

Chapter 6

Freeing the potential of agriculture

The productivity and competitiveness of Turkish agriculture have been constrained by socio-economic weaknesses in rural areas and a protective trade and subsidy regime, which has created a status quo of highly fragmented, low-skilled, low-technology and domestic-market-driven farming. A major reform based on cutting distortive price and input subsidies and replacing them with direct income support was introduced in 2000-01, but there are risks that the reform will be less successful than anticipated. The reform effort should be reinvigorated and backed by improved framework conditions – legal infrastructure, technology transfer services, irrigation and other infrastructures – needed for the stronger development of commercial agriculture.

Productivity in agriculture is low...

The highly skewed distribution of labour productivity in the business sector – analysed in Chapter 3 – is amplified further when agriculture is included. Agricultural productivity is much lower than in the non-farm business sector, averaging around the level of the non-farm sector's informal and lowest-productivity segments (see Figure 1.6 in Chapter 1). As agriculture employs as many as one third of all workers, its low productivity is an important drag on overall productivity.¹ Despite its low level, the growth rate of productivity in agriculture has also lagged that in other sectors, pulling down total productivity growth. This divide between agriculture and the rest of the economy is deeper than in other OECD countries with relatively large agricultural sectors (Figure 6.1).

Supply structures have remained largely static over the past years, with the exception of some new entrepreneurial (and non-subsidised) areas such as poultry farms, fish farms, fruit and vegetable plantations and cut-flower glasshouses, which have grown in ways more typical of non-farm businesses. The bulk of farming has remained small and family-owned, highly fragmented and capital shallow, and has continued to use only elementary technologies. Farmers' formal human capital has also remained very limited, the vast majority having no more than primary education or less. As a result, the agricultural sector operates almost entirely in informality: although participation in the self-employed social security scheme is supposedly mandatory, 91% of farmers do not participate and farmers paying income taxes are a very small minority.²

Farm sizes have continued to shrink across generations instead of being consolidated into more efficient scales. The average farm had only 6 ha in 2003 and the majority of farms (about 85%) were smaller than 9 ha, significantly smaller than in other OECD countries.³ Moreover, arable land in each farm is generally divided into a large number of parcels. Despite the recent emergence of more commercial farms, the small-size and fragmented structure still dominates the rural world (Figures 6.2 and 6.3).

... and exports remain below potential

Exports have never been a priority of policymakers, and farmers and traders have generally paid limited attention to foreign markets. The domestic-market orientation of agriculture contrasts with other emerging economies which have achieved significantly stronger export growth in the past decade.⁴ Backed by input subsidies, and operating on high quality land in a temperate climate belt, the agricultural sector has nonetheless increased its exports of some products. Turkey is a world leader in its traditional specialties (hazelnuts, oriental tobacco, dried fruit) and in some new areas (tomatoes, potatoes, watermelons). But overall, Turkey's share in world agricultural markets remains limited and, according to expert opinion, exports fall significantly short of potential⁵ (Figure 6.4).

Figure 6.1. **Agriculture's performance gap**

USD, PPP-adjusted, 2000 prices

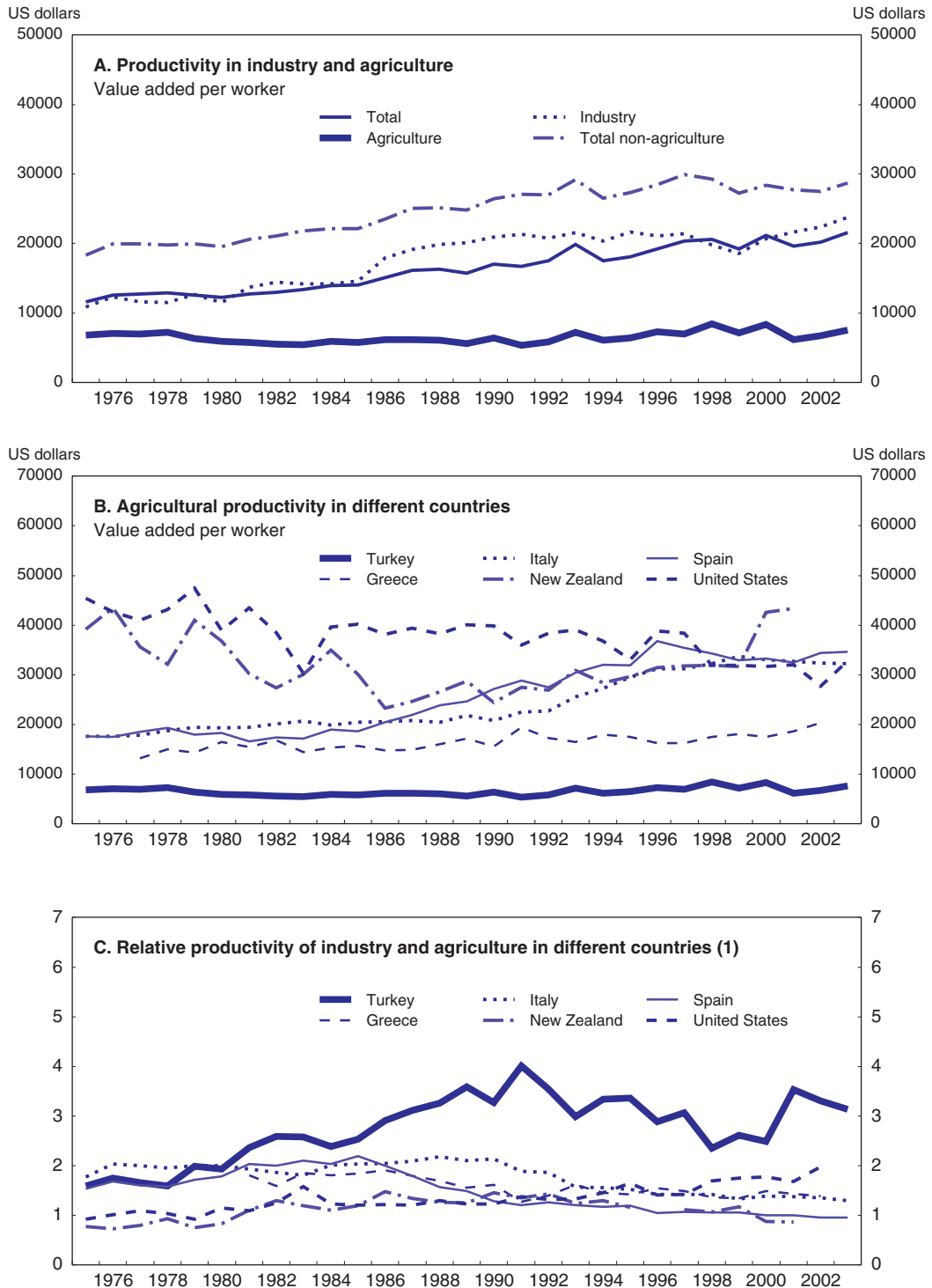
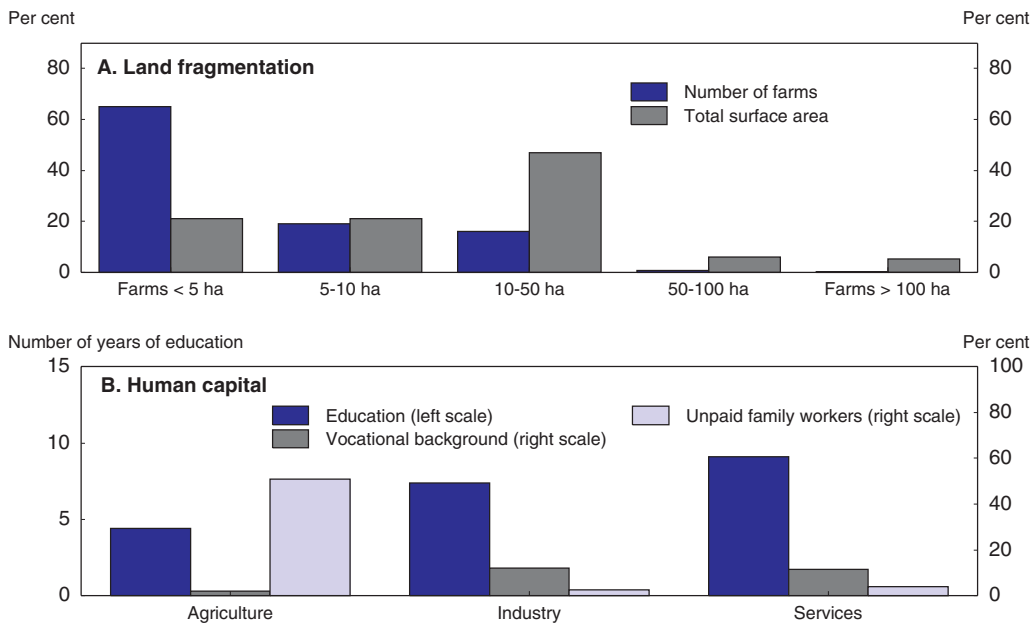


Figure 6.2. **Weak farm fundamentals**

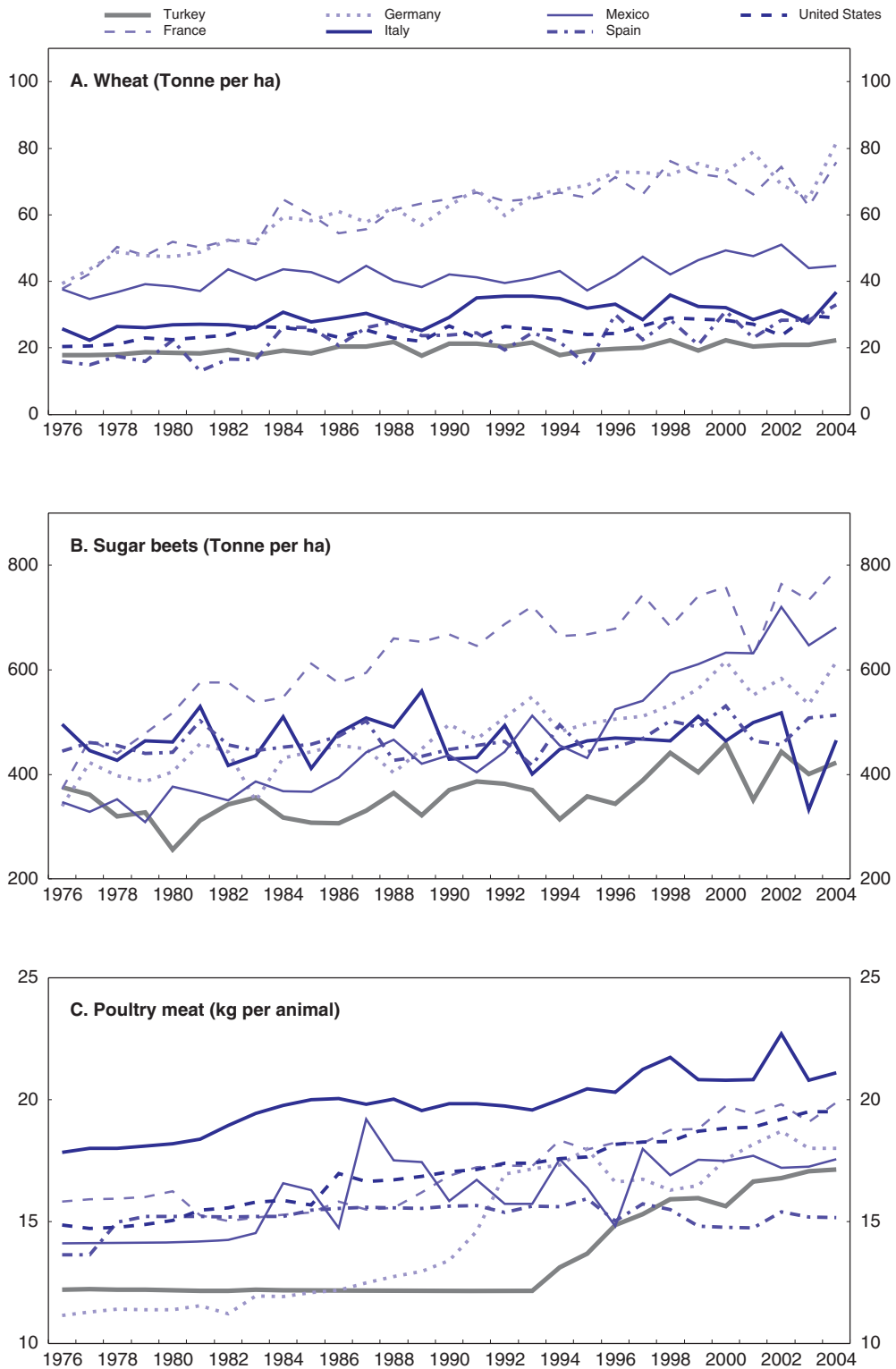
Source: Turkstat and E. Türkan (2005).

Public support is high

Many factors influence the performance of agriculture. While agriculture is a highly heterogeneous sector in terms of farm size and regional and climatic conditions, which all influence performance, a common factor which distinguishes it from other business activities is its being sheltered by trade protection and subsidies. Turkey's agricultural policies have traditionally targeted the level and composition of output to ensure food security for the country. Governments traditionally aimed to secure adequate food supply by strongly subsidising the utilisation of core inputs such as elementary mechanisation, fertilizers, pesticides, enhanced seeds and irrigation water. These early *input-based* policies stimulated a steady growth of production even if efficiency fell short of the productivity frontier and a number of distortions arose in the production process.⁶ Although output has by and large grown as intended, these policies have kept agriculture on a technically suboptimal trajectory.

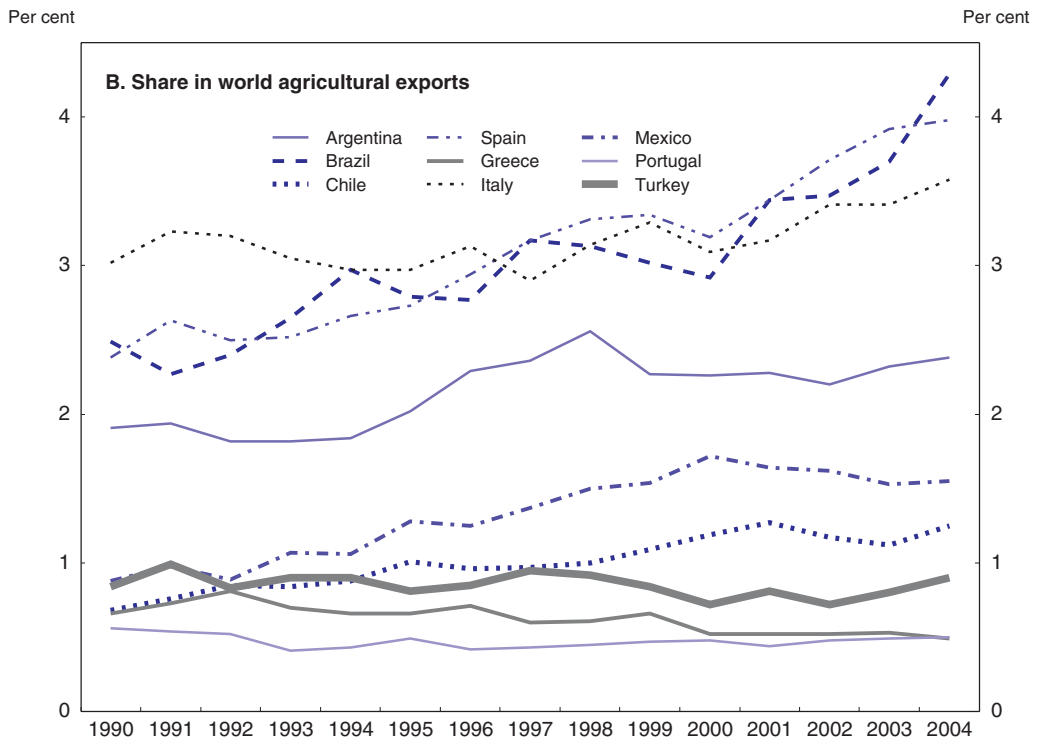
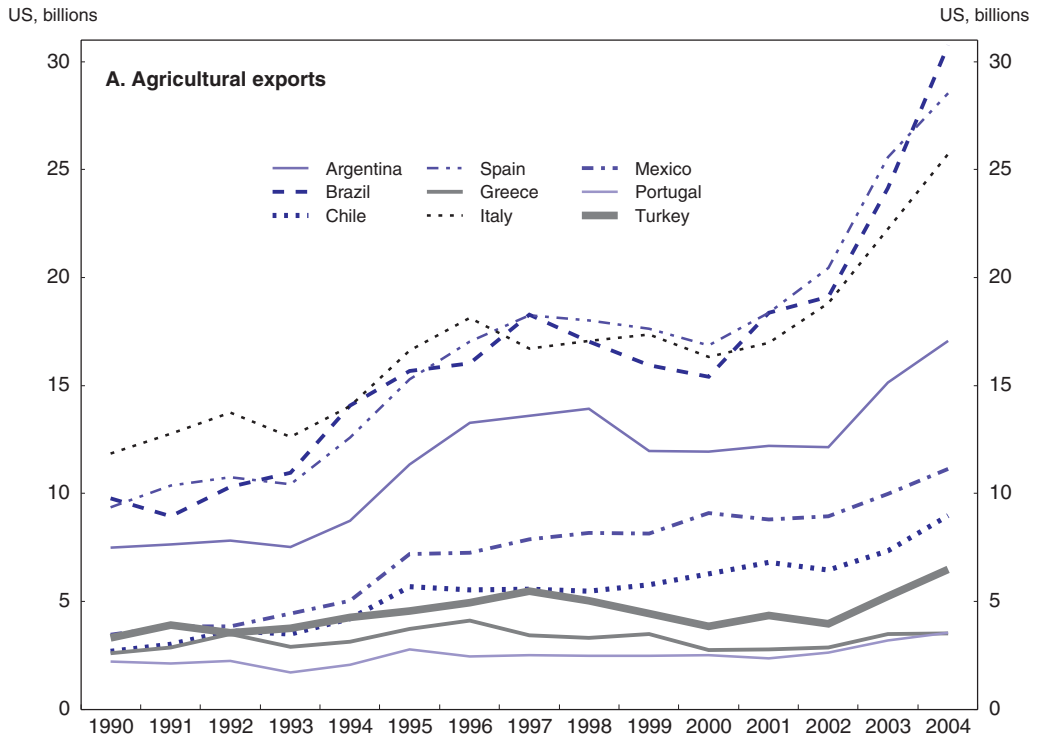
Together with food security, the other key objective of agricultural policies has been to protect the income and employment of the large farming population. However, public support was mainly linked to outputs and inputs, which particularly benefited the large and medium-sized producers rather than the small low income farmers. Nonetheless, these interventions have broadly stabilised income and activity in rural areas as a whole. As a result, the *level* of agricultural employment has remained roughly stable between the 1950s and 2000s, while its *share* in total employment has gradually declined, dropping below the threshold of 50% only in 1986.

A large variety of aid schemes and implementation institutions characterise the agricultural support system. Over the past decades this system was centred on state-owned purchasing agencies implementing price support in product markets.⁷

Figure 6.3. **Productivity gap in international comparison**

Source: FAO.

Figure 6.4. **Agricultural exports**



Furthermore, agricultural sales and credit co-operatives which were initially launched as commercial organisations became state-managed subsidisation channels.⁸ At the same time key inputs such as fertilizers, pesticides and grains were provided at subsidised prices by state-owned enterprises or private suppliers, and basic infrastructural services of irrigation and technology diffusion were provided at highly subsidised tariffs by state monopolies. Finally, the state-owned agricultural bank (Ziraat, the largest financial institution in Turkey) was the only supplier of formal loans to agriculture. Informal credit dominated the financing of the rural world at a high cost.⁹

Through these various channels the agricultural sector receives significant resources. Measured by the OECD's "Producer Support Estimate" (PSE) methodology, agricultural support approached 3½ per cent of GDP in 2005, the highest level observed among OECD countries.¹⁰ But this also reflects the particularly large weight of agriculture in the economy (Figure 6.5). The appreciation of the Turkish currency after the 2001 crisis may also have played a role. The share of total support to agriculture has remained high over the past decade, but as support to farmers is distributed to a large number of recipients, the contribution to farmers' individual incomes – at around a quarter of farm receipts – has remained lower than in some other countries which are also intervening heavily in favour of their agriculture (Figure 6.6).

Support is also highly cyclical and less stable than in other OECD countries – a feature which has persisted in the most recent period (Box 6.1). This reflects both fluctuations in international commodity prices but also political economy effects, with transfers to farmers increasing above trend in pre-electoral and immediately-post-electoral periods and declining outside these periods. In 2002-04, over three quarters of support to Turkish farmers was financed by consumers through border protection, while the other quarter was financed by the budget. This compares with OECD averages of 61% and 39% respectively.

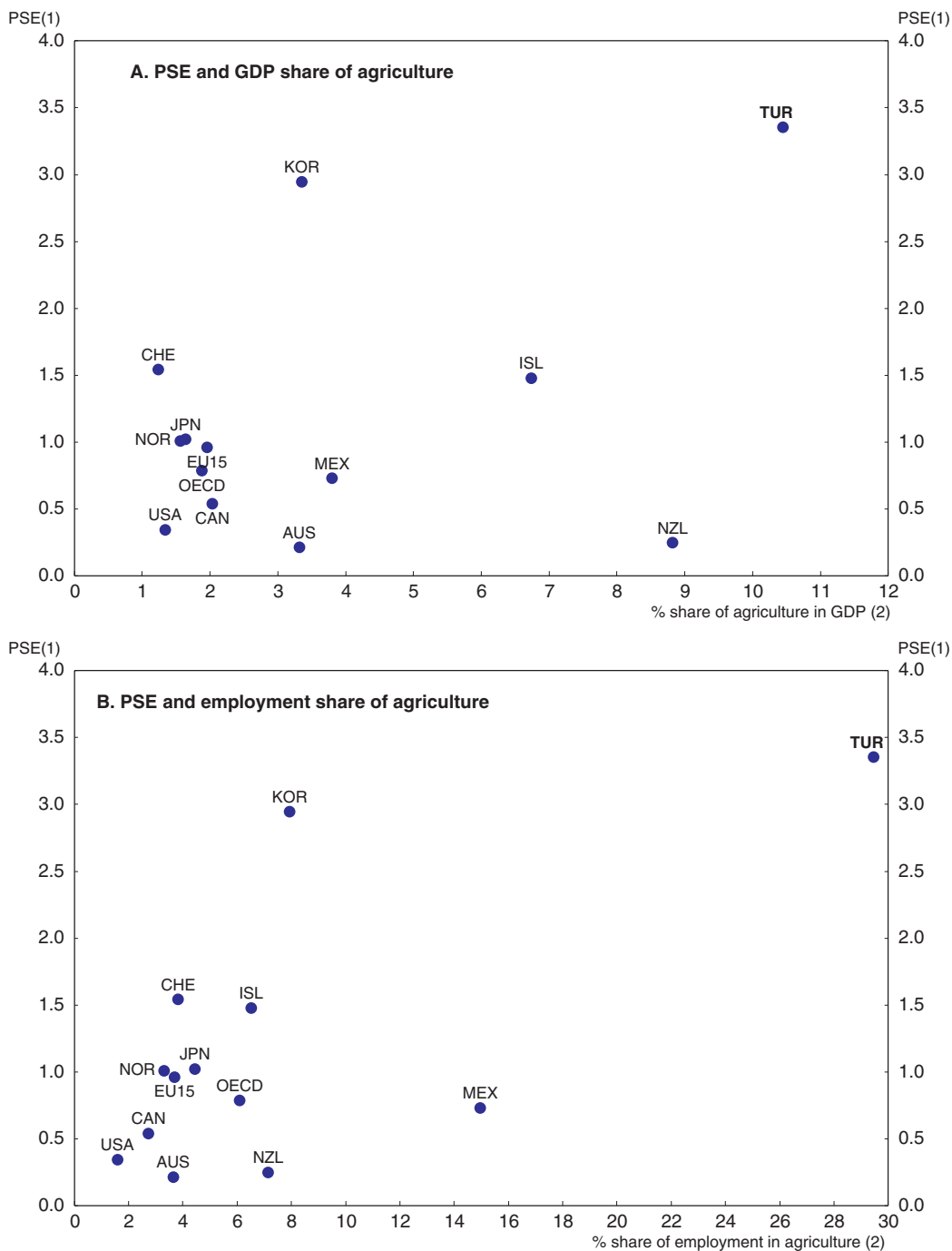
The support system has been challenged...

In recent years the agricultural support system has come under pressure:

- The *direct costs* of agricultural support are now better understood. New analysis in the wake of the disinflation and fiscal consolidation policies which followed the 2001 crisis has better exposed the consumer and fiscal costs of the prevailing system, including its extremely low "transfer efficiency".¹¹
- The *competitiveness costs* of a low-productivity agricultural sector for the whole economy are also becoming clearer. High relative prices of agricultural products create problems for downstream industries which use agricultural products as inputs and also reduce the living standards of consumers (Box 6.2).
- The *opportunity costs* of the support system have also become more visible. A new generation of farming entrepreneurs and policymakers realise that restructuring and rationalisation in farming can generate major gains in output, higher incomes for farm workers and investors, higher tax revenues, gains in the trade balance and important synergies with downstream industries.¹²
- Finally, Turkey has also to comply with *international requests* implying the reform of its agricultural policies. The economic programme agreed with the International Monetary Fund after the 2001 crisis included explicit provisions regarding the reduction of agricultural subsidies. Furthermore, the pre-accession negotiations with the EU will imply major cuts in trade protection *vis-à-vis* the EU and its third-party trade partners¹³ (Table 6.1). The new round of world trade talks will also put pressure on Turkey's subsidy regime, as the present

Figure 6.5. Policy support and the weight of agriculture in the economy

2005

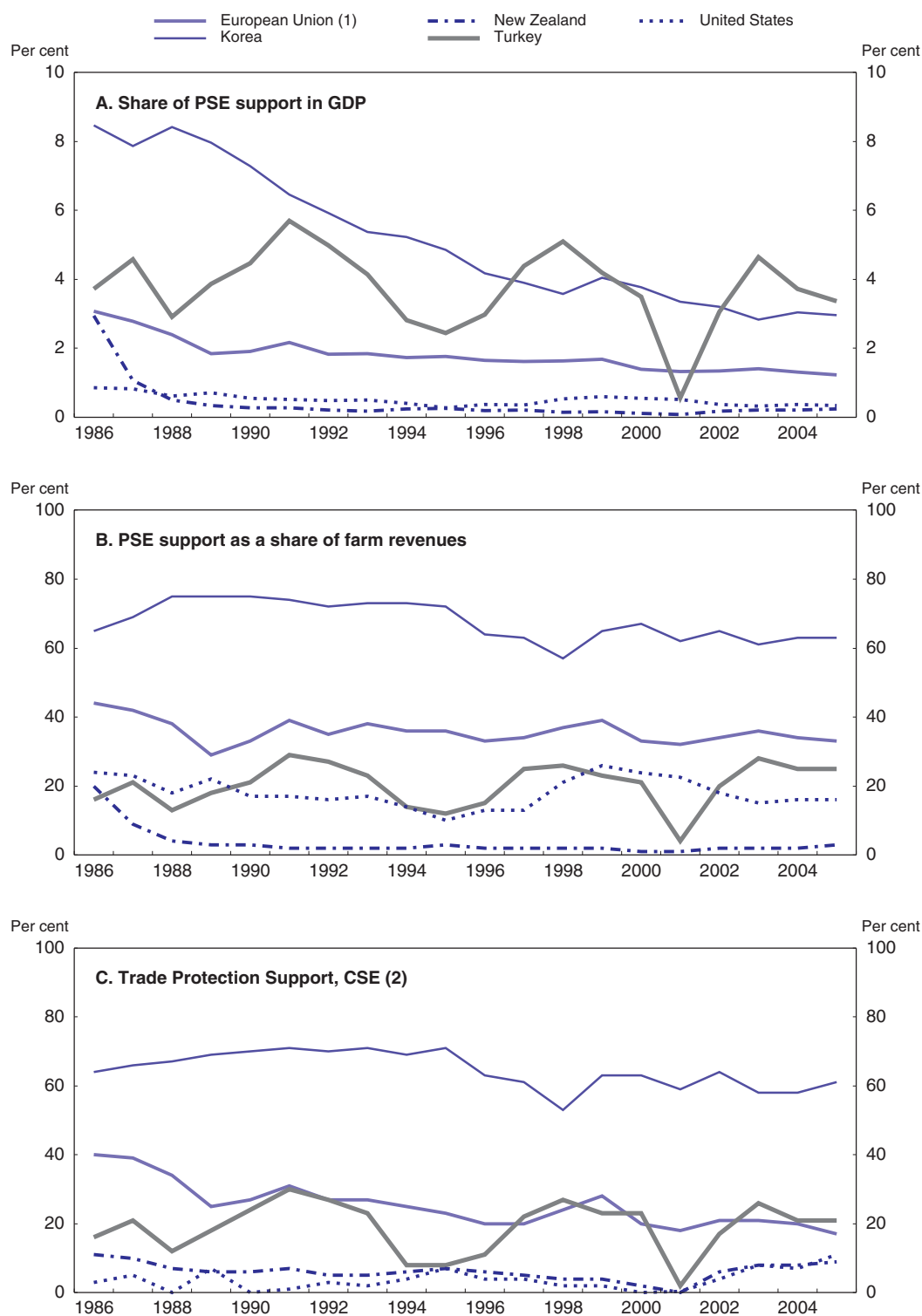


1. Producer support estimates as a share of GDP.

2. Or latest year available.

Source: OECD, PSE/CSE database, 2006 and National Accounts.

Figure 6.6. The evolution of policy support to agriculture



1. European Union-12 until 1996 and European Union-15 thereafter.
2. CSE = consumer support estimate, percentage of consumption prices.

Source: OECD Producer and Consumer Support Estimates database.

Box 6.1. A unique political economy environment

Agricultural policies in Turkey are rooted in a political economy environment which is unique within the OECD. Rural voters have made up the *majority* of the population until the late 1980s, and still represent nearly 40% of all voters.¹ Against this background, all successive governments and most political parties have felt committed to deliver a minimum degree of stability in rural incomes and employment, without challenging the existing production and skill structures.

The vast majority of farmers possess only small pieces of land and low levels of human and physical capital. They do not support policies which may introduce more market competition and require changes in techniques, know-how and marketing channels. They back policies preserving the *status quo* and individual incomes, rather than more competitive stances which would generate structural changes, land reallocations and technological transformations. The conservative bias that this introduced in policies slowed down aggregate productivity and output growth.

In spite of a powerful constituency for protection and support, average incomes have stayed low for the vast majority of farmers. The low level of productivity and the limited room available to governments for granting transfers to a large population of beneficiaries – both from the public budget and from consumers via trade protection – have put a cap on farm incomes. Poverty has remained widespread among small farmers and in many regions, without degenerating into deprivation.²

1. The rural population, almost entirely dependant on agriculture, represented 54% of the total population in 1985, and declined to 39% at the end of 2003 and to 38% at the end of 2005. However, many emigrants maintain close ties with their villages, continue to draw part of their income from agriculture, and stay partly within the political constituency of agriculture.
2. According to the latest household income surveys, only about 2% of the rural population suffered from absolute “food poverty”. In contrast, 35% of rural households suffered from “general poverty” (which measures access to basic consumer goods) in 2002, 37% in 2003 and 40% in 2004.

aid system is only just compatible with the commitments that Turkey took at the end of the previous round in 1995. Turkey will face additional demands for cuts in the forthcoming negotiations.¹⁴

... and has been fundamentally reformed

After earlier attempts to reform agriculture and make it more competitive,¹⁵ a major reform was begun during 1999-2001. In the framework of the fiscal consolidation started under a Stand-by Agreement with the IMF at the end of 1999, and on the basis of additional technical support provided by the World Bank in an *Agricultural Reform Implementation Project*, measures were taken in four areas:¹⁶

- Phasing out of agricultural price support and fertilizer and credit subsidies, and their replacement by a *direct income support* (DIS) system for farmers through a uniform per hectare payment (roughly USD 90/ha) unlinked to the production of any specific crop, on the basis of a National Registry of Farmers (NRF);
- Commercialisation and privatisation of the government-controlled enterprises and co-operatives which dominate the marketing channels of the main agricultural products, including wheat, sugar, tobacco, tea, olive, cotton, meat and milk;

Box 6.2. Competitiveness costs of low-productivity agriculture

Four major agricultural products (cotton, wheat, sugar and milk) are prime inputs for important Turkish industries. However, low productivity relative to the international competition, together with the existing trade protection in these products, undermine the competitiveness of downstream industries. Policymakers have introduced certain measures to minimise the negative spill-overs from the low competitiveness of agriculture, but the implementation of these policies raises a number of economic and administrative challenges.

Cotton is the core input of the Turkish textiles and clothing industry, and the high quality and the secure supply of domestic cotton was a traditional competitiveness driver for the industry. In recent years, however, price falls in international cotton markets – one of the agricultural markets most affected by production subsidies – tended to make local supplies uncompetitive in most years. To avoid negative spillovers to the textile and clothing industry the government reduced the tariff rate on cotton to zero, giving manufacturers access to their main input at international prices. Domestic cotton production then declined and there is a concern today that an irreversible eradication of capacity may result in this sector where Turkey arguably enjoys a long-term comparative advantage – in the absence of international price distortions. As crop switching (out of and back to cotton) has sunk costs, there are proposals to introduce a price compensation mechanism to offset the subsidy-induced price distortions in international markets and to restore a level-playing field for domestic producers. A “deficiency payment” scheme has already been introduced with this rationale, on a limited scale. However, at full implementation such a scheme would have very high and open-ended budgetary costs. Also, given Turkey’s WTO commitment not to subsidise its cotton by more than 10% of production value, it appears impossible to fully offset international distortions with domestic subsidies. In these circumstances a legitimate question is whether it would be preferable to let the distorted industry decline somewhat and support a re-start when international market conditions are liberalised.

Competitive **wheat** supplies are central to the competitiveness of the flour and pasta industries, which have grown strongly in the past two decades in both domestic and international markets. A competitiveness problem is faced in these industries in the years where international wheat prices fall below the (protected and supported) domestic price level. Wheat production being the largest agricultural sub-sector supported by a public purchasing agency (TMO), policymakers, instead of liberalising imports as they did for cotton, devised an alternative measure by guaranteeing the downstream wheat processing industries, for the *international part of their sales*, supplies of domestic wheat at *international prices*. Since its inception this scheme has faced incessant controversies about the determination of reference international prices, as well as allegations of fraud in the form of re-cycling of subsidised wheat in the domestic market.¹ Competition distortions arose in the food industry with the co-existence of two input prices – one for domestic food production and one for exports. The implementation of the scheme has therefore proven more difficult to manage than initially anticipated. The first-best solution to the problem is, clearly, to increase the productivity of domestic wheat crops, and liberalise trade (the adoption of the direct income support system should facilitate this solution).

Sugar is also a controversial case. Both beet production and its transformation into sugar are two large-size industries, one in agriculture and the other in manufacturing, with a large number of sugar beet farmers supplying 9 sugar factories under high trade protection and widespread arrangements of “contract agriculture”.² In 2005, tariff protection helped lift the domestic price of sugar to well above the international market price. Confectionary and other food producers then claimed that, in order to remain competitive, they should have access to i) sugar at international prices, and ii) to its cheaper substitute *fructose* which is derived from corn. While Turkey has a high latent production capacity in fructose, this capacity has been capped to date by regulatory controls under the pressure of sugar beet producers. The competitiveness of the food industry is hampered by these sugar sector policies.

Box 6.2. Competitiveness costs of low-productivity agriculture (cont.)

Milk and milk powder are other major inputs for the food industry. The government liberalised imports of milk powder at international prices but imports of liquid milk, besides being technically difficult, face high trade tariffs so that domestic prices result only from domestic market balances. On the other hand technological development is rapidly improving the substitutability between milk and milk powder, extending the (international) price trends in milk powder to the (domestic) liquid milk market. At the same time, allegations of important price distortions in the international milk powder market arise from subsidies granted by several producer countries. Simultaneously, the large share of informality in milk processing in Turkey gives cost advantages to the users of – mostly informally traded – domestic liquid milk, over the processors of – largely formally traded – milk powder. In these opaque circumstances, the organisation of a level-playing market between liquid milk and milk powder is difficult. Although “marketing boards” have been questioned in a number of OECD countries and have been targets of competition enforcement when they acted like monopolists in the purchase of milk and the distribution and sale of milk products, there have been suggestions to establish a “milk board” to promote a more transparent milk market.³

1. Wheat prices fluctuate in international markets and domestic food producers argue that their international competitors have access to the lowest prices, including in spot markets. In contrast, the wheat purchase agency TMO, in order to minimise its trading losses, aims at maximising the reference price of the scheme. This tension became particularly acute in 2005, when the reference price of TMO wheat was, according to flour and pasta producers, much above the price of the Ukrainian wheat in massive supply at their Northern border.
2. “Contract agriculture”, whereby agricultural output is ordered and purchased at prices agreed ex ante was introduced to Turkey by the sugar industry.
3. SETBIR (Union of Milk and Dairy Producers) has recently proposed the creation of a “milk board”.

Table 6.1. Prospects for tariff convergence: Trade tariffs in Turkey and the EU

	Number of tariff lines	Tariff rates applied by the EU to imports from Turkey	Tariff rates applied by Turkey to imports from the EU (weighted)	Tariff rates applied by the EU to imports from third countries (weighted)	Tariff rates applied by Turkey to imports from third countries (weighted)
<i>Live animals and animal products</i>					
Live animals	27	0 ¹	1.7	56.7	1.7
Meat and edible offal	10	0 ¹	71.4	68.6	71.4
Fish and sea products	89	0 ¹	19.6	11.6	37.6
Milk and dairy products; eggs; honey	72	0 ¹	101.8	69.2	103.2
<i>Vegetable products</i>					
Vegetables, plants roots, tubers	78	0 ¹	20.4	13.8	20.4
Edible fruits; citrus fruits	93	0 ¹	120.2	12.1	120.2
Coffee, tea, spices	45	0 ¹	46.1	4.3	47.3
Cereals	39	0 ¹	17.0	79.1	17.0
Oilseeds, various seeds/fruits industrial plants	88	0 ¹	3.6	1.0	5.5

1. These imports may be made subject to “tariff-quotas” (application of a tariff when imports increase above a threshold) and to an “entry price system” (specific duties are applied if import prices fall below the “entry price”).

Source: Togan et al., 2005.

- Sharp reduction of output intervention purchases financed from the budget leading to price cuts. Targeted price cuts were as large as 20-30% in most products. Intervention purchases were to be reduced by 45% in the main commodity, wheat, within two years;
- One-time grants were made available to farmers switching out of crops suffering excess supply, such as hazelnuts and tobacco, to help cover their transitional costs.

These measures were swiftly introduced. The largest purchasing agencies (TMO in cereals, TSFAS in sugar, ÇAYKUR in tea and TEKEL in tobacco) remained public – at the same time as TSFAS and TEKEL are in the privatisation portfolio – while most other policies were rapidly implemented. As a result, starting in 2002 and accelerating in 2003 – the first year of full implementation of the measures – the budgetary costs of agricultural support fell, contributing to fiscal consolidation (Table 6.2). Real incomes in agriculture declined by 16% as a result of price and output falls, while direct support (DIS) payments compensated for around 45% of these losses. The consumption of previously subsidised fertilizers and chemicals declined by 25-30%, and new subsidised credit by Ziraat fell almost to zero. The total surface of cultivated land declined by 2% in all regions except in the Mediterranean where commercial agriculture continued to grow and total agricultural output in volume (in constant prices) fell by 4%. DIS support was made conditional on land ownership and tenancy rather than agricultural activity – DIS-supported land had only to be “cultivated”, but this could be achieved in many ways and at a low cost.

Table 6.2. Transfers from consumers and transfers from taxpayers after reform

	Total support estimate (TSE) ¹		Transfers from consumers		Transfers from taxpayers	
	TL millions ²	As % of GDP	TL millions ²	As % of GDP	TL millions ²	As % of GDP
1995	14 678	3.6	4 994	1.2	10 240	2.5
1996	18 260	4.3	7 598	1.8	10 828	2.5
1997	25 484	5.7	14 887	3.3	11 182	2.5
1998	30 636	7.0	18 832	4.3	12 083	2.7
1999	25 960	6.6	14 518	3.7	11 902	3.0
2000	22 039	5.4	12 730	3.1	9 753	2.4
2001	10 450	2.7	944	0.2	9 633	2.5
2002	17 012	4.2	8 997	2.2	8 099	2.0
2003	21 405	5.1	16 565	3.9	4 717	1.1
2004	18 379	3.9	13 253	2.8	4 440	1.0
2005	18 660	3.8	13 069	2.7	5 141	1.1

1. Millions of new Turkish Liras, 2005 prices.

2. Total support estimate is not exactly equal to the sum of transfers from consumers and taxpayers. Transfers to the budget (budget revenues) generated by policies – amounting to 0.1% of GDP or less – account for the difference.

Source: Agriculture and Food Statistics Database.

These early results were compliant with the fiscal objectives. Due to the change in policy instruments the so-called “transfer efficiency” of agricultural support improved significantly.¹⁷ At the same time, net losses of agricultural output and income have remained relatively limited given the depth of the reforms. Nevertheless, it became apparent that additional measures were necessary to build on the potential offered by the new market environment for productivity and output growth.

Certain sub-sectors have responded quickly to the liberalised market – such as olive oil where exports soared. In other sectors however an asymmetry seemed to arise between the low-technology and small scale suppliers and the highly concentrated (monopsonistic or oligopsonistic) commercial purchasers, with a fall in market prices and alleged increases in trade margins. Also, large groups of farmers seemed to lack technical and marketing resources to switch crops and re-orient their production. In an assessment of the early outcomes of the reform the World Bank stated that “The adoption of the DIS Program should be viewed as only the first phase of an agricultural reform. A second phase is now needed that builds on the DIS Program, by promoting agricultural productivity and

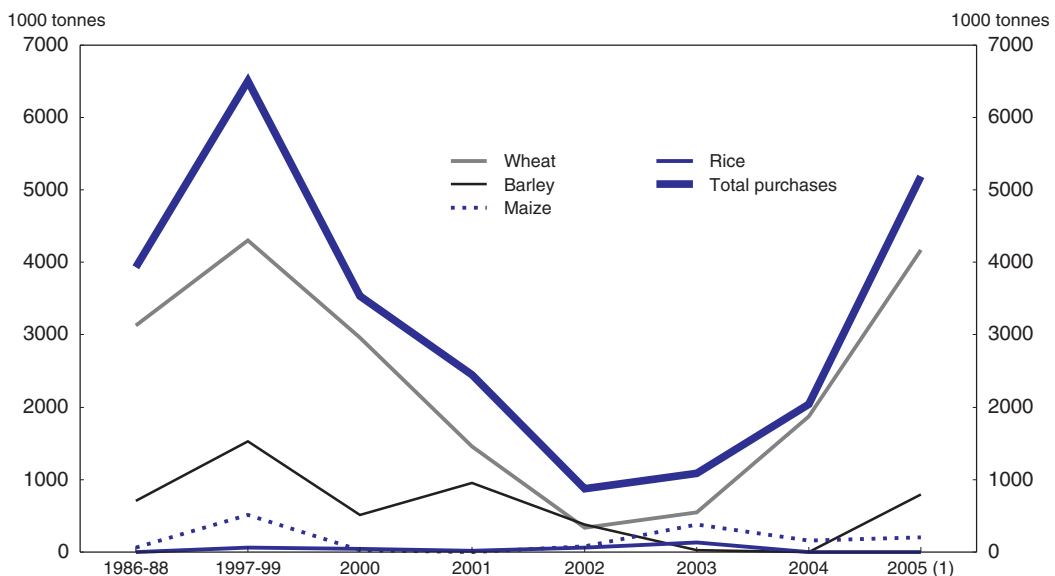
boosting agricultural profitability through both investment in rural infrastructure, and in sustainable rural institutions that deliver critically needed services, including rural credit, marketing and processing, and technology transfers”.¹⁸

Starting from the understanding that accelerating diversification into new products, improving quality and enhancing productivity require a more pro-active approach, an “Agricultural Strategy” was adopted by the government and transformed into an “Agricultural Law” in 2006.¹⁹ This strategy stresses DIS as the prime, but not exclusive, support instrument, and makes room for *deficiency payments* topping-up international market prices in the product areas where the government aims at preserving a national production capacity. *Crop-switching subsidies, livestock and rural development supports, aids to “agro-environmental” projects and subsidies to commercial insurance contracts* are also envisaged. The toolkit excludes, in principle, the most distorting forms of support such as output intervention purchases and input subsidies. The Law prescribes the creation of an “Agricultural Support and Orientation Council” which, with the participation of a wide range of government departments, will determine the objectives and instruments of agricultural policy at yearly intervals.

However, there are still risks that the reform will be less successful than anticipated. Indeed, the share of support to farmers in total receipts (% PSE) has tended to increase since the beginning of the 2000s, and reached almost its pre-reform levels (Figure 6.6 above). Border protection has remained rather high and support purchases, which were abolished in 2002, started again in the face of excess supply in certain sectors (Figure 6.7). Because of the administrative organisation of these purchases (intermediated by TMO, which is not a budgetary agency) budgetary costs are only paid with a lag. Indeed, fiscal constraints may be making the transition from traditional forms of support to explicit DIS more difficult, and this may explain the resurgence of border and other conventional forms of support.

Figure 6.7. Are support purchases starting again?

Intervention purchases of cereals by TMO, 1986-2005



1. As of mid-October 2005.

Source: Çakmak and Eryugur (2006) on basis of MARA, TMO and TURKSTAT.

At this juncture it is important to re-assert the main elements of the structural reform that is required to transform a highly protected farming sector into a competitive agricultural sector. As illustrated in Table 6.3, a comprehensive reform requires both improvement in the framework conditions in the full range of agricultural product and factor markets *which should continue to be liberalised*, and *improved support from associated public services and market institutions*. It is hoped that such comprehensive reform would have potential to raise productivity and output and prevent backsliding into the older system of government interventions.

Table 6.3. **From sheltered to competitive agriculture**

	Sheltered agriculture	Competitive agriculture
Product markets	<ul style="list-style-type: none"> – Administered prices. – Dominated by public purchasers. – Marketing co-operatives operate as state agencies. – Public policy aims at balancing supplier and buyer interests. – Commodity exchanges marginal. – Markets closed to foreign competition (very high trade tariffs). 	<ul style="list-style-type: none"> – Market prices. – Dominated by private purchasers. – Marketing co-operatives operate as competitive firms. – Competition policy keeps supplier and buyer market power in check. – Commodity exchanges are central. – Opening to foreign competition (a tariff reduction schedule).
Land markets	<ul style="list-style-type: none"> – Land ownership changes through bequests. – Land ownership rights are partly customary and informal. – Land fragmentation in motion. 	<ul style="list-style-type: none"> – Land ownership changes through bequests and market transactions. – Land ownership rights are formalised through cadastre. – Land consolidation in motion.
Capital markets	<ul style="list-style-type: none"> – State-supplied credit at subsidised rates, rationing of low cost loans. – Informal loans complete (and dominate) banking loans. 	<ul style="list-style-type: none"> – Commercial credit at market rates, credit available at varying costs for different market segments. – Smaller need for informal loans.
Input markets	<ul style="list-style-type: none"> – Subsidised input prices encouraging, economically inefficient input use (fertilizers, seeds, energy). 	<ul style="list-style-type: none"> – Market prices for inputs determining, economically efficient input use (fertilizers, seeds, energy).
Labour markets	<ul style="list-style-type: none"> – Unpaid and unskilled family work kept as the bulk of the workforce. 	<ul style="list-style-type: none"> – Dominating entrepreneurial farmers raise productivity by hiring more skilled labour.
Infrastructure: irrigation	<ul style="list-style-type: none"> – Irrigation water is subsidised. – Irrigation investment capped by budget constraints. – State monopoly manages irrigation. – Simultaneously excessive use and rationing of water (depending on farmers). 	<ul style="list-style-type: none"> – Irrigation water is priced. – Irrigation investment can be locally and privately-funded. – Local and private organisations manage irrigation. – Economic allocation of water by using the price mechanism.
Infrastructure: technology	<ul style="list-style-type: none"> – Agricultural research in a few under-funded public laboratories. – National technological transfer services. 	<ul style="list-style-type: none"> – Decentralised contract research in agriculture. – Regional, quasi-competitive technical extension services.
Coverage against risks	<ul style="list-style-type: none"> – <i>Ex post</i> and <i>ad hoc</i> coverage by the government of weather, disease, etc., risks. 	<ul style="list-style-type: none"> – Commercial insurance of explicit risks with possible government support.
Social safety net	<ul style="list-style-type: none"> – A costly “umbrella” of price support and trade protection. – Social security not enforced. 	<ul style="list-style-type: none"> – Direct income support to eligible farmers. – Social security enforced.

Source: OECD Secretariat.

Transition from the old “protection and support” regime to the new market-based environment is a process that cannot be achieved overnight. This is not the place to review all the complementary components and dimensions of this course. Nonetheless, it is important to recognise the systemic character and the underlying logic of the transformation at stake, in order to pursue it on all fronts: new policies should build on the incentives and disciplines of competition in the entire set of agricultural product and factor markets, and support this liberalisation with modern and effective public services. Certain areas, such as in the following paragraphs, deserve particular attention:

Technology transfer

Technology transfer services which have to date played a relatively limited role in the technological upgrading of Turkish farming should help to diffuse information on higher value-added and market-demanded products and product mixes, and their production technologies. Attention should be devoted to a full span of technologies ranging from “organic” products and technologies (where Turkey seems to possess a certain potential – as of now only 0.8% of total agricultural land is dedicated to organics) to internationally recognised and best-practice genetic technologies (which also appear to have an important potential in Turkey for reducing irrigation needs, for instance in cotton crops). Technology transfer services should also help contain the excessive and uncontrolled utilisation of fertilizers, chemicals and other additives which poses risks to the quality and food-safety of Turkish agriculture. The administrative decentralisation of these services could help make them more responsive to market needs.

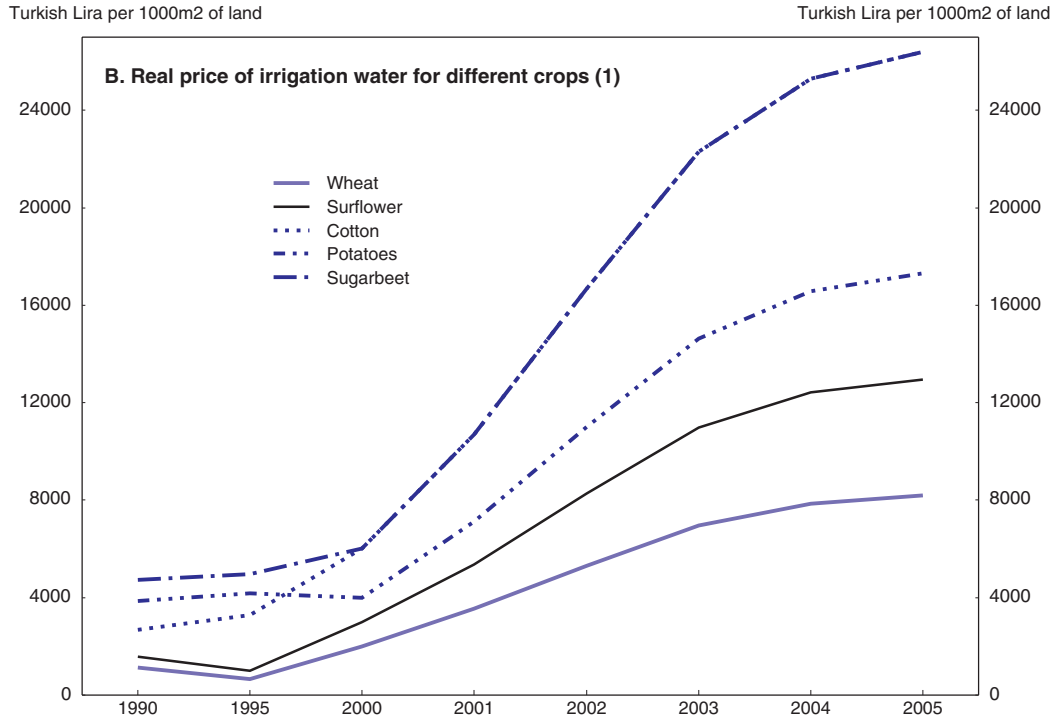
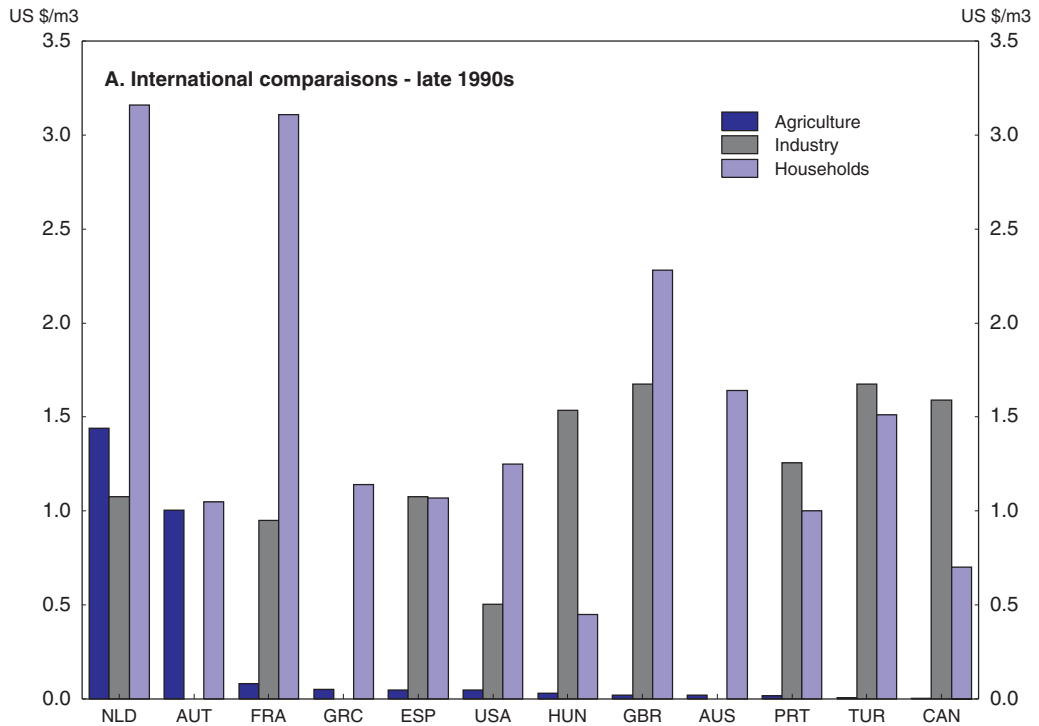
Irrigation

Turkey has 8.5 million hectares of irrigable land and only a gross 5 million hectares were irrigated at the end of 2005. Climate and land characteristics mean that well-managed irrigation has very high returns. In the past, few mechanisms were available to promote adequate irrigation. In certain areas excessively cheap water, lack of technical knowledge and the limited geographical reach of distribution networks led to widespread waste by those having easy access to water, to excess salinity of land, and wide imbalances between farmers who could irrigate and the others. On the other hand, recent budget constraints have reduced the expansion of irrigated land to 50 000 hectares per year, including in the important South-East Anatolian Project (GAP) which has a potential of 1.7 million hectares (20% of the total irrigable arable land of Turkey). GAP caters to the needs of an underdeveloped but high-agricultural-potential region where only 13% of the intended coverage area has been irrigated. The societal benefits of these early irrigation efforts have been highly positive.

At the present pace of irrigation investment, the completion of plans may take up to 80 years. Instead, more regional, co-operative and private investment would help to accelerate irrigation investment. Indeed, the authorities declare that they are exploring possibilities for more private investment in irrigation. To achieve that goal, they agree that water prices would need to be increased and this has already triggered an adjustment of irrigation tariffs (which were among the lowest in OECD in late 1990s) (Figure 6.8). Even if tariffs cannot be abruptly increased so as to cover full investment and capital costs, numerous opportunities exist for complementary commercial projects (such as water pipelines) to make better use of available water resources. The authorities should closely follow financial and organisational innovations ongoing in other OECD countries.²⁰ The slow pace of irrigation has at present very high opportunity costs.

Operation and management responsibilities for local irrigation networks (previously run by the national monopoly DSI) were recently transferred to self-financing local organisations. These have increased the excessively low prices in order to cover their operating costs and are proving more effective in managing water scarcity. These changes are important steps forward in the rationalisation of irrigation policy.

Figure 6.8. The pricing of irrigation water



1. At constant GDP prices, 2000.

Source: Turkish Ministry of Agriculture, OECD.

Land consolidation

Stopping land fragmentation and consolidating the highly fragmented land is indispensable for raising agricultural productivity. The legal and regulatory framework has to date not facilitated this process. Prior to 2001, land was automatically divided at the time of a bequest, while in other OECD countries the preservation of economic farm sizes is normally taken into account. The Turkish Civil Code was modified in 2001 with a new article prescribing that “farm properties below economically efficient sizes should not be divided at bequests” (although division of land can still be obtained through a court decision).

Not only stopping but *reverting* land fragmentation may prove more difficult if transaction costs are high, even if a more competitive market process should now drive land consolidation. The increased availability of investment capital and credit to agriculture should also help. The degree of adequacy of the present legal and regulatory framework for facilitating these operations will be revealed in practice.

At present, policy-makers believe that the existing legal and regulatory framework for land consolidation is adequate. If “land consolidators” face excessive hurdles in practice, policymakers may need to envisage additional remedies. There are already plans to issue a new “regulation for the preservation, use and consolidation of agricultural land” and vest a special agency with the task of facilitating the required transactions.

One problem is that an estimated 20 to 30% of agricultural land is not yet covered by cadastres (formal land registers). This is an obstacle to consolidation as the enforcement of ownership rights involves lengthy court procedures. A complete and reliable agricultural cadastre is also a pre-requisite for Turkey’s joining the European Union’s Integrated Administration and Control System for farm policy (IACS). IACS aims at putting in place a satellite-based land monitoring system superimposed with cadastres, and Turkey plans to participate in this effort. Completing and modernising the cadastre should be a top priority of agricultural policy.

Competition

Competition policy has an essential role to play in the functioning of agricultural markets. In most OECD countries, complaints about domination of markets for agricultural products are common, due in large part to the low short-term elasticity of supply and demand. In Turkey, the challenge is amplified because liberalisation is recent and still incomplete in many areas. In particular, after the privatisation of the traditional state-owned intermediaries, some time will be required for the establishment of new marketing channels and institutions found in the other OECD countries, such as commodity futures and product-specific processing and marketing co-operatives. Competition authorities should oversee the emergence of these institutions, notably of any product-specific commodity boards – to guard against the creation of unnecessary monopolies. It is fortunate in this regard that Turkish Competition Law does not provide any anti-trust exemption concerning practices in agricultural markets. In the recent period since reform, the Turkish Competition Authority has already addressed some controversial cases – including the purchasing practices of the Union of Tomato Purchasers, milk purchasing practices of large dairy enterprises and a large merger case in the fertilizer industry (where it rejected the merger). Ensuring that output and input markets are fully competitive and operating efficiently are key requirements for the development of commercial agriculture.²¹

Agricultural financing

Investment capital and commercial credit are important ingredients for the development of productive farms. The agricultural sector has been endemically cash-constrained to date, and the subsidised (state-owned) Ziraat loans were unavoidably rationed. These loans were also partly allocated according to non-economic criteria. Private bank loans are restrained by the information, collateral and enforcement failures in this sector overwhelmed by informality. Informal credit has filled the void at a high cost to borrowers. The government's cash constraints have also made the financial constraints of farmers more serious; for instance, the DIS payments for 2004 were partially paid in 2005, and payments were completed in January 2006. A pick-up in private loans has been observed in the past five years, from practically zero in 2000 to a total portfolio of 110 million YTL in 2005 (still very marginal at 0.03% of GDP). These private loans are extended to large farms purchasing heavy agricultural machinery under leasing arrangements. Yet many banks (Isbank, Sekerbank, Finansbank, Denizbank) announced that they plan to develop more diversified loan packages for agriculture. The improvement of the legal and administrative framework for collateral (including the completion of the cadastre) is a pre-requisite.

Easing the social costs of adjustment

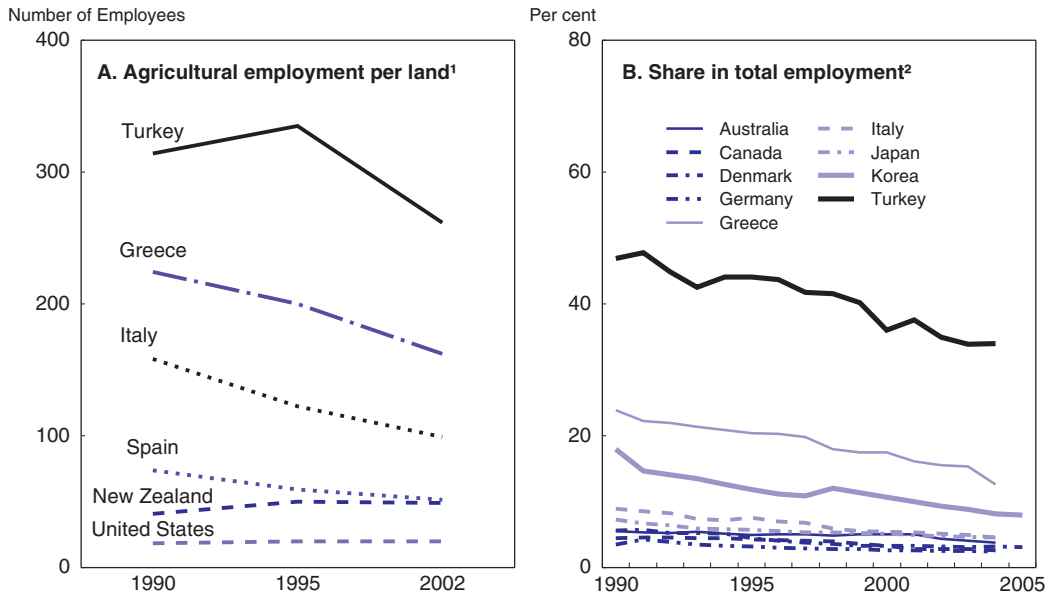
“Protecting the low-income farmer” has long been a political slogan supporting market distorting policies, which have encouraged small farmers to remain in the sector, although they were rarely the main beneficiaries of such policies. The large size of the population working on small farms has made consolidation of the agricultural sector socially difficult and may be one of the factors making the pursuit of reforms politically demanding. While agricultural transition would be eased by the economy-wide comprehensive reforms suggested in this Survey – which would enhance job creation outside agriculture, including in rural areas – this pull factor might not be sufficient. Social measures might be needed to facilitate the transition, such as by encouraging older farmers to retire and sell or lease their land which currently protects their subsistence. Indeed, despite the recent acceleration of labour force exits from agriculture, more labour adjustment is to be expected,²² as confirmed by the experience of other catching-up countries (Figure 6.9).

A number of OECD countries have applied special programmes to facilitate the agricultural transition in the past, notably by funding retirement schemes (in particular when farmers had not contributed at all to social security and therefore were not eligible for pensions in their own capacity). However, experience with such reforms shows that they may also lead to early and excessive withdrawals from the labour force and entail large fiscal costs. In Turkey's circumstances such risks would justify a very careful design of any policies aimed at easing the social costs of adjustment.

One feasible policy to ease the transition would be to raise the means-tested public pension, which is currently below the absolute poverty level, a measure which would alleviate poverty more generally. Policies could also involve other social support to farmers. With properly defined eligibility criteria, the overall fiscal costs of such measures could be manageable.²³ The net costs of policies could also be reduced by re-orienting part of ongoing budget transfers to agriculture to such programmes.²⁴ Table 6.2 showed that agricultural reforms have already resulted in significant fiscal savings, and further savings should be possible if the reform process continues and is not reversed by policy changes.

This justifies a special attention to sustaining the reform momentum. The re-allocation of agricultural land to more efficient commercial farms would also widen the tax base, thus also contributing to the funding of policies.

Figure 6.9. **Remaining potential for employment adjustment**



1. Employees per 1 000 hectares of arable land.
2. Share of agricultural employment in total employment.

Source: OECD and FAO.

Conclusions

The recommendations of this chapter are summarised in Box 6.3.

Box 6.3. Recommendations for freeing the potential of agriculture

General policy

Pursue the transition from “sheltered” to “competitive” agriculture as a strategic objective in all areas of agricultural policy. In order to maximise returns from reforms, pursue liberalisation in the full set of product, land, input, capital and infrastructure markets.

Technology transfer

- Technology transfer services should diffuse information on high value-added and market-demanded products, and on their production technologies.
- The full span of technologies ranging from “organic” products to internationally recognised genetic technologies should be covered.
- Technology transfer services should be made more market-responsive – decentralising them is an option.

Irrigation

- Avoid waste of water by farmers who have easy and excessively cheap access to it. The price of irrigation water should be based at least on operational costs.
- Make irrigation investment a fiscal priority. At the same time make sure that projects are selected according to economic criteria and run efficiently.
- Resume and fund the irrigation leg of the South-East Anatolian (GAP) project.
- Seek opportunities to involve private investors in irrigation projects. Pilot projects can play a demonstration role, and water-using farmers as well as third-party commercial investors should be encouraged to participate.

Land consolidation

- Monitor trends in land consolidation and make sure that legal and transaction costs remain affordable. Monitor the effects of the 2001 change in the Civil Code on land fragmentation at bequests.
- Complete and implement the “regulation for the preservation, use and consolidation of agricultural land”.
- Make the completion and the modernisation of the agricultural cadastre a priority.

Competition

- Encourage the competition authority to take an active role in competition advocacy in agricultural product, input and service markets.
- Monitor the new marketing and purchasing organisations in agricultural products and ensure that they comply with competition principles.

Agricultural financing

- Strengthen the legal framework for agricultural collateral (land, livestock, etc.).

The social safety net

- Increase the level of the means-tested public pension and assess the need for other social support to those retiring from agriculture and contributing to land consolidation.
- Carefully study eligibility criteria for social assistance and aim to fund it with savings from other agricultural spending.

Trade policy

- Anticipate Turkey’s future liberalisation obligations in the context of the WTO and EU negotiations and target more pro-active liberalisation.

Notes

1. The agricultural sector is particularly large: it employs 7.4 million workers and cultivates 22 million ha of land, representing 103% of the agricultural population of the EU-15 and 64% of the EU-25, and 17% of the cultivated land of the EU-15 and 12% of the EU-25. It generates living incomes for a population of 25 million.
2. Only 3 000 farmers (less than 0.05% of the total) paid any income taxes in 2005 on the basis of income declarations. Total income taxes collected from agriculture amounted to 340 million YTL in 2005 (0.08% of GDP).
3. This is well below the European Union's average farm size of 17 ha although even there, significant farm support may have probably efficient aggregation from occurring. The average farm size is much higher in the United States, at 180 ha per farm.
4. Turkey not being part of the European Union's Common Agricultural Area has certainly been a factor restricting export growth when compared to catching-up EU members.
5. For example Kasnakoglu et al. (2005).
6. Various studies have documented the excessive utilisation of basic inputs in Turkish agriculture – notably excessive irrigation and salinisation in water-subsidised areas and excessive utilisation and presence of phosphates in fertilizer-subsidised arable land. See, Oskam et al., 2004.
7. Cereals (TMO), Sugar beat (TSFAS), Tobacco (TEKEL), Tea (ÇAYKUR), Meat (EBK), and Milk (SEK), etc. Many except the largest of these agencies have been privatised in recent years.
8. Many of these organisations became subject to non-commercial and political influences and operated under soft budget constraints.
9. According to a 2001 study formal outstanding loans to agriculture amounted to 13% of agricultural GDP in that year. Informal loans amounted to 30% of agricultural GDP.
10. When the costs of the general government services to agriculture as a whole are taken into account – these are low in Turkey, they account for around 10% of total support to agriculture – the so-called Total Support Estimate (TSE) amounted to 4% in 2005, still one of the highest in the OECD.
11. Net benefits received by farmers are much lower than the costs incurred by consumers and taxpayers (“transfers are inefficient”). This is due to the costs of production (seed, fertilizer, pesticide, etc., costs) of a massive “deadweight” of low-value agricultural output as a result of distortive price support, and to the multiplication of intermediaries in the support system. It was recently calculated that only about one quarter of the total fiscal and consumer costs of agricultural support in 1999 was actually benefiting farmers. See Lundell et al. (2004).
12. Several organisations have published reports on the latent and unused potential of Turkish agriculture in the past two years. TUGIAD (2004), TUSIAD (see Kasnakoglu et al. 2005), MUSIAD (2005).
13. Even if new types of support compatible with the Common Agricultural Policy will also become available.
14. Two analysts of Turkey's agricultural trade negotiations with the EU and in the WTO have recently observed the slow-down in these talks but argued that such delays can only be temporary: “The delays in finalising the new agreement on agriculture of WTO and the accession period to EU may give Turkey the opportunity to pursue past policies for about a decade, but eventually Turkey will be forced to shift to policies which will enhance the structure of production. Turkey seems to have two effective policies to consider: i) upgrade land and decrease the semi-arid nature of production (increasing access to irrigation) and/or ii) invest in R&D for technology transfer”. See Çakmak and Eryugur (2006).
15. Important reform efforts were undertaken in 1982 and 1994. While they had sound technical objectives political support was weak and they were overwhelmed by subsequent political developments.
16. The main and only domestic exposition of this programme was a policy statement issued by the Turkish Treasury in June 2001: “Agricultural Sector Reform: What is it and why is it necessary?”. The summary of the reform and its early record presented here draws on Lundell et al. (2004) and Ministry of Agriculture and Rural Affairs of Turkey (2004).
17. As input subsidies with a low transfer efficiency were replaced with the Direct Income Support (DIS) system which has a higher transfer efficiency.

18. In an assessment of the reform on behalf of the Dutch government a Group of Experts stated: "Although some structural change is being driven by private sector developments upstream and downstream from agriculture, a stronger and more competitive food supply chain requires restructuring of the farming sector. The pace of this will be too slow if it is left to market forces and economic pressures." (Oskam et al. 2004).
19. See Yuksek Planlama Kurulu (High Planning Council) (2004).
20. See OECD (2002) and OECD (2006c).
21. The OECD Competition Law and Policy Committee recently organised a Round-Table discussion on competition issues in agriculture. After reviewing the common claims about monopsony buyer power and producer co-operatives in agriculture it concluded with a general recommendation that "Antitrust exemptions for the agricultural sector are not necessary. Joint-activity organisations that involve a small percentage of output or that result in the creation of brands can provide substantial benefits to consumers and as a result, such joint activity would not generally be illegal under many antitrust laws. In contrast, joint-activity organisations that have mandatory membership and engage in output restricting or redirecting activity likely harm consumers and do not promote the public interest. Only in exceptional cases would such activities enhance the public interest, so they do not merit a broad exemption" (see OECD, 2005). The Turkish Act for the Protection of Competition No. 4 054 does not provide any such exemption.
22. In its background projections for the IXth Development Plan 2007-13 the State Planning Organisation estimated that the share of farm employment in total employment could decline from 29% in 2005 to 19% in 2013.
23. If, for purposes of an illustration, it is assumed that 20% of the farming population is made eligible for means-tested pensions, the fiscal costs of such a measure would range from a third to three quarters of a percentage point of GDP according to whether the level of the means-tested pension were to be fixed at the "food only" poverty line (currently 85 YTL per month, € 43) or the "general" poverty line (currently 206 YTL, € 105). Means-tested pensions are at present below these poverty lines at 65 YTL (€ 33), as discussed in Chapter 4. Total fiscal costs would obviously depend on specific eligibility and benefit criteria and the number of already inactive rural inhabitants who would be made eligible.
24. Part of the present DIS payments could be re-oriented. There are reportedly widespread abuse in DIS entitlements, and any savings achieved through the tightening and better administration of this programme could be used to help finance social programmes.

References

- Akal, M. (2005), "Estimation of Agricultural Trade Elasticities in Turkey", *Yapı Kredi Economic Review*, Volume 16, No. 2, Yapı Kredi Bank, Istanbul.
- Akasaka, K. (2006), "Securing Water in the Future", *OECD Observer* No. 254, Paris.
- Akder, A.H. (2004), "Türkiye Tarım Politikasında 'Destekleme Reformu' ('Support Reform' in Turkish Agricultural Policy)", *Agricultural Reform Implementation Project (ARIP) Reports and Papers*, May.
- Aksoy, M.A. (2004), "The Evolution of Agricultural Trade Flows", in *Global Agricultural Trade and Developing Countries*, The World Bank, Washington.
- Baffes, J. and H. de Gorter (2004), "Experience with Decoupling Agricultural Support", in *Global Agricultural Trade and Developing Countries*, The World Bank, Washington.
- Coelli, T.J. and D.S.P. Rao (2003), "Total Factor Productivity Growth in Agriculture: A Malmquist Index Analysis of 93 Countries, 1980-2000", *CEPA Working Paper*, University of Queensland.
- Çakmak, E. and O. Eryugur (2006), "Cereals and Related Policies in Turkey", mimeo, Middle East Technical University, Ankara.
- Çakmak, E.H. and A.H. Akder (2000), "A Search for New Agricultural Policies: The Case of Turkey", *Turkish Industrialists' and Businessmen's Association (TÜSİAD)*, Istanbul.
- Çevik, S. (2006), "Turkey: Urban Recovery, Rural Poverty", *Morgan Stanley Commentary* 16/02/2006, Morgan Stanley Equity Research Europe, London.
- Dehousse, F. and W. Coussens (2002), "The Commission's Propositions for the Enlargement Negotiations on Agriculture, Structural Funds and the Budget: An Analysis", *Belgian Institute for International Relations*, Brussels.

- Demirbilek, S., C. Koç and M. Arslan (2002), "Ticaret Borsalarından Gerçek Borsaya Genel Yaklaşım – Tarımsal Ürün Piyasalarının Liberalizasyonu (General Approach from Trade Exchanges to Real Exchanges – Liberalising Agricultural Good Markets)", Undersecretariat of the Prime Ministry for Foreign Trade, Ankara.
- Gorter, H. de, M.D. Ingco and C. Short (2005), "The Distributional Effects of Agricultural Policy Reforms", in *Agriculture and the WTO*, The World Bank, Washington.
- Gökdemir, B. (2002), "Tarımsal Reform ve Rekabet Politikası (Agricultural Reform and Competition Policy)", *Rekabet Dergisi*, Turkish Competition Authority, Ankara.
- Hoff, K., A. Braverman and J.E. Stiglitz (1993), *The Economics of Rural Organisation – Theory, Practice, and Policy*, Oxford University Press, New York.
- Kasnakoğlu, H., E. Çakmak and A.H. Akder (2005), "DTÖ ve AB'deki Gelişmeler Işığında 21. Yüzyılda Türkiye Tarımını (Turkish Agriculture in the 21st Century in Light of the Developments in WTO and EU)", Turkish Industrialists' and Businessmen's Association (TÜSİAD), Istanbul.
- Kıymaz, T. (2000), "Avrupa Birliği'nde ve Türkiye'de Hububat, Şeker ve Süt'de Uygulanan Tarımsal Destekleme Politikaları, ve Bunların Gıda Sanayiine Etkileri (Agricultural Support Policies in EU and Turkey towards Cereals, Sugar and Milk, and their Effects on Food Industry)", State Planning Organisation, Ankara.
- Kristinek, J.J. and D.P. Anderson (2002), "Exchange Rates and Agriculture: A Literature Review", AFPC Working Paper 02-2.
- Lundell, M., J. Lampietti, R. Perteve, L. Pohlmeier, A.H. Akder, E. Ocek and S. Jha (2004), "Turkey – A Review of the Impact of the Reform of Agricultural Sector Subsidisation", Working Paper 9 March 2004, The World Bank, Washington.
- MÜSİAD (2005), "Tarıma Girişimcilik Aşısı' (Entrepreneurship Vaccine to Agriculture)", *Çerçeve Dergisi*, Independent Industrialists and Businessmen's Association, Istanbul.
- OECD (2006a), "OECD Agricultural Policies, 2005", Paris.
- OECD (2006b), "Competition and Regulation in Agriculture: Monopsony Buying and Joint Selling", Paris (www.oecd.org/dataoecd/7/56/35910977.pdf).
- OECD (2006c) "Water and Agriculture: Sustainability, Markets and Policies", Proceedings of the Adelaide Conference, 2006, forthcoming.
- OECD (2003), "Organic Agriculture: Sustainability, Markets and Policies", Paris.
- OECD (2002), "Transition to Full-Cost Pricing of Irrigation Water for Agriculture in OECD Countries", Paris (www.oecd.org/dataoecd/7/56/35910977.pdf).
- OECD (1994a), "National Policies and Agricultural Trade Country Study: Turkey", Paris.
- OECD (1994c), "OECD Economic Surveys: Turkey (Chapter on Agriculture)", Paris.
- Oskam, A., Burrell, A., Temel, T., Berkum, S.V., Longworth, N. and I.M. Vilchez (2004), "Turkey in the European Union – Consequences for Agriculture, Food, Rural Areas and Structural Policy", Report Commissioned by the Dutch Ministry of Agriculture, Nature and Food Quality, Wageningen.
- Özkaya, T., Oyan, O., Işın, F. and A. Uzman (2001), "Türkiye'de Tarımsal Destekleme Politikaları: Dünü-Bugünü-Geleceği (Agricultural Support Policies in Turkey: Past-Today-Future)", Union of Turkish Chambers of Agriculture (TZOB) and Turkey Social, Economic and Political Research Foundation (TÜSES), Ankara.
- Tarım ve Köyişleri Bakanlığı (2004a), "II. Tarım Şurası Üretim ve Pazarlama Politikaları Komisyon Raporu (2nd Agriculture Congress, Commission Report on Production and Marketing Policies)", Ministry of Agriculture and Rural Affairs of Turkey, Ankara.
- Tarım ve Köyişleri Bakanlığı (2004b), "II. Tarım Şurası Tarımsal Yapıda Değişme ve Gelişmeler Komisyon Raporu: (2nd Agriculture Congress, Commission Report on Transformations and Developments in Agricultural Structure)", Ministry of Agriculture and Rural Affairs of Turkey, Ankara.
- Togan, S., Bayaner, A. and J. Nash (2005), "Analysis of the Impact of EU Enlargement on the Agricultural Markets and Incomes of Turkey", in *Turkey Economic Reform and Accession to the European Union*, The World Bank, Washington.
- TUGIAD (2004), "Türk Tarımında Reform Stratejileri Önerileri (Reform Strategy Proposals for Turkish Agriculture)", Young Businessmen Association of Turkey, Istanbul.

- Turkish Treasury (2001), “Tarım Sektöründe Reform: Nedir – Niçin Gereklidir? (Agricultural Sector Reform: What is it and Why is it Necessary?)”, Turkish Treasury Structural Reform Report, Ankara.
- Usumi, S. (1995), “Açık Artırmalı Tutun Satışı Başlamalı” (Auction Sales Should Start in Tobacco Markets), Sabah, 05/02/1995, İstanbul.
- Usumi, S. (1999), “Et ve Süt Piyasasında Tekeller Oluşuyor (Monopolies Emerge in Meat and Milk Markets)”, Cumhuriyet, 07/04/1999, İstanbul.
- Yükseler, Z. (1999), “Tarımsal Destekleme Politikaları ve Doğrudan Gelir Desteği Sisteminin Değerlendirilmesi (Evaluation of Agricultural Support Policies and Direct Income Support System)”, State Planning Organisation, Ankara.
- Yüksek Planlama Kurulu (2004), “Tarım Stratejisi (2006-2010) (Agriculture Strategy 2006-2010)”, High Planning Council, Cabinet Office, Ankara.

Table of Contents

Executive summary	9
Assessment and recommendations	11
Chapter 1. Turkey's challenges to achieving a sustainable catching-up	19
Turkey's recent economic performance and outlook	20
Managing macroeconomic risks and improving resilience to shocks	32
Deepening structural reforms to sustain a rapid catching-up	33
Conclusions	36
Notes	37
Chapter 2. Managing macroeconomic risks and improving resilience to shocks	39
Despite good macroeconomic outturns, recent turmoil has highlighted Turkey's vulnerabilities	40
Improved macroeconomic resilience to international shocks is essential	42
Monetary policy is being tested	53
Fiscal policy institutions need to be strengthened	59
Structural policy can also play an important role	62
Prudential banking supervision should be further improved, to strengthen financial sector resilience	64
Conclusions	69
Notes	71
References	72
Annex 2.A1. Debt sustainability scenarios: methodology and assumptions	75
Chapter 3. Enhancing competitiveness and growth and reducing incentives to operate in the informal economy	79
A dynamic business sector facing new challenges	80
Performance differs across sectors and firms	82
Policies to cope with increased competition	87
Conclusion: Regulatory simplification is the key to enhancing competitiveness and growth	108
Notes	111
References	114
Annex 3.A1. An analysis of the evolution and determinants of profitability in Turkish manufacturing industry, 1998-2005	117
Annex 3.A2. The effective tax burden of companies in Turkey	123
Annex 3.A3. Surveys on the competitive strengths and weaknesses of firms of different sizes	127
Annex 3.A4. Dynamic medium-sized enterprises' access to credit and equity capital	129

Chapter 4. Making the pension system less of an obstacle to formalisation	133
The slow transition to the new rules is expensive and creates poor incentives for formal sector participation.	134
Social security contribution rate cuts should be made an priority.	143
Ways to address concerns about poverty among the older population.	144
The agenda for further reform.	146
Notes	149
References.	150
Annex 4.A1. Assumptions underlying the pension analysis.	151
Chapter 5. Making quality education accessible to the whole population	153
The education system perpetuates economic <i>duality</i>	155
Summary.	165
Notes	167
References.	167
Chapter 6. Freeing the potential of agriculture	169
Productivity in agriculture is low.	170
... and exports remain below potential.	170
Public support is high	172
The support system has been challenged.	175
... and has been fundamentally reformed	178
Conclusions.	188
Notes	190
References.	191
Boxes	
1.1. Is the political climate important for reforms?	31
2.1. Life after the IMF	43
2.2. Public and external debt ratios could reverse trend	49
2.3. Inflation targeting in Turkey.	54
2.4. Managing public finances: remaining challenges	60
2.5. The fiscal risks of health reform	63
2.6. The agenda for strengthening prudential banking supervision according to the Imar Commission	68
2.7. Summary of recommendations to improve resilience to shocks	70
3.1. Strengths and handicaps of small firms.	89
3.2. Strengths and handicaps of medium-sized firms.	92
3.3. Strengths and handicaps of formal sector firms.	95
3.4. The inflation tax	99
3.5. The political discussion about the appropriate minimum wage in other emerging countries	104
3.6. A comprehensive strategy to raise competitiveness and growth based on regulatory simplification and formalisation.	110
4.1. The 2006 social security reform	136
4.2. Early retirement incentives and continued work incentives	139

4.3. Lowering social security contribution rates without blowing out the system deficits	145
4.4. Recommendations for further pension reform	148
5.1. Recent education reforms	154
5.2. Overcoming education policy fragmentation and finding a consensus about the role of vocational schools, including Imam Hatip schools	162
5.3. Summary of recommendations	166
6.1. A unique political economy environment	178
6.2. Competitiveness costs of low-productivity agriculture	179
6.3. Recommendations for freeing the potential of agriculture	189

Tables

1.1. Main economic reforms	23
1.2. EU negotiations: a selection of completed and intended convergence reforms during 2005-07	24
2.1. Key indicators of economic vulnerability	44
2.A1.1. Baseline assumptions for public debt scenarios	76
2.A1.2. Baseline assumptions for external debt scenarios	78
3.1. Informal employment in manufacturing and service sectors	89
3.2. Severance payments in OECD countries	102
3.3. Minimum labour costs in OECD countries	103
3.4. Major privatisations in 2005 and 2006	109
3.A1.1. Performances of individual sectors	121
3.A2.1. Assumption of the calculations	124
3.A2.2. Tax parameters used in the calculations	124
3.A2.3. Effective Average Tax Rates (EATR) at Corporate Level	125
3.A2.4. Effective Marginal Tax Rates (EMTR) at Corporate Level	125
4.1. Options for further pension reform	143
4.2. Means-tested pension versus the poverty line for a single individual	148
4.A1.1. Summary of key features of the different pension rules	152
6.1. Prospects for tariff convergence: Trade tariffs in Turkey and the EU	180
6.2. Transfers from consumers and transfers from taxpayers after reform	181
6.3. From sheltered to competitive agriculture	183

Figures

1.1. Economic performance after reforms	21
1.2. Institutional transition and growth: where Turkey stands	25
1.3. Macroeconomic balances and international risk perception	26
1.4. Perceptions of Turkey's business environment compared to 7 countries, 1995-2005	27
1.5. The sources of real income differences, 2004	28
1.6. The skewed distribution of labour mobilisation and labour productivity	29
1.7. Working age population growth, exits from agriculture and unemployment	30
1.8. Turkey's higher risk premium in response to the weakening international risk appetite	31

1.9. “What if” reforms of uneven depth lead to different medium-term paths?	34
2.1. Positive macroeconomic fundamentals	41
2.2. Risk spreads have narrowed, not only in Turkey	42
2.3. Current account trends	46
2.4. Net FDI flows by sector and in comparison with other countries	47
2.5. Developments in the nominal exchange rate	48
2.6. Net public debt stock under alternative scenarios	50
2.7. Gross external debt position	51
2.8. Gross external debt stock under alternative scenarios	52
2.9. Inflation trends	55
2.10. Measures of the output gap	56
2.11. The Central Bank faces a credibility challenge	57
2.12. Nominal effective exchange rate and auctions	58
2.13. Available measures of recent fiscal outcomes in Turkey	61
2.14. Composition of foreign assets in Turkey	64
2.15. A credit boom in Turkey	65
2.16. Consumption growth outstripping wage growth	66
2.17. Foreign exchange exposure varies across sectors	67
2.18. Moody’s weighted average bank financial strength index	68
3.1. Recent business sector performance	81
3.2. The real exchange rate and profit margins in domestic and export markets	82
3.3. Recent performance in some representative sectors	84
3.4. Wage growth in a declining and in a highly competitive sector	85
3.5. Employment shifts from declining to growing sectors	86
3.6. Shift of specialisation towards medium technology and the trade balance, 2000-05	87
3.7. Turkey and China in the European clothing market	88
3.8. The “advantages” of informality	90
3.9. Micro enterprises’ structural handicaps	91
3.10. “Anatolian Tigers”	92
3.11. The extent of informality among medium-sized firms	94
3.12. International comparison of the effective average tax rates in 2005	97
3.13. Seigniorage and inflation tax in Turkey	99
3.14. Average tax wedges on labour, international comparison	100
3.15. Employment protection regulations, Turkey vs. OECD countries, 1993-2003	101
3.16. Product market regulations, Turkey vs. OECD countries, 1998-2003	106
3.17. High infrastructure costs	107
3.A1.1. Contributions to export profit margins in manufacturing industry (1998-2005)	119
3.A1.2. Revealed comparative advantages: Turkey vs. China	120
3.A2.1. Structure of the model	123
4.1. Deficits in the pension system	135
4.2. Net replacement rates: international comparison	136
4.3. Minimum pension eligibility age is only gradually being increased	138

4.4. Effective gross replacement rates by sex and birth cohort after the 2006 reform	140
4.5. Older cohorts are benefiting enormously	142
4.6. Old age income disparities within the population are large	147
5.1. Educational attainment of the population	156
5.2. Student performance and enrolment rates	157
5.3. Relationship between student performance and the PISA index of economic, social and cultural status (ESCS).	159
5.4. Public spending is skewed towards the elite schools	159
5.5. Labour market status by educational attainment, 2006	161
5.6. PISA performance and ESCS index of Imam Hatip students vs. other public school students	163
6.1. Agriculture's performance gap	171
6.2. Weak farm fundamentals	172
6.3. Productivity gap in international comparison	173
6.4. Agricultural exports	174
6.5. Policy support and the weight of agriculture in the economy	176
6.6. The evolution of policy support to agriculture	177
6.7. Are support purchases starting again?	182
6.8. The pricing of irrigation water	185
6.9. Remaining potential for employment adjustment	188

This Survey is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.

The economic situation and policies of Turkey were reviewed by the Committee on 7 September 2006. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 19 September 2006.

The Secretariat's draft report was prepared for the Committee by Rauf Gönenç, Anne-Marie Brook, Gökhan Yılmaz and Ugur Çıplak under the supervision of Willi Leibfritz.

The previous Survey of Turkey was issued in December 2004.

BASIC STATISTICS OF TURKEY

THE LAND

Area, (thousand sq. km)	779	Major cities, 2000 (thousand inhabitants):	
Agricultural area (thousand sq. km), 2004	281	Istanbul	10 019
Forests (thousand sq. km)	212	Ankara	4 008
		Izmir	3 371

THE PEOPLE

Population, 2005 (million)	72.1	Civilian labour force, 2005 (million)	24.6
Per sq. km, 2005	92.6	Civilian employment	22.0
Annual rate of change of population, 1995-2005	1.6	Agriculture, forestry, fishing	7.0
		Industry	3.9
		Construction	1.1
		Services	10.0

PRODUCTION

Gross national product (GNP), 2005 (TL million)	486 401	Origin of GDP, 2005 (per cent):	
Gross domestic product (GDP), 2005 (TL million)	487 202	Agriculture, forestry, fishing	10.2
Per head (GDP), (USD)	5 008	Industry	29.8
Gross fixed investment, 2005 (TL million)	95 307	Services	60.0
Per cent of GDP	19.6		
Per head (USD)	985		

THE GOVERNMENT

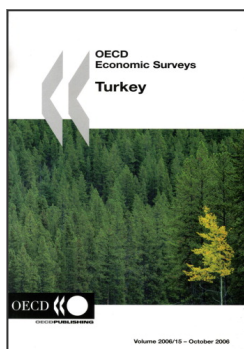
Public consumption, 2005 (per cent of GDP)	13.1	Gross public debt, end-2005 (per cent of GDP)	71.6
Central government current revenue, 2005 (per cent of GDP)	27.7	Domestic	52.9
		Foreign	18.7

FOREIGN TRADE

Commodity exports, 2005, f.o.b. (per cent of GDP)	20.3	Commodity imports, 2005, c.i.f. (per cent of GDP)	32.3
Main exports (per cent of total exports):		Main imports (per cent of total imports):	
Textiles and clothing	25.4	Mineral fuels and oil	18.2
Machinery and equipment	7.1	Machinery and equipment	14.0
Motor vehicles	13.0	Vehicle	9.0
Iron and steel	10.5	Iron and steel	9.1
Other exports	43.9	Other imports	49.6

THE CURRENCY

Monetary unit: New Turkish lira		Currency unit per USD, average of daily figures:	
		2005	1.3408
		2006 (January-September)	1.4226



From:
OECD Economic Surveys: Turkey 2006

Access the complete publication at:
https://doi.org/10.1787/eco_surveys-tur-2006-en

Please cite this chapter as:

OECD (2006), "Freeing the Potential of Agriculture.", in *OECD Economic Surveys: Turkey 2006*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/eco_surveys-tur-2006-8-en

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.