finds out that beet producers Afyon/Sandıklı were influenced negatively from the neoliberal policies, it is possible that producers in other regions were more negatively affected from the same policies.

The size of the area for sugar-beet production in Afyon/Sandıklı declined from 42.064 decares in 1997, to 13.874 decares in 2007 (see Table 3.1. below). The alternative product to the sugar beet has been the potato in Afyon/Sandıklı. The fields for potato production extended from 14,000 decares in 1999, to 41,171 decares in 2007 (see Table 3.2. below). At the national level, the size of the area sown with beet declined from 4,726,890 decares in 1997 to 3,002,421 decares in 2007. As an example of alternative products at the national level, the volume of maize production increased from 2,060,000 tons in 1997 to 3,811,000 tons in 2006 (SPO 2008). The high number of sugar-beet producers, and the large extent of the shift of production

from the sugar beet to the potato in Afyon/Sandıklı allowed me to observe the effects of the neo-liberal transformation more clearly in that I find the opportunity to compare and contrast several cases of in-depth interviews with farmers. Furthermore, my field-study in Afyon/Sandıklı is a good case in that the trend in the sugar-beet production and in the alternative products in Afyon/Sandıklı draws parallels with the general trend of those in Turkey. This feature of Afyon/Sandıklı improves the explanatory capability of my findings to make generalizations to regions, where the sugar beet is cultivated extensively.

Table 3.1. The Size of the Area Sown With Beet in Afyon/Sandıklı and Yearly Change in % Between 1993 and 2007

Years	area sown (decares)	Yearly change in %
1993	40570	-
1994	33055	-18
1995	27260	-18
1996	37334	+37
1997	42064	+13
1998	41241	-2
1999	38417	-7
2000	35269	-8
2001	31237	-11
2002	29498	-6
2003	25180	-15
2004	24647	-2
2005	24970	+1
2006	21510	-14
2007	13874	-35

Source: Archives of TŞFAŞ Sandıklı Bölge Şefliği

Table 3.2. The Size of the Area Sown With Potato in Sandıklı/Afyon in 1999 and between 2002 and 2007

Years	Area Sown (decares)
1999	14000
2002	20000
2003	N/A
2004	32000
2005	35000
2006	39100
2007	41171

Source: Department of Agriculture in Sandıklı, Patates Siğili Survey Çalışması

My research question, concerning this chapter, is as follows: *how did the personal economic outlook of beet producers change in the wake of neo-liberal policies?* This question leads me to two hypotheses which are interrelated. The first hypothesis (H3) is that *sugar-beet production was related positively with the personal economic outlook of the agricultural producers in Afyon/Sandikli before the neo-liberal policies.* The second hypothesis (H4) is that *the neo-liberal policies at the national level are related negatively to the personal economic outlook of the sugar-beet producers in Afyon/Sandikli.* Below I will discuss the theoretical framework underpinning these two hypotheses.

3.1. Theoretical Framework

Regulation Theory asserts that the state has to regard the interests of the social forces in implementing strategies geared to change the regime of accumulation. In this research, the shift from a state-supported regime of accumulation to a neo-liberal one will be explained through Regulation Theory because DIS, DP, and CP are strategies which aim to free the government from spending in agricultural subsidies and to create consent on the side of agricultural producers at the same time. Also, the involvement of the World Bank in DIS fits to the analyses of Food Regime in that the World Bank as an IO participates in the liberalization of the agriculture in Turkey. In other words, while the application of Food Regime (see Chapter 2) is to explain the connections between global regulation and national regulation, the application of Regulation Theory is to explicate the strategies employed by the government.

Regulation Theory

Regulation Theory argues that a form of capital accumulation has to compromise the interests of subordinate groups (e.g. workers, farmers) to claim to be a “national” hegemonic project (Jessop 1990: 219-221). Therefore the new regime of capital accumulation (neo-liberal structural adjustment in the case of my research) is not a byproduct of the economic structure because it has to take the interests of the subordinate groups into consideration. With Regulation Theory we can conceptualize the Fordist regime of capital accumulation as a regime having the national-popular consent at its center, regulating economic and social redistribution mechanisms, and considering wage as a source of national demand. However, the Post-Fordist regime of accumulation regards the wage as a cost of production rather than a source of national demand. The post-Fordist regime of accumulation emphasizes “competitiveness”, and disrupts the compromise in the “industry-finance-labor relations” under the Fordist Regime of accumulation (Jessop 2002: 72, 105).

The implication of the Regulation Theory for this research is that the government cuts agricultural supports embedded in the Fordist regime of accumulation (input subsidies and price supports), while it tries to consolidate the post-Fordist regime of accumulation in agricultural production through different forms of support (CP, DP, and DIS) in order to gain the consent of the rural population of 27.6 million people in the year 2000. Also the Regulation Theory enables us to analyze the changing social dynamics under a changing regime of accumulation (from a Fordist one to a Post-Fordist one) as agricultural producers may respond to neo-liberal policies in agriculture in different ways.

A perspective, which argues that the state intervention in the agriculture increases rural poverty, and the application of neoliberal policies would reduce it in

Turkey (Burrell and Kurzweil 2008), may infer that *the application of neoliberal policies in Turkey during the 2000s are related positively with the personal economic outlook of farmers whether they produce beet or shifted to an alternative product*. This view has to be spelled out because it posits the competitiveness of agricultural production as an important element of a sustainable agricultural policy. And it fits to the shift in the regime of accumulation from a Fordist one to a Post-Fordist, as explained by Jessop (2002). Furthermore, this view challenges the view of Food Regime that neoliberalization distorts social structures, and in the case of agriculture, neoliberalization works against the social welfare of small-scale farmers (McMichael 2008).

3.2. Research Questions and Hypotheses

“Neo-liberalization” is conceptualized as a process of interaction in which TNCs expand spatially and their productive capacity while the form of this expansion is bound to the interaction over time between the IOs, the agents of the expanding production field, national political/legal authorities, and the national/local class configuration (Tilzey 2006). With this definition, I will be able to explore the local implications of neo-liberal policies in agricultural sector.

The research question involving this chapter is: *how did the personal economic outlook of beet producers change in the wake of neo-liberal policies?* One hypothesis is that *the beet production was related positively with the personal economic outlook of the agricultural producers in Afyon/Sandikli before the neo-liberal policies during the 2000s (H3)*. Beet is a commodity produced by farmers and sold to the sugar factories owned by the states from the Early Republican Era in Turkey. Moreover, the Türkiye Şeker Fabrikaları A.Ş. (TŞFAŞ) had been a model which is thought to be

the instigator of industrialization of Turkey's society (Alexander 2002: 131). Therefore, the effect of the change in the beet-production, which is related with the state-owned sugar factories, on the farmers will be inquired.

The second argument in this chapter is that *the neo-liberal policies at the national level are related negatively to the personal economic outlook of the sugar-beet producers during the 2000s in Afyon/Sandikli* (H4). The implementation of the Post-Fordist model of accumulation in the sugar sector during the 2000s may have lead to changes in the "industry-labour" relations as Jessop argued (2002: 105). In my case this relation can be conceptualized as the change in the behavior of farmers after the implementation of neo-liberal policies. They may have shifted their production to alternative products or continue to produce beet. The impact of the possible changes may be negative as Food Regime would suggest that the welfare of the small scale farmers deteriorated (McMichael 2008).

However, the shift to alternative products may also have positive impacts so that they have benefitted from the shift to the alternative products or continuing of the beet-production as the rival perspective on neoliberal policies in agriculture would suggest (Burrell and Kurzweil 2008). The second argument in this chapter is to inquire whether the possible changes led to positive or negative results for the economic outlook of farmers in Afyon/Sandikli.

3.3. Data and Methods

Data

In addition to the information on the personal economic outlook of farmers, derived from the twenty-five in-depth interviews with farmers, existing data will be reflected to provide context for Afyon/Sandikli the state subsidies in agriculture

presented. The existing data includes Main Agricultural Indicators (State Planning Office 2008) and quantitative data on the beet prices over years presented in Turkstat's web-site, the archives of TŞFAŞ Chief Department of Sandıklı on the size of the area sown with beet in Afyon/Sandıklı, and the Patates Siğili Survey Çalışması at Department of Agriculture in Sandıklı (Sandıklı Tarım İlçe Müdürlüğü) archives on the size of the area sown with potato.

Methods

I have gained access to the field of research with the help of a close person to me who has grown up in this region and knew some sugar-beet producers and the municipal president of Sorkun, a small town in the region. The municipal president of Sorkun gave me information on the region and provided me contact information for interviews. I selected five villages/small towns (Hırka, Emirhisar, Ekinova, Örenkaya and Sorkun) to conduct twenty-five in-depth interviews with sugar beet producers. For the selection of villages/small towns, I have interviewed the municipal president of Sorkun. After telling him that I wanted to conduct interviews in five places, ideally with five farmers at each location, he indicated that these five locations are or had been locations which produced beet most intensively. He initiated the contact with the village mukhtars to whom I introduced myself. However, I have selected the farmers to interview in kahvehane, independent of the assistance of the mukhtar. The villages of Hırka and Emirhisar were places where the farmers owning large lands (200 decares or more) could be encountered. Ekinova, Örenkaya and Sorkun locations were dominant with producers owning small lands.⁴⁷

⁴⁷ For the numbers of small and large land-owning farmer respondents, see Table 3.3 below.

In the light of the information above, the sampling method for villages and in-depth interviews is “purposive sampling” because the target group was determined beforehand: I asked for small and large-scale former or current sugar-beet producers at these five locations. The demarcation is made according to the classification of SPO (2000: 7) which considers the minimum limit of land holding for survival by doing dry farming (without irrigation). The same demarcation is also used by Sönmez (2008: 386). Babbie (2004: 183) indicates that this kind of sampling is utilized when the members of a specific group (sugar-beet producers) can be easily identified but cannot be enumerated in a list to conduct probability-sampling methods. The timing of the field research was in early September because farmers are working on the field and harvesting sugar beet during October, November and December 2008.

I have conducted a single case study in order to inquire the impacts of the neoliberal policies on the beet producers in Afyon/Sandıklı. The disadvantage of conducting a single case study is that it is not representative. However, Yin (1994:40) explains that the single-case design is justified on the grounds that the study is revelatory. Since there is no research conducted on the effects of the neoliberal policies on the sugar-beet producers, and this study is going to be a revelatory case, a single case study is enough to explore the process. Furthermore, as the level of analysis will be the Afyon/Sandıklı region, the unit of analysis will be the producers who are going to be interviewed in their villages. This difference between the level of analysis and the unit of analysis is an embedded case study (Yin, 1994:41-42). Although this embedded approach in the single case-study grants great flexibility to the researcher, it risks losing compatibility between the research question asked and the research design due to the multiple subunits of analysis. In

order to cope with this problem, I have conducted several in-depth interviews in different villages and will compare the data acquired from them. I have conducted in-depth interviews which were not formally constituted but based on site visiting, which corresponds to the interviews conducted in the village kahvehanes. I interviewed farmers while they were available in kahvehanes. Therefore, some of the interviews have been made in groups of up to four farmers while they were sitting at a table. In order to overcome the impact of the group over a respondent, I posed every question to each farmer in the group. This way, I minimized the danger of missing potential different answers within the group.⁴⁸

I have conducted in-depth interviews in Afyon/Sandıklı with the sugar-beet producers and alternative product producers who were former sugar-beet producers. These interviews have been conducted in order to identify other variables which are explanatory. This kind of a qualitative research will contribute to the explanation of the sugar-beet issue which I cannot develop only by focusing on quantitative analysis. I interpret the transcripts of in-depth interviews as a resource of acquiring facts in the process. Wengraf (2001) counts the fact derivation by the researcher from the interview as one way of data analysis. The main object of conducting in-depth interviews in this research is having the information from the producers on the material impacts of the neo-liberal policies on them. Interviews were semi-structured since the aim is getting as much information as the informant is able to provide.⁴⁹ Additionally, I utilize the figures for state subsidies in agriculture, the size of the area

⁴⁸ Because in-depth interviews of this study aim to explain the possible impacts of policies on farmers in previous years, the problem of recollection rose as I interviewed farmers. However, I overcame this problem by cross-checking the information farmers were providing. By doing so, I analyzed the data with caution and did not simply depend on the information farmers provided. Also I provided some descriptive data on beet production and potato production to check farmers' argument that potato production rose and beet production declined in Afyon/Sandıklı in the 2000s.

⁴⁹ See Appendix for the questions of in-depth interviews.

sown with beet and potato as supportive evidence for the information I have acquired during the interviews.

The interview sound records lasted about seven hours. I transcribed and translated all of the interviews. The themes are derived from the questions and answers in the interview with the farmers. The importance of beet production and the impact of the quota were asked to farmers. The answers from the farmers on these issues pointed out the relative low position of beet prices in the face of increasing input prices as fertilizer and diesel oil. Also, farmers emphasized the difficulties they were facing in the production and selling of alternative products, to which they shifted. The debt theme derived from the question whether they were experiencing financial difficulties in the shift of production. The themes about the impacts of DIS, Pankobirlik, and outwards migration were derived out of the answers given to the questions on these topics.

3.4. Findings

Characteristics of Respondents

The size of the land owned is asked to respondents during the interviews. Also the result that the majority of the respondents are small land-owning farmers (22 of the total 25, See Table 3.3.) is consistent with the fact that the majority in beet-producers are small landowners at the national level in Turkey. There are only 200,000 agricultural households which own 200 decares or more land within the total of 4.2 million agricultural households (4.8% of total households) in Turkey in 2000 (Oyan 2003) while the number of those households in my field research (constituting 12% of the total number of interviews) is even higher. The advantage of having

respondents from different scales is that it enables me to check if farmers, of different scales, experienced different impacts in the wake of neoliberal policies.

Table 3.3. The Number of Small and Large Land-owning Farmers Interviewed in Afyon/Sandıklı

Size of the Area (decares)	Number of Respondents
Small (0-199)	22
Large (199<)	3
Total	25

Another characteristic of the farmers interviewed was that all were male. This is because the interviews were conducted in the village kahvehanes. The advantage of interviewing in kahvehane was that this location is the common place for the farmers to gather during the day and in the evening. This gave me the opportunity to interview different farmers, small-scale or large-scale landowners. However, the limitation of this strategy was that I could not encounter female farmers who would give information on the gender dynamics of the changes they were experiencing in the agricultural change.

Beet Quota, Beet Prices, and Input Prices

The beet production has been declining significantly in Afyon/Sandıklı since the application of neo-liberal policies during the 2000s (see Table 3.1.). When the reasons of this decline are inquired it can be seen that the quota placed on beet production could not be the only influencing factor. Although the quota brought on beet production can be expected to reduce the beet production due to the increased quota of HFCSs to %15 in the national market, the decline in the area sown with beet is more than %15. The size of the area sown with beet in Afyon/Sandıklı declined from 31,237 decare in 2001 to 13,874 decare in 2007. The size of the land, not

cultivated with beet anymore in 2007, is the 56% in the size of the area sown with beet in 2001.

The decline in the size of the area sown with beet has to be explained with other factors as well. In my interviews, the other variables which became influential in the process are the declining beet prices given from the Sugar Factories, and the rising input prices, such as fertilizer and diesel oil prices (See Figures 1.1. and 1.2). While the prices of inputs were increasing the fertilizer input subsidy was cut after 2001 when DIS began to be implemented in 2002 (See Table 1.1.).

All of the respondents in my interviews argued that the production of beet was no more profitable since the decline of beet prices in the face of increasing input prices. Thereby, more and more farmers said that they retreated from beet-production. When I asked Oruç⁵⁰, a large landowner from Emirhisar, about the balance between the beet prices and input prices he responded:

“In 2001, 2002, we sold beet for 115 [11.5] kuruş/kg. That was a superb profit. Also our inputs were so cheap, we were making very good money. Now, water became scarce. One sack of fertilizer costs now between 70 and 80 TL. How can I buy it? How can I pour it in the land?! What I want to emphasize it that our inputs are very expensive. We cannot gain money from this. Therefore what happened? The cultivation of beet has declined.”⁵¹

When I asked whether the quota or the decline in the beet price was more influential, farmers gave me two different answers. The first one was that both quota and beet prices were influential. The second answer was that beet prices were more influential in the decline of the beet cultivation. However, as the discussion developed it became clearer that the beet prices are currently the dominant factor that influences the choice of the farmers. Uğur, a small landowning farmer in Örenkaya,

⁵⁰ This name and all others below are not real names but given by the author in order to provide confidentiality of the individuals interviewed.

⁵¹ In 2005, the government of Turkey decided to convert 1 million TL into 1 YTL. Accordingly, 10,000 TL is converted to 1 yeni kuruş.

indicated that farmers themselves retreated from beet production when the beet prices fell so that the impact of the reducing quota is not significant anymore. Yavuz, a small landowning farmer from Sorkun, explains this similarly:

“The quota on beet has influenced very little, because our friends showed affection. They said that I could use their quota instead of giving money to someone else for buying his quota. Being frank, this happened here. People who did not give importance to money handled each other’s business. [...] The decline in the price has reduced the cultivation of beet automatically. The important thing is the price.”

Farmers coped with the quota reduction of beet by unofficially transferring their quotas to, or receiving transfers from their friends. This can be considered as a tactic of passive resistance. However, this tactic became obsolete when the beet price began to fall during the 2000s, rendering the beet production unprofitable.

Mehmet, a small landowner from Hirka, explains:

“Because there are people who do not plant beet there is free quota on them. People, who want to plant, take their quota and plant it. I do not plant, my quota goes to this fellow; he does not plant, his quota goes to another one. Prices are low. People do not want to plant [beet] because the prices are not satisfying anymore.”

The first result of the interviews on the reasons of the decline in beet production in Afyon/Sandıklı is that the beet price has an influence in the beet production, surpassing the influence of the reducing quota in beet production. The second result of the interviews on this issue is that it is not only the declining beet price that influences beet production, but also its relative relation to the increasing input prices such as fertilizer and diesel oil.

Alternative Products: Potato, Wheat, Barley, and Hashish

Since farmers in Afyon/Sandıklı have reduced the production of beet they have shifted their production to other agricultural products. The most significant

alternative product was potato which is a commodity that would bring the highest profit to its owner. Therefore, there has been an important increase in the size of the areas sown with potato (See Table 3.2.). Because the irrigation in Afyon/Sandıklı is provided for the most part from underground water resources, there are relatively scarce irrigation opportunities which prevent the cultivation of products requiring more intense irrigation, such as maize, in the region.

All of the farmers, who shifted their production to potato as the major alternative product, indicated that they are selling their product to merchants to which farmers have reached through their personal connections. Thus, farmers cannot find an institution which guarantees their sale of product, like in the case of beet production. Bilal, a small landowning farmer in Örenkaya, said that there is no guidance from any institution, including the state institutions, about the sale of the products. Also all of the respondents replied that the prices are not stable every year. Hasan, a small landowning farmer from Hırka, explains:

“Potato was more profitable than the beet at the beginning. But everyone started to plant potato afterwards. There is no remedy, there is no alternative. You have to plant potato. If there was more beet production, the potato production would not so much overloaded. Also, the ones who cultivated potato would gain money.”

A similar explanation from Melih, again a small landowning farmer in Örenkaya, follows as:

“When one purchaser arrives here, ten farmers reach him to sell their products. He has to sell. His debts are pressing the farmer, Agricultural Credit Cooperative presses him. [...] If I was the potato producer, I would tell the purchaser: ‘buy my product!’ another producer tells him: ‘buy my product!’. We already do not know who the merchant is. We fall in his (merchant’s) hands at the price he wants. We always fall from one hand to another.”

Besides the prices received by farmers are not stable every year, there is also the danger of being a victim to a fraud in the payment of the product to farmers.

Every farmer interviewed has either been a victim to such a fraud or acknowledges that he is well aware of such instances. The fraud in payments derives either from the non-compliance of the purchaser to the unwritten agreement between himself and the farmer, or from the checks which have no real value. Sefer, a small landowning farmer in Sorkun, said that he could not receive the complete payment that the merchant promised him. Isa, a small landowning farmer from Örenkaya, noted during the interview that last year he has lost his product of one truck without any payment to a merchant. Mehmetali, a small landowning farmer in Sorkun, said that even the president of the Chamber of Agriculture in Sandıklı has been swindled for 20,000 TL, and travelled to Urfa (a region in the southeast of Turkey) to follow the track of the merchant who swindled him. Mehmet, the farmer from Hırka, who claims that his purchaser is “solid” (trusted) points out the personal nature of the relations between the purchaser and the farmer:

“We help some farmers here, of course not everyone. I mean, we tell them who is a ‘solid’ merchant. If the farmer angers us, we let him go to any merchant, swindler or something else.”

The respondents from Ekinova, all small landowning farmers, are different from other respondents in their shift of production. They do not have the opportunity to produce potato because of their relatively more scarce water resources. Therefore, they have shifted their production from beet to wheat and barley which do not require irrigation as much as potato. However, they also complained that they could not sell their products at sufficient prices. The reason for this is that the Turkish Grain Board (TGB, a state agency which secures the purchase of particular agricultural products) declares the prices for products later than the period when the farmer has to sell its product.

According to the interviews, when the TGB declared the prices of products timely in the past years, the merchant, who intends to buy wheat and barley from the farmers, had to pay more than the TGB offered, because the farmer had the option to sell his products to the TGB. However, when the shift from beet to wheat occurred, the TGB postponed the declaration of yearly prices and the merchants had the opportunity to buy wheat and barley products from farmers at lower rates than they used to buy in former years. And the farmers could not wait until the TGB declared prices because they had urgent debts to be covered due to the credits they have borrowed. Also other farmers, except for one, interviewed at other places, said that they did not want to cultivate wheat and barley because these products did not provide sufficient profits to cover their input expenses. Halim, a small landowner cultivating wheat and barley in Sorkun, claims that he has a “solid” merchant to sell his products.

The last alternative product was poppy. However, farmers who talked on this product complained that with the reinforcement of the Farmer Record System, poppy was to be planted on the land for which the farmer obtains the deed. Also they explained that there was a quota in hashish production which seriously limits the extent of the production. Because the majority of the farmers interviewed in Afyon/Sandıklı are small landowning farmers, they did not evaluate poppy production as a paying product, considering the limits put on the product by quota and the condition of deed-holding.

The result of the interviews on the shift of production from beet to alternative products is that farmers in Afyon/Sandıklı experienced an uncertain environment in which they try to find their way out in the agricultural production. The uncertainty of being in direct contact with “free” market actors, merchants in

this case, is a radical change for the farmers because in the market of alternative products there are no support mechanisms like in the beet production. Besides the prices of alternative products are not stable, the payments of products sold to merchants are not guaranteed. Therefore, the beet is considered as a “guaranteed” product because farmers are certain that they will receive their payments due to the contract they made with the Sugar Factory. In this case, all of the farmers interviewed in Afyon/Sandıklı expressed either that they would prefer to cultivate beet under the conditions before the reinforcement of the quota in beet production and the decline in beet prices, or that they would be willing to cultivate beet if the beet prices rose to the extent of covering the input expenses.

Debts

One of the important themes that came up during the interviews was the increasing debts of farmers. Farmers, who shifted their production after their retreat from the production of beet in Afyon/Sandıklı, have increasing debts due to the credits they borrowed from state or private banks. They explained that their need for additional credits emerged due to their increasing expenses in the shift to the alternative products. Kemal, a small landowning farmer in Sorkun told me:

“Whether you want or not, you borrow credits because the expenses of the potato production are high. When the expenses are high your resources are not sufficient; what will you do when they are not sufficient? You will use credits whether you want or not.”

Mehmetali’s ideas on the issue were similar to Kemal’s ideas:

“Now, it is not possible to reduce your expenses; you have to expend money. But what happens? You give deficits. Do you know how it is reflected to us? Here, people, who did not even stepped into banks five years ago, are now borrowing credits from three to five banks.”

Oruç, the large landowning farmer in Emirhisar, relates the increasing debts with the increasing expenses due to the shift in the production:

“This region [Sandıklı] is maybe the richest region of Afyon. Here grows potato. Turkey’s first class potato grows here. It means, that it is “gold”. People call it “gold” [expressed in English], you know? We raise it, but money does not arrive, there are a lot of swindlers. Also there is no state support. Therefore, what are you going to do? Now it is the time to pay off the debts to the Cooperatives. But the interest rates do not come to a hold. Right now, the eighth month (August) has arrived. I mean, the farmer is in a very difficult position; the farmer has more debts than ever. The farmer received very easy credits. Let it be from the state banks or İş Bankası [a private bank in Turkey], some gave yield credits. They have given, but not for free! These have to be paid off, they have a due date, and everything has a cost. OK, they are right, but I am right too! I went up there and borrowed credits because I needed them.

Şeref, a small landowning farmer from Ekinova, states that there were very small amount of debts to banks. According to him, right now 90% of the farmers in his village is indebted to banks. Also Mustafa, a large landowning farmer in Hirka, drew attention to the trend of covering a debt with another debt borrowed from elsewhere: “We could not pay off the debt at the Cooperative [Agricultural Credit Cooperative], we drew credits from the bank, and invested in the Cooperative.” Hasan added to his words: “We cover debt with debt; we are gone if the potato makes money this year.” Isa in Örenkaya expressed the same thing: “We have debts to the Cooperative; we took credits because we have debts. What we sell does not make money. For 2-3 years... We take from one side to cover the other side. Transferring our debts...” And Bayram, a small landowning farmer concluded: “The farmer is finished off when the wheel stops turning.”

The result of the interviews on the debt of farmers in Afyon/Sandıklı is that they are drawn into a circle of debt which issues from the increasing expenses and the irregular payments in the shift to alternative products. And the only possible solution to them is drawing credits to cover their former debts.

Direct Income Support

When I asked about the influence of DIS payment, all respondents complained that DIS payments only covered a very small portion of their expenses.

Mehmet from Hırka stated:

“They give it [DIS] in parts, 2 or 3 parts in a year; it is not significant. They give 300 TL, 500 TL [around \$150, and \$250 respectively] and that money just goes as it comes. Either it becomes the payment of credit cards or the payment of Bağkur [a social security institution]. It dries up suddenly.”

Although all of the respondents are not satisfied with DIS, small landowning farmers emphasized that DIS was not a kind of a support that backs up the ones who produce, but only the ones who obtain large lands. Especially, small landowning farmers rent additional lands to extend their field of cultivation, but they cannot receive DIS payments for the land parts they have rented because it is paid to the owner of the land. Although Mustafa is a large landowning farmer, he rents additional lands to extend his field to cultivate. He expressed his discontent on the application of DIS by saying:

“I have cultivated an area between 200 and 250 decares. However, the other [landowner] receives the money, you just look at it. He covers his expenses, puts it into his pocket, you just look at it. This support is not to the product.”

Similarly, Sefer, a small landowning farmer in Sorkun, stated: “The man is the landowner. He left the land, and lives in Istanbul. I cultivate his land. He gets the support. It is not given to the one who cultivates, works in the field.” Yavuz and Kemal, both small landowning farmers in Sorkun offered a solution to this problem in that the real support to the agriculture should be given to products and inputs. Thereby, it can be argued that DIS contributed to the farmers in Afyon/Sandıklı at

the margins, and small landowning farmers could not utilize this support for the lands they rented.

Pankobirlik

When farmers are asked about the role of Pankobirlik, which is the cooperative of beet producers, they say that they did not receive any kind of a support to remedy their problems. Furthermore, some of the respondents claimed that the Cooperative lost its feature as an institution which supports the farmers. They stated that Pankobirlik is not different than any merchandising firm with its current position. According to them Pankobirlik has been an insider of the transforming structure of agriculture since it provided no more inputs at low interest rates as it was once. Some of the respondents even claimed that the interest rates of the purchases made from Pankobirlik were resulting in prices which are well above the market prices.

Migration

When the respondents were asked whether they knew individuals who sold their land and migrated to cities due to the decline in the production of beet most of the respondents replied that there is migration to cities but the sale of the land was not common. Also they replied that the intent of selling the land is not due to the decline in beet production but due to the debts to banks. Şeref, the small landowning farmer from Ekinova, emphasized this point by saying: “There are people who want to sell their land not due to the beet, but due to the debts to banks. For instance, I will sell it.” Selman, another small landowning farmer in Ekinova, continued: “There is no buyer too. There should be money among the villagers to buy the land.

You can't sell it. Can I say something to you? We are going to sell our fields to the banks.” Mehmetali, after stating that the majority of the migrants go to Denizli, put:

“Most of the land now stays empty. Because the expenditures are very high empty land is increasing in numbers for one or two years. They go to work in the textile industry [in Denizli]. [...] Right now the population here [in Sorkun] is around one-thousand. There are two-thousand people [migrated from Sorkun] in Denizli.”

Also Mustafa from Hırka indicated that the general migration from his village was to Denizli, and emphasized the fall in the welfare brought by the beet production:

“When the payment of beet was made during 80's, 90's between 10 and 20 tractors would be bought, marriages would be organized, and houses would be furnished. Right now it [the beet payment] does not cover your expenditure for tea.”

The result of the interviews on the migration indicates that the shift from beet to alternative products and the increasing debts have been influential in the outwards migration from Afyon/Sandıklı.

3.5. Discussion

Although the interviews are conducted only in Afyon/Sandıklı, the findings of the interviews are quite compatible with the findings of the project report of Türkiye’de Tarımda Dönüşüm ve Küresel Piyasalarla Bütünleşme Süreci (Islamoglu et al. 2008). The information in the part of the report on beet production is based on 100 surveys with beet farmers in different regions. In the Report, as in my field research, beet farmers experienced a worsening in the economic conditions during the 2000s, were not satisfied with the market conditions of the alternative products, to which the production has shifted, and had increasing debts to banks during the 2000s (Islamoglu et al. 2008: 394, 413).

The similarity of the findings between the Report (Islamoglu et al. 2008) and the field research in Afyon/Sandıklı strengthens the reliability of my case study. This evidence shows that the beet production was an important factor for the personal economic outlook of the beet farmers when the farmers' preference for beet production, under the conditions before the application of neo-liberal policies, over the production of alternative products is taken into consideration.

The shift from the Fordist regime of accumulation, where the wage is an essential part of the national demand, to the Post-Fordist regime of accumulation, where the wage is considered just only as a cost of production (Jessop 2002: 72, 105), can be applied to the case of shift from beet production to alternative products. Beet is considered as a guaranteed commodity as a result of the purchase of the product to the TŞFAŞ. And in the alternative products, the merchant is an agent in the “free” market and tries to purchase the products at the lowest prices possible. Besides the prices for the alternative products are not stable over the years, there have been recorded cases in which the merchant tries to expropriate the product from the farmer by fraud in the payments.

The tools, utilized by the state in the shift from the Fordist accumulation regime to the Post-Fordist accumulation regime in agricultural production, such as DIS, low beet prices given by TŞFAŞ, and cuts in subsidies to inputs (fertilizer and diesel oil) have induced farmers to shift their production to more “competitive” products, such as potato in the case of Afyon/Sandıklı. Beet farmers, who used to cultivate in an economic environment secured by the state, found themselves in an insecure environment with the shift to alternative products. But their agency is very crucial in their decision to withdraw from the beet production and shift to an alternative product due to the declining gains from beet cultivation. During the

process they show effort to produce the product which seems to be most appropriate in terms of its potential profits and the climate conditions (e.g. in the choice of farmers to plant either potato or wheat and barley). Also it is necessary to indicate that DIS has created frictions, at least at the level of discontent, between the renter farmers and landowners who lease their land to the farmers. These landowners received DIS which is not given to the renter farmer who actually does the production.

Farmers resorted to bank credits to cover their increasing expenses in their shift to alternative products in order to cope with the difficulties faced in the production. However, the unsecure environment in the alternative product markets did not improve and farmers have increasing debts to banks. This line of development has resulted in the worsening in the personal economic outlook of farmers, with some deciding to migrate and some intending to sell their lands. Hence, the impact of the policies pursued by the state in beet production and alternative products, which are related with the reforms demanded from Turkey by IOs, had detrimental effects in Afyon/Sandıklı for beet producers. This case supports the arguments for the negative effects of the neo-liberal policies on the personal economic outlook of small-scale farmers, as Food Regime (e.g. McMichael 2008) suggests. However, it does not support the argument that the neoliberal policies alleviated the rural impoverishment, as Burrell and Kurzweil (2008) argue.

The Farmers' discontent with the alternative products and their will to return to beet production under the conditions before the neo-liberal policies also underlines the fall of the compromise between the farmers, as a social force, with the Post-Fordist regime of accumulation conducted by the state and induced by IOs, as proposed by Jessop (2002: 105). Moreover, the findings of the field research in

Afyon/Sandıklı supports the argument of Food Regime that the neo-liberal transformation induced by IOs influences the social dynamics in a negative direction. Finally, the state emerges both as a regulatory mechanism, which attempts to transform the regime of accumulation and to gain the consent of the rural (subordinate) population (Jessop 1990: 219-221), and a pivotal actor (Raynolds et al. 1993) while it implements the policies of low beet price, cut of input subsidies, and DIS, as examples of neoliberal policies.

As we have seen the impacts of neoliberal policies in beet production at the local level in Afyon/Sandıklı in this chapter, the following part will discuss how neoliberalization in agriculture operates at different levels of analysis. Besides the overall evaluation of this research, next part focuses on limitations of this research and possible future researches which would be relevant to this study.

Appendix for Chapter 3

Questions for the Interviews with the Sugar-beet Producers

Hello, I am Yetkin Borlu. I am a graduate student at Koç University and making a study on the impacts of the state policies in agriculture since 1990s on regions where the sugar beet is being cultivated extensively. I want to talk to you in order to grasp your thoughts and conditions you are living in. The information you will provide to me is very crucial for the study I am conducting. If I have your consent I would like to sound-record our discussions; in that way I will have the chance to remember our discussions much more clearly and to make analyses in-depth. However, you can be sure that I will not disclose your identities or names in my research.

I would like to make you think on the period before and after the Sugar Law has been enacted. On the one hand the production of a product (the sugar beet), which have been produced for decades by farmers, is being restricted; on the other hand it is being said that you would grow other crops, which are said to be more profitable, and incentives are given in this way. In the light of all being experienced, I would like to set a few questions.

- 1) Do you earn your income mainly from agriculture? If not, what are the other jobs you are doing to gain income?
- 2) Do you own land? If you own, what is the size of it (in decares)?
- 3) After the restriction of the production of the sugar beet through the quota in 2001, are you experiencing more or less difficulty in covering your daily expenses (flour, oil, sugar, fertilizer, medicine, your children's education etc.)?

- 4) Did the decrease in the state subsidies to agriculture (lowering the costs of inputs in farming, such as fertilizer and diesel oil) affect you in the topics (meaning your daily expenses) I have indicated just before?
- 5) Do the direct income payments (according to the size of your land) substitute for the previous high prices of sugar-beet and state subsidies? How much of your expenses do direct payments cover?
- 6) Does potato, which you have started to grow after giving up sugar-beet production, provide money at the same level of the sugar-beet production? What changes did these products cause in your welfare (meaning your expenses or savings) when compared with the period you were growing the sugar-beet?
- 7) Have you noticed any individuals who have migrated to cities due to the decline in the sugar-beet production? Have you noticed anyone who sell their land and migrate?
- 8) Does the state provide you road (meaning transportation), water, and electricity? Is there a change in the level of these services by the state since there is being a decrease in the production of the sugar-beet? How (positive and negative)? Is there a change in the number of schools where you can get education? Is there change in the number and services of sağlık ocakları, dispanserler and hospitals?
- 9) What did Pankobirlik do against the restriction of the sugar-beet production after 2001?

Conclusion

Small-scale farming and SEEs dominated the agricultural production in Turkey during the post-WW II era until 1980s. The government policy in this period was mainly to support agricultural producers through input subsidies, price supports, and financial support of agricultural sales cooperatives (Yenal and Yenal 1993). Beet production during this period was one of the constituents of the agricultural policy because beet producing small-scale farmers were selling their products to TŞFAŞ and receiving price supports. This feature of beet production renders it as a part of the rural development and industrialization (Alexander 2002: 131).

The post-1980 period underlies significant changes in the agricultural policies in Turkey. The Agreement on Agriculture, signed by Turkey with the WTO in 1995, required an important shift in the agricultural policies of signatory countries (WTO 1995). They should end old forms of agricultural support (input subsidies and price supports) and implement CP, DP, and DIS. The WTO deems former kind of supports to be trade-distorting and to cause over-production of certain kind of crops. However, the shift to latter kind of supports would encourage farmers to produce crops in which farmers should have comparative advantage. After Turkey's application to the IMF for financial credits due to its budgetary deficits in 1999, government of Turkey wrote three letters of intention, which included the reforms in the agricultural sector, to the IMF on 11/9/99, 11/18/00, and 5/3/01. These letters included future plans to stop providing input subsidies and price supports to agricultural producers, to privatize SEEs active in the agricultural sector, and to pass the Sugar Law (Government of Turkey 1999, 2000, and 2001). The ERL Project and the ARIP, prepared and financed by the World Bank, also designed that the government replace agricultural subsidies and price supports with new forms of

support, mentioned above, in order to contribute to the shift of production from over-produced crops to alternative crops, such as maize, soy, cotton, and sunflower (World Bank 2000, 2001).

Consistent with the regulations of IOs, Turkey passed the Sugar Law in 2001. This law regulated that the price supports should end, and the world market prices should replace them and the quota for HFCS production in the sweetener should increase. Also agricultural policy strategies developed by the government for the 2000s aimed increase in alternative crops through incentives (CP, DP, and DIS), the phase-out of input subsidies and price supports, and the reduction in over-produced crops, such as beet. The aim of these policies was to decrease state intervention in agriculture to prevent budget deficits and to establish an agricultural sector which produces profitable crops having comparative advantage.

As we saw in Chapter 2, the decline in beet production during the 2003-2007 period was severer than the 1998-2002 period in twenty-five regions where TŞFAŞ operated. When we look at the period between 1992 and 2008 at the national level, low beet prices during the 2000s, (especially after 2003 when price supports in beet production ended) in the face of increasing input prices (i.e. fertilizer and diesel oil) were related with the decline in beet cultivation. The more beet prices lagged behind input prices, the less area was cultivated with beet by farmers in this period. Also, we saw that the official development assistance and official aid from IOs were related negatively with the profit margin of beet production. This result implies that the lucrativeness of beet cultivation declines as Turkey receives financial assistance from IOs. When the LN of the GNI per capita (PPP) controlled, the LN of the size of the area cultivated with beet showed a negative relation to the former. In other words, as the GNI per capita (PPP) was increasing the size of the area sown with beet at the

national level was declining during the 2000s. The interpretation of these findings is that low beet prices and rising input prices as proxies of neoliberal policies in agriculture are influencing factors in the decline of beet production by farmers during the 2000s, although the GNI per capita (PPP), as a proxy of neoliberal policies at the macro level, was rising during the same period. However, when we analyzed the trends in the profit margin of beet production and in the size of the area sown with beet visually, we saw that the profit margin of production and the size of the area sown did not parallel in some years in 1990s as well as in 2000s. This can be related to the implementation of contract farming in beet production in 1998, when input and product prices may have lost their significance.

On the side of alternative products, maize production increased during the 2000s. Erdal and Erdal (2008) indicate that premium payments (DP) had a positive influence on the increase in maize production. Islamoğlu et al. (2008) point out that the majority of maize seeds were either Pioneer (DuPont) or Monsato, top two seed producing companies in 1999 (RAFI 2000). Islamoğlu et al. (2008) indicate further that the maize produced in Sakarya and Adana was sold to Cargill by merchants, who buy maize from farmers based on an unwritten agreement. Remembering that Cargill has the largest share in HFCS production in Turkey, the increase in maize production through state incentives (DP and CP) and the increase in HFCS production quota with the Sugar Law (2001) benefit this TNC. However, for the effects of these changes in the agriculture on farmers we have to deepen our analysis to the local level.

According to the twenty-five in-depth interviews I conducted in Afyon/Sandıklı with small and large landholding farmers, I found out that low beet prices in the face of rising input prices was a influencing factor behind the shift of

production from beet to potato production. In this region, potato production was the main alternative to beet production (besides wheat and poppy) because the irrigation opportunities in Afyon/Sandıklı were not sufficient enough to cultivate products which require intense irrigation, such as maize. Farmers indicated that potato production was risky because merchants could swindle them financially, as opposed to beet production. Farmers regarded beet production as “guaranteed” because the purchaser was the state. However, most of farmers were not willing to return to beet cultivation under contemporary circumstances because it was not profitable anymore. Another finding of this research in Afyon/Sandıklı was that farmers had increasing debts to public and private banks because they could not bear the expenses to sustain the shift of production due to either the instable prices of the new crop or the financial fraud by merchants. DIS payments seemed to create a friction between small-scale farmers and landowners because DIS payments were based on the size of the land owned by the farmer. Therefore, the small-scale farmer who rented land from a landowner could not benefit DIS payments. As a result of these developments, farmers in Afyon/Sandıklı either intended to sell their fields or migrated. The reliability of these findings in Afyon/Sandıklı is strengthened with the findings of Islamoğlu et al. (2008). They found out too that beet farmers got financially worse during the 2000s, were dissatisfied with the market conditions of the alternative products, and had increasing debts to banks in this period.(2008: 394, 413).

The theoretical implications of this research are several. IOs induce the structural adjustment policies in agriculture and support the reduction in beet production and the increase in alternative crops in Turkey during the 2000s. Meanwhile, Cargill and Amylum, as TNCs, benefit the increase in the HFCS quota

as well as the increase in maize production in Turkey. These evidences overlap very well with the premise of Food Regime that TNCs benefit agricultural liberalization which is consistent with IOs' regulations. The other argument of Food Regime was that small-scale farmers were dispossessed in their subordination to corporate agro-food regime and without the state support (McMichael 2008). Based on this research, we can argue that small-scale farmers, who used to produce beet but shifted to alternative crops, are in worsening socioeconomic conditions, if not dispossessed, in the 2000s, consistent with Food Regime perspective. However, this has also another implication: the perspective indicating that structural adjustment policies and liberalization in agricultural sector reduce rural poverty (Burrell and Kurzweil 2008) are not much supported by the evidence presented in this research. Another finding of this research is that the state was the pivotal agent that applied the neoliberal policies, induced by IOs, in agriculture (beet production in my case) as Reynolds et al. (1993) argued before that one cannot neglect the role of the state in the policy implementation of neoliberalization.

While the state was cutting old forms of support (input subsidies and price supports) it was encouraging agricultural producers to shift from over-produced crops (beet) to alternative crops through new forms of support (CP, DP, and DIS). These developments signify the shift from beet production as a part of Fordist regime of accumulation, where the state intervention was essential, to alternative crops production as a part of post-Fordist regime of accumulation, where state withdraws from production processes and regulates the liberalization of agriculture. Hence, the state attempts to sustain the shift from the Fordist regime of accumulation to the post-Fordist regime of accumulation, while trying to consolidate its legitimacy

among rural population through these new policies of support, as suggested by Regulation Theory (Jessop 1990; 2002).

As farmers in Jamaica turned into export-crops producers withdrawing from traditional crops (Cook 2004) beet producers in Turkey are shifting to alternative crops production such as maize, or potato in the case of Afyon/Sandıklı. Like Echanove and Steffen (2005) argue that small-scale producers are disadvantaged in the contractual relations they have engaged with agro-food TNCs in Mexico, farmers, who shifted from beet to alternative crop production in Turkey, were disadvantaged in their relations with merchants, even if these merchants are selling their products to Cargill. Like the small-scale farmers cannot market their products after the liberalization of the retailing operations in Mexico (Biles et al. 2007), this research stressed that farmers, shifting to alternative products, in Afyon/Sandıklı could not find adequate market conditions to sell their products. As in the case of depeasantization as a result of policies of liberalization in agriculture in sub-Saharan Africa (Bryceson 2002), the farmers in Afyon/Sandıklı either decided to migrate or intend to sell their fields. Finally, as the government of Egypt was influential in the neoliberalization of agriculture in Egypt through its legislations (Bush 2002a, 2002b), the government of Turkey influenced the withdrawal from beet and shift to alternative products in the 2000s.

The first limitation of this research was that the analysis at the national level depended only on sixteen cases (years) between 1992 and 2007. If more data could be found for previous years an analysis, which interprets the historical course of beet production in Turkey, could be made easily. However, for the historical interpretation this research depended on secondary resources. The second limitation of this research is that its field study at the local level depended only on one case,

Afyon/Sandıklı due to the time and financial limitations. Although I tried to support the reliability by presenting evidence from other researches, a multiple-sited field work with the same research agenda would enhance the explanatory capability of this research. The third limitation of this research is that the in-depth interviews were only conducted with farmers. If time and financial resources were available further interviews with the representatives of Pankobirlik and merchant could give us data to reach more detailed analyses. Further research can be based on the limitations of this one. Other future research agendas related with this research may be the analysis of the world sugar prices; how they emerge and what mechanisms are influential in them. Also a detailed analysis of production and processing of alternative crops within the corporate agro-food industry would be complementary with this research. Finally, a future research on the migration of farmers from rural to urban spheres would be complementary with this research.

As for policy implications of this research, governmental mechanisms should provide guidance for small-scale farmers in marketing their products. Although the government provides incentives to farmers producing alternative crops, it does not guide them where to sell, or under what conditions they should sell. Farmers, that used to sell their products to TŞFAŞ, a state-owned factory, could not adapt market conditions of alternative crops. Simultaneously, establishing farmer unions in order to enhance of the political participation of farmers is necessary. Farmers, who are represented in the political field, would have an opportunity to influence the regulations and governmental decisions which have impact on them. Finally, the government has to pursue crimes involving financial fraud victimizing farmer households. However, the last policy implication does not seem to happen in near

future as the government prepares a legislation, which will declare amnesty in Summer 2009 for the guilt of cheque fraud (Hürriyet 5/30/2009).

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