12

Expected Consequences for Turkey of EU Entry in 2015

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12.1 Introduction

This chapter draws on the previous chapters of the book in order to derive the likely consequences for Turkey's agricultural and agrifood sectors if it becomes an EU member in 2015. The assumptions about how the underlying context will have changed by 2015 are summarised in Section 12.2.

If Turkey becomes a full member of the EU in 2015, this means that Turkey has to comply fully with the EU *acquis communautaire* by that date. Therefore, part of the discussion in this chapter focuses on the implications for Turkey of adopting the *acquis*. We do not explore the expected consequences for Turkey in the years following EU entry in 2015, since this would require making assumptions about the precise entry terms agreed in the negotiations, as well as predictions about many exogenous factors that are hard to foresee so far ahead.

Two groups of issues are explored in this chapter. The first set of issues relates to Turkey's ability to assume the obligations of the *acquis* regarding competition rules, property rights, and free movement of agricultural products by 2015. The second set of issues relates to the implications of membership for agricultural markets in Turkey and their capacity to cope with competitive pressure and market forces implied by the EU single market. The emphasis will be on how the policy changes necessary for membership affect the functioning of agricultural and food markets, given the assumptions in Section 12.2.

This chapter is organised in eight sections. Following the introduction, Section 12.2 presents the key assumptions underlying the discussion. Section 12.3 critically examines the implications of EU membership for Turkish policies that relate to agriculture, food and rural development, international trade, and agri-environmental interactions. Section 12.4 explores the implications from agrifood chain developments. Implications for the institutional framework of Turkish agriculture are discussed in Section 12.5, with an emphasis on the quality and functioning of economy-wide and agrifood-specific institutions. Section 12.6

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comments on the budget consequences, already reported in Chapter 11. Section 12.7 discusses the findings of recent selected studies that assess the consequences for Turkey of accession. Section 12.8 concludes the chapter.

12.2 Summary of assumptions

Macro-economic assumptions

The assumptions presented in Section 11.2 are applied in this chapter. They include:

Annual economic growth rates of 5.2 per cent per year for Turkey and 2 per cent for the EU-27 are assumed, with some differences between country sub-groups (see Table 11.2 for details). Inflation of 2 per cent for the Euro zone is assumed. This implies that by 2015, the price level will be 24.3 per cent higher than that in 2004 or 26.8 per cent higher than that in 2003.

The following average annual rates of population growth are assumed for the period 2004-2015: Turkey (1.29 per cent), EU-15 (0.10 per cent), NMS (-0.20 per cent) and AC-2 (-0.37 per cent).

We assume that the gap between the market exchange rate and the PPP rate measured in 2003 will have closed by 20 per cent by 2015. Given that GDP in PPS in 2003 is double the GDP in euro, this implies a 20 per cent appreciation of the lira against the euro. For the NMS and for EU-15 members outside the euro zone, we assume no change in exchange rates; for the AC-2 countries, a 10 per cent appreciation of the exchange rate against the euro is assumed.

It is assumed that the Commission's proposal for the Financial Perspective 2007-2013 is accepted and continues to 2015. The Financial Perspective assumes that the own resources ceiling is maintained at 1.24 per cent of the Gross National Income (GNI) and appropriations for payments remain at 1.14 per cent of the EU GNI.

Assumptions with respect to agricultural policies

Although Turkey is assumed to adopt the *acquis* fully, its precise content will depend on the evolution of EU policies between now and 2015. Therefore, assumptions about future EU policies need to be made. We assume that EU agricultural policy will become increasingly market oriented, moving towards lower support prices and decoupled income transfers (see Section 11.2). This will result in lower market prices. The budget costs of Turkey's direct income support will shift to the EU, on condition that Turkish farmers observe the EU's cross compliance rules associated with decoupled direct income support.

Full incorporation into policies of the WTO Doha Round agreement (elimination of export subsidies and further tariff cuts) is assumed. Specifically, we assume that import tariff bindings will be 50 per cent lower in 2015 compared to the levels in 2000. A new round of policy revisions will be needed, probably before 2010, to incorporate the Doha Round agreement and to achieve fully decoupled direct income payments. During this period, it is likely that further changes will be made to the CAP to accommodate the entry of AC-2 countries and Turkey. Regarding the CAP second pillar, we assume policy rules in line with the proposals of the European Commission for the financial perspective 2007-2013 (see Section 11.6). Furthermore, we assume that Turkey will use all the funds available to it under the second pillar. For structural and cohesion programmes, we assume that the Commission's proposal for structural fund reform for 2007-2013 is adopted, and that these rules remain unchanged for 2015.

With respect to environmental policy in relation to agriculture, we expect a strong influence of EU regulations on Turkey's national policies (Nitrate Directive, Directive for Plant Protection Products, Water Directive, etc.). At the same time, we assume that EU environmental pressures on member states will not increase in the period 2005-2015.

12.3 Consequences for Turkish policies

Implications for agricultural, food, rural and structural policies

Agricultural policy

The basic principles of Turkey's agricultural policy have been laid down by the ARIP programme (2001-2005). Adapting current policies to the EU's agricultural policy *acquis* over the period 2005-2015 is expected to pose no fundamental problems. The impact of accession in 2015 would depend greatly on the lira-euro exchange rate at the moment of accession and on how far the Turkish food chain has already adopted a market-oriented approach without state economic enterprises and enforced cooperatives.

Turkish agricultural policy already incorporates a direct income support system with a flat rate payment per hectare and a cap at 50 hectares per farm, whereas it will take years to fully phase in such a system for EU-27. Given this existing direct income support scheme and the relatively high prices for agricultural products, there is at first sight no strong reason to phase in CAP direct income support gradually, as has been done for the NMS and is agreed for the AC-2. There would be a strong tendency to start CAP direct payments in 2015 at least at the level of direct income support current at the moment of accession. Complications might arise if by 2015 Turkish crop prices have not been aligned with EU prices and income compensation for a price fall is demanded. This would interfere with the flat rate system and would also lead to an upward pressure on direct income support.

By 2015, a large share of the CAP budget will be spent on decoupled direct income support (the Single Farm Payment). By 2006, existing EU members will have converted their area and headage payments to a flat rate per hectare, and will have adopted the cross compliance requirements related to these payments. In Turkey, there are currently no cross compliance rules, which Turkish farmers would have to accept under the CAP.

More difficulties will be experienced in the animal sector. This sector is both declining and inefficient. Producing beef, sheep and milk generates direct income support as long as ‘registered’ land is involved. At least for beef, a price fall is to be expected. Here, direct income compensation based on the number of cattle might be demanded. But this would not fit into the flat rate per hectare and would open up demands for substantial compensation.

A basic dilemma, already extensively discussed during the negotiations of the NMS is whether, instead of direct income payments to farmers, these funds should be allocated to restructuring the agricultural sector so that land, labour and capital are used more productively, either inside or outside agriculture. From an economic perspective, supporting the agricultural sector by means of direct income support is not very productive. It keeps labour in agriculture, and it hinders restructuring and farm consolidation because the payment is capitalised into the value of land. For the NMS, however, there was a political decision to introduce the CAP direct income payments, because otherwise there would be a difference in the way farm policy works across EU member states. The fact that farmers in the NMS experienced lower prices before accession and that there was no reason to compensate them for price decreases, was used only as a justification for *phasing in* the direct income support gradually. This justification does not apply for Turkey. Nevertheless, phasing in has been proposed by the European Commission (European Commission, 2004b). This time, budget restrictions are used as the main argument for limiting direct income support for Turkey. The best argument, of course, is that if the same budgetary amounts could be used for restructuring, it would be more efficient for the Turkish economy in the medium term.

There will be strong political pressure in Turkey to raise the direct income support payment level *before* 2015 as close as possible to the EU-27 level. After entering the EU, only 3 cents of every euro spent on direct income support will be perceived as being paid by Turkey. Moreover, these transfers might be considered helpful for influencing the Turkish agricultural population to vote in favour of entering the EU.[2]

Other products where difficulties may arise when adopting the CAP are sugar and tobacco. Sugar is highly protected in both Turkey and the EU. The EU’s reform proposal for sugar involves bringing internal prices more into line with international prices and shifting from a quota system with high prices to lower prices and direct income support (European Commission, 2004c). Specifically, this means a 33 per cent institutional price reduction and a direct income payment that compensates for 60 per cent of the price decrease. Sugar quota will be reduced by 2.8 million tons or 16 per cent, and isoglucose quota will be increased by 0.1 million tons. This implies that policy has to adjust in the same direction in Turkey. Policy changes will run parallel with the privatisation of

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[2] As was observed in Poland. Polish farmers, however, did not receive the full CAP direct income payment from the beginning. Moreover, they came from a lower price level than the EU-15.

TÜRKŞEKER, a state company that dominates the total sugar sector. Tobacco prices in Turkey are also far above EU prices and are likely to adjust downwards, although it is difficult to say how much of the price differential is due to quality differences.

For most other products, either (a) they are not highly concentrated in one particular area or their production value per hectare is relatively low, or (b) prices are not much higher or even lower than in the EU, or (c) in the EU there is no direct income compensation for the particular product. Under such circumstances, either no direct income payments are required or a slight general increase in the flat rate direct payment can be expected.

Rural policy

The expected decline in certain sectors of Turkish agriculture in a more competitive environment, together with existing rural-urban income differences, means that rural and structural policy measures will be important for generating rural employment and income. New jobs are likely to come from small businesses that provide services to agriculture, industry and other parts of the service sector. Job-creation policies, although present in the National Development Plan (NDP) (Republic of Turkey, 2003: iv), have not been used so far in Turkey.[3] Moreover, the NDP lacks useful approaches and instruments for these problems, in particular for rural areas. It will therefore be crucial for the EU and Turkey to develop a joint strategy that allows spending for rural development to be adapted to the needs of the Turkish situation. Although the menu approach of Regulation 1257/99 allows choices from among a set of instruments, Turkish rural development policy may require special instruments aimed at education, job creation and income in rural areas (see Chapter 5). We make no assumptions about how specifically funds are used, but expect that Turkey *will* use the funds available for EU rural policy.

Structural policy

Structural policy in Turkey has focused mainly on infrastructure and – for rural areas – on large irrigation projects. Infrastructure often needs a long lead time for development. This type of project does not directly address the need to find employment for large numbers of young people with low skills who will soon enter the job market. For a country like Turkey with large differences in regional development and large cities, there is a strong tendency to invest in urban centres because of scale effects (Krugman, 1991). However, development funding needs to be focused on rural areas in order to redress regional inequality within Turkey.

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[3] Employment and income generating policies (although not absent in EU rural policy - see e.g. LEADER+) are not central to EU rural policy. This is due to the history of these policies where a large part of the budget goes to environmental improvements in relation to agriculture, investments in farming and community development.

The potential availability of structural policy funds for Turkey is substantial but this would put a large burden on the EU budget. This budget pressure is the main reason for the European Commission to suggest reduced funding for structural policy in Turkey (European Commission, 2004b).

Food policy

Turkey adopted a food act in 1995 - succeeded by the Food Law 560 of 2004 - and the Codex Alimentarius in 1997. However, these adjustments require changes in the relevant institutions and considerable investments because many quality improvements demand new technology and facilities. The required changes could be facilitated by more foreign direct investment in the food and retail sector. Most importantly, they require effective and rigorous implementation of food control systems.

During the pre-accession period, food quality issues will receive a lot of attention (for example, through twinning projects). Given the rather long lead time to 2015, implementing the *acquis* by 2015 does not appear to be impossible. However, even if the level of food safety and food quality improves, in particular in cities and in relation to the activities of supermarkets, this does not imply that sufficient guarantees can be given to allow free market exchange within the EU.

Animal welfare

Upon accession, Turkey will have to comply with EU rules for the transport and slaughtering of animals, and with regulations concerning, for example, animal housing and stocking densities for intensive livestock production.

Implications for trade policy, and animal and plant health

Trade

Several changes to Turkey's current trade situation can be expected if it becomes a full member by 2015. First, Turkey will adopt the common external tariff of the EU for every agricultural product. Currently, Turkey has some higher tariff bindings than those of the EU. If the Doha Round Agreement imposes smaller tariff cuts on developing countries than on developed countries, average tariff bindings for the EU will be reduced by more than those of Turkey, and so by 2015 Turkey may have higher bindings than EU common external tariff (CET) bindings for more individual products than at present. Thus, the tariff gap between Turkey and the EU could actually increase in the period prior to trade harmonisation. This means that, if agricultural trade harmonisation between the EU and Turkey occurs in 2015, the fall in the maximum allowed tariff protection for these more highly protected products in Turkey will be relatively greater than it appears today. However, *actual* prices will fall only to the extent that Turkey's applied tariffs are higher than the EU's applied CET tariffs *and* fully determine the price gap between domestic and world market prices. Currently, this is not always the case.

If current policy trends continue up to 2015, the largest price falls following trade harmonisation will be experienced in the livestock sector. Meat, eggs and butter prices are currently considerably higher in Turkey than in the EU, due to high tariff barriers and Turkey's 8-year long import ban on red meat. These factors severely limit consumption of animal products. Although the current EU consumption levels of animal products are considered by some nutritionists to be unhealthy, even a doubling of meat consumption after their prices fall would raise Turkish per capita consumption to only about 50 per cent of the average EU-15 level. Assuming steady income growth between now and 2015, and bearing in mind that these products have a relatively high income elasticity of demand (particularly at such a low level of consumption), a strong expansion in animal product demand is likely to occur if trade protection, and hence internal price levels, are equalised. To the extent that this demand expansion is met largely by imports from the rest of the EU, internal prices should become stronger elsewhere in the Union and the price fall in Turkey will be slightly less than one might predict on the basis of extrapolating from current differentials.

Currently, Turkey sources a part of its cereals and oilseeds imports from North America. These imports are purchased at world market prices and represent a source of tariff revenue for Turkey. After joining the Union, there is likely to be trade diversion involving imported cereals, as they are replaced by cereals imported from elsewhere in the Union. Trade diversion of other agricultural imports is likely to be small.

Membership of the EU would imply that Turkey surrenders its right to a national trade policy. This means that, whilst remaining an individual WTO member, Turkey no longer negotiates independently in WTO multilateral negotiations, and its import and export regimes and protocols become those of the EU. During the pre-accession phase, one would expect Turkey's position on international trade issues to become closely aligned with that of the EU.

By 2015, Turkey must be in a position to operate the degree of controls for goods on its external borders that is required to implement all EU measures for goods that cross its frontiers. Apart from a small border in the Northwest with Europe, Turkey's borders consist of seacoast, and land borders in the south and east with Asian countries. Developing the infrastructure, administrative capacity and commitment for effective border control will be a challenging element in Turkey's adoption of the *acquis*.

The future of Turkey's participation in ECOTA[4] will depend on whether its trade agreement with other members of the ECO can be incorporated into some kind of preferential agreement with the EU. To the extent that the EU already has bilateral trade agreements with some of the countries concerned[5], we can expect a rationalisation of agreements on this front. Indeed, with Turkey inside

[4] The Economic Cooperation Organisation Trade Agreement (ECOTA) signed between Afghanistan, Iran, Tajikistan and Turkey in July 2003 (see section 8.2).

[5] A Trade and Cooperation Agreement between Iran and the EU has been under negotiation since 2002. The EU signed a Partnership and Cooperation Agreement with Tajikistan in October 2004.

the Union, other members of ECO become "frontier states", and it becomes even more in the EU's interests to have stable long-term trade ties with them.

Animal and plant health

A significant part of the agricultural *acquis communautaire* concerns animal and plant health, animal welfare, hygiene standards and food safety. Within this body of regulations, the sanitary and phytosanitary (SPS) regulations relate specifically to the health of plants and animals, and set standards necessary for maintaining plants and animals in a healthy state, both in order to protect the plant and animal populations themselves, and also to avoid any consequences for human health that may derive from consumption of diseased or infested plant or animal material.

In discussing Turkey's adoption of the SPS *acquis*, it is necessary to distinguish three phases: (a) assessing the appropriate legislation and setting up the administrative infrastructure and frameworks required by the legislation; (b) implementation of the regulations with the rigour and expertise necessary for them to function effectively; (c) convergence of the actual levels of plant and animal health with those of the EU.

Chapter 10 has reported that Turkey is already making a good start with the first stage: the programme of legislation and training envisaged up to 2006 is a significant step in the right direction, and is financed through a combination of national and EU funding (NPAA, 2003). However, given the fragmentation of agriculture, the large number of farmers and their generally low educational level, it seems clear that a much greater number of trained personnel will be needed to breathe life into this legislation than has been allowed for so far.

At the second stage, there are several issues. It has to be borne in mind that the *creation of an infrastructure* to manage the *acquis* is a longer and more difficult process than simply adopting the necessary legislation. Again, the fragmentation of the sector and the fact that a substantial share of output is disposed of in informal markets or by auto-consumption means that effective communication of the SPS *acquis* to producers, as well as monitoring and control of all the regulations, will be a difficult and daunting task. Moreover, governance issues are important. The training of inspectors and extension officers, and the efficient organisation of these services so that regulation can be implemented and farmers can participate will require a huge effort.

The third stage, namely the convergence of the actual levels of plant and animal health with those of the EU, cannot happen overnight. Eradication of diseases and pest populations may take a very long time because biological processes with long cycles are involved. Moreover, the good functioning of an effective, participatory biosecurity system can also take some time to achieve.

Assuming accession in 2015 and adoption of the SPS *acquis* into the legislation, it is unlikely that the conditions for a single market in animal products, without border controls for SPS inspection, will be possible for the EU and Turkey for some years after that. A cautious line must be adopted here, as an expanded EU without internal checks on animal movements will have the international animal-health status of whichever country has the weakest status, even in the absence of reported trade flows of animals or animal products from that country to other parts of the EU.

Turkey will have to adopt strong, proactive eradication programmes, and strengthen existing programmes for disease eradication and control where a programme already exists, in parallel with increased border controls for illegal animal movements, which will have to involve more than simply enforcing strict border inspection on main road routes with neighbouring countries.

Implications for policies concerning environmental impacts of agriculture

Administrative capacity

By accession, Turkey will have to adopt EU legislation aiming to avoid adverse impacts of agricultural activities on the environment. Overall, Turkey's current alignment with the environmental *acquis* is limited. The adoption of a new Regulation on Environmental Inspection represents a positive step towards increasing Turkish administrative capacity to implement the *acquis* (European Commission, 2004a). Critical issues to be addressed in this respect relate to capacity development in the implementation, monitoring and enforcement of the environmental *acquis*. Here, Turkey may face difficulties because of society's low valuation of environmental amenities and resources. Lack of environmental awareness could also hinder the further development of the organic food sector. NGOs and public-private partnerships can be expected to play a prominent role in the conservation and protection of the environment and in easing the adverse environmental effects of agricultural activities. Such partnerships are already underway in some EU member countries.

Monitoring and enforcement will be one of the most difficult issues to address, but accession will serve as a catalyst in this respect. Furthermore, the use of agri-environmental indicators at European standards[6] will help to benchmark the integration of environmental concerns into Turkey's agricultural activities.

Natural resources and biodiversity

To withstand stronger competition in the domestic market, Turkish agriculture will have to become more efficient. Government measures such as strengthening water pricing institutions and improving farm extension services will not only promote efficiency but will also have positive environmental benefits. Thus, membership of the EU in 2015 could help Turkey to bring under control various adverse effects of agricultural activities on the environment, such as soil

[6] The IRENA project: Indicator Report on the integration of Environmental concerns into the Agricultural policy.

degradation and salination. For example, the Water Framework Directive could be fully implemented by 2015, the same year foreseen for current member states (Sözen *et al*., 2003). Similarly, future policy instruments originating from the European thematic strategy on soil protection will be highly relevant for Turkey.

Accession will require the application of the environmental *acquis* regarding the protection of vulnerable natural habitats and species, and the provision of funds for biodiversity conservation. New legislation covering all biodiversity conservation activities needs to be prepared and international commitments be incorporated in this legislation.

Turkey will be able to draw on the support provided by the EU for the protection and enhancement of the environment, including funding from the second pillar of the CAP for land management and rural development actions related to Natura 2000 nature protection sites. Financial assistance from other EU instruments and from other international organisations will be crucial for continuing to fund environmental protection projects. Here, too, NGOs will play a key role in the protection and conservation of these important natural assets and in raising public awareness. Accession could also stimulate the growth of domestically funded activities to protect the environment, but this depends on the weight given to environmental protection in the agendas of stakeholders with conflicting priorities.

Regulations and behaviour

Adapting Turkey's national environmental legislation to European standards should pave the way for better protection and use of the environment. However, in areas where there is a strong behavioural element, it is likely that advances will be slow. The level of environmental awareness in the Turkish society is low relative to the EU-15 countries and environmental values are not well integrated into individual decision making processes.

The recently adopted legislation to facilitate registration and financing of associations is a strong signal that the Turkish government wants more local participation in the formation of policies, including environmental policies. Currently, municipalities are in charge of implementing environmental law. The process of local participation, together with NGO support, is likely to gain momentum during the pre-accession period and after membership. On the other hand, if policy implementation is decentralised, government may lack reliable information on environmental problems that is mostly available only at local level.

With the introduction of the CAP single farm payment, environmental cross compliance will become mandatory, and will be linked to the use of farm extension advice. This may help to control those farming practices regarding chemical and water use that are detrimental to environmental protection The extension services will have key role in providing farmers with training on environmentally friendly agricultural practices, which could be of great benefit in Turkey providing the necessary expertise is available. The CAP second pillar will also be important for helping Turkish farmers to improve allocative efficiency in resource utilisation. MARA's current promotion of organic farming indicates that this is an important sector which the Turkish government intends to develop.

12.4 Implications for agrifood chain development

Bottlenecks to improved competitiveness

Joining the EU's single market in 2015 would subject the Turkish food supply chain to competition from mature industries and highly efficient, well-organised companies in the rest of the Union. To be ready for this competition, the Turkish agrifood chain has to tackle a number of serious bottlenecks. The structure of the Turkish farm sector, the low share of upstream and downstream firms using modern technology and equipment, and the general over-capacity of companies in the food sector have all been described in Chapter 6. The product flows through the chain mainly pass via the open market. The wholesale market system is considered rigid and inefficient, and lacks quality improvement incentives and price transparency. Low profitability, fragmentation, weak integration and low quality awareness are characteristics of the Turkish agrifood supply chain.

Competition on the fairly saturated EU food markets occurs increasingly with respect to quality. In Turkey, consumer awareness of quality issues is limited to a more prosperous minority. However, this group will increase in size as incomes rise and consumers become more discerning. Public policies in this field are important, too. For instance, most retailers in Turkey do not yet emphasise consumer packaging and safety issues when they define quality standards, partly because safety standards are not clearly defined or efficiently enforced by the authorities (Codron *et al*., 2004). Setting standards on food quality and food safety and enforcing the players to accept the rules of the game are important public responsibilities.

However, as well as income growth and public policies, the move towards competition on quality will be pushed by the rise of supermarket chains in the country. In fact, as examples from other parts of the world show (Reardon and Berdegué, 2002; Dries *et al*., 2004, Codron *et al*., 2004), the growth of the retail channels is a key factor for the development of the food industry and farming sector in the short and medium terms. Supermarkets pay increasing attention to quality as part of their strategy to gain market share from the traditional retail channels. If the Turkish agrifood chain wants to take part in the expected expansion of the modern retail sector, it has to match the quality of its supply with the quality demanded by the supermarkets. In setting their private standards, supermarkets normally take public standards as a minimum level. Complying with requirements set by the supermarkets in the coming years should help the Turkish agrifood chain prepare for possible EU membership.

Impact on the food industry

The increasing weight of large format supermarkets in the retail sector will boost the trend towards further consolidation in the food industry. The major driving force is the quality issue. Supermarkets in Turkey increasingly set conditions in terms of prices and quality of the supply offered by the food industry, as well as in terms of other product attributes such as appearance, product diversity, convenience, safety, and so on. Supermarkets also demand that suppliers comply with requirements for packaging and delivering times. Processors who want to be part of the supply chain have to adjust to these demands. This requires investment in production and process technology. Presently, most companies in the Turkish food processing industry use only basic production technology: only one out of six firms uses modern technology for production and quality control (Sirtioglu, 2004). Much investment in modern technology needs a minimum operational size to reach the break-even point. At present, in many branches a large share of the processing companies is too fragmented to make such investments. Small processing firms will *have* to invest in expansion, or merge with others or form alliances to gain economies of scale, or leave the business.

Consolidation in the food industry will also be driven by supermarkets' preference for dealing with a limited number of large suppliers to minimise transaction costs. Food processors may also want to expand in order to strengthen their bargaining position vis-à-vis the large retail chains. The present low capacity usage in much of the food industry is detrimental to profitability and will inevitably lead to a restructuring of the industry.

Foreign direct investment (FDI) should play an increasing role in the restructuring and modernisation of the Turkish food industry. Basic conditions for attracting FDI are political and economic stability. As long as these two conditions are not met, foreign companies will remain cautious about investing in the country. Experience from Central and Eastern Europe indicates that the prospect of becoming an EU member can increase a country's attractiveness even if the date of accession is somewhere in the future. Since the 2001 crisis, Turkey's economic situation and the investment climate for foreign investors have improved. The new FDI law of 2003 (Tüsiad and Yased, 2004) is also expected to encourage foreign investors.

Impact on the farm sector

The retail and food processing industry will pass on the more demanding requirements with respect to food quality and safety to the farming sector. These demands may push many small farmers out of the market when they find it hard to comply with the requirements (Reardon and Berdegué, 2002; Berdegué *et al.*, 2003). Small farmers often cannot make the necessary investments, because they have insufficient own resources and face problems in getting external credit. Moreover, especially in the case of unprocessed, perishable products such as fresh fruit and vegetables, large transaction costs make it more costly for retailers to deal with many small farmers rather than with a few larger suppliers. However, small and medium farmers *can* have a future in modern retail chains.

Investments by retailers and/or food processors and vertical coordination with suppliers appear to be crucial in this process (see Berdegué *et al*., 2003; Dries and Swinnen, 2004). Examples from elsewhere show that a farm assistance programme offered by retailers or food processors may be an important instrument for giving farms access to inputs such as knowledge and techniques, and enhancing their output in terms of quality and quantity.

Vertical contracting may exclude small farms. However, the equity implications of such integrated chains are a justification for public policy involvement. Areas for government initiatives could include stimulating the emergence of alternative marketing structures (e.g. cooperatives), promoting associations of (small) farms to increase their bargaining power vis-à-vis the agribusiness companies and reducing transaction costs for companies dealing with small farms.

12.5 Implications for institutions and their functioning

Real progress in aligning the institutional framework of Turkish agriculture to that of EU agriculture will be needed if Turkey becomes a member in 2015. Preparations observed so far have concentrated on adopting the legislative requirements of the EU *acquis* as quickly as possible. A large number of laws and regulations have been passed, but with little attention to their effective implementation. Implementation demands a radical change in the mindset of not only bureaucrats and policy makers but also of market participants.

Competition rules

Major difficulties and ambiguities still characterise the operation of the Turkish Competition Authority (European Commission, 2004a). Although the adverse effects of state enterprises on the development of competitive agricultural markets are recognised, the privatisation process has so far been slow. Moreover, the manner in which privatisation has been achieved has not always been transparent or above suspicion of bias. In addition, inconsistent decisions appear to arise from weak administrative and expert capacity in the field of competition.

Land, labour and water institutions

Increasing yield has always been a primary goal of agricultural policies in Turkey. It is a goal that has implications for agricultural resource use, technology adoption and diffusion, and natural resource management. At present, institutional arrangements that concern the efficient use of land, labour, water and the environment are progressing. EU membership would act as a catalyst for more efficient use of these resources through improved land institutions (rules and mechanisms for using pasture land and irrigated land), water institutions (water pricing mechanisms and mechanisms for effective distribution of water across regions), labour institutions (social security schemes specifically designed for agricultural workers), and environmental institutions (mechanisms for sustainable use of environment).

Duality in agriculture (traditional versus modern) and regional differences in agricultural technology use (land, labour, and capital-saving technologies) comprise the two key characteristics of Turkish agriculture. These characteristics imply that competition, resources, technology and institutions may also differ both across regions and across types of agriculture. Uniform application of new institutions required by the *acquis* will be extremely demanding. Therefore, a challenge for Turkey is to start addressing these issues soon, because basic institutions should be in place before accession. The duality issue will be critical especially after membership, as it holds implications for the functioning of competitive agricultural markets under the CAP.

Labour market institutions have been brought closer to EU standards, but developments regarding agricultural labour remain inadequate. Currently, a large informal sector in agriculture (more than 90 per cent of workers in agriculture are unregistered) undermines the provision of social security and the enforcement of minimum wage regulations (OECD, 2004). The presence of this huge informal sector further hampers the enforcement of product market institutions, including food quality standards and intellectual property laws. EU accession would force Turkey to resolve these problems because its labour market institutions would become those of the EU. However, the presence of a large informal economy in agriculture must be regarded as a serious handicap in adopting the *acquis*.

Regarding land and water property rights, the regulations are already in place. However, the implementation of a land rental market and water use contracts still needs to be improved to comply with the *acquis*. As for intellectual property rights in traditional knowledge, ample scope exists for progress, although in 2003 significant progress was made to protect new varieties and plant breeders' rights.

Until the recent agricultural policy reform, the actors involved in the agricultural policy process were all under the direct control of the government. Even after the restructuring of institutions, the influence of government remains strong in the policy process. This makes it difficult for agricultural producers to demand changes regarding social dialogue and social protection. Turkey will be expected to offer social safeguards to its large group of agricultural producers in line with the *acquis*. Adopting the *acquis*, however, does not guarantee improved production and welfare. Success would depend strongly on how effectively relevant regulations and laws on social dialogue and protection are enforced and whether farm investment is stimulated.

Agricultural research, extension and knowledge institutions

Turkey's farming sector will have to become much more efficient after membership as it will encounter stronger competitive pressure from farmers in the rest of the EU. Increasing the capacity of the Turkish farming sector would be greatly facilitated by progress in an agricultural knowledge and information system, appropriate priority setting for agricultural research, adequate farm extension services and improved linkages between farm and off-farm sectors. Critical in this process will be the recognition of knowledge as an engine of growth and the preparation of the required legal framework for protecting intellectual property rights. At present, almost all farmers regard knowledge as a public good, impeding the further development of the intellectual property rights system. Changing the mindset of farmers with a small parcel of land and limited access to credit and technology seems to be a key challenge for Turkish agriculture. Under these conditions, the public sector naturally becomes the major producer of agricultural knowledge and the promoter of institutions for the adoption and diffusion of this knowledge. For the pre-accession period, it is realistic to expect that the public sector will continue to be the key actor in agricultural research.

Participatory approaches to natural resource management are increasingly applied in EU member countries. The general tendency in Turkey, however, has been to apply command-control mechanisms without consulting stakeholders such as farmers' organisations, NGOs, processors, input suppliers, trade associations, etc. A shift from the command system to a participatory approach may significantly strengthen the capacity of the agricultural sector to employ agricultural resources more effectively. For example, through participatory approaches, farmers can gain familiarity with rules of common-resource use (such as rules that relate to the use of pasture land open to common use, or rules governing the use of irrigation water). Such a move would also pave the way for the adoption of the *acquis* in areas that relate to technological and institutional innovations in agriculture.

In theory, involving farmers in participatory activities could be promoted by the extension service. At present, however, Turkish agriculture does not have a properly functioning extension system, although this is crucial for helping Turkish agriculture to respond to competitive pressure from the EU. Moreover, Regulation (EC) 1783/2003 requires member states to offer farm advisory services to farmers, and in 2010 the Council may also make farmer participation in farm advisory activity compulsory. Thus, the latest CAP reform has increased the priority given to agricultural extension. A good extension system would contribute to Turkey's competitiveness by supporting farmers with advice on appropriate cropping patterns and new farming technologies (OECD, 2004). Turkey must redress this situation in order to promote an enabling environment for agricultural innovations and their uptake by farmers.

Environmental institutions

No progress has been made concerning the integration of environmental protection into agricultural policy. By contrast, with respect to the environmental impact assessment regulation, the requirements of the EU *acquis* are largely met (European Commission, 2004a). The challenge for Turkey will be to improve its administrative capacity for the implementation of EU requirements.

Since Turkey's overall recorded levels of environmental degradation are low compared to developed countries and because environmental regulations have financial and technological implications, Turkey might be tempted to delay the enforcement of the environmental regulations adopted so far. This would be counter-productive. Environmental damage can be slow to reverse and in many local areas it is already emerging. Most important, since Turkey would have to impose and effectively operate farmer cross compliance regulations on becoming an EU member, it is essential to have appropriate institutions with experienced staff in place by the time of accession. Adopting the environmental *acquis*, understanding its implications for Turkish agriculture and developing the required institutions could be done over 10 years if it is tackled promptly.

Education

With respect to adult literacy, Turkey not only lags behind the level expected from EU members but also shows significant gender inequality (see Chapter 5). The existing gender inequality seems to originate largely from patriarchal characteristics of Turkish society. There are marked regional differences in literacy rates. There is time between now and 2015 to close the regional gaps by targeting educational spending in regions that are lagging behind. However, closing the gender gap requires more than investment because its roots are embedded in the social fabric of the society. Regarding university education, quality varies significantly across regions. The challenge for Turkey before and after 2015 would be to close the gap between genders and between regions, and make significant progress in the stock of human capital. There is a strong role still to be played by more widespread and improved nation-wide education services.

Institutions relating to foreign investment

With significant improvement in economic and political institutions before membership in 2015, the current low levels of FDI are likely to increase. Expectations are high especially in the vegetable oils and fats sector, and in the retail food industries, but success depends on how quickly and effectively new rules are internalised by market participants. A priority area for improvement is the administrative capacity of the legal system and competition-related institutions (Dutz *et al*., 2003; OECD, 2004). For example, the lack of stable, permanent, reliable laws and regulations comparable to those of the EU invites corruption and bribery. Another priority need is the adoption of time-consistent policies. For example, the lack of a political culture that respects decisions and commitments made by previous authorities reinforces unpredictability and increases country risk (TÜSIAD, 2004).

It is not unrealistic to expect a significant increase in FDI inflow up to 2015 if Turkey takes measures to boost confidence by removing obstacles in these areas. Turkey has already missed major FDI opportunities because of these institutional weaknesses. In particular, Turkey’s customs union with the EU did not lead to an increased FDI inflow, due mainly to the lack of an enabling environment for investment with clear and unified rules of conduct. Expectations arise now with respect to Turkey’s EU membership, but success is largely dependent on the signals given to foreign investors during the pre-accession period.

FDI inflow is expected to play a critical role in promoting technology transfer and hence economic growth. Technology transfer becomes attractive when appropriate skills are available to service and exploit it. Investment depends on adequate levels of human capital. The presence of an effective intellectual property rights system is also essential for attracting FDI. Currently, the legislation on the protection of intellectual property rights is in place, but its implementation is poor. Furthermore, some of the laws and regulations are not yet in harmony with those of the EU (TÜSIAD, 2004).

Food quality

EU membership would mean that Turkey has to comply fully with the General Food Law of the EU regarding standardisation of food regulations. If current trends continue up to 2015, Turkey should not encounter serious difficulties in the adoption of the Law; however, enforcing it as it is intended to operate will be more onerous. A key difficulty relates to the current governance structure of food safety and quality control. Local authorities assume responsibility for food inspection, which might lead to different practices across jurisdictions, while the EU requires a central authority responsible for all standards. The danger with decentralisation is that it can create incentives for interest group activities.

Quality and functioning of institutions

EU membership would bring with it both opportunities and obligations for Turkey. EU membership offers Turkey the opportunity to become the modern, western-style country that it has the ambition to be. A corresponding obligation is that as an EU member Turkey would be expected to adopt and fully implement the EU *acquis*. These two challenges are closely related to each other in that, in order to meet them, it is imperative for Turkey to address weaknesses in quality and enforcement of its institutions.

Institutional reform needs to begin with government. For example, regarding institutions that relate to FDI, a large gap exists between Turkey and EU countries. According to a World Bank survey, 92 per cent of investors ranked complexity and non-transparency of government regulatory policies as a serious constraint to business operations (OECD, 2004). Various chapters of this book refer to duplication and lack of clear strategic and operational guidelines for various institutions, as well as failure of communication between them.

Improvement is also required in budget and tax collection institutions (OECD, 2004), bearing in mind that large budget deficits were the key source of Turkey's recent financial crises. With the unregistered economy currently estimated at about 50 per cent of total GNP, Turkey is losing a significant amount of tax revenue (OECD, 2004). An informal economy of this size constitutes a serious obstacle to sustainable growth of the Turkish economy. This is an example of how ineffectively designed rules and regulations create a problem of adverse selection. The regulations concerning labour market and taxation, characterised by high employment protection, substantial labour tax and social contribution wedges, create incentives for a large informal sector and hence a shrinking tax base and lower social contributions (OECD, 2004).

Corruption and bribery are widespread especially in the areas of customs, public procurement, taxation, the municipalities, the courts and the implementation of incentive schemes. Hospitals and the police, especially the traffic police, are areas where so-called ‘petite corruption’ is common. According to the Corruption Perceptions Index of Transparency International, Turkey’s place among 91 countries is somewhere in the middle in 2000 and 2001 (Şenatalar, 2002). Equally critical is the widespread tax evasion due to the application of value-added tax. Typically, consumers prefer not to have receipts especially when their expenditure involves large sums. The growing civil society participation and a networked media are two effective means for curbing not only corruption and bribery but also all kinds of irregularities observed in the private and public sectors. For example, the privatisation process that started after the 1980s came under such suspicion of bribery that the government started to broadcast auctions of state-owned firms on live television (Stafford and Pizzo, undated).[7]

Poor infrastructure of the justice system is also a concern. There are many indications that courts are not equipped with adequate physical, human, and financial resources, and that judicial services are slow. EU twinning projects and other international cooperation may bring useful contributions in this area. Regulatory rules as well as their actual enforcement need to be improved. The biggest problems are found in the administration of licensing regulations, land-planning and zoning decisions, environment protection regulations, tax accounting rules, corporate law and bankruptcy law (OECD, 2004).

The implications of these weaknesses for Turkey are obvious. The institutional framework for agriculture is at an early stage of development. In addition, for the framework to be operational, the quality and enforcement of rules, laws and regulations must be improved before membership in 2015. Moreover, currently levels of corruption, bribery, and discriminatory application of regulations are not conducive to boosting economic growth, quite apart from the issue of institutional discipline that the EU imposes on member states. The 10-year period up to 2015 may be long enough for the most important changes in formal institutions and formal institutional rules that are required for membership. However, the “bedding in” of these changes is likely to take longer. As for the informal rules (people’s expectations of how rules work in practice, of the impartiality of formal rule systems and of the true antisocial nature of corrupt

[7] The Governance Indicators for 2002, published by the World Bank (Kaufman *et al.*, 2003), show Turkey’s indicators for Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption as –0.20, 0.08, 0.00, and –0.38 respectively, on a scale of –2.5 (lowest) to +2.5 (highest). For comparison, these indicators are 0.91, 1.15, 0.82, 0.80 for Italy, 1.76, 1.59, 1.73, 1.82 for Germany, 2.14, 1.87, 1.83, 2.15 for the Netherlands, 1.03, 1.47, 1.3 and 1.33 for Portugal, and 0.78, 1.21, 0.90, 0.60 for Hungary. For further comparison on Control of Corruption, the indicators for Poland, Bulgaria, Romania and Ukraine are 0.39, -0.17, -0.34, and –0.96 respectively.

practices), these changes will probably take even longer and represent a long-term challenge to Turkey as a nation and prospective EU member.

12.6 Economic consequences

Budget flows

The net budget effect of Turkey's membership is a transfer from the EU-27 to Turkey.[8] This transfer has to be financed from the EU budget. The various budget headings are: CAP (first pillar), separated into market and price support, and direct income support, CAP second pillar budget (rural development policy), structural policy funding (including cohesion funds), other budget items (administration, education, research, security and justice, environment, fisheries, etc.) and, in the reverse direction, Turkey's budget contribution to the EU.

Payments to Turkey from the EU budget, and Turkey's contribution to the budget, were presented and discussed in Chapter 11. Following the methodology explained there, Turkey's net budget receipts for 2015 are calculated at EUR 10.9 to 18 billion (at 2004 prices) and EUR 13.6 to 22.5 billion (at 2015 prices, assuming inflation of the euro at 2 per cent per year). The lower figure in the range corresponds to an absorption capacity for structural funds of 2 per cent of GDP, whereas the upper figure is for absorption at the rate 3.5 per cent of GDP. Even at the lower absorption rate, structural and cohesion spending make up over one half of gross budget receipts. Given the very low income level of Turkey and even under the assumed real annual growth of GDP of 5.2 per cent per year, 25 of Turkey's 26 NUTS II regions would qualify as Objective 1 areas in 2015. Turkey would also be eligible for cohesion funds.

Other consequences

Net budgetary flows are only one aspect of the consequences of EU entry for Turkey. Often this aspect is neglected altogether because of a stronger focus on expected benefits such as higher economic growth, more opportunities for international trade, greater transparency in governance matters and lower corruption, etc. These effects can be more important in the long run, but in the first years after accession and after full implementation of structural policy, budget transfers will also play an important role for economic growth. Future budget transfers can be used by acceding countries to justify important reforms that are necessary to bring rules and regulations to the level of the *acquis communautaire*. This process is facilitated by pre-accession funding, which has not been included in our analysis. An important challenge is to design programmes for structural and cohesion spending and rural development that address some of Turkey's particular weaknesses such as low levels of human capital, poor opportunities for non-agricultural employment in rural areas, and low levels of

[8] Part of the change will also be that (lower) tariff revenues will largely go to Brussels instead of to the Turkish budget. This shift has not been quantified.

health and quality of life in rural areas.

Longer-term effects for the economy arise from a more open trade position, a more stable economic growth path, a reduction in the financial burden of foreign debt because of increased stability and – above all – a clear direction for policy change. By comparison, the budgetary flows, defined in advance by objective rules, are the most predictable consequence of accession. Other less tangible aspects, particularly those that depend on or consist of changes in informal institutions, depend on the ability and willingness of Turkish people themselves.

12.7 Selected studies on Turkish accession

We have reviewed a number of studies that use general and partial equilibrium models to assess the expected consequences for Turkey of EU accession. Of these studies, only four are considered relevant (with respect to choice of time horizon and focus on agriculture) in the context of the present Book (see Appendix). Drawing on the main findings of these studies, this section discusses effects of accession in four areas.

The first area concerns the quality and functioning of institutions. This is an important area since the effects of enhanced institutions would be observed everywhere in society, promising much larger gains than the gains from improved agricultural institutions only. It has been stressed that, due to the ineffective functioning of institutions, the poor quality of regulations and the high level of corruption, Turkey has so far not been able to take advantage of existing opportunities nor to create new opportunities in the areas of FDI and trade. The second area relates to the effects of accession on welfare and income distribution. The third area concerns the competitiveness of agricultural products. The question of competitiveness immediately follows from the information presented in Sections 4.5 and 8.3 (I assume these are correct references?). Which agricultural sub-sector(s) are likely to remain competitive after accession, and which may be threatened with collapse? Finally, the fourth area, already discussed in Sections 3.3 and 7.3 (to be checked?), relates to harmonisation with EU's food safety standards.

Discussion

- *Significantly reduced corruption promises higher growth than access to the EU internal market.* An important issue explored in the literature is the effect on growth of institutional reforms expected to be triggered by Turkey's membership prospect. The reforms undertaken so far suggest that possible EU membership has already started to work as a catalyst for improving the institutional framework of Turkish economy in general and of Turkish agriculture in particular. However, the effects of these reforms on the quality and functioning of this framework and hence on growth remain to be seen.

In the CPB study, Lejour, de Mooij and Capel (2004) assess separately the macro-economic impact of three aspects of Turkey's EU accession: removal of non-tariff barriers upon entry to the single market, reduced corruption, and labour migration to EU-15 (for a description of the model, see Appendix). Of these three different features of accession, it is the reduction in corruption (the *ad hoc* assumption that Turkey moves from 64th to 25th place in the Corruption Perceptions Index) that brings the greatest gains to Turkey. Trade increases by 57 per cent, which in turn leads to an increase in GDP of 5.6 per cent and in consumption of 8.9 per cent. Reduced corruption would also have a positive impact on Turkey's trade partners. For example, consumption in Romania would rise by 1.1 per cent because of cheaper imports from Turkey and welfare in the EU-15 would increase by the equivalent of USD 8.5 billion. By contrast, the reduction in non-tariff barriers (NTBs) upon accession to the EU internal market would lead to predicted increases of just 0.8 per cent in GDP and 1.4 per cent in consumption.

These results call for several comments. There is, in fact, considerable correlation across countries between the capacity of administrative bodies, the rule of law, the quality of institutions and control of corruption. These aspects are all interrelated, and it is very difficult to isolate the effects of corruption from the effects of poor quality institutions, weak administrative capacity, and so on. Institutional reforms, which cover a much larger domain than corruption, could have been modelled more broadly by including changes in the capacity of public administration, in rule of law and regulatory organisation. Alternatively, it may be that the estimated impact on trade of lower corruption in this model also picks up the effect of these other highly correlated institutional features, in which case its interpretation as showing the effects of reduced corruption only is too narrow. In any case, it is a weakness of the model that the positive effects of reduced corruption in Turkey are limited to trade effects only. The positive externalities from less corruption would be widespread across all the sectors of the economy concerned, and hence welfare gains are likely to be underestimated.

- *With EU membership, agricultural producers (farmers) lose but food consumers gain, implying income transfer from rural to urban sector. Within producer and consumer groups, membership reduces income inequality.* Grethe (2004) finds that, compared to the status quo, producers lose but consumers gain both when trade is completely liberalised and when agriculture is brought into the customs union (CU) with the EU. Under these scenarios, the total loss in producers' surplus amounts to about EUR 2.8 and EUR 1 billion respectively, while consumers record welfare gains of about EUR 3.5 billion and EUR 1.5 billion respectively. As a result, the net gain from full trade liberalisation is EUR 0.7 billion, whereas the full CU scenario yields a net gain of EUR 0.5 billion. When budgetary effects of tariffs, export subsidies and producer premiums are taken into account, total welfare gains amount to EUR 667 million (about 2.3 per cent of projected agricultural production value, or 0.4 per cent of projected GDP) with liberalisation and EUR 482 million under the CU scenario. Cakmak and Kasnakoglu (2003) find similar results. With membership, the degree of producer protection and the general price level decrease, while imports of cheap livestock products increase, which in turn increases consumers' welfare.

Grethe's findings further suggest that liberalisation reduces intra-sectoral income inequality in absolute terms. Full liberalisation reduces income inequality among farmers, as large wealthy farmers receive most of the gains in producer surplus resulting from current price support. On the other hand, liberalisation leads to a more equal distribution of real income relative to the status quo due to lower food prices. Bearing in mind that producers are mostly located in rural areas, their deteriorating economic situation, together with consumers' welfare gains, can be interpreted as an income transfer from rural to urban sector.

- *With EU membership, fruit and vegetables remain competitive but cereals and livestock products are uncompetitive*. In Grethe's study (2004), in both the full liberalisation scenario and the agriculture-in-the customs-union scenario, Turkey appears to be a net exporter of fruits and vegetables and a net importer of cereals and processed products (mostly animal products). Under both scenarios, Turkey also remains a net exporter of plant products as a total, including fruits, vegetables, cereals and other crops. These findings are consistent with those of Cakmak and Kasnakoglu (2003) (see Appendix). They show that with membership the volume and value of the production of cereals decline, while those of vegetables, fruits and nuts rise. They further report large imports of livestock products. Grethe finds that, under both the liberalisation and full customs union scenarios, Turkey is expected to be a net importer of agricultural products, although it is a net exporter in the base period and the status quo scenario.
- *With either full trade liberalisation or simply including agriculture in the customs union with the EU, considerable changes in the regional distribution of producer surplus would occur.* Grethe (2004) indicates that, in relative terms, farmers in the northeast and the Black Sea regions suffer the highest loss in producer surplus because of the high share of sugar in the northeast and tea in the Black Sea region. Losses amount to about 13 per cent of production value. Farmers in the Aegean, Mediterranean, and southeast regions, however, suffer the smallest loss because of their high share of fruit, vegetables and cotton, which still remain competitive. For animal producers, the absolute welfare loss is more equally distributed among regions.

The findings of Cakmak and Kasnakoglu (2003) further indicate that the South-eastern Anatolia Project (GAP) region would benefit the most from EU membership since the positive effects of an expansion of irrigated land are relatively easily captured with membership. It is the only region that enjoys an increase in agricultural production value. In the case of membership with area compensation payments, almost all the payments accrue to the Central Anatolia region, which is predicted to experience a 9 per cent fall in revenues following the accession.

- *Harmonisation with the EU health and safety standards yields absolute welfare gains for Turkey, whereas for the EU, gains are conditional on agreements regarding border frictions and certification rules.* Zahariadis (2002) finds that Turkey records welfare gains under all the five scenarios he studied. On the other hand, the EU gains in the border and certification scenarios only, implying a possible cooperation between Turkey and the EU under these two scenarios.

With mutual agreement on certification rules, Turkey is expected to increase exports of animal products and processed food considerably. As suggested in Chapter 10, the question of certification for Turkey's meat and dairy products is likely to be problematic for some years. Regarding standardisation, Turkey gains from the adoption of EU standards, while the EU loses because the new standards lead to a reorganisation of production, and possibly to investment in improved technologies. The new standards will also make Turkish products more easily substitutable for EU products, thus enhancing their demand in both Turkish and EU markets. In fact, Turkey's increasing trade surplus under the standardisation scenario can be attributed to increasing exports (especially to the EU) relative to imports.

12.8 Conclusions

This chapter is based on the main trends described in Chapters 2 to 11. The working hypothesis is that Turkey joins the EU in 2015. The discussion has evolved around two questions: What are the implications for Turkey of adopting the *acquis* by 2015? What are the expected consequences for Turkey of entering the EU in 2015? Here we summarise the key conclusions.

Adaptation of the formal institutional framework for agriculture is underway, and the Turkish administration has been addressing a wide range of issues in order to incorporate the *acquis*. Competition, property rights, and education and research institutions are largely in place, but difficulties still arise especially in implementation. Similar improvements and difficulties are also observed in the organisation and implementation of rules and regulations that concern agricultural resources, technology, production and trade. A massive upgrading of the research and extension system is needed by 2015 in order to fulfil certain aspects of the *acquis*, and to help Turkish agriculture exploit the opportunities of EU entry.

Regarding economy-wide institutions, tax collection, the functioning of judicial system, and credibility and time-consistency of public policies were and remain the key areas to be improved. Parallel evolution of informal rules and expectations is important if new formal institutions are to function as intended, and as they do in other EU member states.

The supermarket industry has begun moving along a stable path, promising considerable improvements in food quality by 2015. However, for a stronger and more competitive food supply chain, the Turkish farming sector with its large share of semi-subsistent and fragmented farms needs to be re-structured.

The changes in Turkish agricultural policy due to ARIP should help Turkish agriculture to adjust to the realities of the CAP. The incomplete privatisation of state enterprises, however, still jeopardises the continuing alignment of Turkish agricultural policy to the CAP. The establishment of a rural development strategy, currently lacking in Turkey, is especially important in the light of the poor competitiveness of the farm sector. Turkish food policy legislation is progressing in line with the requirements of the General Food Law of the EU. However, in practice, safety standards are not clearly defined or efficiently enforced by the authorities.

In trade policy, Turkey will adopt the common external tariff of the EU for agricultural products in or before 2015. Agricultural trade harmonisation between the EU and Turkey will bring tariff reductions in Turkey for most products. The largest tariff adjustment is expected in the livestock sector. The challenge for Turkey is to develop the infrastructure, administrative capacity and commitment for effective border control in the run up to EU membership.

The veterinary situation amongst Turkey's grazing livestock populations falls well below standards in EU member countries. Even with greater efforts to eradicate the most infectious diseases endemic in Turkey, biological processes and structural features of the sector constitute serious impediments to effective short- and medium-term improvement in the situation. It is unlikely that by 2015 a single market in animal products, without SPS border controls, can be operated.

Adapting Turkey's agricultural and environmental legislation to conform with the *acquis* should lead to better protection of the environment. Environmental cross compliance linked to the CAP Single Farm Payment, and CAP rural development measures, will encourage Turkish farmers to improve and diversify their use of natural resources. Where there is a strong behavioural element, advances will be slow until environmental awareness increases. Monitoring and enforcement will be one of the greatest challenges, but accession will act as a catalyst for improvement.

Research findings from the literature suggest various consequences of Turkey's accession. First, if EU membership leads to reduced corruption, this could be one of the strongest welfare-enhancing effects of accession. Second, fruit and vegetables are likely to remain competitive in the EU single market, while cereals and livestock products will suffer severely. Third, producers (farmers) lose but consumers gain, implying income transfers from rural to urban groups. Fourth, liberalisation and/or the inclusion of agriculture in the customs union with the EU may lead to considerable changes in the regional distribution of agricultural incomes. Lastly, harmonisation with EU food safety standards is expected to yield absolute welfare gains for Turkey.

A major challenge will be to design programmes for structural and cohesion spending that address some of Turkey's specific weaknesses, such as low levels of human capital, poor opportunities for non-agricultural employment in rural areas, and low levels of health and quality of life in rural areas.

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Appendix: Summary of four studies using simulation models

Study	Model characteristics	Scenarios	Simulation results
Lejour, de Mooij and Capel (2004)	• CGE model for the world economy • 15 industries: agriculture, raw materials & energy, 8 manufacturing, 5 service • 6 EU regions, NMS, Bulgaria, Romania, Croatia, Turkey, 4 regions in ROW • Projection path until 2025 • Gravity equation estimated from a cross-section of 38 countries for 2001 based on the GTAP v6 database • Gap between potential and actual trade translated as tariff equivalent barriers.	• Baseline scenario: Current Turkey-EU relations remain up to 2025: CU in industrial products, limited integration to the internal market, neither full membership nor further integration in other respects. Turkish real growth rate GDP 5.6% per year; GDP per capita grows by 4.5%. NMS and AC-2 enter the EU in 2004 and 2007, respectively. • Scenario 1: Access to the EU internal market (elimination of NTBs) • Scenario 2: Membership triggers institutional reforms in Turkey (i.e., less corruption and more transparency). • Scenario 3: Migration owing to free movement of labour • Simulations assume that Turkey enters the EU in 2010	Accession benefits Turkey, with little effect on EU-15, NMS and AC-2. • Scenario 1: private income (i.e. welfare) in Turkey rises by USD 4.4 billion, GDP expands by about 0.8% in the long term, the largest impact in Turkey is on Textiles & Wearing Apparel at the expense of production of these sectors in other European countries. • Scenario 2: Potential gains are larger than those under Scenario 1, if Turkish institutions function comparably to those in Portugal. Welfare increases by USD 28.2 billion, while GDP would expand by 5.6%. • Scenario 3: Per capita income in Turkey will rise, while it falls slightly in the EU. If migrants are primarily unskilled, also wage inequality in the EU-15 is likely to rise. • Turkey benefits most under scenario 2.
Cakmak and Kasnakoglu (2003)	• Non-linear mathematical programming model of the agricultural sector. • 50 commodities produced and 4 regions for production effects • Base period – average 1997-99 • Projections for 2005	• Out-EU: no EU membership • In-EU: EU membership in 2005 • In-EU 1: In-EU with CAP and EU prices, without compensatory area payments • In-EU 2: In-EU plus compensatory area payments • In-EU 3: In-EU 1 plus technological improvement in Turkey's livestock production	• Out-EU: increase in total surplus in 2005 compared to base period. • In-EU: an additional 1 per cent increase in total surplus. Producers' surplus decreases by 16%, consumers' surplus increases by 12%. • In-EU 2: slightly reduced welfare compared to In-EU 1 because the payments are not included in surplus calculation. • In-EU 3: gives the highest surplus, followed by In-EU 1 and then In-EU 2. Overall, membership benefits consumers but hurts agricultural producers.

Grethe (2004)	• Static partial equilibrium model • Regional farm supply of plant and animal products; 12 crops, 17 vegetables and fruit, and 5 animal products • Income elasticities of demand from the 1994 expenditure surveys. • Projections for 2006	• Base period - the average of the 1997-99 data for crops, of the 1998-99 data for animal products, and of the 1996-98 data for prices. • Status quo (reference) scenario – unchanged agricultural policies at the end of the projection period 2006 (i.e., market intervention kept at the l996-98 level) • Liberalisation - Turkey abolishes all market policies, e.g. tariffs, export subsidies, premiums • CU - agriculture included in the CU with the EU	Compared to the status quo, producers lose but consumers gain under both the liberalisation and the CU scenarios. Net gains (consumers' welfare minus producers' surplus): EUR 0.7 billion in the liberalisation and EUR 0.5 billion in the CU. When tariffs, export subsidies, producer premiums are considered, total welfare gains are EUR 667 million (0.4% of projected GDP) for the liberalisation and EUR 482 million for the CU scenario, relative to status quo. Under all scenarios, Turkey is a net importer of cereals, processed products and animal products, and a net exporter of fruits, vegetables, and plant products as a whole. With respect to total agricultural products, under the liberalisation and CU scenarios, Turkey tends to be a net importer, while under the base period and status quo a net exporter.
Zahariadis (2002)	• Multi-sector, multi-region CGE model. • For baseline, GTAP v5 dataset for 1997 • 9 regions and 20 sectors including 4 agricultural sectors • GTAP v4 dataset for 1995: data on pre-customs union industrial tariffs and estimates on regulatory costs	• Simple CU (baseline): Customs union established in 1996 • Border: abolish bilateral border/frictional costs by 1996 • CU 2001*:* Turkey adopts Free Trade Areas in industrial products with EU's preferential partners by 2001. • Standards*:* Turkey adopts EU technical regulations by 2001 • Certification: Turkey and the EU adopt a mutual recognition agreement. Products certified in one country freely move to another with no duplicative requirements.	Turkey gains from the liberalisation under all five scenarios. The total welfare gain is the strongest under the simple CU, followed by the Certification scenario. The EU appears to lose in the standardisation scenario due to the absence of product substitutability, while gaining from the abolition of border and the possible elimination of certification costs. Gains for Turkey are high from the adoption and enforcement of EU standards and certification procedures. For the EU, however, gains mostly stem from the improvement in mutually agreed certification procedures.