At the European Council meeting held in Helsinki on 10–11 December 1999 Turkey was officially recognized as an EU candidate country. After the approval of the Accession Partnership by the European Council and adoption of the Framework Regulation on 26 February 2001 the Turkish government announced its own National Programme for the adoption of the *acquis communautaire* on 19 March 2001, and negotiations started on 3 October 2005. The purpose of this chapter is to provide first an account of the status quo in agriculture prior to the start of accession negotiations, second to evaluate the commitments undertaken during the accession process, third to assess the issues faced in implementing the requirements of relevant chapters of the *acquis communautaire* on agriculture and lastly to determine the budgetary costs of implementing the *acquis* on agriculture.

The chapter is structured as follows. While the first section gives an overview of developments in the Turkish agricultural sector prior to the start of accession negotiations, the second section is on commitments, the third section discusses the implementation issues and the fourth section discusses the determination of budgetary costs of implementation. The last section concludes.

**Developments prior to the start of accession negotiations**

In Turkey the main objectives of agricultural policies until the late 1990s were to ensure adequate levels of nutrition, increase yield and output, reduce the vulnerability of production to adverse weather conditions, raise levels of self-sufficiency, provide stable and sustainable incomes for those working in the agricultural sector, increase exports and develop rural areas. In pursuit of these objectives, the government has implemented various measures. In the crops sector, government interventions have primarily taken the form of price supports, augmented by high tariffs. In the livestock sector, quantitative restrictions and tariffs have been the main mechanism used to support prices. In addition, farmers were given input subsidies and credits. Finally, administrative controls have been applied to the production of a few important crops.

The main organizations responsible for the formulation and implementation of agricultural policy have been the Ministry of Agriculture and Rural Affairs (MARA), Turkish Grain Board (TMO), Turkish Bank of Agriculture, agricultural
sales cooperatives unions (ASCUs) and agricultural credit cooperatives (ACCs). The overly generous system of agricultural support policies pursued was fiscally expensive and unsustainable. The policies encouraged waste and abuse. They did not provide a cost-effective way for addressing policy objectives such as alleviation of rural poverty and regional development, and the system of administration burdened the Treasury with enormous debts. Quality and health controls remained inadequate, the level of controls was poor and there were too few laboratories. In the veterinary sector there were notifiable animal diseases, of which the most important were the foot and mouth disease, rinderpest, sheep/goat pox and brucellosis. On the other hand, the plant health regime was beset with problems. Domestic production was normally not subject to plant health control, other than for the purpose of the certification of seed and propagating material.

In late 1990s Turkey decided to reform its agricultural policies. In 1999, with support from the International Monetary Fund (IMF) and the World Bank, the government developed the Agricultural Reform Implementation Project (ARIP) to phase out the production- and input-oriented support and to replace it by area-based income support payments during the 2001–2004 period. The objectives were to phase out the unsustainable and distortionary system of subsidies for fertilizer, credit and price supports; to privatize most state enterprises in agriculture; to turn the ASCUs into true private sector unions of producer-owned cooperatives, in order to reduce government involvement in the marketing and processing of agricultural products; and to introduce a unified national programme of direct income support (DIS).

Commitments

In the EU the acquis on agriculture covers a large number of binding rules. It is emphasized that proper application of these rules and their effective enforcement by an efficient public administration are essential for the functioning of the common agricultural policy (CAP). This includes the setting up of management systems such as a paying agency and the Integrated Administration and Control System (IACS), and also the capacity to implement rural development actions. Furthermore, the acquis requires integration into the common market organizations of a range of agricultural products, including arable crops, sugar, animal products and specialized crops.

The acquis on ‘food safety, veterinary and phytosanitary policy’ consists of a very large number of Regulations, Directives and Decisions, aimed at assuring a high level of food safety, animal health, animal welfare and plant health within the EU through coherent farm-to-fork measures and adequate monitoring, while ensuring the effective functioning of the internal market. For the implementation of food safety legislation, each member state must have appropriate administrative structures to be able to carry out inspection and control of food products including an appropriate laboratory capacity. The basic rules are defined by the general food and feed law consisting of regulations providing the general principles and requirements of food production, processing, packaging, labelling,
marketing and distribution. In the areas of veterinary and phytosanitary policy, EU legislation lays down rules for internal trade and importation from third countries in the veterinary, plant health and animal nutrition sectors while safeguarding public health, plant and animal health and animal welfare. The EU regime is based on the implementation of the same rules by the authorities in the member states. A substantial part of Community *acquis* in this field covers hygiene aspects related to processing and placing on the market food of animal origin, the control of animal diseases and the protection of plants.\(^3\)

Since Turkey according to the National Programmes adopted in 2001, 2003 and 2008 intends to adopt and implement Community’s *acquis* in the agricultural sector including the *acquis* on food security, veterinary and phytosanitary measures, the aim of Turkey in the case of agriculture is the adoption and implementation of this *acquis*.\(^4\) Formally, it is stated that the basic objectives of agricultural policies are to ensure food security and safety and to form a sustainable agricultural structure that is harmonized with the regulations of the EU.

**Implementation**

In both the Ankara Agreement of 1963 and the Customs Union Decision (CUD) of 1995 the Community and Turkey committed themselves to achieving free movement of agricultural products. In fact, Articles 22–25 of the CUD emphasized that Turkey would have to adjust its policy in such a way as to adopt the CAP measures. But no date was set for the achievement of free movement of agricultural products. Trade in agricultural products between Turkey and the EU is regulated by Decision No 1/98 of the Association Council of 25 February 1998, which was last amended by Decision No 3/2006 of the EC-Turkey Association Council of 19 December 2006.

**Agriculture and rural development**

Although ARIP was intended to increase the efficiency of the agricultural sector, it also aimed at bringing Turkey closer to its goal of EU accession. During the late 1990s, Turkey, with the introduction of ARIP, completely reformed its prevailing output price support and input subsidy policies. Turkey realized that DIS is at the heart of ARIP and that registration of farmers is a critical part of this programme. Since running the CAP requires among others the establishment of an ‘inspection and control mechanism’ as the EU’s IACS, a ‘land register system’ as the EU’s ‘Land Parcel Identification System’ (LPIS) and a ‘Paying Agency’ as in the EU, Turkey had to establish these institutions.\(^5\) In addition, Turkey had to improve the agricultural statistics along the EU’s ‘Farm Accountancy Data Network’ (FADN). Fifteen years have passed since the start of ARIP. In 2009, Turkey has decided to scrap the DIS system. It appears that a lack of familiarity with decoupled payments, payments delays and other concerns made the DIS system unpopular among farmers. The authorities expect that the ‘Strategy on the Identification of Agricultural Lands’ and the ‘National Farmer Registration System’ implemented
by Turkey will enable the country to meet the LPIS standards and enhance its capacity for implementing decoupled supports. According to the ‘Turkey 2013 Progress Report’ of the European Commission, some progress has been observed in the development of LPIS system, but there was limited progress in the preparation of the IACS.

Within the context of ARIP the ASCUs were restructured, and the TMO was downsized. Another important element of ARIP entailed privatization of agricultural State Economic Enterprises. Concerning the common market organization (CMO) we note that according to the European Commission’s Progress Reports, some progress on acquis alignment could be noted in the cases of sugar and tobacco sectors as well as through the adoption of regulations on purchases and sales of cereals and rice and paddy rice. Progress has also been made on alignment of Turkey’s legislation with EU marketing standards for fruit and vegetables. However, according to ‘Turkey 2013 Progress Report’, no progress has been noted for other sectors.

The implementation of the CAP requires the establishment of effective customs control for trade with third countries. Because Turkey’s borders will become EU borders at the point of accession, Turkey will have to protect its long borders and ensure, for example, an adequate veterinary infrastructure to manage livestock inspection and control disease. EU controls on third-country imports require that a system of border inspection posts (BIPs) be completed to EU standards at external borders with third countries. Currently, in addition to the veterinary BIP at Sabiha Gökçen airport in Istanbul, two seaport veterinary BIPs and three land veterinary BIPs are operational. But the ‘Turkey 2013 Progress Report’ notes that no progress has been observed on the full functionality of land and seaport BIPs or at BIP at Sabiha Gokcen Airport in Istanbul.

In the EU rural development policy focuses on improving the competitiveness of the agricultural and forestry sector; improving the environment and the countryside; and improving the quality of life in rural areas and encouraging diversification of the rural economy. To help ensure a balanced approach to policy, member states are obliged to spread their rural development funding between all three of these thematic axes. In addition, every member state must set out a rural development programme, which specifies what funding will be spent on which measures. Furthermore, National Strategy Plans must be based on EU Strategic Guidelines, which should help to identify the areas where the use of EU support for rural development adds the most value at EU level; ensure consistency with other EU policies; and assist the implementation of the new market-oriented CAP and the necessary restructuring it will entail. On the other hand, in Turkey, rural areas have been beset with problems. Rural development is crucial for Turkey, given the facts that most of the rural labour force is employed in agriculture, and education and skills are lacking. Rural development now embraces objectives such as income diversification, development of human resources and preservation of the environment. As part of the accession partnership the Pre-Accession Assistance Rural Development (IPARD) programme was established, which set out measures for 2007–2013 to achieve consistency with EU’s rural development policy and the CAP.
The IPARD programme identifies the key sectors requiring further assistance to comply with EU regulations. IPARD measures include investment aid to modernize agricultural production, processing and marketing; capacity-building and support for producer groups; environmental measures; and diversification measures. In 2010, Turkey adopted a new national Rural Development Plan (2010–13), which focuses on rural employment, human resources and poverty, settlement and infrastructure and the environment and natural resources. Projects involved co-financing the beneficiaries to mobilize private-sector resources. As of 2014 Turkey has achieved conferral of management of EU funds under the IPARD for a total of 48 provinces. There has been significant increase in applications for support. Projects contributing to the acceleration of rural development include Sivas-Erzincan Development, Anatolian Water Basin Rehabilitation, Diyarbakir-Batman-Siirt Development, Ardahan-Kars-Artvin Development, Improving Life Conditions of Small Scaled Farmers in East Black Sea Region, Çoruh River Basin Rehabilitation, GAP Integrated Rural Development and Identification and Expanding of Local Structure and Architecture in Rural Areas. But, according to the ‘Turkey 2013 Progress Report’, continued efforts and possible simplifications are needed to build and maintain the project pipeline and to ensure more involvement of advisory systems and better credit availability.

As regards trade mechanisms the Ministry of Economy is the competent authority. It carries out trade policies regarding agricultural products such as custom duties to be applied on importation, managing tariff quotas and import licences. Agricultural products imported into Turkey are subject to various charges: customs duties, levies such as the Mass Housing Fund levy, internal taxes such as excise duties (special consumption tax [SCT]), value-added tax (VAT) and the stamp duty. Turkey’s tariffs and charges are specified at the 12-digit Harmonized Commodity Description and Coding System level. As a result of the Uruguay Round, Turkey has bound all agricultural tariff lines. The simple average bound rate for agricultural products is close to 72%, and varies between zero and 225%. The average applied most favoured nation (MFN) tariff rate amounted to 47.9% for agricultural products. While the simple average MFN applied tariff rate amounted to 105.9% for live animals and products thereof, the rate amounted to 115.8% for dairy products, 39.1% for coffee and tea, 10.6% for cut flowers, 41% for fruit and vegetables, 52.3% for grains, 20.1% for oil seeds and oils, 46.8% for beverages and spirits, 38.8% for tobacco and 6.4% for other products. In addition, Turkey administers tariff rate quotas, and employs export taxes on a number of agricultural products. Furthermore, Turkey prohibits 12 items for environmental, health and cultural reasons, and licenses are required for exports of 24 categories of products. Exports of 20 agricultural commodities are eligible for export subsidies. Finally, the government is entitled to make agricultural goods for export subject to quality control and to determine the type of quality control applicable to such goods. Certain fruit and vegetables are subject to compulsory export controls for quality purposes.

Currently, the support to agriculture pursuant to Agricultural Law No. 5488 of 2006 is provided through a number of mechanisms such as deficiency payments,
input subsidies, livestock support, production controls and environmental measures. According to the Organisation for Economic Co-operation and Development (OECD 2011), total support to agriculture as a percent of GDP has remained virtually unchanged between 1986–88 and 2007–09 at around 3.7%, while the share has been falling consistently in the OECD area. Between 1986–88 and 2007–09 total support to agriculture in the OECD area decreased from 2.3% of GDP in 1986–88 to 0.9% of GDP in 2007–09. On the other hand, producer support estimate (PSE) measured as a percent of gross farms receipts has fluctuated considerably over the period 1986–2009. While it amounted to 17% during 1986, it bottomed out at 12% in 2001 and gradually increased thereafter, reaching a peak of 37% in 2009. Support to producers was dominated by market price support, which accounted for 82% of the PSE in 2007–09. While PSE during 2011 amounted to 17.54% in the EU, the PSE in Turkey amounted to 20.16. Thus, Turkey is protecting its agriculture more than the EU. Since implementation of CAP requires that trade policy in Turkey be aligned to trade policy in the EU, Turkey has to decrease the protection in agriculture to the level prevailing in the EU.

Food safety, animal health and plant health

The achievement of free movement of agricultural products between Turkey and the EU depends on how rapidly Turkey will be able to adopt and implement the EU rules on food safety, veterinary and phytosanitary issues. Europe’s consumers want food that is safe. The concern of the EU is to make sure that the food they eat is of the same high standard for all its citizens, whether the food is home-grown or comes from another country, inside or outside the EU. The EU does its utmost, through a comprehensive food safety strategy, to keep risks to a minimum with the help of modern food and hygiene standards drawn up to reflect the most advanced scientific knowledge. If food is to be safe, the animals and plants it comes from must also be healthy. The EU takes very seriously the need to keep animals and plants healthy through good veterinary and phytosanitary practice and to prevent outbreaks of contagious animal and plant diseases. If an outbreak does occur, it is carefully monitored and steps are taken to prevent it spreading. Because of these considerations farms and food producers in non-EU countries who export to the EU must respect the same safety principles as they apply in the EU. Checks are run at EU frontiers to stop unsafe food slipping in. The EU is not interested in any way in compromising food safety rules.

Food safety

Turkey’s sanitary and phytosanitary (SPS) legislation is primarily based on Law No. 5996 on ‘Veterinary Services, Plant Health, Food and Feed’ of 2010; Turkish Food Codex Regulation of December 2011; and the regulations prepared under Law No. 5996. Law No. 5996 has the aim to (i) protect and maintain food and feed safety, plant health, animal health and well-being; and (ii) protect public health, consumer
interests and the environment. The Act covers matters regarding (a) production, processing and distribution of food, food materials and feed; control of plant protection products and veterinary medical products; fight against contagious or infectious animal diseases, plant diseases; zootechnics and welfare of pets and farm animals; and (b) official controls and sanctions to be implemented at the entrance and exit of live animals and animal products to the country. It defines (i) the rules and procedures on prevention from infectious animal diseases, identification and recording of animals, approval, production, sales and implementation of veterinary health products and sanitary requirements for animal products and animal markets; and (ii) the rules and procedures on phytosanitary control, fight against harmful organisms and plant diseases, plant passports, registration of plants and identification and recording, approval, production, sales and implementation of plant protection products. The Act also covers a chapter concerning food and feed safety, food codex, labeling and traceability, supply, advertising and consumer rights and protection; and a chapter concerning emergencies, crisis management, risk assessment and raising public awareness. Thus, the purpose of the Act is to ensure harmonization with the EU in the fields of food, feed, food hygiene, and veterinary services.

On the other hand, the Turkish Food Codex Regulation of December 2011 aims to determine the standards of food production and good manufacturing practices to protect consumer health, and covers the rules and procedures of appropriate technical and hygienic production, processing, storage, handling, packaging, marketing, sampling and analysis methods. The implementing regulations prepared under Law 5996 list among others maximum amounts of additives allowed in food items; conditions under which additives cannot be used; and maximum level of pesticides and veterinary medicines which are permitted in food items. On the whole they are translations of the relevant EU regulations such as Regulation 852/2004/EC on food hygiene and Regulation 1333/2008/EC on food additives. USDA Foreign Agricultural Service (2012) reports that the new regulations have brought some important changes, such as pre-notification requirements before importing and Turkish labeling requirements before customs release of products.

Some food products face special requirements. The production, storage, marketing and transportation of products such as chocolate and chocolate products, frozen food, jams, non-alcoholic drinks, pasta, sugar and vegetable oil are determined by independent communiques. Finally, we note that Turkey has adopted a Biosafety Law and a related Genetically Modified Organism (GMO) Regulation in 2010, regulating all aspects of agricultural biotechnology and requiring food and feed products containing GMOs to be labelled as such. Following the EU regulations, the Law banned the importation of any GMO products until the genes contained within go through a lengthy approval process.

Imports of food products are allowed only if they conform to Food Codex Regulations. If the product in question is not covered by Turkish Food Codex, officials can reference the international Codex Alimentarius or relevant EU Directives on a case-by-case basis. According to the import regulations of December 2011 the importation of some animal products requires a control certificate, while the importation of plant and plant products do not. Upon entry of the product at Customs, the importer as emphasized by USDA Foreign Agricultural Service
(2012) should be prepared to present the approved control certificate if required as well as other normal import documentation such as the bill of lading, original invoice and certificate of origin. In addition, the importer should be prepared to present Customs with the exporting company’s analysis report for physical, chemical, microbiological and heavy metal content, and a certificate from the official food inspection agency of the country of origin stating that the product meets the quarantine requirements of the importing country. The officials of MoFAL take samples of the imported product to government laboratories for physical, chemical and microbiological analysis in order to confirm that it matches the information supplied from the exporting country. In addition, if the foodstuff is a bulk or semi-processed commodity, it is checked by plant quarantine specialists or veterinarians for consistency with the appropriate law and regulations.

The rules regulating the packaging and labeling of food materials have also been prepared within the framework of harmonization with the relevant EU Directives. According to the regulation, every food product in the market has to be labelled clearly, completely and accurately in the Turkish language. The label should present comprehensive information on the contents and the composition of foodstuffs. According to the regulation, if the product has a shelf life of less than three months, the label must include the day/month/year of expiration; on the other hand if the shelf life is more than 3 months but less than 18, the month and year are required, and if the shelf life is more than 3 years, only the year is required on the label. Finally, in the case of fruit and vegetables, labels are required on the exterior of bulk packaging.

Although Turkey has achieved considerable progress towards implementation of the food safety acquis, the Commission of the European Communities (2013) notes that alignment in the area of food enzymes and novel food is not yet complete and that limited progress has been observed regarding specific rules for feed.

Veterinary issues

The EU is aiming to (i) ensure a high level of public health and food safety by minimizing the incidence of the risks of animal diseases, (ii) promote animal health by preventing/reducing the incidence of animal diseases and (iii) to promote farming practices and animal welfare which prevent animal health related threats and minimize environmental impacts. For the EU animal health is a major concern stemming from the public health and food safety aspects of animal health but also from the economic costs that animal disease outbreaks can trigger. To ensure that imported products live up to EU standards, imports are only allowed from ‘approved’ countries and establishments, for which compliance with EU rules has been checked. Guidelines to explain the EU’s import requirements for animals and animal products have been produced by the European Commission’s Food and Veterinary Office (FVO) as part of efforts to facilitate safe food trade with third countries.

Animal diseases are a major problem in Turkey. Under Turkish Law a total of 33 animal diseases are notifiable, which are determined according to the effects of the disease, animal and public health and trade. Of these diseases the most
important List A diseases consist of foot and mouth disease, pest des petits ruminants, sheep and goat pox, blue tongue, Newcastle disease, highly pathogenic avian influenza and rinderpest. On the other hand, the important List B diseases include anthrax, bovine tuberculosis, brucellosis, rabies, and bovine spongiform encephalopathy (BSE). Finally, the most important zoonoses in humans include anthrax, babies, brucellosis, leishmaniosis, and salmonellosis. In Turkey the fight against animal diseases supported by EU funds is continuing. Tagging and vaccination of sheep and goats started in 2009 for identification of sheep and goats. Mass vaccination for foot and mouth disease (FMD) progressed in the Thrace region, together with strict animal movement controls between the region and Anatolia to help maintain its FMD-free status with vaccination. The second phase of the rabies control project started in 2011. But according to the Commission of the European Communities (2013) no progress has been made on transmissible spongiform encephalopathies (TSEs), and significant efforts are needed for full alignment with and implementation of the acquis in this area.

Animal welfare in Turkey is ruled by a basic Law on Animal Protection from 2004 which leaves the responsibility to the animal owners in ensuring animal’s sheltering, ethologic requirements and caring for their health. The Ministry of Environment and Urbanization is the competent authority. Turkey has not yet regulated the animal welfare of farm animals, animal welfare at the time of slaughter and animals during transport according to EU rules. In Turkey slaughtering takes place following the religious practice which consists of slaughtering the animals by bleeding without prior stunning.

Plant health

The main objectives of EU plant health legislation is to protect the safety of food derived from plants, secure the health and quality status of crops in all member states and regulate the trade of plants and plant products within the EU as well as imports from the rest of the world in accordance with international plant health standards and obligations. The Directive 2000/29/EC provides the legal basis. It prohibits the presence of identified harmful organisms on plants or plant products and, in order to stop them spreading, provides for plant-health checks and certificates for plants and plant products circulating between EU member states and entering from other countries. To ensure that imported products live up to EU standards, the Directive subjects certain plants and plant products from other countries to a check on entry into EU territory, consisting of a documentary check, an identity check and a plant-health check. If the results of the checks are satisfactory, a passport attesting compliance with Community plant-health rules is issued. If not, access to EU territory may be refused.

Turning to the Turkish case, we note that ‘plant protection’ defined as the activity of protecting plants from harmful organisms by bio-control, cultivation practices and especially by the application of pesticides and ‘plant health’ defined as the areas related to the prevention of pests and diseases affecting plants and plant produce, including the control of imports and exports, are major issues. A plant
Agricultural policy

Disease outbreak or pest infestation that might occur in the exporting sector will result in production losses in the sense that particular consignments will either fail to get a Plant Health Certificate from the Turkish quarantine authorities or particular shipments of goods will be refused during entry at export destinations. In Turkey the phytosanitary aspects are managed by the Department of Plant Health and Quarantine, Department of Border Control for Plant and Plant Products, and Department of Plant Protection Products and Machinery of the General Directorate of Food Control (GDFC) in MoFAL. In addition, 81 provincial plant protection units ensure the inspection and registration activities. There are four plant protection research institutes and 12 plant quarantine services. Yearly survey programs determined by MoFAL provide for controlling the plant health situation of the country. Turkey is a member of International Seed Testing Association (ISTA) and is included in the OECD Seed Certification System for some plant species such as sugar beet, oil and fibre plants, cereals, fodder crops, maize and sorghum. Turkish legislation on seeds is generally compatible with the acquis, and Turkey is applying the rules of ISTA for sampling and laboratory analysis.

The main objectives of Turkish plant health regime are prevention of entry of harmful organisms into the country by international trade, prevention of establishment of pest, prevention of spread of harmful organisms within the country and prevention of the spread of harmful organisms through exports. In pursuit of these objectives Turkey has adopted the Directive 2000/29/EC on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community, Directive 91/414/EEC concerning the placing of plant protection products on the market, Regulation 396/2005/EC on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC, Directive 2000/60/EC establishing a framework for Community action in the field of water policy, and Directive 79/117/EEC prohibiting the placing on the market and use of plant protection products containing certain active substances. During the last few years Turkey has started the implementation of prescription-sale of pesticides, implementation of plant passport system as in the EU, established five new quarantine laboratories, and achieved the accreditation of these laboratories.

Although Turkey has achieved considerable progress towards implementation of plant protection and plant health acquis, the Commission of the European Communities (2013) notes that progress in the area of seed and propagating materials remained very limited. On the positive side it points out the adoption of some implementing legislation on certain harmful organisms and improvement of laboratory capacity in the field of GMOs.

Budgetary costs of implementation

According to the Ministry for EU Affairs (2001) the total cost of implementing the agricultural acquis to the public sector was estimated initially as 55 million euros. In 2003 the Ministry for EU Affairs (2003) estimated additional costs amounting to 273.9 million euros, and in 2008 the Ministry for EU Affairs (2008)
estimated further costs amounting to 470 million euros. Thus, total cost according to the Ministry for EU Affairs would amount to 799 million euros.\textsuperscript{16}

In the agricultural sector there are quite a large number of institutions involved with the work on aligning to the agricultural \textit{acquis}. In the case of the Ministry of Food, Agriculture and Livestock (MoFAL) we use quite detailed budget figures obtained from the Ministry of Finance for the period 1994–2009. We aggregate the data under the headings of personnel expenditures, current expenditures, and investment expenditures. Since the figures were given in nominal terms, we use the GDP deflator (price index) to convert all figures to 2009 prices. Next we use the average Turkish lira/euro exchange rate of 2009 to obtain the figures in terms of 2009 euros. MoFAL has been operating before the start of Accession Partnership with the EU, and it was employing a large number of personnel. The Accession Partnership put pressure on MoFAL to employ additional staff as well as to train the staff in issues related to agricultural \textit{acquis}. In addition they had to increase the investment expenditures considerably. As a result when considering the budgetary cost of assuming the obligations of the Accession Partnership in agricultural sector in the case of MoFAL we concentrate on the sum of total personnel expenditures, total current expenditures and total investment expenditures. During the period 1990–2009 real value added in agriculture has increased at the annual rate of 1.28 percent. We assume that the real value of total of personnel expenditures, current expenditures and investment expenditures at MoFAL would have increased at the same annual growth rate as that of real value added in agriculture, if the Accession Partnership had not been implemented. The excess of actual to predicted sum of personnel expenditures, current expenditures and investment expenditures by MoFAL over the period 2000–2009 is considered to be the budgetary cost of assuming the obligations of the Accession Partnership in the agricultural sector within the context of MoFAL. Calculations reveal that the budgetary cost of assuming the obligations of the Accession Partnership in the context of MoFAL has amounted to 1,443 million euros.

Besides MoFAL there are other institutions involved in the implementation of agricultural \textit{acquis}, such as the General Directorate of State Hydraulic Works, Southeastern Anatolia Project Regional Development Administration and Ministry of Environment and Forestry. In those cases we concentrate only on the investment expenditures of these institutions as reported by Ministry of Development for the period 1999–2009. Since the figures were given in nominal terms, we use the GDP deflator to convert all figures to 2009 prices. Next we use the average Turkish lira/euro exchange rate of 2009 to obtain the figures in terms of 2009 euros. We assume that total real investment expenditures at these institutions would have increased at the same annual growth rate as that of real value added in agriculture of 1.28% experienced over the period 1999–2009, if the Accession Partnership had not been implemented. The excess of actual to predicted real investment expenditures by these institutions over the period 2000–2009 is considered to be the budgetary cost of assuming the obligations of the Accession Partnership within the context of the above mentioned institutions. Calculations reveal that the budgetary cost of assuming the obligations of
the Accession Partnership in the context of these institutions has amounted to 896.3 million euros.

Next, we add to the above figures the funding received from the EU (EU contribution) during the period 2002–2009. Finally, we consider the estimates of OECD’s support to agriculture (PSE). Here, we concentrate under ‘payments based on input use’ on the component ‘fixed capital formation’ over the period 2008–2009, as the livestock payments prior to 2008 were made from the budget of MoFAL, and after 2008 they are made from the budget of the Rural Development Agency. As a result we add these figures for the period 2008–2009 to the estimated budgetary costs of assuming the obligations of the Accession Partnership. The calculations reveal that the total cost of assuming the obligations of the Accession Partnership in agricultural sector has amounted to 3,168.2 million euros, and that the EU contribution in this total cost has amounted to 5.7 percent as shown in Table 3.1.

The cost estimate reported above for the public sector covers the period up to and including 2009. But Turkey has not completed the task of adopting and implementing the agricultural acquis at the end of 2009. As of the end of 2013 the process is still continuing. The total budgetary cost of assuming the obligations of the Accession Partnership in the case of agriculture will be much higher than the 3.2 billion euros estimated, but by how much the costs will be higher than 3.2 billion euros is rather difficult to figure out.

**Conclusion**

During the period after the start of EU accession negotiations in 2005, Turkey has tried hard to adopt and implement the acquis on agriculture. Although the task has been challenging and also quite costly, the achievements are considerable. But as of 2014 the task is not complete. The country still has a long way to go. First, Turkey, faced with the adoption and implementation of CAP and rural development policies of the EU, realizes that the task is a difficult one. The objective as
emphasized above has been achieved only partially, and studies reveal that full implementation of those policies will be achieved only in the long run at considerable cost. Second, Turkey, faced with the adoption and implementation of food safety, animal health and plant health policies of the EU, was confronted with major problems. The task turned out to be more challenging than adoption and implementation of CAP and rural development policies of the EU. It seems that the alignment of Turkish food safety, animal health and plant health policies to those of the EU can only be achieved over the long term at considerable cost. To emphasize these problems, consider in the following the case of food safety only.

Europe’s consumers as emphasized above want food that is safe, and they are not interested in any way in compromising food safety rules. Thus, Turkish farm and food producers who intend to export to the EU, or who are actually exporting to the EU, must respect the same safety principles as apply in the EU. A recent study conducted by the World Bank (2010) showed that the cost of modernization of food enterprises active in the commodity areas of dairy, meat, livestock by-products and fish will amount to 1.2–2.1 billion euros. Hence, the total costs of assuming the obligations of the Accession Partnership to public as well as to private sector will be substantial by any standards. But the measures will open access to the EU market and in addition they will be beneficial for Turkish consumers.

A Turkish success story is the case of fruits and vegetables. Here, MoFAL together with the Ministry of Economy are responsible for checks for conformity to marketing standards. At export stage, the inspectors for Standardization for Foreign Trade perform the inspection of the fruits and vegetables within the scope of the standards specified by the Turkish Standards Institution (TSE) prior to export. The inspections are performed according to the TSE standards, which are parallel to United Nations Economic Commission for Europe (UNECE) standards. These standards are largely harmonized with the EU regulations, and checking is carried out in laboratories which are fully equipped. Checking operations of exports are carried out according to the OECD Scheme. The control certificate delivered after the inspection is compatible with the control certificate determined by the OECD Committee for Food, Agriculture and Fishery, and the Scheme for Implementation of International Standards on Fruits and Vegetables. The inspection units issue the control certificate only for agricultural products that will be exported, and obtaining the certificate is mandatory for exporting the relevant commodities. The control certificate is issued by the Ministry of Economy for the goods that are inspected, indicating that the goods are in conformity with the relevant standards. The Commission with Regulation No 1790/2006 has approved, in accordance with Article 7 of Regulation No 1148/2001, the checks on conformity to the marketing standards applicable to fruits and vegetables carried out by Turkey prior to import into the Community.

Recently, increasing food quality has become very important in Turkey. Factors leading to the change in consumption pattern include not only the high food standards Turkish exporters have to satisfy in order to sell to the EU market, but also the private standards imposed by international grocery retail outlets such as Kipa-Tesco, Carrefour, Metro and Migros active in the Turkish domestic market. The
requirements of these grocery retail outlets related to food safety and packaging are in general stricter than the legal requirements, and they include as emphasized by Jaffee (2003) the fulfilment of continuous supply, traceability, phytosanitary certification and implementation of Hazard Analysis and Critical Control Point (HACCP) systems.17

The Turkish success story achieved in the case of fruits and vegetables needs to be replicated over time in other subsectors of the agricultural sector. In such a case Turkey over time will be able to liberalize the trade in agricultural goods between Turkey and the EU, and achieve access for Turkish agricultural goods to the prosperous EU market.

Turkey, by adopting and implementing the EU rules and regulations in the agricultural sector, could benefit substantially from further integration with the EU. This process will not be automatic and it will be achieved at considerable cost. Such a strategy would help Turkey to gain market access to the large and prosperous EU market, and in addition it would help Turkey to join probably after 2017 the Transatlantic Trade and Investment Partnership (TTIP), when TTIP is expected to be concluded.

Notes

1 The paper draws partly on a study conducted for the World Bank. The author is grateful Jean-Pierre Chauffour for very helpful comments on earlier drafts, to Dr. Almert Kesik and Ali Mercan Aydin of the Ministry of Finance for providing the data required for the estimation of the budgetary costs of assuming the obligations of the Accession Partnership, to Mehmet Cömert of the then ‘State Planning Organization’ for proposing the estimation method using OECD’s support to agriculture estimates and to Ertan Tok for excellent research assistance.

2 In 2011 the Ministry of Agriculture and Rural Affairs (MARA) was restructured and MARA became the ‘Ministry of Food, Agriculture and Livestock’ (MoFAL).


6 The seaport BIPs are located in Izmir and Mersin, and the land BIPs are located in Cilvegözü, Habur and Sarp.

7 See Commission of the European Communities (2014).

8 Prior to 2011 trade mechanism was carried out by the Undersecretariat for Foreign Trade (UFT). In 2011 UFT was restructured and became part of the Ministry of Economy.

9 See World Trade Organization (2012).

10 This section is based among others on Ministry of Agriculture and Rural Affairs (2009), Commission of the European Communities (2007), Burrell and Oskam (2005), and Ministry of EU Affairs (2007b).

Most of Turkish agriculture-related laws, regulations, communiqués, directives and notifications are available on the website of the General Directorate of Food Control (GDFC) of MoFAL.

See European Communities (2007).

See Burrell and Oskam (2005).

In 2001, 2003 and 2008 it was the Secretariat General for EU Affairs that published the above mentioned documents. The Ministry for EU Affairs was established in 2011.

Note that since March 2008 all food manufacturers in Turkey must apply the HACCP quality assurance system. In 2006 Turkish Standards Institution published the more demanding ISO 22000, a new standard developed by International Standard Organization (ISO) for the supply of safe food. The certification process of the new standard is conducted by private certification firms accredited by the Turkish Accreditation Agency (TURKAK).

References


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