OECD Economic Surveys
TURKEY

JULY 2012

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OECD Economic Surveys: Turkey 2012

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Please cite this publication as:
OECD (2012), *OECD Economic Surveys: Turkey 2012*, OECD Publishing.
http://dx.doi.org/10.1787/eco_surveys-tur-2012-en

ISBN 978-92-64-12796-8 (print)
ISBN 978-92-64-12797-5 (PDF)

Series: OECD Economic Surveys
ISSN 0376-6438 (print)
ISSN 1609-7513 (online)

OECD Economic Surveys: Turkey
ISSN 1995-3429 (print)
ISSN 1999-0480 (online)

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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 14 June 2012. 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 27 June 2012.

The Secretariat's draft report was prepared for the Committee by Rauf Gönenç, Oliver Röhn, Şeref Saygili and Ramazan Karaşahin under the supervision of Vincent Koen. Statistical assistance was provided by Béatrice Guérard.

The previous Survey of Turkey was issued in July 2010.

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BASIC STATISTICS OF TURKEY (2011)

THE LAND

Area (thousand km²):		Major cities (million inhabitants):	
Total	785	Istanbul	13 624
Agricultural area	244	Ankara	4 891
Forests	215	Izmir	3 965

THE PEOPLE

Population (millions)	74.0	Civilian labour force (million)	27.2
Inhabitants per km²	94.2	Civilian employment (million)	24.1
Annual rate of change of population, 2001-11	0.0	Agriculture, forestry, fishing	6.1
		Industry	4.7
		Construction	1.7
		Services	11.6
		LFS unemployment rate (% of the labour force)	9.6

PRODUCTION

Gross domestic product (GDP, TL billion)	1 295	Origin of GDP (% of total value added):	
Per head (GDP, $ PPP)	17 426	Agriculture, forestry, fishing	9.1
Gross fixed investment (TL billion)	283	Industry	27.6
Per cent of GDP	21.9	Services	63.2
Per head ($ PPP)	3 811		

THE GOVERNMENT

Public consumption (% of GDP)	14.0	Gross public debt (% of GDP)	41.3
Central government current revenue (% of GDP)	22.8	Domestic	29.2
		External	12.1

FOREIGN TRADE

Exports of goods and services (% of GDP)	23.8	Imports of goods and services (% of GDP)	32.7
Main exports of goods (% of total):		Main imports of goods (% of total):	
Road vehicles	11.4	Road vehicles	7.0
Articles of apparel and clothing accessories	10.3	Petroleum	6.3
Iron and steel	9.5	Iron and steel	4.8
Textile	8.0	Metalliferous ores and metal scrap	4.6
Other exports	60.7	Other imports	77.3

THE CURRENCY

Monetary unit: Turkish lira	Currency units per $ (period average):	
	Year 2011	1.67
	June 2012	1.81
	Currency units per € (period average):	
	Year 2011	2.33
	June 2012	2.28

Executive summary

Effective macroeconomic and structural policies helped the Turkish economy rebound vigorously following the global crisis: growth averaged close to 9% in 2010-11, accompanied by strong job creation. In the process, however, the current account deficit widened to around 10% of GDP and consumer price inflation rose to over 10%. The economic slowdown since mid-2011 is helping to reduce these external and domestic imbalances, albeit only gradually, given rising international energy prices. In order to ensure that the current account gap moves back into safer territory and inflation to the 5% target, both macroeconomic and structural policy levers need to be used and action has started to be taken in this direction. This will also lay the basis for sustained improvements in living standards over the longer run.

External competitiveness is essential for Turkey to rebalance the economy from domestic to external demand, as well as to sustain employment, income and domestic savings growth. Competitiveness gains particularly improve employment opportunities of the low-skilled and hence directly help reduce poverty and foster social cohesion.

The current monetary, fiscal and macro-prudential policy mix aims at bringing down inflation and avoiding excessive real exchange rate appreciation while coping with volatile capital flows. To this end, the central bank uses a wide interest rate corridor as well as changes in banks' reserve requirements, alongside occasional foreign exchange market intervention. Concomitantly, the supervisory authorities are actively using prudential tools such as loan-to-value ceilings and provisioning requirements to keep credit in check. The overall fiscal position remains sound but the stance could be tighter to better support monetary restraint. A more transparent fiscal framework, with a general government spending cap and greater emphasis on cyclically-adjusted developments, would help too.

Employment and labour market participation rates are on the rise but too many of the new jobs are created in the informal sector and the skills of the majority of the labour force remain too low. Both exert a drag on productivity and competitiveness. To encourage hiring in the formal sector, a more flexible labour contract is needed and minimum wage setting should be decentralised. Enrolment in the education system has risen but there is ample scope to improve quality and equity, notably by granting more autonomy to schools and universities, and shifting to per-student funding with adjustments for socio-economic disadvantages. Upskilling of the existing labour force will be key to improve employability.

Boosting productivity also requires pushing ahead with product market reforms. Greater competition in the energy, telecommunication and agricultural sectors would benefit consumers and economy-wide competitiveness, and help reduce the external deficit. The long-planned liberalisation of the electricity and natural gas sectors needs to be implemented. Broadband internet services need to be more open to competition. Support to agriculture ought to rest less on price support and more on direct transfers and rural development.

Poverty and inequality have declined in Turkey over the past decade but from high levels. For growth to be sufficiently inclusive, social policies need to encourage women's labour force participation, not least by making affordable child and elderly care a priority. The tax and transfer system needs to better protect vulnerable groups without undermining work incentives.

Turkey's per capita carbon footprint is low but set to rise fast as economic catch-up proceeds, despite a high share of environmentally-related taxes. More reliance on market-based economic incentives to rein in emissions, and greater neutrality across emission sources, are in order.

Over the longer run, keeping up the momentum of convergence with the more advanced OECD economies calls for a smooth unwinding of short-run macroeconomic tensions and for intensifying structural reform efforts to make the most of Turkey's demographic dividend. Scenario analysis suggests that by 2030, this could boost the level of output and incomes by as much as 25% relative to the OECD baseline.

Key policy recommendations

Macroeconomic and structural policies should concentrate on keeping the economy on a balanced and sustainable growth path. Preserving competitiveness in the short and long term is crucial.

Monetary and financial policies

- Attaining the *inflation target* should be given more prominence, to bring inflation expectations closer to the target and, over time, reduce inflation differentials with trading partners.
- During *capital inflow* surges, appreciation pressures should be countered by sterilised intervention. This would appropriately increase foreign exchange reserves.
- As planned, comply fully with Basel II *banking supervision* guidelines and converge in due course with Basel III guidelines.

Fiscal policy

- The present *fiscal stance* is broadly appropriate and should remain tight, not least to preserve room for action were the world economy to weaken. If warranted, stand ready to tighten the fiscal stance more.
- Improve fiscal data at general government level, on a unified accounting basis according to international accounting standards.
- Adopt a general government *spending ceiling within a longer-term fiscal framework*. This would help avoid pro-cyclical loosening in case of positive revenue surprises.

Labour market and education policies

- The *severance payment* regime should be re-designed in line with international best practices to make permanent labour contracts more flexible. *Temporary and agency employment* should be allowed, without sectoral restrictions.
- Official *minimum wages* should be kept in check. Wage adjustments to productivity gains should be sought more through collective bargaining at enterprise level.
- The scope and eligibility conditions for the official *unemployment insurance* scheme should be broadened. This is key for progress towards "flexicurity" adapted to the Turkish context.
- Offer effective *lifelong education* programmes to upgrade the labour market skills for adults whose schooling was inadequate.
- Reduce the large quality gaps among both *schools and universities* by granting them more autonomy in exchange for more accountability for performance, and by shifting to per-student funding, with adjustments for socio-economic disadvantages.

- Increase *women's labour force participation* by providing high-quality and affordable child and elderly care.

Product market and other structural policies

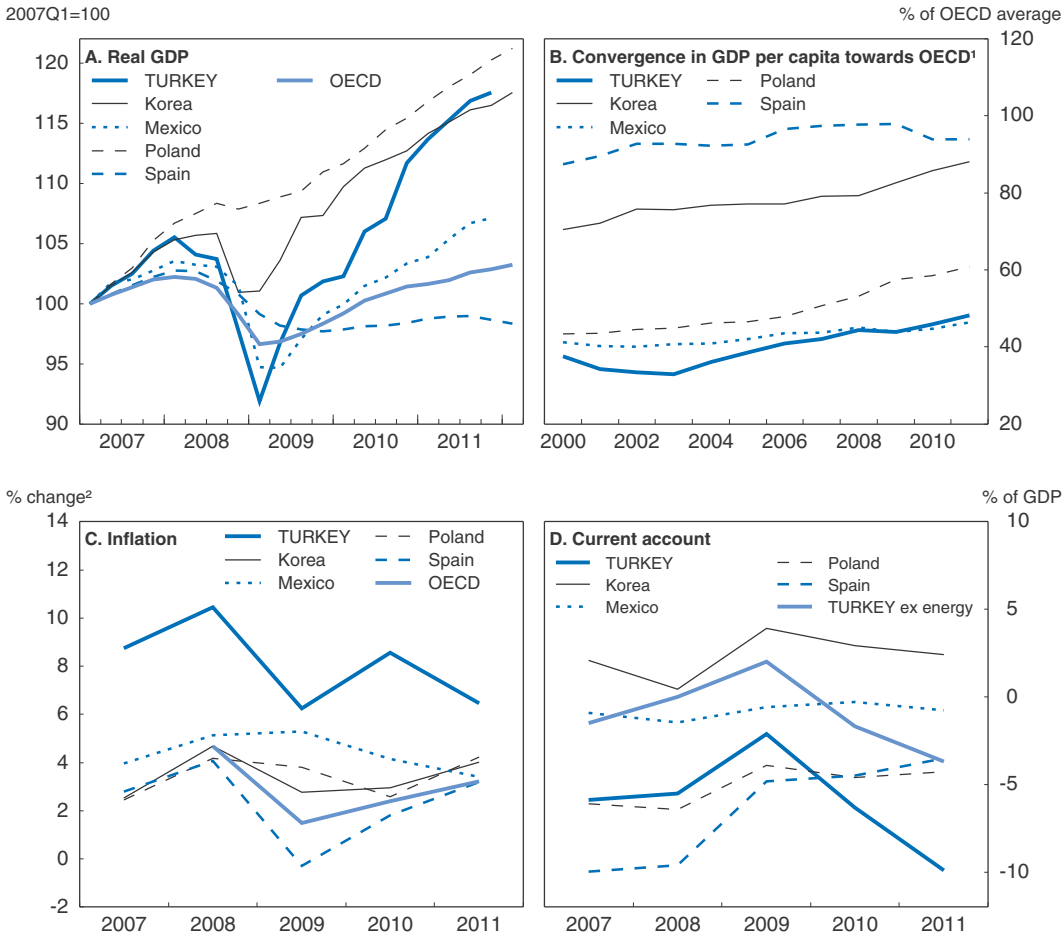
- Liberalise *agricultural product markets* by reducing the high degree of price interventions, using less distortive forms of support and offering greater scope for import competition. Social cohesion policies in agriculture should rest on direct transfers to eligible farmers and rural development.
- The comprehensive *energy liberalisation* plans prepared in the 2000s should be fully implemented.
- Review the structure of *fuel taxes* and harmonise the implicit carbon tax rate on different fuels in different uses. Co-ordinate fuel taxation initiatives with Climate Change Action Plan priorities.

Assessment and recommendations

Turkey's vigorous post-crisis recovery has drawn heavily on foreign saving

The impact of the global crisis was severe for Turkey, but shorter than in the rest of the OECD area and with a much sharper rebound. Domestic demand recovered swiftly and growth reached 9.2% in 2010 and 8.5% in 2011 (Figure 1). Employment has been remarkably

Figure 1. **Turkey's performance has been strong, but imbalances have emerged**



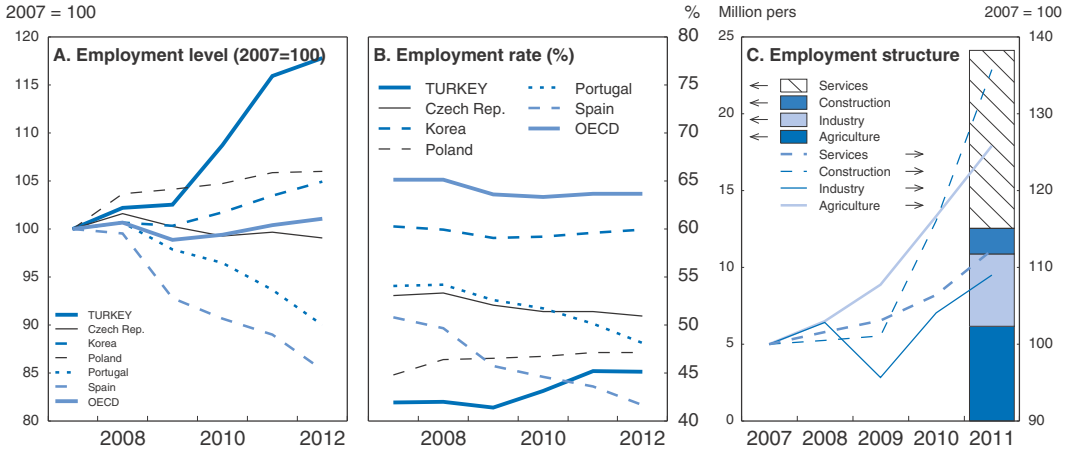
1. GDP per capita as per cent of OECD average, at current prices and current PPPs. Estimates for 2011.
2. Annual average percentage change of CPI.

Source: OECD, OECD Economic Outlook and Annual National Accounts databases; Central Bank of Republic of Turkey.

StatLink http://dx.doi.org/10.1787/888932659065

resilient during the crisis, thanks to a set of new pro-employment incentives (OECD/ILO, 2011). Employment in industry declined in 2009 but then rebounded rapidly, whereas employment remained on a rising trend in agriculture, construction and services (Figure 2).

Figure 2. **Strong employment performance**



Source: OECD, OECD Economic Outlook and Main Economic Indicators databases.

StatLink http://dx.doi.org/10.1787/888932659084

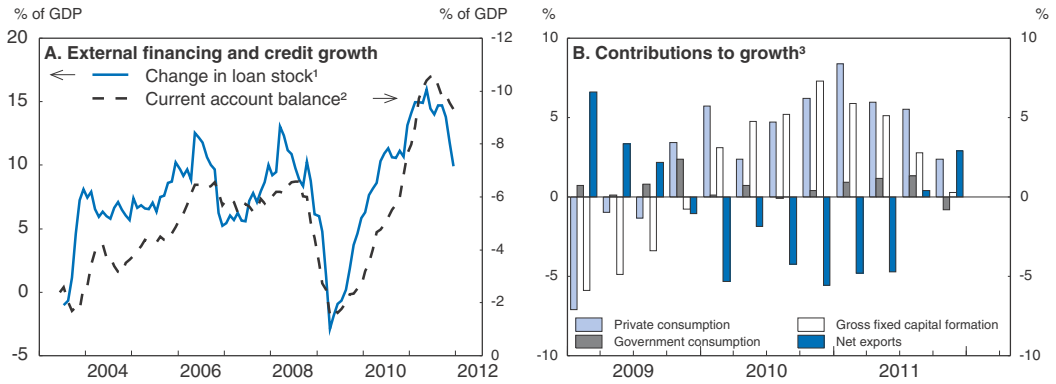
The recovery was facilitated by macroeconomic and structural policy measures. Its pace largely reflects private sector dynamism, both in the more developed Western regions and in less-advanced Anatolia. In the process, Turkish firms have managed to reorient their activities towards a variety of new sectors where they have a comparative advantage, and their exports towards the Middle East and other fast-growing regions.

In the process of the post-crisis recovery, however, significant economic tensions have arisen. With estimated slack shrinking fast and the nominal exchange rate depreciating markedly, consumer price inflation rose to nearly 11% by December 2011, twice the target level, and remained above 10% in early 2012. At the same time, the current account deficit widened to almost 10% of GDP in 2011, a historically unprecedented level – even if part of the deterioration was due to oil price increases (Figure 1). These imbalances reflect the macroeconomic policy stance but also a number of structural tensions. This *Survey* discusses both and identifies policies that may help Turkey overcome them and achieve more sustainable growth.

Government demand has played a limited role in the recovery. It provided a temporary countercyclical stimulus in 2009, which was withdrawn in 2010 and 2011. Household consumption and business investment boomed, bolstered by confidence gains, strong capital inflows and rapid credit growth (Figure 3).

Imports soared, however, as a result of both strong domestic demand and competitiveness losses which led to a rise in import penetration in consumer, intermediate and capital goods markets. At the same time, exports increased only moderately as a result of weakness in foreign markets, due to the debt crisis in the euro area and political turmoil in the MENA region, but also losses in Turkish exporters' market shares until mid-2011 (Figure 4).

Figure 3. **Private demand has been fuelled by credit**

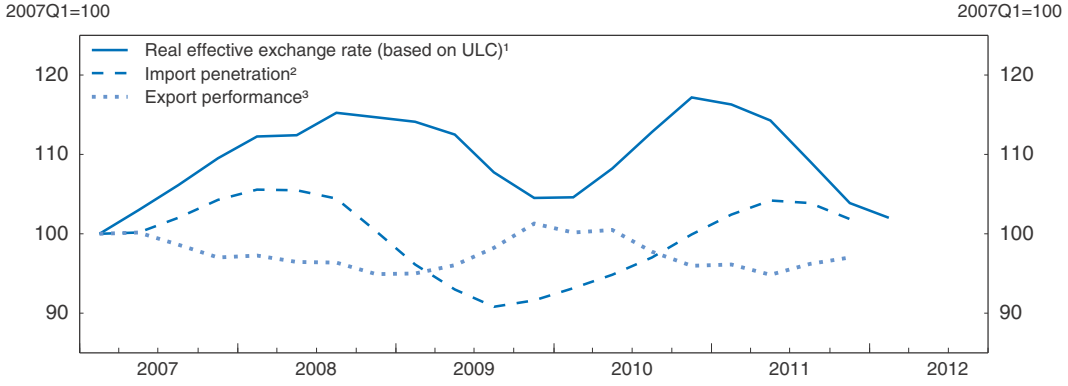


1. Net 6-month change in the total loan stock as a percentage of 6-month rolling cumulative GDP.
2. 6-month rolling cumulative current account balance as a percentage of 6-month rolling cumulative GDP. Monthly GDP figures are approximated using the industrial production index.
3. Contributions to year-on-year real GDP growth.

Source: Central Bank of Republic of Turkey; OECD, OECD Economic Outlook database.

StatLink http://dx.doi.org/10.1787/888932659103

Figure 4. **External competitiveness affected performance**



1. 4-quarter moving average.
2. Share of imports in GDP in constant prices. 4-quarter moving average.
3. Four-quarter moving average of the ratio of exports in constant prices on export markets in constant prices times 100.

Source: OECD, OECD Economic Outlook database.

StatLink http://dx.doi.org/10.1787/888932659122

More recently, the current account gap began to shrink. Indeed, from early 2011, policymakers took measures to rein in domestic consumption by direct action on credit growth. As a result, domestic demand and imports have decelerated. Exchange-rate depreciation, due to macroeconomic policies and a slowdown in capital inflows (reflecting heightened tensions in international capital markets), improved the competitiveness of the tradable sector, import penetration rates declined and Turkey started to recoup market shares abroad. The current account deficit as a share of GDP fell from 11.2% to 8.3% in the year to the first quarter of 2012. Rebalancing between domestic and external demand was partly offset by sharp oil price increases. Although recent foreign trade figures suggest a continuation of the rebalancing process, the real exchange rate appreciation since late 2011, resulting from nominal appreciation and a persisting large inflation differential with trade partners, may slow down the adjustment.

Policymakers have very recently taken some structural initiatives in response to the large deterioration of the external balance. The most direct response was a renewed effort to encourage private savings and hence reduce the saving-investment gap and the resulting external deficit. A Law adopted in June 2012 offers generous new incentives for long-term private savings: private pension scheme participants' savings will be leveraged by public subsidies of 25%, capped at the annual minimum wage. The authorities estimate that this measure, which replaces an earlier tax deduction of up to 35%, will benefit a considerably larger share of the population and hence increase total domestic savings.

Another major structural initiative is the introduction of a new investment incentive system, extending the existing one and making it more generous. The incentives are expected to augment supply capacity in the tradable sector, which may help increase exports or reduce imports in coming years. Industries with high imported input dependence and projects with a potential to reduce such dependence will be granted additional incentives, but the list of these sectors has not yet been published. The scheme is likely to foster additional investment and growth in the business sector, but the effects will likely be more beneficial and less distortive if the horizontal and regional elements of the scheme prevail over its discretionary sectoral preferences (Chapter 1).

The macroeconomic outlook appears relatively favourable, with risks on both sides

The short-term outlook for activity appears relatively favourable. Domestic confidence has been improving in recent months for both businesses and consumers. In the absence of renewed turbulence in international financial markets, the economy is set to grow by more than 3% in 2012, picking up to above 4.5% in 2013. Inflation is projected to fall but to remain uncomfortably high for some time. The current account correction is projected to continue, albeit only very gradually (Table 1).

Turkey's foreign funding needs will remain large in the near term. They are estimated at about $150 billion for 2012, or 18.2% of GDP (adding funding of the current account of 8.9% of GDP and debt amortisation of about 9.3% of GDP). The structure of funding, which was almost entirely long-term before the global crisis, deteriorated sharply after the crisis with a surge in short-term inflows in 2010, before improving again through 2011. Nevertheless, short-term capital inflows continue to play a large role in external financing. Hence, the economy remains vulnerable to changes in investor sentiment and to volatility in capital markets (Chapter 1).

There are risks on both sides to this baseline. If the euro area crisis were to intensify, Turkey would be adversely affected through trade and financial channels, and investor and consumer confidence may drop. In this case, risk premia may increase, tensions may arise in foreign funding and growth would be lower. In light of these risks, it is important to preserve room for manoeuvre through prudent fiscal, financial and monetary policy. Conversely, if the international environment turns out to be more benign or the oil price turns out to be lower than assumed in the projections, growth may be stronger and the current account deficit lower.

Table 1. **Short-term economic outlook**[1]

	2008	2009	2010	2011	2012	2013
	Current prices TRY billion	Percentage changes, volume (1998 prices)				
GDP	950.5	–4.8	9.2	8.5	3.3	4.6
Private consumption	663.9	–2.3	6.7	7.7	1.9	4.7
Government consumption	121.7	7.8	2.0	4.5	3.8	4.6
Gross fixed capital formation	189.1	–19.0	30.5	18.3	1.6	6.6
Final domestic demand	974.7	–4.3	9.7	9.1	2.1	5.1
Stockbuilding[2]	17.9	–2.5	2.1	–0.1	–0.5	0.0
Total domestic demand	992.7	–6.7	12.1	9.2	1.7	5.0
Exports of goods and services	227.3	–5.0	3.4	6.5	4.3	6.8
Imports of goods and services	269.4	–14.3	20.7	10.6	0.3	7.3
Net exports[2]	–42.1	2.8	–4.3	–1.5	0.9	–0.7
General government balance[3]		–6.0	–3.3	–1.4	–2.0	–1.7
Primary balance[3]		–0.3	1.2	2.0	1.7	1.8
Public debt[3]		46.1	42.4	39.4	37.0	35.0
Memorandum items (%)						
GDP deflator		5.3	5.7	8.6	8.5	8.4
Consumer price index		6.3	8.6	6.5	9.2	7.2
Private consumption deflator		4.9	8.5	8.5	8.5	7.0
Unemployment rate		13.7	11.7	9.6	9.5	9.1
Current account balance (as % of GDP)		–2.1	–6.3	–9.9	–8.9	–8.4

Note: National accounts are based on official chain-linked data. This introduces a discrepancy in the identity between real demand components and GDP. For further details, see *OECD Economic Outlook* Sources and Methods (*www.oecd.org/eco/sources-and-methods*). The underlying assumption for the average annual oil price (Brent crude) is $121 in 2012 and $126 in 2013.

1. In early July 2012, after the finalisation of the above projections, the first vintage of the official GDP estimates was published for Q1 2012, and the quarterly data for 2011 were revised.
2. Contributions to changes in real GDP (in per cent of real GDP in the previous year, actual amount in the first column).
3. As a percentage of GDP.

Source: OECD, OECD Economic Outlook 91 database.

Putting growth on a more balanced path

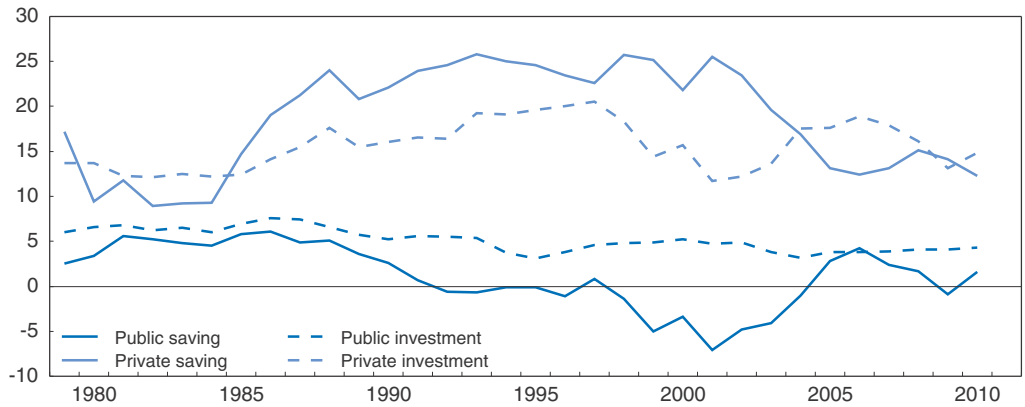
The composition of demand has fluctuated since the early 2000s, not least as a result of volatile capital movements. During periods of strong capital inflows, domestic demand and imports were boosted by currency appreciation and abundant credit, whereas exports were held back, leading to widening trade and current account deficits. In contrast, when capital inflows declined and the exchange rate weakened, external deficits narrowed. Over the past decade, including after the global crisis, the first type of episode has dominated, hence leaving a growing competitiveness gap and imbalances in the economy.

The flipside of the widening trade deficit was the opening-up of a domestic saving-investment gap from the beginning of the 2000s. This gap reflects both a secular decline in private saving and a surge in private investment (Figure 5). In contrast to private saving, public deficits turned into surpluses in the 2000s on the back of steady fiscal consolidation. However, this only partly offset the drop in private saving. Public investment remained relatively stable throughout the entire period.

Despite the surge in investment, the investment share in GDP remains lower than in several high performing Asian countries, suggesting that reducing the saving-investment gap will require higher domestic saving. The decline in the private saving rate mainly reflected macroeconomic stabilisation leading to a fall in interest rates, lower

Figure 5. **Public and private saving and investment**

In % of GDP



Source: Ministry of Development.

StatLink http://dx.doi.org/10.1787/888932659141

precautionary saving, higher availability of credit and – in the first half of the 2000s – a falling aggregate employment rate. Macroeconomic stabilisation also contributed to a surge in private investment, as did microeconomic liberalisation and a stronger banking sector, which led to sharply falling capital costs following the 2000-01 crisis (OECD, 2008, 2010). In addition the government granted regional and horizontal investment incentives and provided public infrastructure (organised industrial zones), notably in previously non-industrial regions. Strong entrepreneurial dynamism also played a role. Narrowing the saving-investment gap first and foremost requires increasing household incomes by lifting employment rates, in particular of women, with a higher share in the formal sector. Improving the external competitiveness of the formal sector plays a vital role in this respect.

Variations in external competitiveness have had uneven and enduring impacts on the tradable and non-tradable sectors. Currency strength benefited domestic services, but hurt output and employment in manufacturing. Symmetrically, when capital inflows declined, employment and growth in manufacturing strengthened. These effects have been particularly visible in the more price-sensitive, lower-tech activities that employ a large share of Turkey's lower-skilled labour force. Such competitiveness effects will continue to bear on the output and employment performance of these activities which, together with higher-tech and higher-productivity sectors, drive Turkey's growth process (Chapter 2).

Putting Turkey's economy on a balanced growth path thus requires preserving its competitive position in the short and in the long term. To this end:

i) Inflation and nominal wage growth need to remain under control. Price and wage increases are shaped by the effectiveness of macroeconomic policy and structural conditions (openness to competition and flexibility) in product, labour and capital markets.

ii) Productivity growth needs to remain strong. Productivity gains depend on the structural strength of the business sector, including its composition between formal, semi-formal and informal activities, and on improvements in human capital. Labour market reforms allowing the shift of a higher share of resources to the formal sector

and effective education policies, including upskilling of the existing working age population, are critical.

iii) The (nominal) exchange rate needs to stay on a sustainable path. If the exchange rate appreciates or depreciates too much or too abruptly, required adjustments in the other determinants of the competitive position (disinflation and productivity gains) may be too difficult to achieve to maintain balance in the economy. A supportive combination of monetary and fiscal policies is needed to help secure such sustainability.

This *Survey* argues that if the economy reaches and remains on a more balanced path, it will make fuller use of its resources and will produce higher employment, income and private saving, with a lower external imbalance. Increasing employment and income is crucial to reduce the saving gap and should be supported by tight fiscal policies to increase public savings.

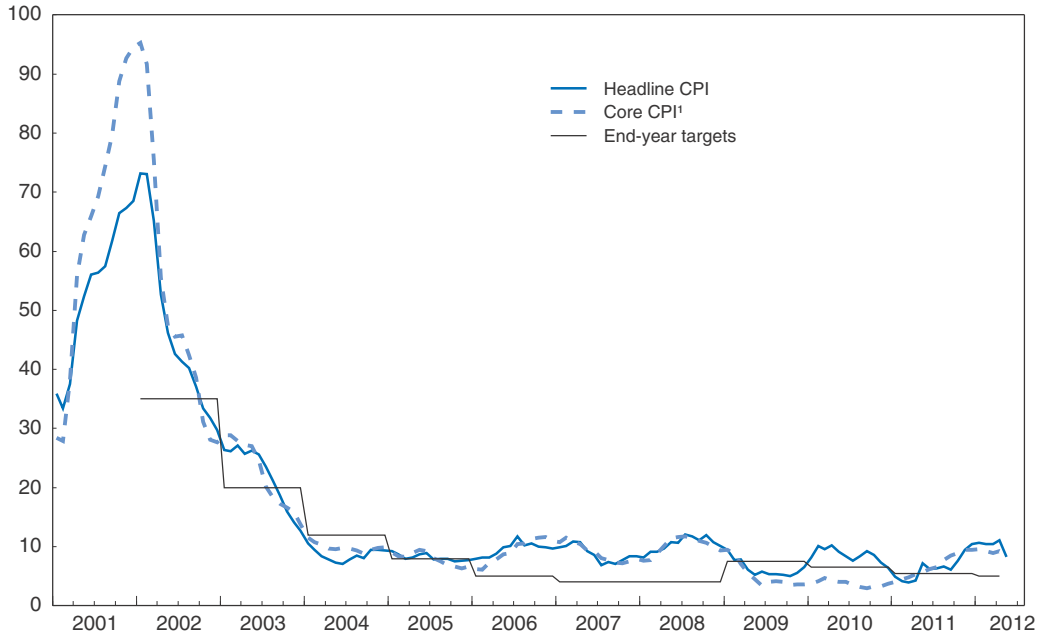
Supportive social cohesion and environmental policies are also needed to maintain the economy on a sustainable path. Effective social policies would help to further reduce poverty and help ensure that no part of the population is economically and socially marginalised. Well designed environmental policies are needed to preserve the quality of life without undermining the economy's competitiveness.

Monetary policy

The adoption of inflation targeting by the Central Bank of the Republic of Turkey (CBRT) was the cornerstone of steady and successful disinflation in the 2000s. Turkey had experienced high inflation rates in the 1990s, and again in the aftermath of the 2001 crisis (Figure 6). The CBRT adopted an implicit inflation targeting regime in 2002 and annual

Figure 6. **Inflation since 2001**

Year-on-year percentage change



1. CPI excluding energy, alcoholic beverages, tobacco products, administered prices, indirect taxes and unprocessed food.

Source: Central Bank of Republic of Turkey; OECD, OECD Economic Outlook database.

StatLink http://dx.doi.org/10.1787/888932659160

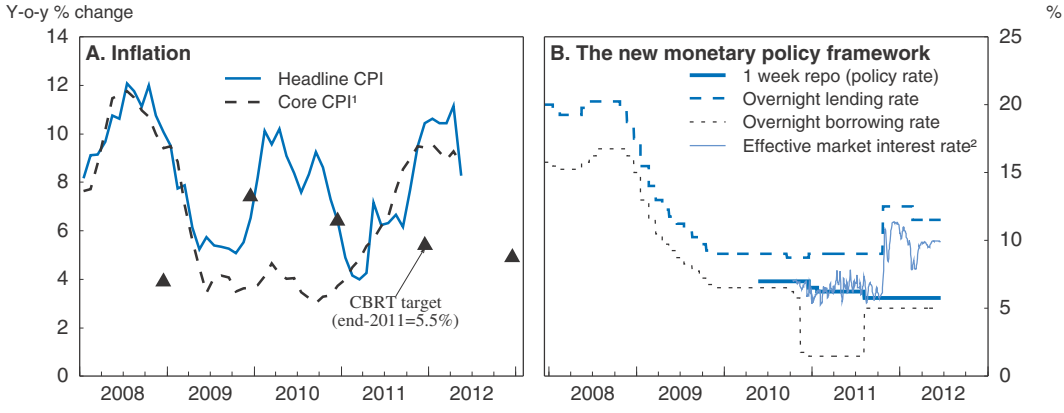
headline inflation declined from above 70% to single digits within three years. The CBRT shifted to explicit inflation targeting in 2006 with lower single-digit inflation targets, but in subsequent years headline inflation overshot these targets.

The main challenge of Turkey's monetary policy today is to tame inflationary pressures without generating a destabilising surge in short-term capital inflows. These inflows may fuel domestic credit growth, thereby counteracting the intended monetary tightening. At the same time, they push up the exchange rate, undermining competitiveness. This gives rise to the so-called policy trilemma. Capital flows have been highly volatile, partly reflecting changes in the monetary policy stance abroad, especially since the eruption of the global crisis.

To address this policy trilemma, the authorities embarked on an innovative monetary policy regime in November 2010 that puts more weight on exchange rate developments, credit growth and rebalancing of demand, in tune with some new international approaches (Blanchard *et al.*, 2010; Ostry *et al.*, 2012). In the new policy framework, the CBRT sets a relatively wide interest rate corridor delineated by overnight borrowing and lending rates (which, as of mid-June 2012, stood respectively at 5% and 11.5%), together with a one-week repo lending rate (5.75% as of mid-June 2012) (Figure 7B). The CBRT determines daily the size of its repo auctions, allowing for considerable flexibility in moving market interest rates according to shifting policy priorities. The CBRT also modulates banks' required reserves and their currency composition. Furthermore, it may initiate foreign currency buying or selling auctions, alongside direct interventions in the market. The CBRT considers that the flexible use of the wide interest-rate corridor allows it to modulate interest rate uncertainty as a means to limit capital inflows when warranted.

This new regime has gone through two phases since its inception (Figure 7B). From November 2010 through October 2011, monetary policy focused on limiting short-term capital inflows while letting the exchange rate depreciate. The interest rate corridor was widened by lowering the borrowing rate to increase interest rate volatility and uncertainty at the lower end and thereby discourage short-term inflows: foreign exchange reserves

Figure 7. **Inflation and monetary policy**



1. CPI excluding energy, alcoholic beverages, tobacco products, administered prices, indirect taxes and unprocessed food.
2. Overnight repo rate at the Istanbul Stock Exchange, 7-business day moving average.

Source: Central Bank of Republic of Turkey; OECD, OECD Economic Outlook database.

StatLink http://dx.doi.org/10.1787/888932659179

were built up. To contain domestic demand, banks' required reserves were raised substantially. Even if banks could fund increased reserve requirements through the one-week repo facility at low rates, this policy started to contain credit growth, which was further curbed following additional measures taken by the Banking Regulation and Supervision Agency (BRSA) in June 2011. At the same time, capital inflows abated due to heightened global financial turmoil.

Since October 2011, the priority has shifted to coping with the volatility of international capital movements and to avoiding excessive currency depreciation which fed through to inflation. The interest-rate corridor was broadened at the higher end and the CBRT repeatedly provided less liquidity through the one-week repo facility, which caused the short-term market rates (funding rates) to jump (Figure 7B), leading to a downward-sloping yield curve. However, the CBRT started to provide longer-term liquidity via one-month repo auctions and allowed more flexibility in terms of currency composition of Turkish lira reserve requirements. The CBRT also engaged in foreign exchange reserve sales. As of mid-June 2012, total reserves (including gold) stood at $92 billion, equivalent to 4.6 months of imports and 112% of short-term foreign debt (Chapter 1).

The new regime has helped contain exchange rate volatility (CBRT, 2012). However, inflation has been very volatile and in 2011 it markedly overshot the 5.5±2% target (Figure 7). To a large extent this reflected the depreciation of the currency, commodity and food price changes, and tax adjustments. However, core inflation started to veer up in late 2011 and exceeded 8% by early 2012. The CBRT estimates that increased import prices (in foreign currency), notably for energy, and the sharp nominal depreciation contributed 5 percentage points to the surge in inflation in late 2011. Sizeable adjustments in administered prices, mostly for energy and tobacco products, in October 2011, also contributed. At the same time, spare capacity was rapidly diminishing and did not mitigate these pressures.

The early record of the new monetary policy regime is therefore mixed. While the larger weight on exchange rate stability contributed to an improvement of competitiveness and a rebalancing of the economy through 2011, it has failed to deliver low and stable inflation, and inflation expectations remained consistently above target. Moreover, persistent inflation differentials with trading partners erode competitiveness insofar as they are not fully compensated by exchange rate depreciation. In any case, chronic depreciation can undermine confidence. Thus, as over time Turkish prices converge with those prevailing in trading partners and structural rigidities decline, a policy goal should be to reduce inflation further. Since October 2011 the CBRT appears to have put more weight again on the inflation target and responded to the surge in inflation with a considerable tightening of its monetary stance. Nevertheless, it continues to view the flexibility provided by the new monetary framework as appropriate given that heightened global uncertainty is likely to persist over the medium term and Turkey will continue to face capital flow cycles challenging the conduct of monetary policy. Communication needs to be strengthened on the fundamental goals of the new regime and the link between instruments and goals, to counter concerns that the complexity of the new regime has made monetary policy hard to read (Chapter 1).

Box 1. **Monetary policy recommendations**

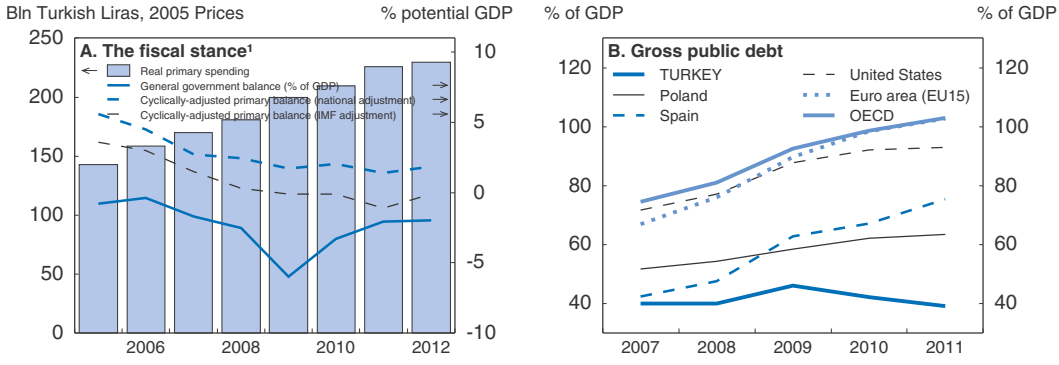
To strengthen the credibility and effectiveness of the new monetary regime:

- Attaining the inflation target should be given more prominence to bring inflation expectations closer to the target and, over time, reduce inflation differentials with trading partners.
- During capital inflow surges, appreciation pressures should be countered by sterilised intervention. This would appropriately increase foreign exchange reserves.
- Communication on the fundamental goals of the new regime and the link between instruments and goals should be strengthened. The success of the instruments in achieving these goals should be evaluated.

Fiscal policy

Since the early 2000s, public debt has been brought down to under 40% of GDP and the general government deficit stood at 2.1% of GDP in 2011, a much better position than in most other OECD countries (Figure 8). Fiscal policy is managed under a rolling three-year economic programme, updated each autumn. This framework has been effective, and allowed for a targeted and temporary stimulus package during the crisis in 2009. After this countercyclical stimulus, fiscal policy outperformed the headline objectives of the 2010 and 2011 programmes, thanks to stronger-than-projected GDP growth and sharp revenue increases – including from a sizeable restructuring scheme of public receivables. Recent IMF estimates, based on an innovative methodology, suggest that, taking into account one-off factors and the tax receipts from the surge in domestic demand and imports, the structural primary balance may have weakened since the mid-2000s (Figure 8A and IMF, 2012). However, given a low public debt ratio, fiscal sustainability is not jeopardised at current levels of the structural primary balance.

Figure 8. **Fiscal performance remains robust**



1. For 2011, estimated headline general government balance from the Pre-accession Economic Programme submitted to the European Commission in January 2012, which provides an approximation close to international standards (Government of Turkey, 2012a) (the 2012-14 Medium-Term Economic Programme is based on different accounting methodologies and puts the headline deficit for the public sector at 1% of GDP for 2011). For 2012, objective of the 2012-14 Medium-Term Economic Programme.

Source: IMF (2012), 2011 Article IV Report on Turkey; Ministry of Development; OECD, OECD Economic Outlook database.

StatLink http://dx.doi.org/10.1787/888932659198

Looking ahead, the Medium-Term Programme published in the Autumn of 2011 foresees further reductions in the headline public sector deficit and the general government debt stock according to the EU definition, to respectively 0.4% and 32% of GDP by 2014 (Government of Turkey, 2011b and 2012a). In the context of slower and below-potential growth, these fiscal plans involve some tightening of the fiscal stance.

Tax collection is improving. An update of Turkey's *Strategy of Fight with the Informal Economy* (discussed in the 2010 *OECD Economic Survey*), published in December 2011, contains specific measures to reduce tax loopholes. The emphasis is on taxpayer groups with significant unreported incomes and an ability to pay. Based on improved information technologies, taxpayers are screened according to their professional background, asset holdings and consumption patterns, and the plausibility of tax declarations is more effectively checked. Several groups, including real estate owners, started to comply much better with their tax obligations and revenues from related taxes are increasing. The Ministry of Finance plans to move further in this direction in co-operation with other government departments. The number of tax inspectors is to rise from around 4 000 now to 15 000 in a few years. As discussed in earlier OECD Economic Surveys, potential gains from more effective tax administration are very large in Turkey, both for public finances and improved fairness in the tax system.

In addition to securing public finance sustainability, fiscal management in Turkey needs to play a more active role in economic policy. Given the trilemma faced by monetary policy, additional discretionary tightening may be required. During periods of strong capital inflows, such a stance would help counter domestic overheating. In addition, it could at least partially offset the private saving shortfalls. A multi-year spending ceiling could help preserve a tight fiscal stance in the presence of exceptional revenue surges. The magnitude of fiscal support should not be exaggerated, however: the general government sector is relatively small and so are fiscal multipliers (OECD, 2008a). Fiscal restraint can therefore only partly compensate private sector exuberance.

The present fiscal stance is broadly appropriate and should remain tight. Public primary spending increased rapidly between 2007 and 2011 (Figure 8A). Its growth ought to be restrained as intended in the Medium-Term Programme, which aims at stabilising total primary spending at around 33% of GDP. As emphasised in previous *OECD Surveys,* additional spending needs remain very large in areas such as education, social services and physical infrastructures, and room needs to be created for such additional spending through savings in existing expenditures. The intended shift to performance-based budgeting should help identify and exploit such saving opportunities (Government of Turkey, 2012b). On the revenue side, resources that have been available in recent years may not recur. Hence, fiscal prudence is in order, lest the authorities find themselves forced to pro-cyclically tighten the fiscal stance in a possible cyclical downturn.

It is crucial, in these circumstances, to preserve a prudent fiscal stance which takes into account the full range of cyclical budget items. In this regard the new methodological approach suggested by the IMF deserves consideration (IMF, 2012). In addition to monitoring general government accounts according to international standards, this would require further technical investigation. A Fiscal Policy Report (similar to the central bank's *Inflation Report*) encompassing all quasi-fiscal institutions and containing a full set of cyclical adjustments could be published to improve fiscal transparency. In a subsequent step, although the Medium-Term Programme provides an anchor for fiscal policy, the introduction of a permanent fiscal rule could be considered, drawing on earlier

government efforts to develop a quantitative fiscal rule permitting the operation of automatic stabilisers (see OECD, 2010). An independent Fiscal Council, along the lines of those existing in a number of OECD countries, could be established to carry out these tasks.

In this context, Turkey's enduring shortcomings in standard general government accounts should be remedied. Although welcome progress has been made on the major components of these accounts, notably through direct data reporting by local governments and social security institutions to the central government, standard general government accounts become available only with very long lags and are not yet fully compliant with international standards (OECD, 2010). Different general government accounting methodologies continue to be used across economic agencies. The financial balances and debt of a range of quasi-fiscal institutions are not yet part of a systematic monitoring and reporting system. The prospective fiscal costs of the expanding social security system also call for close scrutiny, against alternative scenarios of growth, employment, revenue collection and pension and health spending. Such scrutiny is particularly important as the ongoing demographic window will close in about a decade, and the old-age dependency ratio will start to increase rapidly, entailing growing ageing costs.

Box 2. **Fiscal policy recommendations**

- The present fiscal stance is broadly appropriate and it should remain tight, not least to preserve room for action were the world economy to weaken. If warranted, stand ready to tighten the fiscal stance more.
- Long-term financial balances of the social security system should be investigated with the help of alternative scenarios of growth, employment, revenue collection, and pension and health spending.
- Improve fiscal data at general government level, on a unified accounting basis according to international standards. Publish these accounts at quarterly frequency.
- Adopt a general government spending ceiling within a longer-term fiscal framework. This would help avoid pro-cyclical loosening in case of positive revenue surprises.
- Publish a regular *Fiscal Policy Report* (similar in format to the central bank's *Inflation Report*) encompassing all major quasi-fiscal institutions and containing a full set of cyclical adjustments.
- An independent fiscal council could be established, in line with OECD best practices. It could monitor fiscal performance, participate in the design of a fiscal framework, develop alternative methodologies for estimating cyclical sensitivity of revenues and publish the *Fiscal Policy Report*.

Financial sector policies

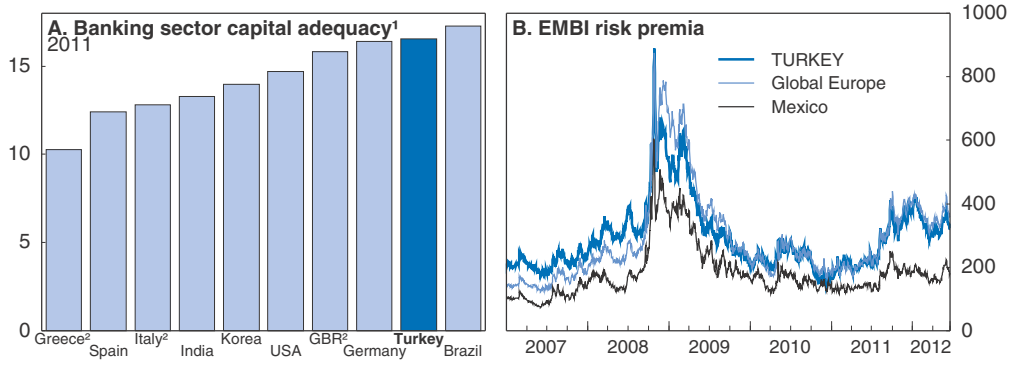
Turkey's financial sector policies pursue two goals: *i)* preserving the soundness of the financial sector through standard micro-prudential measures; and *ii)* contributing more actively to the cyclical regulation of the economy through macro-prudential supervision.

The rehabilitation of the financial sector after the 2001 crisis, which led to a smaller number of better capitalised commercial banks, was central to macroeconomic credibility and stability in the 2000s. As Turkey is now fully integrated with global capital markets, capital inflows, which were mostly channelled through the banking system after the crisis,

raise risks of excessively rapid balance sheet expansion and credit growth.Even if corporate and household debt levels are still low as a share of GDP, the authorities have been addressing these risks with both traditional micro-prudential and newly developed macro-prudential instruments.

The robustness of Turkish banks' balance sheets held up well during and after the global crisis (Figure 9). Bank loans have continued to grow strongly after the crisis but were allocated under conservative policies and rigorous provisioning rules. Yet, banks' short-term foreign exchange debt increased and their capital ratios declined. The maturity of banks' foreign obligations remains relatively long but declined from an average of 4 years at the end of 2007 to 3.5 years at the end of 2011. Non-financial firms also accumulated sizeable additional foreign currency exposure (over 15% of GDP by early 2012). In an interim assessment, the ongoing Financial Sector Assessment Programme (FSAP) review of Turkey has suggested that banks' capital buffers were sufficient to absorb a short-lived macroeconomic shock, but that strains would be much greater if the shock were protracted (IMF, 2012).

Figure 9. **Capital adequacy is high but EMBI spreads have increased**



1. Ratio of regulatory capital to risk-weighted assets. Data are compiled in accordance with the guidelines of either Basel I or Basel II. It measures the capital adequacy of deposit takers.
2. For Greece data in Q3 2011 and for Italy and United Kingdom data in Q2 2011.

Source: IMF, Financial Soundness Indicators (FSI, see website fsi.imf.org); Datastream.

StatLink http://dx.doi.org/10.1787/888932659217

According to the Turkish authorities, the sector remains well capitalised and resilient to all reasonable shock scenarios. They nonetheless started to increase capital adequacy ratios by limiting dividend pay-outs, and phased in new capital charges for maturity mismatches (applicable from July 2012). New regulations on credit risk management are also being prepared. The authorities also confirmed again their intention to comply with Basel II guidelines in the course of 2012 and have started work to implement Basel III guidelines. In this context, Turkey's EMBI spreads widened until October 2011 before narrowing again more recently.

Countercyclical credit containment measures introduced by the CBRT in early 2011, including hikes in the required reserve ratios of banks, their differentiation according to maturity, and their non-remuneration have proven less effective than expected in curbing credit growth. Accordingly, over the past two years, the BRSA has imposed loan-to-value ceilings on housing and commercial real-estate loans, rescinded the crisis-era easing of prudential standards on loan restructuring (after a one-year extension decided in early 2010), raised additional provisioning requirements and risk weights on loans and tightened conditions for the use of credit cards.

A new Financial Stability Committee was created in 2011 to co-ordinate macro-prudential and countercyclical policies. Good co-ordination between the Undersecretariat of Treasury, the CBRT, the BRSA, the Capital Market Board (CMB) and the Saving and Deposit Insurance Fund (SDIF) is key, although the independence of participating institutions should not be compromised.

Micro- and macro-prudential policies may have limitations when surges in capital inflows are channelled through the non-financial corporate sector. In this case temporary and targeted capital controls, provided they are in line with the provisions of the *OECD Code of Liberalisation of Capital Movements*, could be considered as an option. While their effectiveness to influence the level of inflows is controversial, well-targeted capital controls can affect the composition of flows towards longer-term maturities or towards safer inflows such as FDI and equity inflows (Ahrend and Goujard, 2011). Direct capital controls have not been favoured by the authorities to date. In fact, direct capital controls would conflict with the long-term goal of promoting Istanbul as an international financial centre.

Box 3. **Financial policy recommendations**

- As planned, comply fully with Basel II banking supervision guidelines and converge in due course with Basel III guidelines.
- Continue to evaluate the countercyclical financial policy measures which have the strongest leverage on aggregate demand, and focus on those.
- Closely monitor the cross-border funding of the non-financial corporate sector and, if and when capital inflows attain a pace incompatible with financial stability, as a last resort consider introducing temporary and targeted capital controls, provided they are in line with the provisions of the *OECD Code of Liberalisation of Capital Movements*.

Future growth performance will be shaped by structural policy choices

Long-term growth projections for Turkey are highly sensitive to policy and other assumptions. Alternative policy frameworks in the structural policy areas discussed below will shape the economy's capacity to mobilise labour resources and domestic and international savings in a balanced way in the short term and the pace of convergence with OECD labour utilisation, human capital and productivity standards in the longer term.

A new, stylised, cross-country long-term growth model (OECD, 2012c) is used to estimate the impact of ongoing and recommended structural reforms. Under this model's baseline scenario, Turkey's annual growth rate would average 4.4% between 2012 and 2030, with some decline over time. This baseline scenario incorporates likely structural policy developments in line with but less far-reaching than the recommendations in this *Survey* affecting labour participation and productivity, which would imply higher growth:

i) Educational attainment is assumed to continue to converge slowly across countries, leading to an increase from 7 to 8½ years of schooling in Turkey between 2012 and 2030 (see below).

ii) Labour force participation projections take into account recently implemented pension reforms and feedback effects from increasing educational attainment, and the trend labour force participation rate is projected to increase from the current 49% to 55% by 2030.

iii) The baseline further assumes a gradual easing of product market regulations towards average standards observed in the OECD, which contributes to the average multi-factor productivity (MFP) growth of 1.5% per year between 2012 and 2030.

The first assumption does not fully reflect the extension of compulsory education to 12 years legislated in April 2012, which will entail an increase in the average duration of schooling by 2030 to about 9½ years (provided that it is implemented for the entire student population already from the school year 2012/13, as stipulated by a May 2012 implementation decree). However, the OECD cross-country model assumes that a year of schooling delivers the same increase in knowledge and skills in all education systems. Since the quality of education in Turkey is still well below the international average, the effects on growth of the increase in average schooling years are likely overestimated in this model. Accordingly, the boost to GDP ascribed in the model's baseline to the assumed improvements in educational attainment may be broadly in line with what can be hoped for from the new Turkish legislation.

In this baseline, the contributions from longer schooling, increased labour market participation and MFP growth to the average annual GDP growth rate amount to 0.5, 0.4 and 1 percentage points, respectively. Starting from this baseline, several scenarios building in stronger structural reform efforts are investigated:

- Deeper labour market reforms than in the baseline scenario, such as the ones recommended in this *Survey*, could raise participation rates further. In this scenario aggregate labour force participation would increase from 49% in 2012 to 60% (rather than 55%) by 2030. The trend growth rate would be increased by 0.6 percentage points compared to the baseline and the level of trend output would be 10% higher in 2030.
- Lifting the average duration of schooling of the adult population to 10 years between 2012 and 2030 (similar to the improvement observed in Korea over the past two decades) would increase average annual trend growth by 0.8 percentage points and the level of potential output by 15% by 2030 relative to the baseline, assuming major quality improvements in the education system, the key strategic priority of Turkey's education policy.

Combining these two sets of labour and education reforms would raise GDP growth by 1.3 percentage points annually relative to the baseline over 2012-30 and potential output would increase by 25% by 2030. Table 2 summarises these different scenarios and the key underlying assumptions.

Table 2. **Long-term growth scenarios**

	Baseline	Labour market scenario	Education scenario	Combined scenario
Average potential GDP growth 2012-30, in per cent	4.4	5.0	5.2	5.7
Difference in level of potential output relative to baseline in 2030, in per cent		10	15	25
Labour force participation rate in 2030, in per cent	55	60	56	61
Average years of schooling of the adult population in 2030	8.5	8.5	10	10
Memorandum items:				
Average MFP growth 2012-30, in per cent	1.5	1.5	1.5	1.5
Average capital stock growth 2012-30, in per cent	4.9	5.2	5.4	5.8
Average population (aged 15 and above) growth 2012-30, in per cent	1.3	1.3	1.3	1.3
Structural level of unemployment in 2030, in per cent	9.2	9.2	9.2	9.2

Source: OECD estimations.

Reforming labour markets and advancing formalisation

Turkey's labour market has been characterised by five major features since the early 2000s, with important effects on labour mobilisation and potential growth:

i) Accelerated migration of working-age individuals from rural to urban areas, notwithstanding an increase in rural employment in the post-crisis years 2009-11.

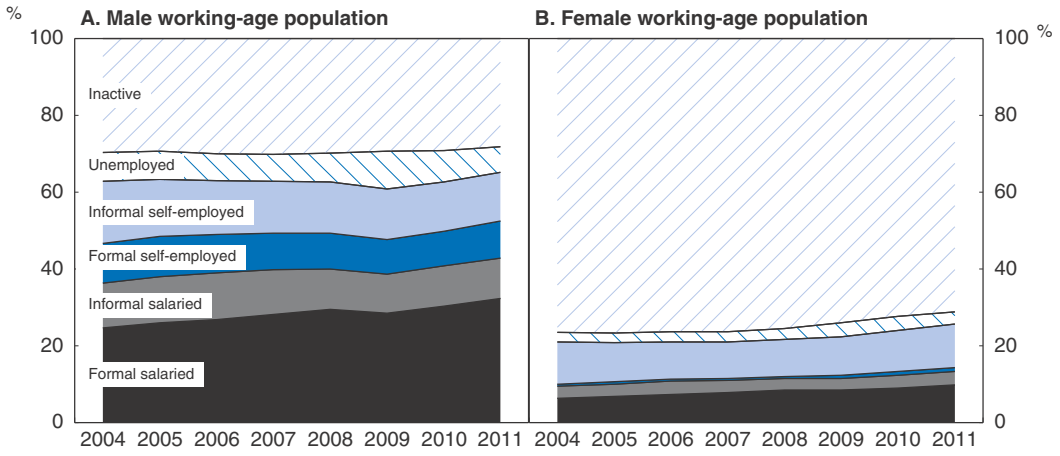
ii) Steady increases in the employment of skilled workers with secondary education or above, who represent around 36% of total employment (and 33% of the labour force and 16% of the working age population).

iii) A U-shaped pattern in the employment of the low-skilled majority of the labour force. The employment rate of workers with primary education or less declined through the 2000s but appears to have reached a trough in 2008-09 and has increased since then.

iv) The large informal sector. Many workers continue to be employed without social security coverage (even if many can now access health care through the green card and, starting from 2012, will be able to do so through a universal health insurance system), or are in self-employment or unpaid family work. Salaried unskilled workers in the formal sector are still a minority (Figure 10).

v) A large and persistent gap in labour market participation between men and women.

Figure 10. **The structure of employment is still weak**



Source: Turkish Statistical Institute, Household Labour Force Survey results.

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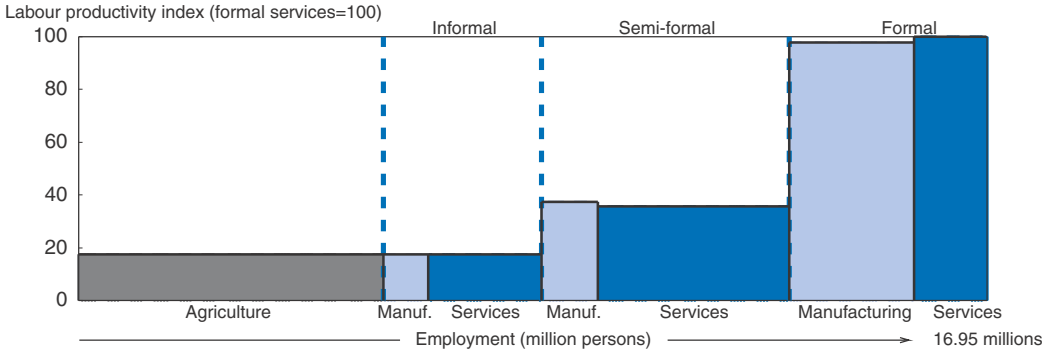
A key priority for improving potential growth is to shift employment to higher-quality jobs in fully formal activities. Indeed, informality acts as a drag on both the level of economy-wide productivity and its growth rate (OECD, 2008b and 2010; World Bank, 2010). Informal and semi-formal enterprises have limited access to economies of scale and scope, to professional labour, to foreign investors and to financial markets. Many of them therefore face limitations in their technological and commercial development. This keeps productivity growth in the entire economy below potential (Figure 11, and Chapter 2). Informality also deprives clients, including other enterprises using intermediary inputs, of efficient sources of supply. Formalisation, together with improved coverage and eligibility conditions for unemployment insurance, would also bring major benefits to Turkish workers by improving social protection against unemployment and income loss, poverty, exploitation and unsafe workplaces.

Figure 11. **Labour productivity and degree of formalisation in selected sectors**



Note: 2010 Turkstat data on the proportion of informal workers across enterprise size classes in manufacturing and service sectors were used to differentiate between "informal", "semi-formal" and "formal" activities, and estimate their employment and productivity levels. More details are available in Figure 2.6 in Chapter 2 of the Survey.
Source: OECD estimates based on Turkstat data.

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However, transition to formality presents informal and semi-formal enterprises with a dilemma: to become more productive, they need to graduate to formality, but transition to formality increases their costs, due to the rigidities of the formal regulatory framework. In particular, enterprises in low and medium-tech activities that employ low-skilled workers face two challenges:

- Wage flexibility is higher in the informal sector. Informal sector wages respond better to economic circumstances than official, inflation-indexed minimum wages and public-sector wages. For example, informal sector wages can decline in nominal terms when exchange rate appreciation pressures are too strong or when competitiveness losses call for adjustment. They may also vary according to local differences in productivity and living costs.
- Employment flexibility is also higher in the informal sector. Labour inputs can be adapted to changing conditions in product markets, notably in markets where orders are not predictable and delivery times short. Such flexibility is recognised as the distinct competitive edge of Turkish enterprises in international markets. But as both temporary employment and agency work are quasi-banned by prevailing regulations, such flexibility is only possible in the informal and semi-formal activities.

As discussed in earlier *OECD Economic Surveys*, only cost-reducing and flexibility-enhancing regulatory reforms can increase formalisation. A new and more flexible labour contract, a less costly severance payment regime, legal availability of temporary and agency work, and lower minimum wages are required. Otherwise, government efforts to reduce informality and facilitate formalisation, including through the comprehensive *Strategy of Fight against Informal Economy* cannot deliver much progress. The challenge is to foster transition to formality without undermining the flexibility and entrepreneurial vigour of the business sector, and hence without output, employment and competitiveness losses.

Turkey's most recent employment policy initiatives go in this direction. The temporary measures introduced during the global crisis reduced some of the most penalising aspects of legal employment, and paid off by boosting formal employment, notably of youth and women (OECD/ILO, 2011). Ongoing discussions on a new National Employment Strategy also suggest that key shortcomings of the present regulatory framework are well identified.

Notably, a severance pay reform is being prepared to make permanent labour contracts more flexible and a draft law liberalising temporary work has been submitted to the social partners for discussion.

The reform recommendations in this *Survey* build on OECD experiences, including labour market reform efforts in Southern European OECD countries such as Spain, Portugal, Italy and Greece. These countries long exhibited regulatory rigidities akin to Turkey's, with the associated informality challenges. From the 1990s onwards, these Southern European countries encouraged hiring by introducing a diversity of legal employment forms. This has led to labour market dualism problems that more recent reforms in Southern Europe aim to address. The liberalisation of temporary employment in Turkey would involve similar risks, but appears necessary to facilitate the formalisation of many informal jobs. To minimise the potential problems arising from duality, these reforms should be embedded in an integrated flexicurity strategy avoiding the entrenchment of a deep divide between rigid permanent employment and precarious jobs.

Lack of consensus on the direction of labour market reforms in Turkey has made their implementation difficult to date. There is opposition from the unions to any significant changes regarding permanent work contracts, the costly severance payment regime, temporary and agency work, and the regional differentiation of minimum wages. However, a more co-operative climate is now emerging between government, employer and labour organisations following near-consensus on a draft law facilitating union organisation, representation and collective negotiation in workplaces. Broadening the scope of the unemployment insurance scheme, which currently covers less than 20% of the formal sector workers losing their jobs, may also help unions agree with flexibility-enhancing reforms.

Official investment incentive schemes could also make the formal sector more attractive for entrepreneurs. These schemes were considerably diversified and developed in the second half of the 2000s, including a wide range of support programmes for smaller businesses by the SME agency KOSGEB, and 43 Technology Development Zones promoting innovation and technology development in co-operation with universities. They support the investment, training and R&D efforts of enterprises. However, more fundamental reforms lowering the costs of doing business in the formal sector would reduce the need for fiscally costly subsidy schemes (Box 3 in Chapter 1 reviews the extended investment incentive system legislated in June 2012).

Box 4. **Labour market and formalisation recommendations**

- A new and more flexible labour contract should be negotiated with social partners, as envisaged in the ongoing discussions on a National Employment Strategy. It should be introduced for all new hires on permanent contracts.
- The severance payment regime should be re-designed in line with international best practices, to make permanent labour contracts more flexible. Temporary and agency employment should be allowed, without sectoral restrictions.
- Official minimum wages should be kept in check. Wage adjustments to productivity gains should be sought more through collective bargaining at enterprise level.
- The scope and eligibility conditions for the official unemployment insurance scheme should be broadened. This is key for progress towards flexicurity adapted to the Turkish context.

Strengthening human capital

Upgrading education is the prime avenue for strengthening long-run growth, as highlighted in the special chapter on education in the 2006 *OECD Economic Survey of Turkey*. Major education policy initiatives have been taken over the past two decades, including the lengthening of compulsory education from five to eight years in 1997, before its further lengthening to 12 years in 2012. As a result, the enrolment of young cohorts has increased markedly at all education levels, from pre-school to tertiary, for both genders and in all regions and socio-economic groups. In addition, the OECD PISA indicators suggest that the academic proficiency of 15-year olds, starting from a very low level, has improved in the successive tests in 2003, 2006 and 2009. The demographic window over the next decade makes it especially important to increase the leverage of education policies, as larger cohorts graduating from the education system (with potentially stronger human capital) will be better integrated into the labour force.

Even so, the quality distribution of primary and secondary education remains excessively skewed. The academic proficiency of students differs widely across schools, reflecting the uneven skills and commitment of teachers and the large influence of the socio-economic background on student performance. Further emphasis on pre-school education is needed to reduce the influence of socio-economic factors. Innovative reforms are also needed in the governance of schools, including for teacher recruitment and motivation, to stimulate the quality of education in those falling behind.

A particularly weak point to date has been the unsatisfactory quality of vocational education. About 84% of primary education graduates start secondary education, but drop-out rates are high, especially from vocational education. Only about half of the 15-19 age cohort remain in education. It has been argued that this is because upper secondary education as such does not provide skills that are valued in the labour market (Education Reform Initiative, 2009), even if certain vocational streams have proven more successful than in the past, notably those for tourism and health care and the technical high schools established in organised industrial zones. As underlined in earlier *OECD Economic Surveys*, higher education also suffers from various quality shortcomings. At the same time, a number of high-quality universities now operate, with teaching programmes of internationally recognised quality.

Turkey's education policy initiatives through the 2000s confirm that improving enrolment at all levels pays off, but it is important to implement them on a broad, regionally and socially balanced basis. The government's new National Education Strategy 2010-14 emphasises quality and equity as top priorities (Government of Turkey, 2009). However, implementing this strategy at an affordable fiscal cost will require major gains in the efficiency of education spending. Existing studies suggest that such gains are achievable by improving the managerial autonomy and accountability of schools and universities, provided that this is backed not only with efficient transparency channels but also mechanisms to support quality improvement at each education level (Chapter 2). Despite some steps towards regional decentralisation within the Ministry of Education, the autonomy of education institutions is still very limited. Public universities also remain under tight central control, in contrast to private foundation universities, which have expanded strongly in the 2000s and are successfully piloting pedagogical and curricula innovations.

One area will be critical to strengthen Turkey's human capital: lifelong education. Education of youth can improve human capital endowment only gradually, because cohorts above the education age dwarf those entering the labour force. Those in need of upskilling are found across the age spectrum, even in relatively young age cohorts: in the 25-34 age cohort for example, 53% of men and 64% of women have only primary education or less. These individuals will remain in the labour force until 2040-50. Their weaknesses contrast with expanding skill requirements in the labour market, especially in newly-developing regions. A sizeable portion of the low-skilled are also still in agriculture, and are likely to leave rural areas to seek employment in cities in the years ahead. Upskilling working-age cohorts is therefore essential and will be crucial for Turkey's productivity, employment and growth performance in the future. In view of the requirements of the developing economy and labour market, a Lifelong Learning Strategy and Action Plan was launched in 2009 to increase individual skills.

Turkey has been trying to introduce new initiatives in this area. In line with recommendations in earlier *OECD Economic Surveys*, the government has decided to participate in the OECD's Skills Strategy, including the Programme of International Assessment of Adult Competencies, which will help evaluate, for the first time, the skills profile of the working-age population in order to help support upskilling priorities. In the meantime, well-designed policies and programmes can already be developed to facilitate the upskilling process for the adult population, in particular by focusing on strengthening literacy and numeracy for those whose schooling was inadequate. Successful upskilling would permit many industries to access stronger professional know-how and improve productivity and employment.

Box 5. **Recommendations on human capital development**

Higher-quality education at all levels, including upskilling and lifelong learning, ought to be a top policy priority. This calls for reallocating fiscal resources to this area. Against this background the following priorities stand out:

- Offer effective lifelong education programmes to upgrade the labour market skills for adults whose schooling was inadequate.
- Reduce the large quality gaps among both schools and universities by granting them more autonomy in exchange for more accountability for performance, and by shifting to per student funding with adjustments for socio-economic disadvantages.
- In vocational education, emphasise generic skills. Vocational schools should co-operate with the business sector in developing and teaching their curricula.

Social cohesion policies

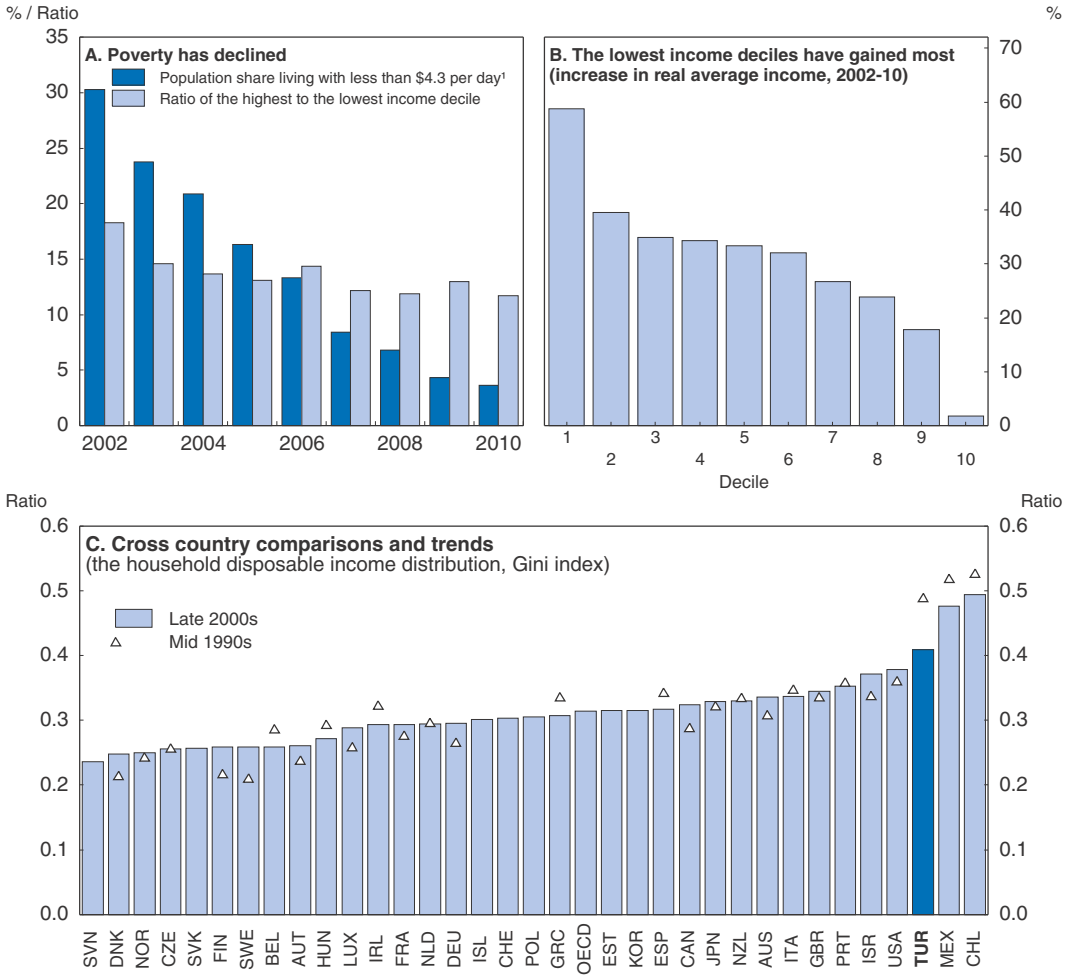
Turkey is one of the few OECD countries where income inequality declined in the 2000s, mainly as a result of strong employment growth and more widespread education, while at the same time various indicators of poverty, in particular of absolute poverty, improved considerably. However, the degree of income inequality remains one of the highest in the OECD (Figure 12).

Prevailing income distribution patterns and their determinants place Turkey in a cluster of OECD countries that notably includes Chile, Mexico, Israel and Portugal

characterised by: *i)* above-average income inequality, mainly reflecting a low employment rate coupled with high wage dispersion; *ii)* capital incomes tending to benefit a small group of households; *iii)* low cash transfers; and *iv)* the personal income tax system playing a limited redistributive role. However, indirect and consumption taxes have some redistributional effect to the extent that many basic products carry lower rates in Turkey.

OECD analyses (OECD, 2011b and Hoeller *et al.*, 2012) suggest that Turkey's income inequality can be reduced by: *i)* continuing to strengthen labour force participation and employment; *ii)* upgrading human capital and reducing labour market duality; and *iii)* relying more on transfers. Such transfers should avoid poverty traps and ideally provide incentives to participate in the labour market and seek employment (for example via subsidies to transportation and child care costs).

Figure 12. **Income distribution has improved but challenges remain**



1. At current PPPs. The interim methodology used by the Turkish Statistical Institute does not make an adjustment for US inflation.

Source: Turkish Statistical Institute; OECD Income distribution – Inequality database.

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Indeed, raising the low employment rate and shifting its composition toward formal jobs can deliver large double dividends in the Turkish context, in the form of both higher growth and improved income distribution. Increasing employment opportunities for women should be at the core of such policies. As mentioned, their participation rate is currently very low: the ongoing Development Plan (Government of Turkey, 2006) aimed at increasing it to nearly 30% by 2013, against an OECD average of 62% in 2010. Existing obstacles to female labour market participation include insufficient supply of dependable child and elderly care, which was found to penalise working women at both high and low education levels (Aran *et al.*, 2010). It is also important that new jobs for women be created in the higher-quality formal sector, rather than, as happened in the late 2000s, mainly in the informal sector (Figure 10). Labour market rigidities channel an even higher share of female than male workers into informal employment, undermining their productivity, incomes and work incentives.

More effective social transfers would increase the well-being of the most vulnerable groups. Despite progress achieved in the reduction of absolute poverty, 3.7% of the population still have less than $4.3 (at PPP) per day. Turkey has room to make more active use of the tax and transfer system for redistributive purposes. It currently has the fourth least progressive income tax structure among OECD peers, despite having made the biggest progress on this score in the 2000s. At the same time, social assistance represents 1.2% of GDP, one of the lowest levels OECD-wide, despite a regular increase since 2003. Nevertheless, important steps have recently been taken to increase the efficiency of the social assistance system by strengthening the links between social benefits and labour market participation.

Designing effective transfers without undermining work incentives – a challenge in all OECD countries – is particularly crucial in Turkey because the employment rate is so low. Recent developments in social transfers may have reduced the work (and training) incentives of certain groups, notably in low-income regions, where living costs are low and nationally-set nominal transfers may exceed the work-related income of low-skilled individuals. For instance, it has been estimated that in a typical south-eastern city, an unemployed family with one breadwinner and two children might currently receive a combination of social transfers amounting to TL 475 (235) per month, compared to a net minimum wage income of TL 700 (345) (OECD estimate based on information provided by the Southeast Anatolian Development Agency). A new Action Plan for Linking Social Assistance with Employment aims at addressing this challenge by integrating government databases on social benefits and employment assistance, and requiring social assistance recipients to consult with employment agency advisors.

Social transfers are currently distributed from a variety of sources, with limited co-ordination. Monitoring all transfers and social benefits on an individual recipient basis would help manage transfers by reviewing all individual circumstances, family needs, and behavioural responses – including in terms of training and employment efforts. A comprehensive technical project is under way, under the aegis of the newly created Ministry of Family and Social Policies which is in charge of a better co-ordination of social services and social assistance, and the National Scientific and Technical Research Foundation, to develop a sophisticated database at individual level to facilitate policy analysis and implementation.

Box 6. **Social policy recommendations**

- Increase women's labour force participation by providing high-quality and affordable child and elderly care.
- Develop Turkey's tax-and-transfer system by taking into account international best practice. Draw on growth-friendly taxes such as real estate taxes, and target progressive transfers and benefits conditional on labour market participation.

Furthering product market reforms

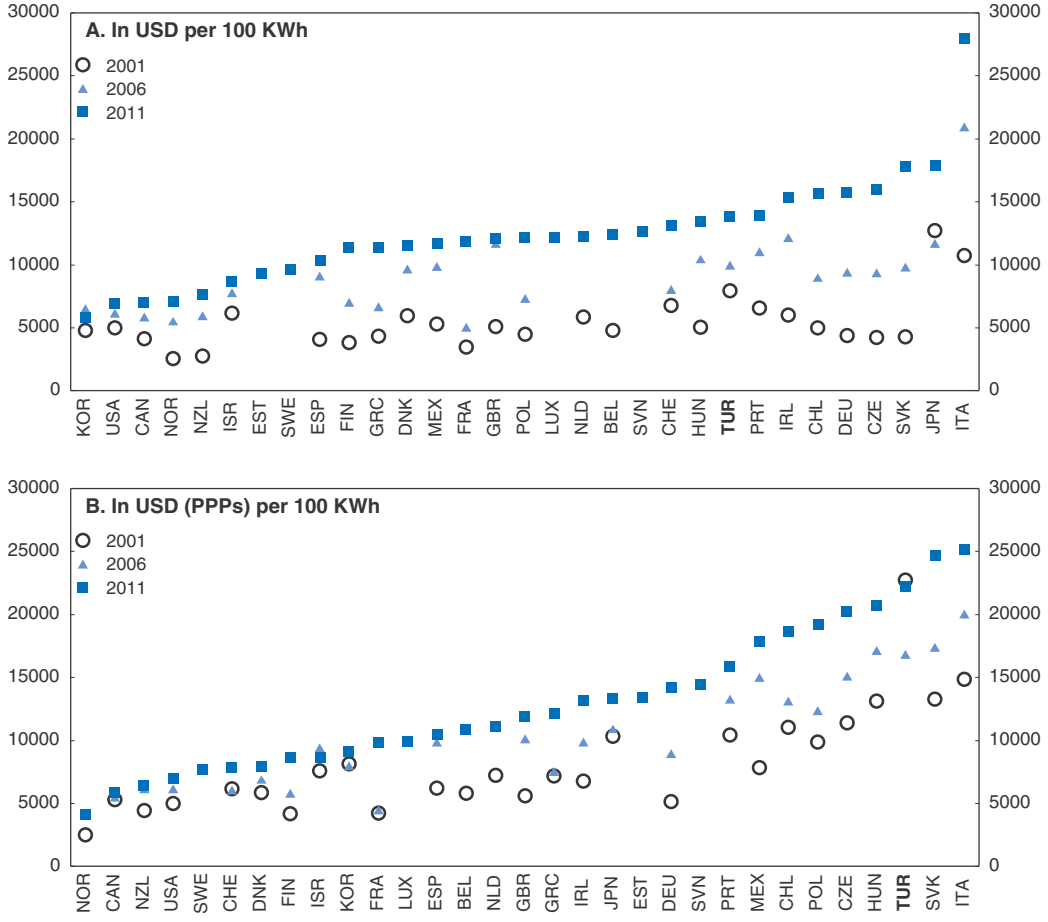
Improving Turkey's competitiveness and growth potential requires that non-tradable activities provide tradable sectors with more competitively produced and lower-cost inputs. Three key upstream sectors whose market conditions affect the performance of the entire economy are energy, telecommunications and agricultural production.

The electricity sector is still dominated by incumbent state-owned entities. Only limited progress has been made with the liberalisation plans introduced in the 2000s. These plans sought to introduce competition in the competitive segments of the industry (generation, wholesale trade and retail sales). Consumers with certain consumption thresholds were made eligible to choose their suppliers, assuming that significant competitive supply alternatives would develop. This threshold was originally set to 9 million kWh per year, and was reduced annually, to reach 25 000 kWh of yearly consumption at present, making 77% of market demand eligible for supplier choice. 100% of consumers will be eligible by 2015. However, alternative competitive suppliers have not grown at the intended pace.

The planned reforms were held up notably by delays in the privatisation of large-scale generation capacities and distribution companies, which proved even more difficult to implement in the conditions of the global economic crisis (Competition Policy Authority, 2012). Power potential in hydro, wind, and environmentally sustainable coal plants, and, in the long term, in nuclear energy could be more effectively exploited in a more competitive environment. Also, the large inefficiencies (system losses) in the distribution of electricity would be reduced under stronger incentives for productivity gains. Prevailing pricing and billing practices entail cross-subsidisation between user categories, which does not encourage efficient electricity utilisation by subsidised groups. Against this backdrop, electricity costs for industrial users remain high in international comparison (Figure 13). The implementation of the planned liberalisation and competition reforms will stimulate more rational electricity use on the demand side and more efficient production on the supply side, but also more effective utilisation of imported energy inputs. This would reduce Turkey's very high imported energy bill (which reached 6% of GDP in 2011), improve energy security and contribute to keeping greenhouse gas emissions in check (see below).

Other energy sectors also have only limited competition. In the natural gas sector, despite a legal requirement to restrict the largest provider's market share to 20%, the incumbent still possesses a 90% market share. On the other hand, all the major local gas distribution companies were privatised, with the exception of those in Istanbul and Ankara. In oil distribution (which has a particularly large weight in the Turkish energy market because of dependence on road transportation) rules restricting the entry of oil importers hinder competition.

Figure 13. **Electricity prices in industry remain high**



Note: Data for 2010 for Belgium, Canada, Estonia, Greece, Israel, Luxembourg, the Netherlands, Sweden and the United Kingdom; and 2009 for Korea and Spain. Data for 2005 instead of 2006 for Finland and Greece; and for 2000 instead of 2001 for Belgium.
Source: IEA (2012), Energy Prices and Taxes 1st quarter 2012.

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The introduction of competition in mobile telecommunications in the 1990s, together with additional market entries in the 2000s, triggered efficiency gains, capacity growth and price reductions (OECD, 2010; Haucap *et al.*, 2010). However, competition is significantly more restrained in other segments, notably in fixed broadband internet services. The incumbent provider still has an 81% market share and access fees are higher than in other OECD countries. Fixed broadband penetration stood at only 10 subscriptions per 100 inhabitants in 2011, compared to an OECD average of 25%. Regarding mobile broadband services, penetration rates are 12% (March 2012) and 48% (June 2011) respectively for Turkey and OECD-wide. 39 % of Turkish homes had broadband connection in 2011, compared to an EU average of 67%. More intense competition in broadband services might generate sizable price cuts and thus more rapid internet diffusion among businesses and households (Telli, 2011; Competition Policy Authority, 2012).

The competitive segments of these network industries should be entirely opened to competition, and their monopolistic segments should be managed in cost-minimising

ways under independent regulatory supervision, in line with Turkey's existing strategic plans in these areas.

Stronger competition at all levels of the agricultural chain would also unleash latent productivity gains and reduce agricultural product costs. Food and non-alcoholic beverages represent a quarter of the consumer price index and one fifth of total household consumption. They are characterised by high price volatility and asymmetric price rigidities (upward adjustments are more frequent than downward adjustments). These sectors are sheltered from import competition, and obstacles to domestic competition are widespread. According to the latest information available, agricultural product prices are significantly above average world prices. The difference reaches about 200% for milk, 80% for sugar, 70% for beef meat, 40% for poultry and eggs, and 40% for wheat and sunflower grains (WTO, 2012).

According to OECD estimates, the level of support to agriculture in Turkey, as a percentage of gross farm revenues, declined from 38% in 2006 to 25% in 2008, before rising to 28% in 2010. This suggests that nearly one third of farmers' incomes derive from support policies (financial support, tariffs and other border protection). Policymakers expect the amount of support to decline as employment in agriculture contracts (it still represents a quarter of total employment), facilitating market-based adjustments. They consider the WTO agricultural negotiations as an adequate tool to open up Turkish agricultural markets to international competition. The OECD's *Agricultural Policy Review of Turkey* (OECD, 2011a) recommended measures to spur market outcomes and competition, in particular to: *i)* reduce the high degree of price support (which is the biggest distortion in this sector, representing 84% of total support to agriculture by 2010 according to OECD calculations); *ii)* cut total public transfers to the agricultural sector; and *iii)* liberalise import competition. The *Review* also recommended to carry on with the structural reforms introduced in the 2000s, to facilitate the consolidation and restructuring of low-productivity farms. To promote social cohesion, safety-net programmes ought to be extended and targeted to explicit social objectives. Agricultural support tools will be progressively aligned with EU standards. The *Review* also endorsed the Rural Development Strategy that Turkey has developed in co-operation with the European Union, and which targets the diversification of economic activities, human resource development, and the protection of the rich natural environments and ecosystems.

Box 7. **Recommendations on product market competition**

- In network industries with monopolistic elements, especially in the energy and telecommunications sectors, competitive segments should be fully opened to competition and naturally monopolistic segments should be managed in cost-minimising ways under independent regulatory supervision. The comprehensive energy liberalisation plans prepared in the 2000s should be fully implemented.
- Liberalise agricultural product markets by reducing the high degree of price interventions, using less distortive forms of support and offering greater scope for import competition in the context of WTO negotiations and convergence with EU standards. Social cohesion policies in agriculture should rest on direct transfers to eligible farmers and rural development, rather than on product market interventions.

Quality of life: the case of air pollutants and greenhouse gas emissions

Turkey became a party to the UN Framework Convention on Climate Change (UNFCCC) in 2004 and to the Kyoto Protocol in 2009. Along with other OECD countries, Turkey is an Annex I Party of the UNFCCC. However given its special circumstances, Turkey has been exempt from setting quantitative emission mitigation targets.

The carbon footprint per capita is relatively low (Figure 14). Annual greenhouse gas (GHG) emissions per capita are 5.3 tonnes of CO_2 equivalent, against an EU average of 10.2 tonnes and an OECD average of 15 tonnes. However, the emission intensity of existing energy, dwelling, transportation and manufacturing activities is high. Under existing energy utilisation patterns, GHG emissions are set to rise rapidly (Figure 14). Therefore, Turkey has started to introduce product norms and projects subsidies to boost the use of clean and renewable energy sources and to increase energy efficiency.

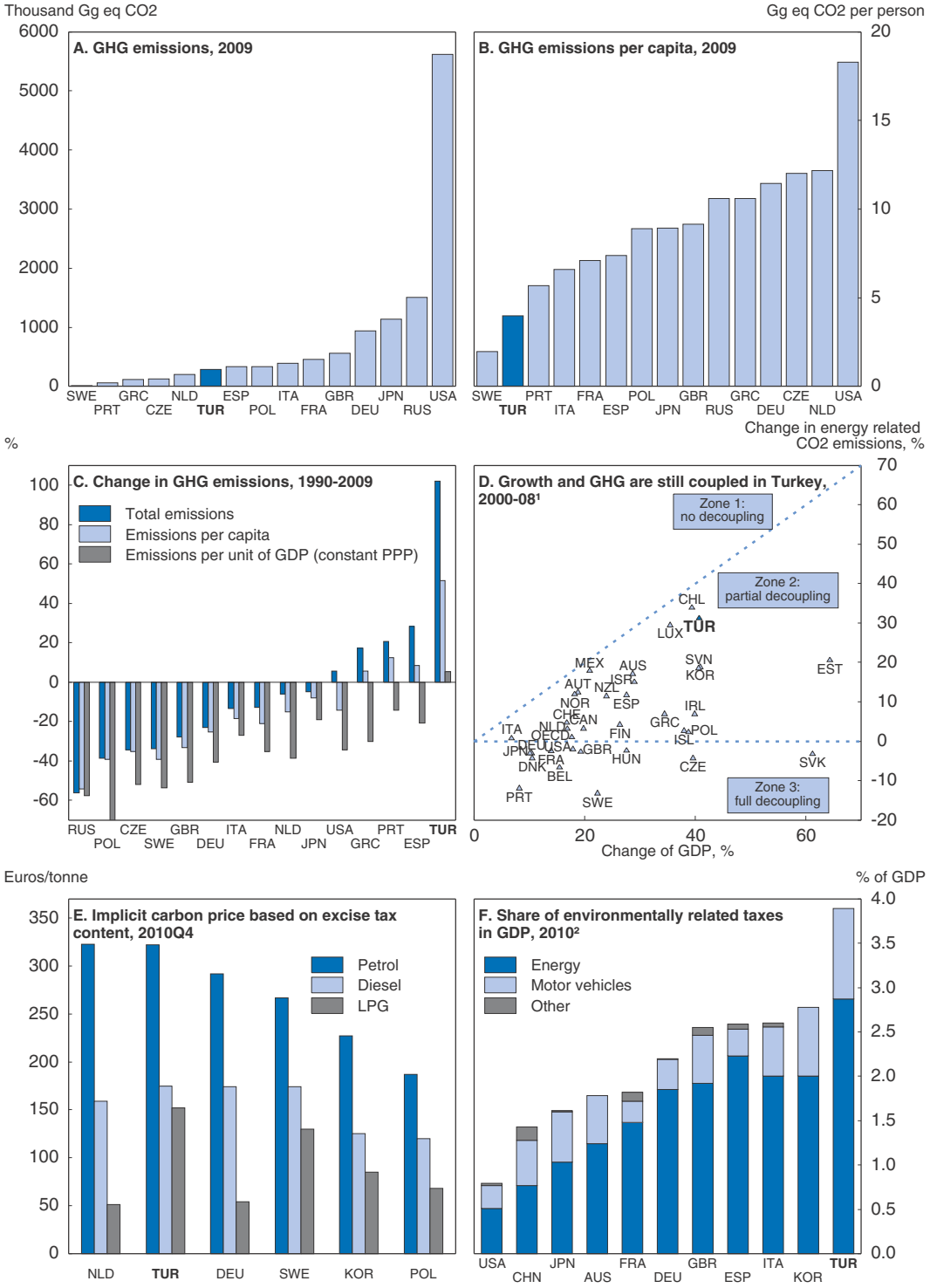
At a more local level, pollutants have reached high concentrations in certain Turkish cities (OECD, 2008c). In this respect, a major step has been the adoption of a new Regulation on Control of Air Pollution from Industrial Plants (including energy plants) in 2006. This regulation has significantly tightened authorised pollution from emissions, in accordance with EU norms.

The Government approved the National Climate Change Strategy in May 2010 and published the National Climate Change Action Plan in July 2011. The plan includes short- and long-term objectives concerning greenhouse gas emissions, without setting quantitative targets. It nevertheless includes quantified objectives to increase the share of renewable energy in electricity production to 30% by 2023. Shifts are also planned to move passengers and freight away from road transportation. The plan further includes the expansion of public transportation in cities, together with more active diffusion of heating and insulation standards (only 9% of dwellings have any insulation), more efficient fertiliser and water utilisation in agriculture, and more proactive emission management in industry. Investments have already been launched in the areas of hydro, wind and geo-thermal power and high-speed trains. A monitoring system of all GHG emissions is to be put in place but implementation could be difficult because of the large share of informal activities. The Ministry of Environment and Urbanisation intends to support companies implementing the system by drawing on the 108 organised industrial zones that are currently in operation, and the 147 that are under construction.

At this point, Turkey's climate change strategy emphasises containing GHG emissions by regulatory means, and recent public projects in energy and transportation take account of environmental priorities. Economic instruments (such as carbon taxes and cap-and-trade systems), which would mitigate emissions at lower costs, have not yet been implemented. Fuel taxes have, however, reached very high levels. Although driven by revenue rather than environmental policy, they do have positive environmental impacts. Indeed, Turkey has very high revenues from environmentally-related taxes as a share of GDP, and this provides a good starting point for future co-ordination between tax and environmental policies (Figure 14D).

However, major tax differences between emission sources remain. Turkey has the OECD's top tax rate for the CO_2 emissions of diesel and second-highest for petrol. In contrast, emissions from natural gas and coal are practically not taxed at all. Important sources of carbon emissions thus escape taxation, such as household use of natural gas and industrial use of light fuel oil. Turkey had long been the only OECD country applying a

Figure 14. **Greenhouse gas emissions are low but have strongly increased despite high implicit carbon prices**



1. OECD area excludes Chile, Estonia, Israel and Slovenia.
2. 2009 for Australia, France and Japan.

Source: OECD calculations based on data from UNFCCC; OECD, Towards Green Growth: Monitoring Progress, OECD Indicators; OECD calculations based on data obtained from International Energy Agency (2011), Energy Prices and Taxes, Paris; OECD / EEA database on instruments used in environmental policy.

StatLink http://dx.doi.org/10.1787/888932659312

higher tax-rate for low-sulphur diesel than for high-sulphur diesel, but this ceased in 2011 with the prohibition of the commercialisation of high-sulphur diesel.

More active recourse to economic instruments, such as tradable emission permits, for reining in emissions is being considered by the authorities. A related, non-official development has been the emergence of a voluntary carbon market. Turkey is one of the most active countries in this area, as many Turkish enterprises detected rewarding opportunities in selling emission reductions to international counterparts on a voluntary basis. About 150 projects are under way with expected annual GHG reductions of approximately 10 million tonnes. Corresponding Verified Emission Reductions will be traded on the voluntary carbon market. A carbon registry is being set up within the Ministry of Environment and Urbanization to facilitate these trades. A carbon market is also planned as part of the Istanbul Financial Center Strategy.

Box 8. **Recommendations on greenhouse gas emissions and air quality**

The National Climate Strategy and Action Plan needs to be implemented further and the following measures are particularly advisable:

- Review the structure of fuel taxes and harmonise the implicit carbon tax rate on different fuels in different uses. Co-ordinate fuel taxation initiatives with Climate Change Action Plan priorities.
- Set quantitative mitigation targets for greenhouse gas emissions, even if Turkey has no international obligation in this area at this stage.
- Adopt economic instruments such as emission permit systems in sectors where the pricing of emissions is technically feasible.

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ANNEX A1

*Past OECD recommendations on Turkey's structural reform priorities and related national actions and plans**

OECD policy recommendations	Actions taken or planned by the authorities
Improve educational achievement. Fully enforce minimum schooling rules, revise the education curricula according to labour market needs, increase spending on education (financed by cuts in lower priority areas), fund schools on a per-pupil basis and provide them with more managerial responsibility. New universities should be adequately funded.	A national campaign was launched to increase the school enrolment of girls in 2005. Net enrolment rates in compulsory education were raised from 85% in 1997 to 99% in 2011. Education curricula in primary and secondary schools were revised starting from 2006, and again in 2012. Educational tools, textbooks, and teacher manuals were adapted. Electronic media will be used to replace and reduce school manuals (the FATIH project). Curricula in vocational and technical education are also being revised, under a new *Vocational and Technical Education Strategy*. Pilot experiments for the per-pupil funding of schools, and for the management of schools through local authorities, started in several cities. Most recently, with a new law adopted in April 2012, compulsory education was extended to 12 years, one of the longest in the OECD. This is planned to be divided into three periods of four years. At the end of the first four years, at age 10, access will be given to religious vocational education. For the other vocational streams, branching will start at age 15 (10th grade). This reform will immediately apply to current school cohorts (students terminating their 8th year of compulsory education in 2012 will directly continue with the lengthened stream).
Reduce the minimum cost of labour. Reduce the minimum wage relative to the average wage and differentiate it across regions. Cut social security contributions, especially on low earnings.	A personal tax allowance was introduced for low-income workers in 2008. Employer social security contributions were also reduced for all workers in 2008 (by 5 percentage points), with additional exemptions for young and female workers for a limited period. As a response to the global crisis in 2009, these contributions were further cut for the first years of employment of young and female workers, for six to 54 months. These cuts were made available for all workers starting from 2011, provided that employers increase their total volume of employment. In April 2012, a new incentive scheme exempted all new employees hired in the least advanced Eastern regions (the so-called Category VI regions), not only from employer social contributions, but also from employee contributions and income taxes (eliminating the labour tax wedge in about one sixth of the national territory).
Reform employment protection legislation. Ease employment protection in the formal sector, both by reforming severance payments and by facilitating temporary work. Allow more flexible labour contracts on a temporary basis.	Parliament adopted a new Law authorising manpower agencies to offer temporary work services in 2009, but a Presidential veto after strong trade union opposition suspended the reform. A new draft Law was submitted for discussion to the social partners in November 2011.

* On the basis of OECD recommendations in the 2006, 2008 and 2010 Economic Surveys of Turkey, and in the 2005, 2007, 2009, 2011 and 2012 editions of *Going for Growth*, and Turkey's policy responses.

OECD policy recommendations	Actions taken or planned by the authorities
Reduce incentives for early retirement. Reduce incentives for early retirement by making benefits more actuarially neutral, and by establishing a health insurance contribution for young retirees. Remove retiring workers' entitlement to severance payments (in new labour contracts).	A social security withholding tax was recently introduced for workers re-employed after retirement (paid by employers). In 2011, a new law extended the coverage of social (pension, health and unemployment) insurance to part-time, seasonal and other atypical workers, provided that they have paid their contributions in full. A new law adopted in June 2012 will offer new incentives for private pension schemes: participants' savings will be leveraged by public subsidies of 25%, capped at the annual minimum wage.
Simplify product market regulations. Streamline product market regulations, in particular the sectoral licensing rules. Encourage greater competition in network industries.	Permits concerning environmental issues were consolidated into a single environmental permit administered electronically, with a simplification of the required documentation. YOIKK (the joint public-private Council for the Improvement of the Investment Environment) continued to consult and issue recommendations. The Competition Authority published its first Report on Competition in February 2012: remaining obstacles to competition are analysed and pro-competitive measures are recommended in a set of sectors including electricity, natural gas, airways, railways, maritime transportation, banking, broadband internet services, and pharmaceuticals.
Reduce the scope of public ownership. Facilitate the privatisation of national energy, telecommunications, transport and banking enterprises by removing barriers to foreign ownership.	Foreign ownership caps were lowered and privatisation tenders opened to foreign investors in 2006, leading to the acquisition of controlling shares by foreign investors in telecommunications, oil refining, and petro-chemicals. Large scale privatisation tenders are planned in electricity production and distribution, and in gas distribution in 2012.
Reduce administrative burdens on start-ups. Simplify regulatory requirements for small enterprises.	A new central registration facility is being built up for on-line company establishment/registration and information sharing between government agencies. The licensing of food production was centralised in the Ministry of Food, Agriculture and Livestock in the context of regulatory streamlining.
Facilitate banking and capital market financing of enterprises	A new Commercial Code was adopted by Parliament, to come into force in July 2012. It mandates the publication of audited financial accounts according to international standards by all sizes of incorporated firms. In response to concerns from smaller firms, compliance was facilitated by authorising sole auditors rather than certified accounting firms to certify smaller enterprises' accounts.
Complete agricultural reform and continue with the transition from sheltered to competitive agriculture. Replace product-specific subsidies with direct income support to eligible farmers, promote competition in all input markets, facilitate land consolidation, and anticipate Turkey's liberalisation objectives in the WTO and EU negotiations.	The share of direct income support measures (that initially accounted for the majority of the agricultural support budget in the early 2000s, and which are recommended by the OECD) was progressively reduced, but the government declared its intention to raise them again at a later stage. A new approach to agricultural policy was announced in 2010, which distinguishes 30 agricultural basins in the country and aims at providing differentiated support across crops according to ecological conditions in each basin. From 2012, this support is being provided mainly through area-based payments. Irrigation investments and land consolidation efforts are also accelerated, especially in top priority regions such as South Eastern Anatolia, Eastern Anatolia and Konya Basin. New irrigation projects will promote efficient water use.

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Chapter 1

Tackling external and domestic macroeconomic imbalances

Effective macroeconomic and structural policies helped Turkey bounce back quickly and strongly from the global crisis, with annual growth averaging close to 9% over 2010-11. However, the current account deficit widened to around 10% of GDP in 2011 and consumer price inflation rose to over 10%. The external deficit, which is far too large for comfort, is a source of vulnerability. So is double-digit inflation, even if it partly reflects transient factors. These imbalances signal competitiveness problems and a dearth of domestic saving. They need to be addressed using both macroeconomic and structural policy levers. Monetary policy has recently tried to reduce the volatility of capital flows but inflation has been high and volatile. The inflation target needs to be given greater prominence. The fiscal stance remains broadly appropriate but could be tighter, if warranted, to complement monetary restraint and help keep the real exchange rate on a sustainable path. More balanced growth through strengthened competitiveness and greater private saving calls inter alia for increased labour force participation, accelerated formalisation, stronger productivity growth, improvements in financial literacy and a more attractive menu of saving instruments. Improvements in the business environment would spur foreign direct investment, making for healthier funding of the external gap.

The impact of the global crisis was severe for Turkey, but domestic demand recovered swiftly and growth reached 9.2% in 2010 and 8.5% in 2011. However, in the process, significant economic tensions arose. With estimated slack shrinking fast, consumer price inflation rose to over 10% by December 2011, almost twice the target rate. At the same time, the current account deficit widened to 11% of GDP in the first quarter of 2011, a historically unprecedented level. While the current account gap and inflation have started to come down somewhat since, both remain above comfort levels.

This chapter discusses the underlying causes of these imbalances, which include both the macroeconomic policy stance but also and crucially a range of structural factors. The chapter then turns to the policies that can help mitigate these imbalances and achieve more balanced growth. Structural policies to reform the labour market, to step up formalisation, and to boost productivity are also indispensable to durably improve the current account and help lower inflation, and are discussed in detail in Chapter 2.

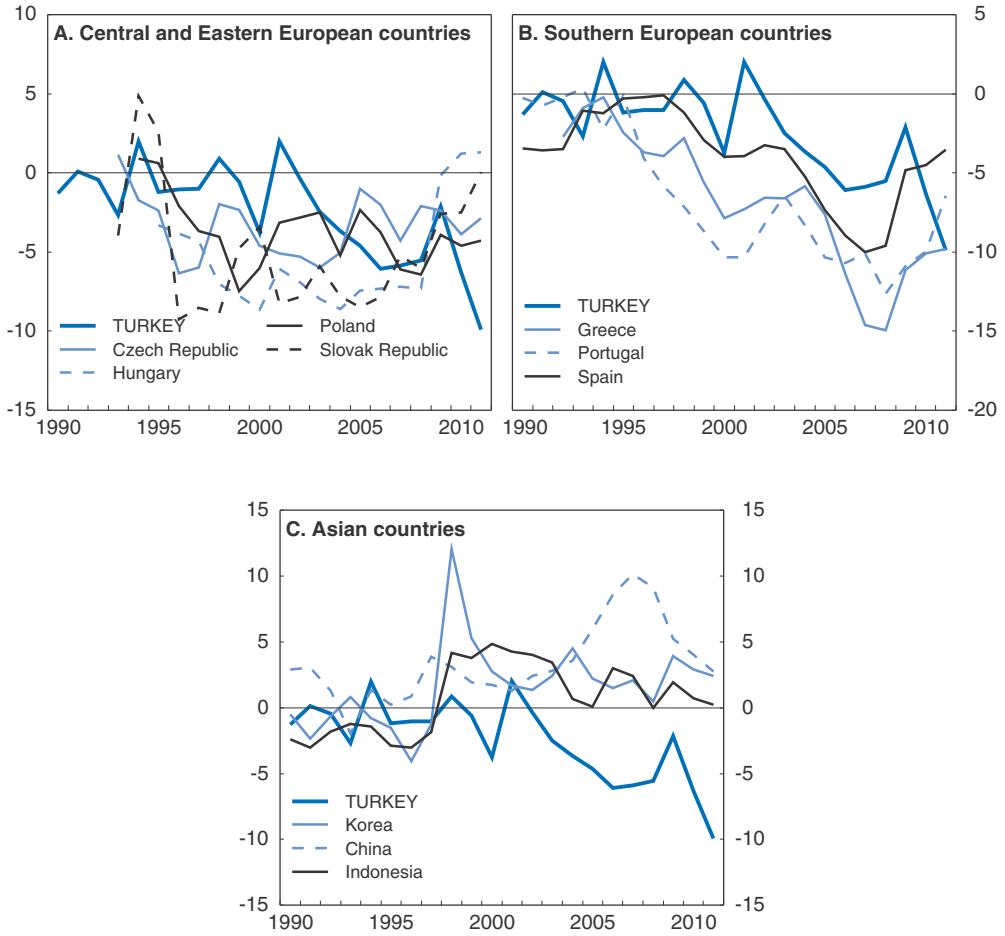
Bringing down the current account deficit and financing it better

Turkey's current account deficit reached 9.9% of GDP in 2011 (Figure 1.1). In absolute US dollar terms Turkey recorded the second-largest current account deficit in 2011 among all OECD countries. With domestic demand slowing since mid-2011, the current account deficit is narrowing. Even so, it is on course to remain at around 9% of GDP in 2012. A substantial dependence on foreign financing leaves an economy vulnerable to a slowdown in capital inflows with potentially negative consequences for financial stability and growth. In addition, the financing structure of the external deficit also deteriorated after the crisis, with a higher reliance on short-term bank loans, though it began to improve in 2011. Nevertheless, short-term capital inflows continue to play a large role in external financing. With financial market tensions lingering in the euro area, banks in developed countries facing higher capital requirements and more generally uncertainty about the global economic outlook, external financing conditions will remain strained. Accordingly, reducing the current account deficit through a rebalancing of demand is a pressing near-term economic challenge.

This chapter suggests that the worsening of Turkey's external balance mainly results from price and labour cost inflation outstripping productivity growth and nominal exchange rate depreciation, thus eroding competitiveness in the tradable sector. This especially affected the formal low-skill labour-intensive manufacturing sector but more recently other sectors too. Additional low-skilled rural migrant labour facing limited formal employment opportunities was mainly absorbed by a new generation of semi-formal and informal enterprises in export-oriented sectors. However, productivity and wage growth is low in these firms, constraining household income and saving. At the same time, overall household saving was low and falling due to macroeconomic stabilisation leading to a fall in interest rates and lower precautionary saving, higher availability of credit, low aggregate employment and the large share of the low-skilled in the population. With investment opportunities aplenty as the economy grew rapidly, this translated into a growing saving-investment gap and consequently a widening current account deficit.

Figure 1.1. **Turkey's current account deficit has reached unprecedented levels**

Current account balance as a percentage of GDP



Source: OECD, OECD Economic Outlook database.

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Box 1.1. **Current account imbalances: international experience and theoretical considerations**

Turkey's sizeable current account deficit is not uncommon for catching-up economies which, given a certain level of political and macroeconomic stability as well as security of property rights, provide ample investment opportunities and high returns for foreign investors. For instance, new EU member countries in Central and Eastern Europe have experienced deficits of similar magnitude as have southern peripheral euro area countries. Recent history has shown that in many cases these imbalances, driven by continuously deteriorating competitiveness as well as asset and credit booms, were unsustainable (Atoyan, 2010). The external balance has improved since the crisis in almost all of these countries, partly due to cyclical weakness, while that of Turkey deteriorated to a level not seen before the crisis. In contrast to these catching-up economies, many emerging Asian countries, after running external deficits before the 1997/98 crisis, combined rapid growth with sizeable current account surpluses on the back of an export-led growth strategy.

Box 1.1. **Current account imbalances: international experience and theoretical considerations** *(cont.)*

Normative assessments of external imbalances are generally difficult as they can arise for "good" or "bad" reasons (Blanchard and Milesi-Ferretti, 2012). On the one hand, external imbalances can be the result of utility-maximising behaviour in the absence of distortions and reflect the optimal allocation of capital across time and space. On this score, demographic factors or strong economic prospects, as in Turkey, would be relevant. On the other hand, deficits can reflect domestic market distortions. For example, deficient financial regulation can affect the quality of financial intermediation and spur asset and credit booms, or labour market distortions might lead to low employment rates and thus low household income and saving. These distortions should be removed, first and foremost for efficiency and welfare reasons, but a reduction in imbalances can be a welcome side effect. Finally, good reasons for current account imbalances can interact with distortions and lead to inefficient outcomes and increased risk. For example temporary but persistent capital inflows and ensuing currency appreciation can lead to a crowding-out of the tradable manufacturing sector which is more difficult to reverse the more financially constrained the sector is (Caballero and Lorenzoni, 2007).

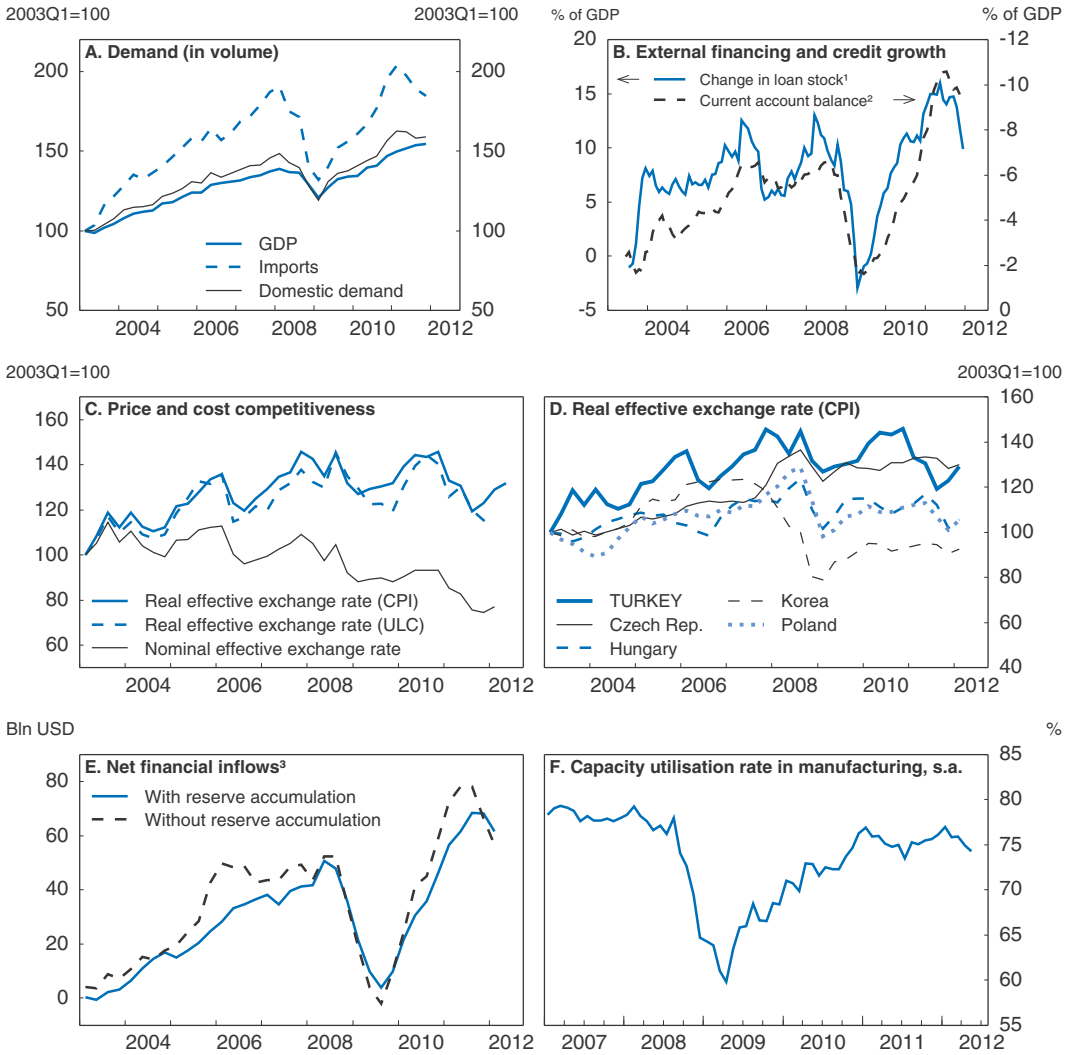
Irrespective of the underlying causes of external deficits, they imperil the sustainability of growth if they reach a substantial size, calling for policy intervention. In addition, if the country is large enough and has strong financial linkages to other countries, thus constituting a systemic risk, policy attention is warranted from a multilateral perspective. In the case of Turkey, however, financial linkages are still limited and spillovers to other OECD countries from a potential domestic financial crisis would be unlikely to be large even though some of the neighbouring non-OECD countries might be adversely affected.

Key features of Turkey's current account developments

Turkey's current account deficit hovered around 1% of GDP during much of the 1980s and 1990s. A more sizeable external imbalance started to emerge only after the financial crisis of 2001, when Turkey experienced strong growth, thanks to important reforms to strengthen its macroeconomic policy framework and financial sector. Spells of current account deterioration have been characterised by *i)* strong credit-financed, domestic demand driven growth, *ii)* sizeable capital inflows, *iii)* real exchange rate appreciation and *iv)* increasing import penetration (Figure 1.2). These episodes were interrupted by short periods of rebalancing driven by capital outflows and sharp nominal depreciation largely due to external factors, especially global financial turmoil. Despite these nominal depreciations, price and cost competitiveness have worsened over the past decade.

Developments after the outbreak of the global crisis fit this pattern quite well, but with two important differences. First, the deterioration of the current account has been much starker: the deficit went from 0.5% of GDP in 2009Q2 to 11% in 2011Q1, partly due to oil price increases and cyclical asymmetries, since Turkey recovered far more strongly from the financial crisis than most other OECD economies. Loose monetary conditions in many of Turkey's partner countries fuelled a sharp increase in capital inflows which may have contributed to exceptionally strong domestic credit growth. At the same time, demand for Turkish exports, in particular in the European Union, Turkey's main export market, remained subdued. But as discussed below, competitiveness losses that had accumulated over the previous decade and that were not entirely reversed by the sharp depreciation

Figure 1.2. **Current account developments**



1. Net 6-month change in the total loan stock as a percentage of 6-month rolling cumulative GDP.
2. 6-month rolling cumulative current account balance as a percentage of 6-month rolling cumulative GDP. Monthly GDP figures are approximated using the industrial production index.
3. 4-quarter rolling sum.

Source: Central Bank of Republic of Turkey; OECD, OECD Economic Outlook database; OECD, Main Economic Indicators database; IMF, International Financial Statistics.

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during the financial crisis, also contributed to the strong deterioration of the current account.

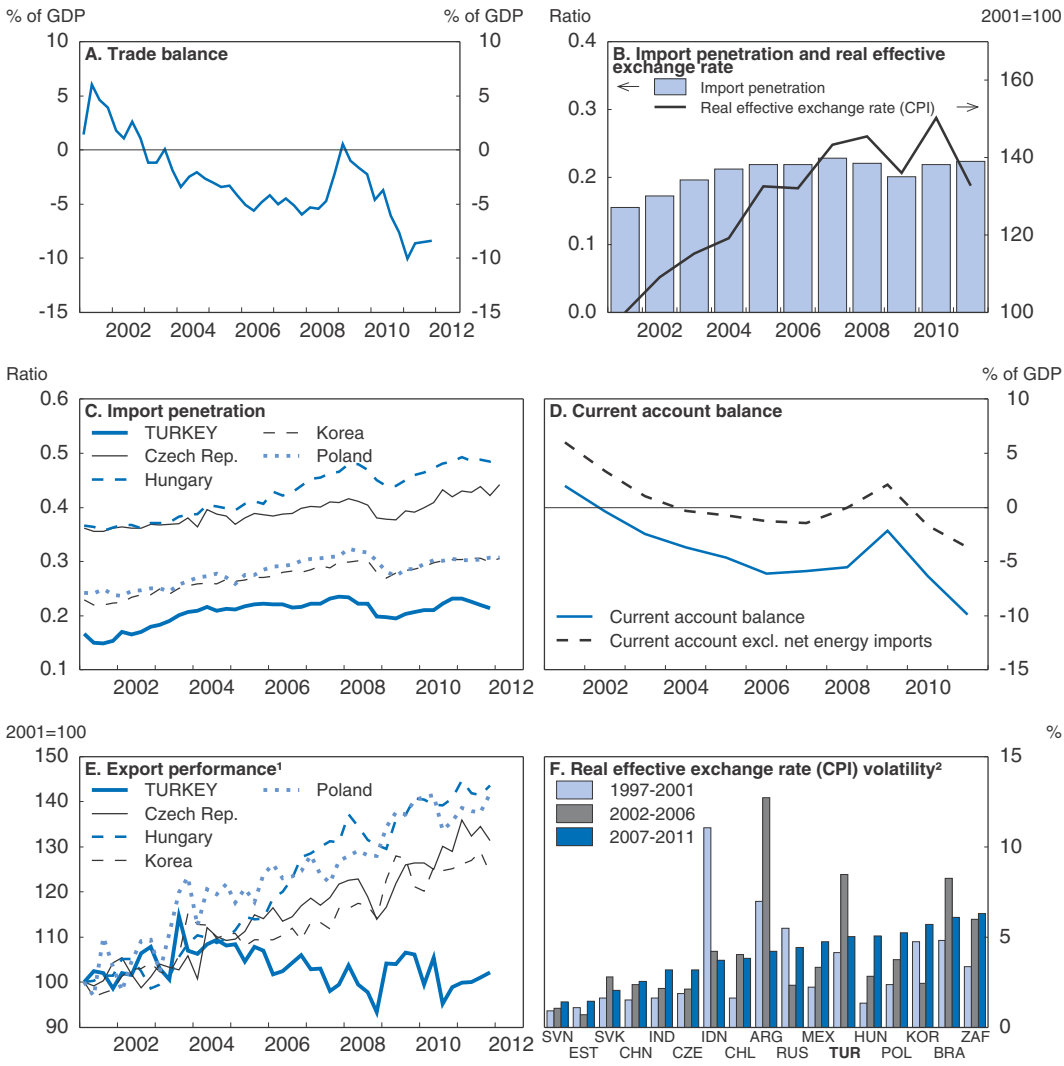
Second, the rebalancing from domestic to external demand observed since the second half of 2011 has so far been gradual and not driven by an abrupt contraction in activity, unlike during the global financial crisis. Monetary and financial policy contributed to this gradual rebalancing through a mix of mostly unorthodox measures (see below). However, this rebalancing might prove difficult to maintain for at least two reasons: *i)* the substantial nominal depreciation in 2011 has fed through to domestic prices and was partly reversed in early 2012, eroding some of the initial gains in competitiveness; and *ii)* if global financing

conditions worsen, triggering capital outflows, restoring external equilibrium might require a sharp slowdown in domestic demand and import growth.

Accumulated competitiveness losses led to a marked worsening of the trade balance

The current account deterioration since the beginning of the 2000s largely reflects that of the trade balance (Figure 1.3A). Important drivers of trade developments are price and non-price competitiveness as well as domestic and external demand conditions (see Annex 1.A1). Differences between domestic and external demand conditions have contributed to the rising trade deficit, in particular after the crisis. However, thanks to quality improvements and product innovations, non-price competitiveness has tended to

Figure 1.3. **Trade developments**



1. "Export performance" measures export competitiveness and is calculated as actual volume growth in exports relative to the growth of the country's export market, which represents the potential export growth for a country assuming that its market shares remain unchanged.
2. Standard deviation of monthly growth rate.

Source: Turkish Statistical Institute; OECD, OECD Economic Outlook database.

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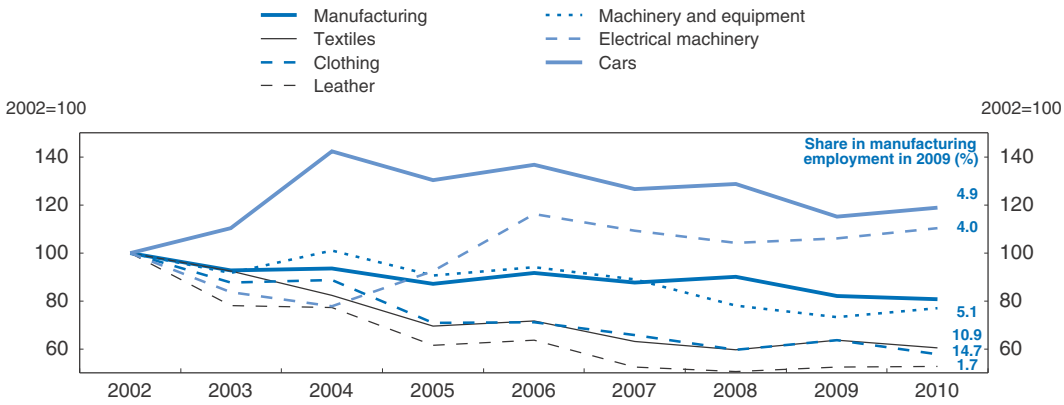
improve, as documented in a previous *Economic Survey* (OECD, 2008). Nevertheless, price competitiveness remains key, all the more so given the recent growth of more price-sensitive low-technology industries. The price competitiveness of Turkey's tradable sector has come under pressure since the early 2000s owing to sizeable inflation differentials with trading partners. Nominal labour costs per unit have also run ahead of those in partner countries, due to widespread wage indexation in the formal sector and insufficient labour productivity growth. Consequently the real exchange rate, both in CPI and unit labour cost terms, appreciated significantly notwithstanding short bouts of sharp depreciation driven by the nominal exchange rate in times of global financial turmoil. Cumulatively, the real exchange rate appreciated by 40-45% between early 2003 and late 2010. It then weakened by about 15-20% until the second half of 2011 before starting to appreciate again. Some estimates of the equilibrium real exchange rate for Turkey suggest that it may have been still overvalued in the fall of 2011 (IMF, 2012; Cline and Williamson, 2011). This evidence, in combination with high minimum wages and costly labour market rules in comparison with other OECD and emerging economies as analyzed in previous *Surveys* (OECD, 2008, 2010), points to a significant competitiveness gap in Turkey's tradable sector.

The periods of widening competitiveness gap have seen rising import penetration, and vice versa. However, as Turkey primarily imports raw materials and intermediate goods, part of the rise in import penetration reflects a more global trend towards integration into vertically-integrated global production chains, as in many other OECD countries. As Turkey's import penetration is still below the OECD average, this trend might endure (Figure 1.3B and C).

Another factor that may contribute to a limited responsiveness of total imports to improvements in competitiveness in the short to medium term is Turkey's large dependence on energy imports. While net energy imports only explain part of the post-crisis deterioration in the current account, they accounted for about half of the current account deficit in 2011.[1]Dependence on energy and in particular fossil-fuel imports at least partly reflects fundamental factors such as a lack of natural resources and high energy imports may therefore be a manifestation of a comparative disadvantage. However, energy price controls and hence departures from cost-based pricing may have led to inefficiencies in the use of energy inputs. In addition, potential appears to exist to substitute energy imports through domestic sources (*e.g.* hydro, wind, thermal and nuclear power). This, however, requires further efforts to promote efficiency and competition in the energy sector. Even if structural reforms promoting more efficient consumption and production of energy take time, their implementation is crucial to reduce energy imports and the current account deficit. As experience has shown, in particular in Asia, substantial current account surpluses are compatible with large net energy imports. For this to happen, however, the competitiveness of the export sector needs to be durably improved.

On the export side, aggregate measures of Turkey's export market share have been volatile over the past ten years, without a clear up- or downward trend, whereas several of Turkey's emerging market peers gained market share (Figure 1.3E). However, this aggregate measure masks important structural changes within the manufacturing export sector analysed in previous *Economic Surveys* (OECD, 2008, 2010): while traditional low-tech formal sectors relying heavily on low-skilled labour (textiles, clothing, leather) were hardest hit by the squeeze in price competitiveness during the 2000s, new medium-tech sectors (cars, white goods, industrial machinery) could partly offset nominal cost pressures and on average strongly increased production, exports and employment (Figure 1.4). The latter

Figure 1.4. **Sectoral export margins**



Note: Ratio of export prices in national currency to unit labour costs in national currency, which can be interpreted as a measure of margins encompassing both price and non-price competitiveness (see Yilmaz and Gönenç, 2008).
Source: OECD estimates.

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sectors benefitted from their higher capital intensity in combination with a general trend decline in capital costs, quality improvements which allowed them to set higher price mark-ups, higher productivity growth and a shift towards imported intermediate goods.

In addition, a new generation of export-oriented manufacturing firms sprung up in previously non-industrialised, low-income regions. They rely mainly on low-skilled labour, but maintained competitiveness by often using informal and semi-formal labour contracts to circumvent high minimum wages, wage pressures and formal-sector rigidities. However, productivity growth in these new sectors is low (see Chapter 2), leaving limited room for wage growth if competitiveness is to be preserved, with negative repercussions on labour income and household saving, as discussed in the next section.

Looking ahead, improvements in the trade balance will mainly depend on Turkey's ability to boost exports. With demand from Europe likely subdued in the short to medium term, one way to do so is by diversifying into new fast-growing export markets. Efforts in this direction are already under way: Turkish exporters have increasingly penetrated new markets in the Middle East but also in Asia and the Americas (Chapter 2, Özlale and Cunedioglu, 2011). Nevertheless, given its specialisation in low- to medium-tech products, Turkey is likely to continue to face low-cost competition also in new markets. This points to the importance of striving to improve competitiveness. Future competitiveness is shaped by: *i)* nominal labour cost developments; *ii)* productivity growth; and *iii)* nominal exchange rates. Nominal exchange rate pressures depend on capital inflows as well as monetary policy settings. Labour costs are influenced by inflation dynamics as well as structural reforms in the labour market. Finally productivity growth depends notably on the ability to shift resources into the formal sector, competition in product markets and quality improvements in human capital (Chapter 2).

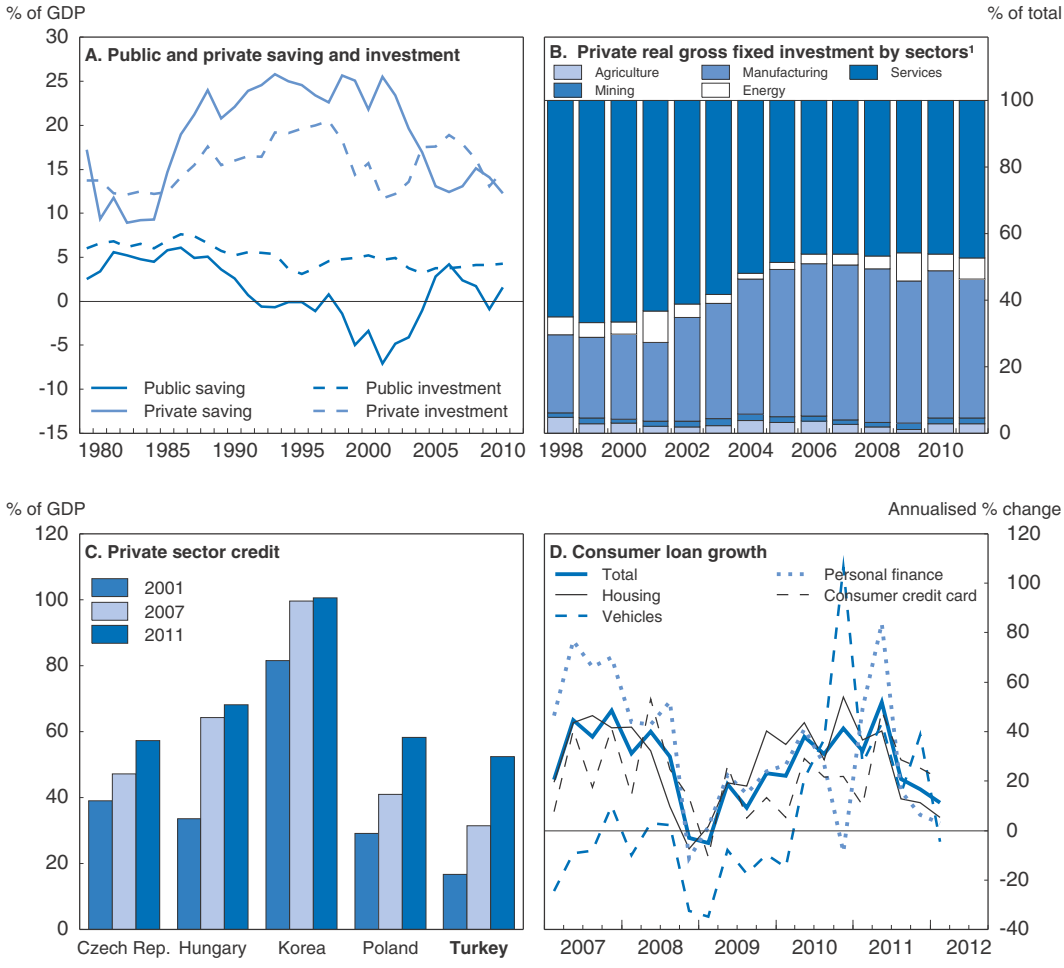
In addition to developments in competitiveness, investment in the tradable sector and hence the future ability to generate export revenues or reduce import bills may also be influenced by the volatility of the real exchange (Hausmann and Rigobon, 2003). Volatile real exchange rates make production in the tradable sector more risky relative to non-tradables. While the volatility of Turkey's real exchange rate has decreased since the mid-2000s, it remains higher than in many other emerging economies (Figure 1.3F). Further

declines in exchange rate volatility would strengthen the tradable sector.

Private domestic saving needs to be strengthened

The corollary of the widening trade deficit was the opening-up of a domestic saving-investment gap from the beginning of the 2000s. This gap reflected both a secular decline in private saving and a surge in private investment (Figure 1.5A). In contrast to private saving, public deficits turned into surpluses in the 2000s thanks to strong consolidation efforts. This increase only partly offset the drop in private saving. In the context of the global crisis, public dissaving resumed, as fiscal policy provided a stimulus (OECD, 2010). However, in 2010-11 the latter was largely withdrawn. In contrast to private investment, public investment remained relatively stable throughout the entire period and was mainly directed at enhancing transport infrastructure.

Figure 1.5. **Drivers of the saving-investment gap**



1. Data for 2010 and 2011 are estimations.

Source: Ministry of Development; IMF, International Financial Statistics; OECD, OECD Economic Outlook database; Central Bank of the Republic of Turkey.

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The surge in private investment can be traced back to major structural and institutional reforms including macroeconomic stabilisation, microeconomic liberalisation and strengthening of the banking sector which led to sharply falling capital costs following the 2000-01 crisis (OECD, 2008, 2010). In addition the government granted regional and horizontal investment incentives and provided public infrastructures (organised industrial zones) especially in previously non-industrial regions. But strong entrepreneurial dynamism also played a role. Investment was mainly driven by machinery and equipment and channelled into manufacturing, suggesting that investment incentives remained high despite competitiveness losses (Figure 1.5B). However, investment in manufacturing may have been partly used to substitute labour, and investment also largely took place in the new generation of export-oriented manufacturing firms which could circumvent costly labour regulations. Besides manufacturing, investment in transport and communication also expanded strongly. Construction investment only increased moderately,[2]in contrast with the boom experienced in several of the peripheral euro area countries and new EU member states in Central and Eastern Europe. Private investment collapsed during the global crisis but quickly rebounded, largely driven by the same forces as prior to the crisis.

Even so, the investment share in GDP, currently at about 22%, remains lower than in several high-performing Asian countries. This suggests that if anything, investment in Turkey needs to grow faster to sustain GDP and employment growth, and the government recently announced new investment incentives (see Box 1.2). The new system preserves a number of positive features of the preceding regime: *i)* eligible beneficiaries are identified on the basis of explicit criteria and rules, minimising room for administrative discretion; *ii)* no distinction is made according to firm ownership (public *versus* private or domestic *versus* foreign); and *iii)* no trade protection is involved, in contrast to incentive policies applied in a number of other emerging countries. A stronger emphasis is given to sectoral criteria, with newly defined "strategic sectors" receiving additional incentives. The definition of "strategic sectors" will be rule-based, which should reduce interest group pressures and attempts to "pick winners". Additional safeguards, including the rules of the World Trade Organisation and the provisions of Turkey's Customs Union agreement with the European Union, which includes a "State Aid Commission" evaluating the competitive impacts of incentives, are expected to help minimize any distortions in competition and resource allocation. The new incentive system may increase the saving-investment gap in the short term by encouraging additional investment. However, if the incentives have the intended effects, they might stimulate additional supply capacity in the tradable sector with favourable effects on the trade balance in the longer term.

While data on household saving are not readily available as part of the national accounts, studies point to a pronounced decline in household saving between 2001 and 2008 (World Bank, 2012). Five main reasons can be identified: *i)* increased macroeconomic stability reduced precautionary motives for saving; *ii)* lower real interest rates; *iii)* improved income prospects; *iv)* better credit availability, in particular for lower-income households; and *v)* low and – in the first half of the 2000s – declining employment rates. While the first three explanations can be generally seen as welcome developments, the last two deserve further analysis.

Banking sector loans to the private sector had been very low in Turkey before the 2001 crisis. Private credit grew rapidly thereafter, even though it remains low compared to peer countries (Figure 1.5C and OECD, 2010). Better credit availability led to an increase in purchases of consumer durables (World Bank, 2012). Consumer loan growth bounced back

Box 1.2. **Investment incentives**

A new incentive package was legislated in June 2012 to stimulate domestic and foreign investment in the face of a weak global economy and to encourage additional supply capacity in the tradable sector, which may help increase exports or reduce imports in coming years. It will be applied retrospectively to investments made from January 2012.

This new system is an extended version of the comprehensive existing incentive regime, which went through successive vintages in 2004, 2005 and 2009. In a nutshell, this system granted VAT and customs duty exemptions, employer social security contribution exemptions, corporate or personal income tax concessions and land grants and interest-rate subsidies to investment projects. Eligibility depended on region, sector and size:

- The region was the key criterion. Turkey's 26 NUTS 2 regions were combined into four groups based on economic and social development. Investments in the least developed group ("Level IV") received support of up to 45% of their initial costs (calculated in nominal values by cumulating the corporate or personal income tax exemptions and social security contribution cuts received during the operational life cycle of a project, as a share of its initial cost). In the more developed group ("Level I"), investments received support of up to 25% of their initial costs.
- Benefits were differentiated to a lesser extent between sectors and only a few sectors considered in excess supply were excluded.
- Finally, incentives were differentiated by investment size: large investments with initial costs above TL 50 million (20 million) were granted additional corporate tax concessions.

The new regime legislated in June 2012 introduces certain additional features:

- As the earlier groupings were criticized for combining provinces with large development gaps, the new system distinguished six areas instead of four by clustering Turkey's 81 NUTS 3 provinces. Besides, the level of support has been raised.
- "Priority" sectors, which are considered to provide positive externalities for the rest of the economy, receive stronger incentives, irrespective of regional location. These sectors include tourism (investment in cultural and touristic preservation and development areas), mining, railroad and maritime transport, pharmaceuticals, defence (with a minimum investment of TL 20 million (9 million)) and education. They receive the same degree of benefits as those granted in "Region 5" (the second most supported region).
- Newly defined "strategic" sectors will receive additional benefits. The government announced that the sectors where Turkey's dependence on imports is highest (where imports represent more than 50% of domestic demand) will be eligible. Only projects generating more than 40% of local value added will be supported.
- "Eligible forms of business organisation", which are expected to provide extra benefits to the economy, will also receive additional benefits. Eligible forms include joint investments between more than five partners (to promote clustering), investments undertaken in organised industrial zones, and mass production of innovative products developed in co-operation with the national science foundation (TUBITAK).
- Additional support will be granted to investments in the least developed region. Most importantly, employer and employee social security contributions and personal income taxes (up to a cap) will be exempted for 10 years, entirely eliminating the labour tax wedge during that period.

How far this new incentive regime will differ in practice from the earlier framework will depend to a large extent on the definition and scope of "strategic" sectors and their additional benefits relative to "non-strategic" sectors.

after the crisis and reached a disquieting pace in the first half of 2011, mainly driven by personal finance loans (Figure 1.5D). This triggered measures by the Central Bank of the Republic of Turkey (CBRT) and the banking regulators (see below), which helped curb consumer loan growth. Non-performing consumer loan ratios of banks are falling and are currently low. Ratios of household interest payments to household disposable income have been falling since the crisis, to around 4.8% by the end of 2011. Nevertheless, household financial liability-to-asset ratios have been increasing rapidly albeit from low levels, to around 46% by the end of 2011 (CBRT, 2012a).

Household saving rates and income are closely correlated in Turkey (World Bank, 2012). Employment rates, in particular those of women, are traditionally low in Turkey and declined in the early 2000s (Chapter 2), translating into a higher share of households that depend only on one income earner and thus reducing the saving potential. Moreover, migration from rural to urban areas increased the already large share of low-skilled in the population looking for work. Formal employment and income prospects for low-skilled deteriorated during the 2000s due to the competitive losses of formal labour-intensive industries (see above) and the growing skill demand in the economy. While part of the low-skilled were absorbed by the informal sector, a sizeable wage gap exists (Baskaya and Hülagü, 2011) and wage growth is on average lower. Given persistently high inflation this has held back real household income, with negative repercussions on the saving potential. Employment rates have been increasing rapidly since the crisis, though partly in the form of unpaid rural labour and in low-income activities. Increasing employment rates more durably and with a higher share in the formal sector is an important avenue to lift household income and saving.

There is room to channel existing household savings into more productive uses. A sizeable part of private savings are kept outside of the financial system (see below). This is consistent with the large errors and omissions line in the balance of payments, which tends to expand when external financing conditions worsen. The large share of the informal economy which increases demand for informal, unregistered and anonymous assets may be mainly responsible, but it may also reflect a lack of financial literacy. Additionally, households typically hold a higher share of savings in the form of non-financial assets. This is despite the fact that generally falling inflation and increased stability of the financial sector should have boosted demand for financial assets. A relatively limited choice of alternative saving instruments offered by banks and other financial institutions may be part of the reason. The banking system and other financial institutions could thus help to enhance the productive allocation of long-term household savings by offering a wider variety of saving instruments.

Corporate saving is also low in Turkey, below that in other emerging markets (Bayoumi *et al.*, 2010, World Bank, 2012). Corporate saving tends to be correlated with firm profits and GDP, and productivity growth might be the single most important factors influencing firm profits (André *et al.*, 2007). The relatively low level of corporate saving in Turkey may also be related to the high share of small to medium-sized enterprises (SMEs) that mainly operate in the semi-formal and informal sector. These firms tend to operate below the optimal size to avoid costly administrative burdens and are constrained by limited access to external finance. Thus, policies that tackle the underlying causes of informality such as costly labour market regulations may increase corporate saving.

Firm profitability is also influenced by changes in the real exchange rate, but the effect depends on export- and import-intensities as well as net foreign exchange positions of firms through balance-sheet effects and therefore the economy-wide impact is ambiguous. The World Bank (2012), using Turkish firm-level data, shows that currency appreciations have reduced net profit margins and saving in large export-intensive firms. Yilmaz and Gönenç (2008) find that average profit margins of labour-intensive manufacturing sectors have been particularly squeezed due to the trend currency appreciation in the run-up to the financial crisis. However, non-tradable sectors tend to be positively affected by appreciation due to lower import prices. Moreover, net foreign exchange liability positions in the non-financial corporate sector are sizeable and have been rising sharply recently (see below) and Kesriyeli *et al.* (2011) report that real exchange rate appreciation boosts investment and profits for sectors with higher net foreign exchange liabilities in Turkey. Nevertheless, to the extent that tradable goods production is associated with greater technology and skill transfer from abroad than for non-tradables (Rodrik, 2006), a real-depreciation-induced shift from non-tradable to tradable production might improve economy-wide productivity growth and hence corporate saving.

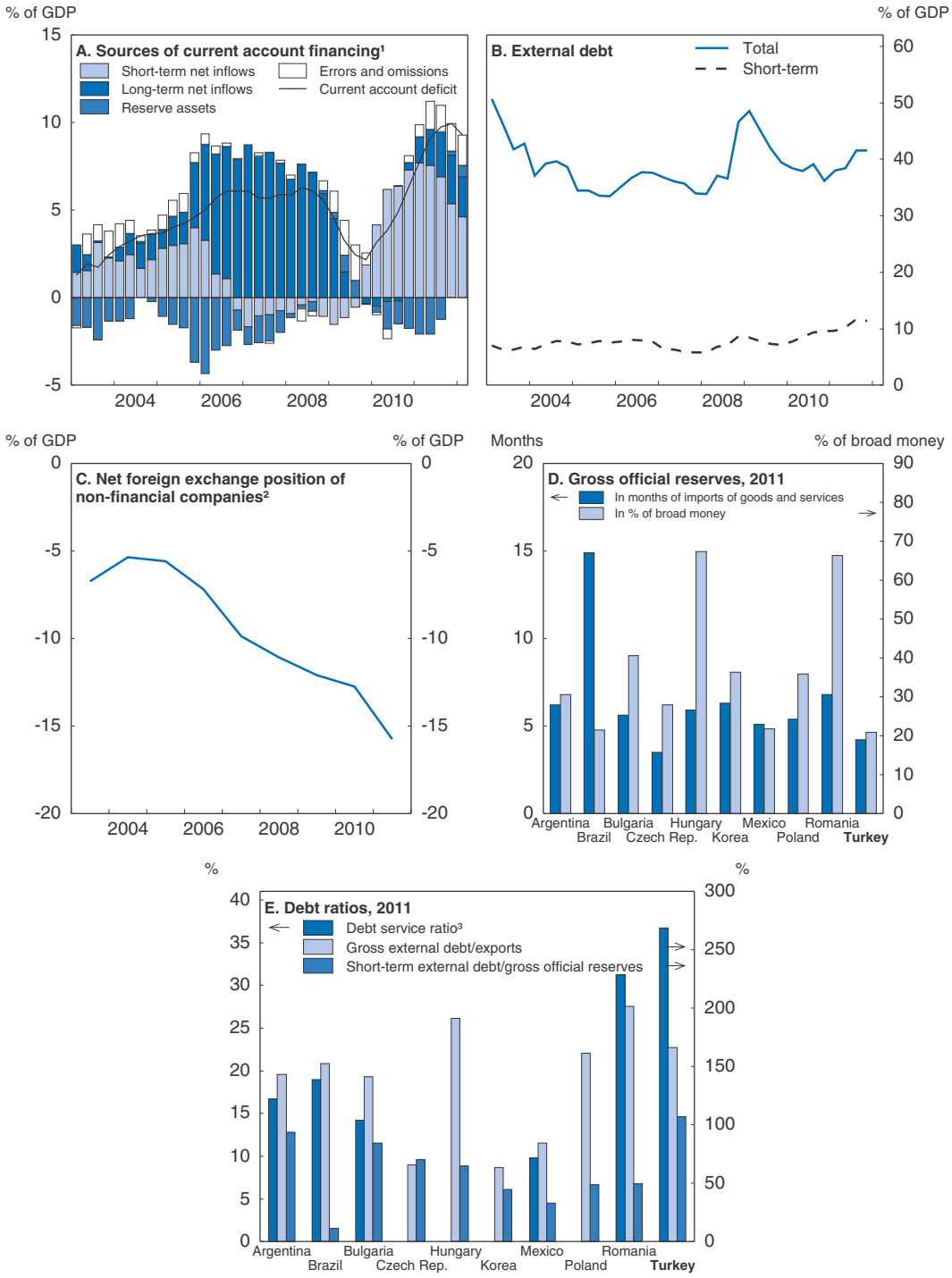
The financing structure of the current account weakened after the crisis

The sustainability of a country's current account deficit and its financial vulnerability are influenced by the composition of the inflows funding the external gap. Short-term loans and portfolio inflows are usually more prone to sudden reversal while long-term loans and foreign direct investment (FDI) inflows are regarded as more stable. Moreover, debt contracts require regular payments regardless of the borrowers' economic situation whereas equity and FDI inflows are largely state-contingent liabilities and are generally associated with technology and skill transfers.

Prior to the global crisis Turkey's growing current account deficit was largely financed by long-term loans and FDI inflows. However, FDI inflows were mainly directed towards non-tradable services sectors such as financial intermediation and transport, storage and communication, with limited potential to generate export revenues. The financing structure of Turkey's current account deficit changed dramatically after the crisis. Large short-term inflows from advanced economies, driven by the abundance of cheap money and carry-trade opportunities, have accounted for the bulk of inflows over the past two years (Figure 1.6A). In particular inflows into the government bond market and short-term loans, mainly channelled through the banking sector, increased sharply. Part of these inflows was absorbed through the build-up of reserve assets by the CBRT to contain currency appreciation. As concerns over the sovereign debt crisis in the euro area intensified and foreign banks started deleveraging in the second half of 2011, capital inflows slowed markedly. The resulting financing gap was partly closed by a drawing down of foreign assets by domestic banks and sales of foreign exchange reserves by the CBRT. Besides official flows, unrecorded exports and capital inflows captured in the balance of payments' net errors and omissions funded around one sixth of the current account gap in 2011.[3] However, over the course of 2011 and into 2012 the financing side of the current account showed signs of improvement and FDI inflows increased markedly, rising from US$ 9 billion in 2010 to US$ 15.9 billion in 2011.

As the financing structure of the current account worsened, the external debt trended upwards again after the crisis, mainly driven by short-term liabilities (Figure 1.6B). Research generally shows a positive relationship between external debt (and in particular

Figure 1.6. **The financing of the current account has worsened after the crisis**



1. Rolling 4-quarter sum as a percentage of moving average GDP. Short-term inflows refer to the sum of portfolio investment and short-term other investment net inflows. Long-term inflows refer to the sum of FDI and long-term other investment net inflows. GDP data for 2012Q1 is projected.
2. Difference between the foreign-currency-denominated assets and liabilities.
3. Total debt service payments in per cent of exports of goods and services. Data for 2010.

Source: IMF, International Financial Statistics; OECD, OECD Economic Outlook database; Undersecretariat of Treasury; Central Bank of the Republic of Turkey; World Bank, Global Development Finance and Quarterly External Debt Statistics/SDDS.

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short-term debt) and the probability of financial crisis.[4] These results are confirmed by recent OECD analysis looking at the relationship between the composition of external assets and liabilities and the likelihood of banking crisis and contagion risk (Ahrend and Goujard, 2011). This study finds that debt bias (the share of debt in total liabilities), short-term bank debt – mainly through increased contagion risk – and currency mismatch between external assets and liabilities are positively related to the risk of financial crisis. Compared to the situation prior to the crisis, Turkey's position with respect to all three indicators has deteriorated (Table 1.1). In addition, the currency mismatch measure might underestimate Turkey's true exposure to a sudden and sharp depreciation as foreign currency loans by domestic banks are not included. About 30% of total loans to the non-financial sector are denominated in foreign currency (CBRT, 2011). Taking these loans into account, the net foreign currency liability exposure of the non-financial corporate sector was about $120 billion (16% of GDP) in the fourth quarter of 2011 (Figure 1.6C), pointing to significant vulnerability to an exchange rate shock. Besides, the net foreign currency exposure of the public sector stands at about 6% of GDP, whereas the CBRT and the household sector hold long positions in foreign currency of about 7% and 8%, respectively. The financial sector's net exposure is close to zero (CBRT, 2011). Reserve assets reduce the probability of a financial crisis according to the OECD study, albeit with decreasing marginal effectiveness. Reserve assets increased somewhat after the crisis but official reserves are somewhat lower than peer economies' in terms of months of imports of goods and services and as a share of broad money and short-term debt (Figure 1.6D).

Table 1.1. **Indicators of external financing structure**

	2002Q4	2007Q4	2011Q4
Debt bias[1]	87.7%	51.8%	61.2%
Short-term debt[2]	10.1%	11.4%	15.3%
Currency mismatch[3]	–27.2%	–9.0%	–15.1%
Reserve assets as % of GDP	11.4%	10.4%	12.0%

1. Debt in % of total liabilities.
2. Short-term liabilities to BIS banks (consolidated) in % of total liabilities.
3. Difference between foreign currency denominated assets and liabilities as a share of GDP. All foreign assets are assumed to be denominated in foreign currency, whereas FDI and portfolio equity liabilities are assumed to be denominated in domestic currency.

Source: Central Bank of the Republic of Turkey; World Bank, IMF, BIS, OECD Joint External Debt Hub; Undersecretary of Treasury; OECD *Economic Outlook Database*.

How does the current account deficit compare to benchmarks?

An important question is to what extent Turkey's current account deficit is excessive. To explore this issue, one needs to establish benchmarks. Two standard ways of doing so are to look at the sustainability of the net external asset position or to estimate equations which relate the current account in the medium term to fundamental determinants of saving and investment. Results from both approaches are described below and details can be found in Röhn (2012).

External sustainability approach

The external sustainability approach rests on simple accounting, using balance of payments identities. The derived current account benchmark ensures that the net foreign asset position remains stable at some (arbitrary) level. A standard choice for this level is the

currently observed net foreign asset position. Besides the level, this approach only requires assumptions about real GDP growth and inflation. Calculations of this sort show that, assuming 5% real GDP growth and inflation (measured by the GDP deflator), similar to the assumptions in Turkey's 2012-14 Medium Term Programme, a stable net foreign asset position at the current level (2012Q1) of minus 49% of GDP is consistent with a current account deficit of 5.5% of GDP.[5]This is well below recently observed levels. Even if real GDP growth of 7% is assumed, the stabilising current account deficit would move only to 6.4% of GDP.

Alternatively, it might be more relevant to consider stabilising the gross external debt position as FDI and other equity liabilities are generally not considered to compromise sustainability. In this case it is necessary to adjust the current account for non-debt-creating flows. Under the baseline of 5% real GDP growth and inflation, stability of the gross external debt ratio at the latest observed level of 42% (2011Q4) of GDP is obtained with an adjusted current account deficit of 4.9% of GDP compared with an observed deficit of 6% in 2012Q1. Under the alternative assumption of 7% real GDP growth, the benchmark would be 5.6% of GDP.

Macroeconomic balance approach

Estimations relating the current account to fundamental determinants of saving and investment show that its deterioration after 2001 can be partly explained by higher net oil imports, strong credit growth and a worsening of the terms-of-trade and of the net asset position. Based on assumptions about medium-term values for all saving and investment determinants, estimates of current account norms range between 3% and 4% of GDP depending on the exact empirical specification.[6]This is broadly in line with previous findings for Turkey, which are in the range of 2.5%-5% of GDP (IMF, 2010, Bussière *et al.,* 2010, Medina *et al.,* 2010). The analysis, however, also shows that saving and investment determinants only explain a small part of the deterioration after 2001. The difference between the estimated and actual current account appears to partly reflect real exchange rate appreciation and hence competitiveness losses as well as differences in the cyclical position between Turkey and the rest of the world.

Policy options to reduce the current account deficit and inflation

Monetary policy

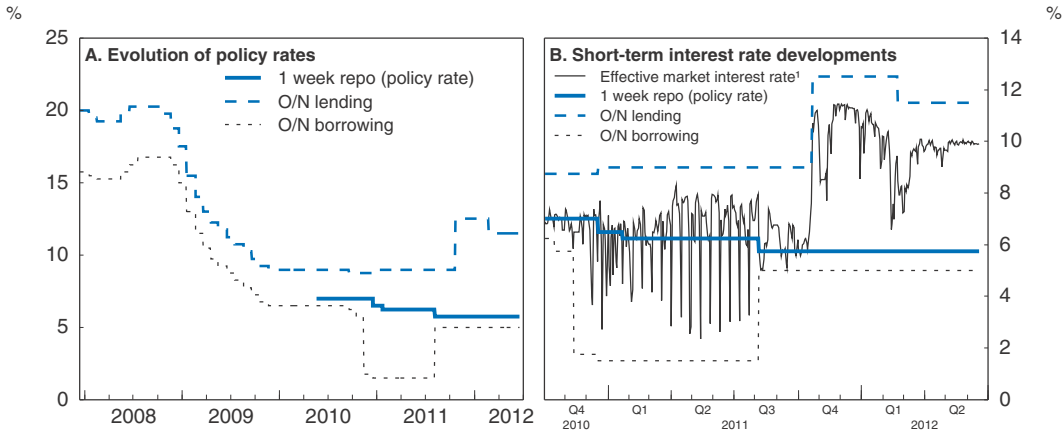
Like many other emerging economies with an open capital account, Turkey faces the complex task of taming inflationary pressures without attracting surges in short-term capital inflows. On the one hand, these inflows fuel domestic credit growth, thereby counteracting the intended monetary tightening. On the other hand, they push up the exchange rate, hampering competitiveness. Striking the right balance in the face of this "impossible trinity" – or "trilemma" – remains the key challenge for Turkey's monetary policy in the short to medium term.

Between the crises of 2001 and 2008-09, monetary policy developed gradually into a fully-fledged inflation targeting framework with the short-term interest rate as the main policy instrument (OECD, 2008). In order to reduce high inflation and improve credibility, the CBRT kept real interest rates high in international comparison. This brought down annual inflation from above 70% to below 10% between 2001 and 2005. However, high real interest rates, together with reforms to strengthen the resilience of the banking sector and structural reform progress in other areas, attracted strong capital inflows, fuelling real exchange rate

appreciation, despite a substantial build-up in foreign reserves. This approach therefore entailed competitiveness losses and a widening current account deficit. In effect, in dealing with the trilemma, Turkey moved towards higher monetary independence and capital openness at the expense of exchange rate stability (Cortuk and Singh, 2011).

In late 2010, Turkey's monetary policy shifted towards a more unorthodox mix, putting more weight on exchange rate developments, credit growth and rebalancing of demand. Faced with short-term capital inflows and accelerating credit, the CBRT first responded with sterilised foreign exchange purchases to stem nominal appreciation and then with hikes in unremunerated reserve requirements differentiated by maturity and currency denomination. The policy rate (the one-week repo rate, which became the policy rate in May 2010) was not raised but the interest rate corridor (difference between overnight (O/N) borrowing and lending rates) was widened by lowering the borrowing rate with the aim to increase interest rate volatility at the lower end so as to discourage short-term inflows (Figure 1.7). Credit decelerated more markedly after measures were taken by the banking regulator and supervisor (BRSA) in June 2011 (see below) and capital inflows abated due to heightened global financial turmoil. In August the policy stance shifted in the wake of a sharply depreciated nominal exchange rate and some evidence of a domestic slowdown. The policy rate was cut from 6.25% to 5.75%, the interest corridor narrowed, reserve requirements on foreign exchange deposits lowered and the CBRT engaged directly in foreign exchange sales, leading reserve assets to fall by about $7 billion between July and October. Faced with sharply rising inflation, which was partly due to pass-through effects from the nominal deprecation of the lira, the CBRT changed gear once again in October. The O/N lending rate was raised to 12.5% and the CBRT repeatedly provided less liquidity through the one-week repo facility, which caused the market rate to jump. This tighter monetary policy stance has been broadly maintained since then, despite a mostly technical cut of the O/N lending rate to 11.5% in late February 2012.

Figure 1.7. **A new monetary policy regime**



1. Overnight repo rate at the Istanbul Stock Exchange.
Source: Central Bank of Republic of Turkey.

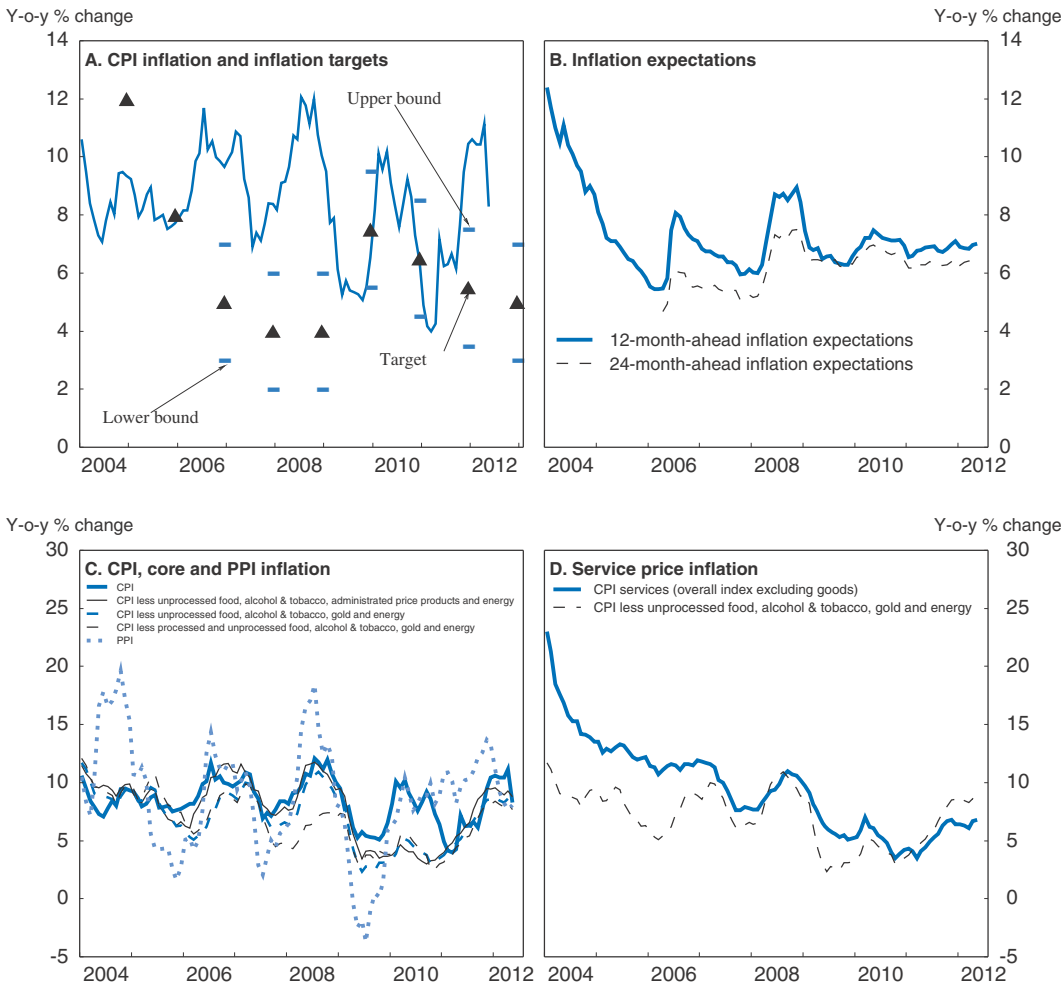
StatLink http://dx.doi.org/10.1787/888932659445

The unconventional monetary policy mix undertaken by the CBRT has to be seen against the backdrop of the constrained environment under which monetary policy is operating and of recent policy discussions about a broader set of monetary policy

objectives besides price stability (Blanchard *et al.*, 2010), including an exchange rate goal in the case of emerging economies (Ostry *et al.*, 2012). However, the early record of the new policy regime is mixed. On the positive side, it has contributed to the necessary depreciation of the Turkish lira, in particular between end-2010 and mid-2011, while helping to contain exchange rate volatility. This in turn has facilitated the ongoing rebalancing of growth from domestic to external demand.

However, the policy mix did not deliver low and stable inflation. After falling to a historic low of 3.99% in March 2011, consumer price inflation rose sharply and reached 10.4% in December 2011, far above the CBRT's (time-varying) 5.5±2% target, and remained in double-digit territory in early 2012 (Figure 1.8A). The CBRT estimates that tax hikes on tobacco products contributed 1.1 percentage points and unprocessed food prices added another 2 percentage points to end-year inflation, although part of the latter should be considered as a contribution to trend inflation. Sizeable adjustments in administered prices, mostly for energy, in October 2011, also fuelled inflation. Core inflation, however, also started to veer up in late 2010 and exceeded 8% by early 2012 (Figure 1.8C). The CBRT estimates that increased import prices (in foreign currency), notably for energy, and sharp

Figure 1.8. **Inflation dynamics**



Source: Central Bank of Republic of Turkey; OECD, OECD Economic Outlook database and Eurostat.

StatLink http://dx.doi.org/10.1787/888932659464

nominal depreciation have contributed a further 5 percentage points to the inflation surge in 2011. Spare capacity, at the same time, was rapidly diminishing and could not mitigate these pressures.

Inflation expectations also remain well above the target. After falling steadily between 2002 and 2005, inflation expectations became more volatile, partly due to repeated overshooting of inflation targets. Since 2010, 12- and 24-month-ahead inflation expectations have stabilised, but above the CBRT's inflation forecast and well above the mid-point of its inflation target (Figure 1.8B). The CBRT began to set point inflation targets in 2002 and then in 2006 it shifted towards a fully-fledged inflation targeting regime with a medium-term mid-point target and a ±2% uncertainty band. The inflation target, however, has been breached every year since 2006 except in 2009 and 2010, when the mid-point of the target was temporarily raised to 7.5 and 6.5% respectively from a previously constant 4%. This has likely contributed to pushing up inflation expectations.

Indeed, empirical analysis conducted for this *Survey* (see Annex 1.A2) suggests that inflation expectations are shaped by: *i)* past inflation; *ii)* the inflation target; *iii)* the exchange rate (through anticipated pass-through effects); *iv)* demand conditions; and *v)* risk perceptions, partly reflecting the fiscal position and stance. Over the entire 2003-12 sample period, the inflation target appears to have a stronger impact on expectations than past inflation. However, the anchoring power of the inflation target appears to have weakened lately. Overall this indicates that to avoid unpleasant feedback loops from inflation expectations to actual inflation, actual inflation needs to align more closely with the target.

Moreover, persistent inflation differentials with trading partners can erode competitiveness, as they might not be fully compensated by exchange rate depreciation. In any case, chronic depreciation can undermine confidence. Monetary policy's overarching goal should thus remain the reduction of the inflation rate towards its target and eventually towards the levels observed in its main trading partners. To this end, it might be advisable to lower inflation targets in the medium term. For the years 2012, 2013 and 2014 the mid-point of the inflation target has been set at 5%, well above other OECD countries, where it is usually around 1% to 3%. The CBRT (2009) argues that *inter alia* structural rigidities, the EU convergence process[7]and measurement problems in price indices related to rapid quality improvements[8] justify a higher target in Turkey. However, as structural rigidities and convergence effects decline over time and better measurement tools to appropriately capture quality improvements could be developed, a lower inflation target seems achievable in the medium term.

In addition, the complexity of the new regime has given rise to concerns that multiple goals may have reduced the transparency of monetary policy for market participants.[9] Therefore, stronger communication on the fundamental goals of the new regime and the link between instruments and goals appears advisable. Finally, increased market interest rate volatility, while having helped to deter short-term capital inflows, may be detrimental to investment and may complicate the formation of interest rate expectations which feed into inflation expectations.

Since October 2011 the CBRT appears to have put more weight again on the inflation target and responded to the surge in inflation with a considerable tightening of its monetary stance. Nevertheless, it continues to view the flexibility provided by the new monetary framework as appropriate given that heightened global uncertainty is likely to persist over the medium term and Turkey will continue to face capital flow cycles

challenging the conduct of monetary policy. Going forward the monetary authorities expect inflation to remain high until mid-2012 and then to gradually fall to about 6.5% by end-2012, within the target band but still above the target mid-point of 5% (CBRT, 2012b). The CBRT sees inflation further abating towards 5% by end-2013. The CBRT has indicated that it might induce further tightening if the inflation outlook worsens and will closely monitor inflation expectations (CBRT, 2012b). To this end it might be necessary to raise the one-week repo rate and to narrow the interest rate corridor by lifting the O/N borrowing rate, provided that domestic economic conditions do not worsen significantly. Once disinflation is on track, the remaining room for manoeuvre should be used to ensure that the real exchange rate stays on a sustainable path and does not depreciate or appreciate excessively. In the event of large capital inflows, sterilised interventions should be used to avoid excessive appreciation, thereby building up reserve assets – which are comparatively low – and helping to mitigate the trilemma trade-offs (Cortuk and Singh, 2011).

Box 1.3. **Monetary policy recommendations**

- Attaining the inflation target should be given more prominence to bring inflation expectations closer to the target, and, over time, reduce inflation differentials with trading partners.
- During capital inflow surges, appreciation pressures should be countered by sterilised intervention. This would appropriately increase foreign exchange reserves.
- Communication on the fundamental goals of the new regime and the link between instruments and goals should be strengthened. The success of the instruments in achieving these goals should be evaluated.
- Aim to move inflation targets closer to trading partners' in the medium term.

Financial market policy

Capital inflows have been mainly channelled through the banking sector in Turkey after the crisis, raising the risks of excessively rapid balance sheet expansion and credit growth. Leverage ratios have been increasing after the crisis, but remain low in international comparisons. Turkey has made remarkable progress in reforming its banking sector since 2001, with strong banking regulation and supervision in place. This progress should be consolidated and further enhanced and the authorities have been addressing these risks with both traditional micro-prudential and newly developed macro-prudential tools.

Both sets of tools should continue to be used to manage capital-inflow-driven credit growth cycles, necessitating close cooperation between monetary and financial market authorities to ensure that measures are employed in a coherent manner. The establishment in June 2011 of the Financial Stability Committee (FSC) – which comprises the CBRT, the BRSA, the Undersecretariat of Treasury, the Saving and Deposit Insurance Fund and the Capital Market Board – is a welcome step in this direction, given that the independence of participating institutions is not compromised. The main aim of the FSC is to detect and contain systemic risk in the financial sector.

The robustness of Turkish banks' balance sheets was well preserved during and after the global crisis. Yet, banks' short-term foreign exchange debt rose markedly and their

capital ratios declined. The maturity of banks' foreign obligations remains relatively long but declined from an average of 4 years at the end of 2007 to 3.5 years at the end of 2011. Non-financial firms also accumulated sizeable additional foreign currency exposure (see above). In an interim assessment, the ongoing Financial Sector Assessment Programme (FSAP) review of Turkey suggests that banks' capital buffers are sufficient to absorb a short-lived macroeconomic shock, but that strains would be much greater if the shock were protracted (IMF, 2012).

According to the Turkish authorities, however, the sector remains well capitalised and resilient to all reasonable shock scenarios. They nonetheless started to act to increase capital adequacy ratios by limiting dividend pay-outs, and are phasing in new capital charges for maturity mismatches (applicable from July 2012). New regulations on credit risk management are also being prepared and the authorities re-confirmed their intentions to comply with Basel II guidelines in the course of 2012. Work has also started to converge with Basel III.

In June 2011 the BRSA imposed loan-to-value ceilings on housing, commercial and real-estate loans, rescinded the crisis-era easing of prudential standards on loan restructuring and provisioning (after the one-year extension decided in early 2010), and raised further provisioning requirements and risk weights on loans, together with tighter conditions for the use of credit cards. These measures helped bring credit growth back to more sustainable levels and below the 20 to 25% target. Going forward, monitoring of credit quality risk remains key. Further extensions of credit instruments, in particular those targeted at low-income groups, should be monitored closely.[10]

Micro- and macro-prudential policies may have limitations when surges in capital inflows are channelled through the non-financial corporate sector. In this case temporary and targeted capital controls, provided they are in line with the provisions of the *OECD Code of Liberalisation of Capital Movements*, could be considered as an option. While their effectiveness to influence the level of inflows is controversial, well-targeted capital controls can affect the composition of flows towards longer-term maturities or towards "safer" inflows such as FDI and equity inflows (OECD, 2012b and below). Direct capital controls have not been favoured by the authorities to date. In fact, they would conflict with the long-term goal of promoting Istanbul as an international financial centre.

Box 1.4. **Financial policy recommendations**

- As planned, comply fully with Basel II banking supervision guidelines and converge in due course with Basel III guidelines.
- Continue to evaluate countercyclical financial policy measures which have the strongest leverage on aggregate demand, and focus on those.
- Closely monitor the cross-border funding of the non-financial corporate sector and, if and when capital inflows attain a pace incompatible with financial stability, as a last resort consider introducing temporary and targeted capital controls, provided they are in line with the provisions of the *OECD Code of Liberalisation of Capital Movements*.
- Continue to administer regular banking stress tests, taking into account the full set of conceivable global and domestic shocks, including extreme scenarios of international turbulences and sudden stops.

Fiscal policy

The general government balance increased markedly between 2002 and 2006. After the counter-cyclical fiscal stimulus provided during the 2008/09 financial crisis, headline deficits shrank from 6% of GDP in 2009 to 2.1% in 2011, according to the latest Pre-accession Economic Programme estimate submitted to the European Commission, which approximates international standards (Government of Turkey, 2012), or 1% of GDP according to the Medium-Term Programme (MTP), which includes privatisation and one-off revenues (Table 2). The outturn in 2011 was better than in the authorities' MTP, thanks to stronger-than-expected GDP growth and one-off factors. The improvement mainly stemmed from reduced interest payments, strong increases in VAT income, tax hikes on certain imported goods, as well as one-off revenues related to a comprehensive tax amnesty programme. While general government spending decreased as a share of GDP, primary expenditures remained about 3 percentage points of GDP above pre-crisis levels, mainly reflecting higher appropriations for personnel, transfers to social security institutions and capital expenditures. The IMF recently estimated a structural deficit accounting *inter alia* for transient revenues due to cyclical import growth as well as one-offs related to exceptional bank profits and the tax amnesty (IMF, 2012). The results suggest that the primary structural balance deteriorated since the mid-2000s and stood at -1% of GDP in 2011. However, given a low public debt ratio, fiscal sustainability is not jeopardised at current levels of the structural primary balance.

Table 1.2. **General government balances**

Authorities' estimates, in % of GDP

		General government balance		Primary general government balance	
	Output gap[1]	Actual	Structural[2]	Actual	Structural[2]
1999	–1.6	–10.0	–9.6	1.3	1.5
2000	1.5	–9.9	–10.3	3.2	2.9
2001	–7.8	–12.6	–9.5	4.9	6.7
2002	–5.9	–11.8	–9.2	3.5	5.2
2003	–5.0	–8.4	–6.7	4.9	5.9
2004	–0.6	–4.4	–4.5	5.9	5.8
2005	3.0	–0.8	–1.8	6.4	5.6
2006	5.4	–0.4	–2.0	5.8	4.5
2007	5.6	–1.7	–3.5	4.2	2.7
2008	1.8	–2.5	–3.0	2.9	2.5
2009	–7.2	–6.0	–3.6	–0.3	1.7
2010	–3.1	–3.3	–2.3	1.2	2.1
2011	–0.3	–2.1	–2.0	1.4	1.4
2012	–0.8	–2.0	–1.8	1.7	1.9
2013	–0.2	–1.7	–1.6	1.8	1.9
2014	0.4	–1.1	–1.2	2.2	2.1

1. Percentage difference from potential GDP as estimated by the Ministry of Development.
2. As a ratio of potential GDP.

Source: Government of Turkey (2012).

The present fiscal stance is broadly appropriate and should remain tight. Given the trilemma faced by monetary policy, fiscal policy may need to play a more active countercyclical role and additional discretionary tightening may be required. In particular, in cyclical upturns such a tighter stance would restrain domestic demand and hence

inflationary pressures and allow the CBRT to keep the interest rate lower than otherwise, thereby containing interest-rate-elastic capital inflows. This would also allow building up sufficient buffers to counteract a possible capital flow reversal and provide a further impetus to domestic saving.[11] A particular focus should be on expenditure restraint, and a multi-year spending ceiling could help preserve a tight fiscal stance in case of revenue surprises.

The power of fiscal action should, however, not be exaggerated. The general government sector is relatively small and so are fiscal multipliers (general government primary expenditures are about 33% of GDP (OECD, 2010)). Fiscal restraint can therefore only partly compensate for private sector exuberance, especially during periods of strong capital inflows. In addition, over the longer run spending needs remain large in areas such as education, social services and physical infrastructure and room needs to be created for such additional spending through savings in existing expenditures (OECD, 2008). The ongoing shift to performance-based budgeting should help identify and exploit latent efficiency gains. At the same time, tax collection is improving and extra revenues can be expected if further progress is made in the formalisation of the economy and these revenues should be saved. Hence fiscal prudence is in order, lest the authorities find themselves forced to pro-cyclically tighten the fiscal stance in a possible cyclical downturn.

In this context, it is crucial to preserve a prudent fiscal stance which takes into account the full range of cyclical budget items. The new methodological approach suggested by the IMF is an interesting step in that direction. While the authorities have reservations regarding some aspects of this methodology and note that there is no agreement in the literature on how to calculate the structural fiscal balance and transient revenues (IMF, 2012), there is no alternative, comprehensive, official Turkish estimate of the cyclical component of fiscal balances. In addition to monitoring general government accounts according to international standards, progress in this area would require further technical investigations. A *Fiscal Policy Report* (similar to the central bank's *Inflation Report*) encompassing all quasi-fiscal institutions and containing a full set of cyclical adjustments could be published to improve fiscal transparency. In a subsequent step, although the Medium-Term Programme provides an anchor for fiscal policy, the introduction of a permanent fiscal rule could be considered, drawing on earlier government efforts to develop a quantitative fiscal rule permitting the operation of automatic stabilisers (see OECD, 2010). An independent Fiscal Council, along the lines of those existing in a number of OECD countries, could be established to carry out these tasks.

In this context, Turkey's enduring shortcomings in fiscal transparency according to international standards should be remedied. Fiscal accounts at the general government level are not yet timely (OECD, 2010). Although welcome progress has been made on the major components of these accounts, notably through direct data reporting by local governments and social security institutions to the central government, standard general government accounts become available only with very long lags and are not yet fully compliant with international standards (OECD, 2010). Different general government accounting methodologies continue to be used across economic agencies. The financial balances and debt of a range of quasi-fiscal institutions are also not yet part of a systematic monitoring and reporting system. The prospective financial costs of the expanding social security system also call for close scrutiny, against alternative scenarios of growth, employment, revenue collection and pension and health spending. Such scrutiny is particularly important as the ongoing demographic window will close in about a decade, and the old-age dependency ratio will start to increase rapidly, entailing growing ageing costs.

Box 1.5. **Fiscal policy recommendations**

- The present fiscal stance is broadly appropriate and it should remain tight, not least to preserve room for action were the world economy to weaken. If warranted, stand ready to tighten the fiscal stance more.
- Long-term financial balances of the social security system should be investigated with the help of alternative scenarios of growth, employment, revenue collection, and pension and health spending.
- Improve fiscal data at general government level, on a unified accounting basis according to international standards. Publish these accounts at quarterly frequency.
- Adopt a general government spending ceiling within a longer-term fiscal framework. This would help avoid pro-cyclical loosening in case of positive revenue surprises.
- Publish a regular *Fiscal Policy Report* (similar in format to the central bank's *Inflation Report*) encompassing all major quasi-fiscal institutions and containing a full set of cyclical adjustments.
- An independent fiscal council could be established, in line with OECD best practices. It could monitor fiscal performance, participate in the design of a fiscal framework, develop alternative methodologies for estimating the cyclical sensitivity of revenues and publish the *Fiscal Policy Report*.

Policies to increase household saving and to channel them into productive uses

While the single most important reform area to increase household saving is to increase labour force participation and employment in the formal sector (Chapter 2), other policies can help increase the level of savings or channel existing savings into the financial system and hence allocate them to productive investment.

Awareness of the need to save for the future appears low in Turkey and most savings are either held outside of the financial system in low-yielding investments (gold, jewellery, "under the mattress"), in real estate, including secondary residences, or in a limited variety of financial products (deposits, government securities) (World Bank, 2012). Informality is likely to be one of the key reasons for holding savings outside the financial sector. Thus, reducing informality would also contribute to an increased channelling of household (and corporate) savings through the well-developed banking sector, as demand for informal, unregistered and anonymous assets would be reduced. But raising awareness of the benefits of saving and improving financial literacy can also have important benefits (van Rooij *et al.*, 2012). In this context, the CBRT has recently progressively raised the share of gold that may be held to meet Turkish Lira reserve requirements from 10% to 25%, providing additional incentives for banks to channel household gold savings into the financial sector.

In addition, remaining tax distortions between different investment vehicles should be eliminated. Until recently investment in mutual funds and exchange traded funds was subject to a withholding tax whereas investment in individual stocks is tax free. This created disincentives both for suppliers of funds to increase product variety and for investors with insufficient knowledge to invest in individual stocks to participate in the stock market through mutual or exchange traded funds. In May 2012, a government decree was passed which exempts mutual funds with an equity share above 75% from the withholding tax.

A voluntary private pension saving scheme was established in 2003 and has grown rapidly since, but it is still small as a share of GDP compared to other OECD countries. It is characterised by a relatively high rate of early withdrawals, high operational costs (probably due to still insufficient economies of scale), and portfolios highly skewed towards government bonds. Until recently a tax credit was granted, but in June 2012 the government legislated that this tax incentive will be replaced by a direct government contribution to the pension scheme of 25%, capped the annual gross minimum wage. Since this incentive is independent from declared household income, the new system has a higher coverage and the authorities expect a considerable boost to household saving. Saving could also be raised through other tax-preferred mandatory or voluntary private saving schemes unrelated to pensions such as education-savings accounts and life insurance contracts. OECD research (OECD, 2007) shows that tax-preferred saving accounts can create additional saving but the efficiency of the system crucially depends on the participation of middle-income households. The potential to generate additional saving should in both cases be weighed against fiscal costs. Moreover, retirement benefit reform can boost private saving (Attanasio and Brugiavini, 2003). In Turkey early retirement benefits should be made more actuarially neutral and health insurance contributions for early retirees could be introduced (OECD, 2012a). However this effect is likely to be temporary as in the long run, the additional amount saved during the working period should at least partly be offset by lower saving in retirement (Kerdrain *et al.*, 2010).

In this context, it would be useful to publish household accounts as part of the National Accounts on a timely basis and in line with international accounting standards. This would increase transparency, facilitate a better monitoring of household saving behaviour and help analyse the success of particular reform efforts.

Policies to improve the financing of the current account and decrease financial vulnerability

Recent OECD work (OECD, 2012b) investigated how structural policies can improve the financing structure of the current account and thereby reduce the risk of financial crisis. Findings relevant for Turkey suggest that:

- Restrictive regulations on FDI and more generally strict product market regulations increase financial vulnerability through a bias towards external debt. A previous *Economic Survey* (OECD, 2008) and recent OECD research (Kalinova *et al.*, 2010) show that Turkey has made considerable progress in reducing formal restrictions on FDI inflows. According to the OECD FDI restrictiveness indicator, Turkey's legislation is less restrictive than the OECD average and much less so compared to non-OECD countries. Some room for improvement exists in reducing foreign equity limits, and restricted sectors include transport, media, business services and in particular the real estate sector. A larger effect on FDI inflows is likely to result if the overall business environment and product market regulations are improved. Moreover, reforms that strengthen the competitiveness of the tradable sector are likely to attract more FDI inflows into this sector thereby generating export revenues or reducing import bills.
- Tax systems that favour debt over equity finance bias corporate financing towards debt, including external debt through higher tax deductibility of interest payments compared to dividends or capital gains. High corporate income tax (CIT) rates could also discourage FDI inflows. In Turkey, the CIT rate has been lowered from 30% to 20% in 2006 and is below the OECD average. A further shift away from CIT towards indirect taxes, while generally also

associated with growth-enhancing effects (Arnold, 2008), appears difficult in Turkey's current circumstances, given the already heavy bias of tax revenues towards indirect taxes.

- While there is some evidence that stricter domestic banking supervision increases borrowing from foreign banks including short-term borrowing by taking advantage of regulatory arbitrage, overall stricter financial oversight is found to reduce investor-sentiment driven capital flow reversals. In addition, a less leveraged banking sector and lower credit/deposit ratios would reduce the risk of contagion-driven crises. More transparent financial markets are less affected by capital outflows in response to investor-sentiment driven capital flow reversals. Turkey scores well compared to other OECD and emerging countries in all of these indicators. However, capital adequacy ratios have been trending down and credit-to-deposit ratios increased after the crisis. These developments need to be monitored closely and the recent measures to increase capital adequacy ratios are welcome.
- While there is only weak evidence that capital controls can influence the level of inflows, strong evidence exists that differentiated capital controls can influence the structure of external liabilities. In particular, the OECD study finds that introducing restrictions on inflows from credit operations while removing them from FDI and equity inflows may reduce external bank debt by as much as 20 percentage points as a share of GDP. Such an approach would also likely improve the currency mismatch in the liabilities position as debt liabilities are often denominated in foreign currency in emerging markets while FDI and equity liabilities are denominated in domestic currency. Capital controls on credit operations may come at the price of distorting competition between domestic and foreign banks and thus macro-prudential measures might be preferable. The effectiveness of capital controls versus macro-prudential measures is likely to depend on whether capital inflows are driven by domestic (pull) factors or external (push) factors. Macro-prudential measures are likely to be more effective in the case of pull factors. While the Turkish authorities are committed to an open capital account, temporary and transparent capital controls, provided they are in line with the provisions of the *OECD Code of Liberalisation of Capital Movements*, might be worth considering in the event that a surge in short-term capital inflows threatens financial stability and if other policy instruments have been fully exhausted.

Box 1.6. **Structural policy recommendations**

- Raise awareness of the benefits of saving for retirement and step up initiatives to increase financial literacy. Reduce further tax distortions between different saving vehicles and consider the introduction of other tax-preferred saving accounts.
- Publish household accounts as part of the National Accounts on a timely basis and in line with international accounting standards and monitor and analyse the saving behaviour of different income groups.
- Strengthen incentives for FDI investment, in particular in the tradable sector, mainly through further improvements in external competitiveness and the business environment.

Conclusions

Turkey's growth performance over the past decade has been strong. However, it has increasingly drawn on foreign saving on the back of competitiveness losses, so that convergence to high-income countries may be interrupted by a slowdown in capital inflows. At the same time, inflation, while falling substantially in the early 2000s, has frequently overshot targets since 2006. Putting the growth process on a more balanced and sustainable path requires concerted economic policies. Monetary policy needs to strike a balance between steering inflation down without exacerbating short-term capital inflows. Fiscal and financial policies need to back monetary policy more resolutely when the economy shows signs of overheating. Structural reforms supporting macroeconomic policies are indispensable to durably improve competitiveness and private saving and can help bring down inflation (Chapter 2). In addition, policy efforts are required to channel existing savings into more productive uses and improve the financing structure of the current account.

Notes

1. According to CBRT estimates, each $10 increase in the oil price increases the current account deficit by 0.5% of GDP.
2. However, there are some concerns about a real estate investment boom in the Istanbul area.
3. Theses flows are usually attributed to "under-the-mattress" savings, unofficial exports mainly to neighbouring economies, unrecorded tourism income and capital inflows related to the restructuring of public receivables (JP Morgan, 2011) or to political instability in the MENA region.
4. See *e.g.* Radelet and Sachs (1998), Rodrik and Velasco (1999) and Rogoff (1999, 2011). Moreover Blanchard, Das and Faruquee (2010) show a positive correlation between short-term debt and output losses in emerging markets during the crisis.
5. All calculations in this section assume a contribution of net errors and omissions to the financing of the current account deficit of 1% of GDP, consistent with historical averages.
6. The notion of a current account norm is somewhat misleading as some determinants entering the estimations are "undesirable" fundamentals such as the oil import bill and the fiscal deficit. Thus, all else equal, a more energy inefficient economy or spendthrift government would imply a lower norm for the current account balance. Norm estimates therefore rather summarise average current account tendencies given reasonable assumptions about medium-term developments of the fundamentals.
7. Inflation differentials *vis-à-vis* the EU cannot be explained by faster productivity catch-up in the tradable relative to the non-tradable sector in Turkey as would be suggested by the Balassa-Samuelson hypothesis (Lopcu *et al.*, 2012). However, the harmonisation of regulations with the EU does foster price level convergence.
8. Arslan and Ceritoglu (2011) estimate that over 2003-09 about 2.3 percentage points of measured annual consumer price inflation actually correspond to quality improvements.
9. In a March 2012 Survey of domestic and foreign investors, 30% said that the predictability of the CBRT's actions had diminished recently, while 24% found that it had increased and 46% that it had not changed; 46% felt that the CBRT was sufficiently focused on its inflation objective, whereas 48% said this was not the case; and 50% said that CBRT actions would be sufficient to deliver price stability, against 32% who disagreed (Bloomberg HT, 2012).
10. Research suggests that periods of strong credit growth are associated with a higher probability of financial crisis (OECD, 2012b, Kaminsky and Reinhart, 1999, Schularick and Taylor, 2012) especially if they involve a loosening of credit standards to risky clients (Mendoza and Terrones, 2008).
11. Ricardian equivalence, which suggests that changes in public saving will be offset by changes in private saving, does not seem to hold for Turkey (Akbostanci and Tunc, 2001, World Bank, 2012), in line with research for other OECD countries (*e.g.* Röhn, 2010).

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ANNEX 1.A1

The real exchange rate and the current account

Real exchange rate changes affect the current account mainly through the trade balance. Theoretically, however, the effect on the trade balance is ambiguous. For instance, a real exchange rate depreciation will improve the export value through either increased export volumes or higher export prices (denominated in the home currency) or a combination of both. On the other hand import volumes will generally fall after a depreciation but import prices (denominated in domestic currency) will rise and the effect on the import value is ambiguous. More generally the effect of a real exchange rate change on the trade balance depends on *i)* the price elasticities of export and import volumes; *ii)* the pass-through from the nominal exchange rate and from domestic and foreign prices to import and export prices; and *iii)* the initial position of the trade balance. The overall effect is thus an empirical question.

Table 1.A1.1. **Trade elasticities for Turkey**

Study	Time period	Variables	Elasticities	
			Short-term	Long-term
		Exports		
Aydin *et al.* (2004)	1987q1 – 2003q4	Turkish real GDP	0.4	1.9
		Export price	–0.5	–1.1
		Unit labour costs	–0.2	–0.2
Sarikaya (2004)	1989q1 – 2003q3	Turkish real GDP	1.3	1.4
		Real exchange rate (CPI)	–0.7	0.6
		Real wages	0.4	–0.8
Aydin *et al.* (2007)	1987q1 – 2006q4	OECD real GDP	1.32-1.45	
		Real exchange rate (CPI)	–0.35 - –0.09	
		Real exchange rate (ULC)	–0.26 - –0.18	
Aydin and Eren (2011)	1997q1 – 2011q2	Global economic activity index	4.7	
		Real exchange rate (ULC)	–0.27	
		Imports		
Aydin *et al.* (2004)	1987q1 – 2003q4	Real GDP	1.2	1.99
		Real exchange rate (CPI)	0.5	0.4

Source: Central Bank of Republic of Turkey.

Empirical studies for Turkey show that export and import volumes are elastic to real exchange rate changes. A real depreciation improves export volumes and reduces import

volumes. However, the range of estimated export elasticities is relatively wide (Table 1.A1.1). Moreover, the price elasticity of imports varies according to the type of good, with consumption goods typically having the largest elasticity and intermediate goods the lowest (according to unpublished Treasury estimates). To gauge the overall impact on the trade balance it is necessary to estimate price equations as well. To this end a Turkish trade model, which consists of four equations for the price and volume of exports and imports as described in the previous *Economic Survey* (OECD, 2010), has been updated and re-estimated. One special feature of this model is that it is augmented with a relative productivity term, following Sato (1977) and Gagnon (2007). This variable aims at capturing non-price competitiveness and other factors explaining international trade such as taste for variety, product differentiation and economies of scale. The intuition is that fast-growing countries are likely to raise the quality of their products and to encourage innovation, improving *ceteris paribus* their trade balances. The trade equations are estimated as an error correction model and the long-run relations are given below (standard errors in brackets):

	adj. R^2	sample	
$mgsv = 42.17 + 2.57^{*}gdpv - 0.53^{*}rpm - 1.68^{*}rpc$ (0.18) (0.21) (0.45)	0.80	1993-2011	(1)
$xgsv = 0.13 + 1.00^{*}xmkt - 0.74^{*}rpx + 0.37^{*}rpc$ (0.17) (0.13)	0.61	2001-11	(2)
$(pmgs - pgdp) = 1.23 - 0.65^{*}(pgdp - pmsh) \rightarrow pmgs = 1.23 + 0.35^{*}pgdp + 0.65^{*}pmsh$ (0.15)	0.68	1990-2011	(3)
$(pxgs - pgdp) = 0.99 - 0.55^{*}(pgdp - pxc) \rightarrow pxgs = 0.99 + 0.45^{*}pgdp + 0.55^{*}pxc$ (0.06)	0.81	1990-2011	(4)

where *mgsv* and *xgsv* are import and export volumes (goods and services), *gdpv* is Turkish real GDP, *rpc* is relative productivity defined as average labour productivity divided by the weighted average of Turkey's main trade partners", *xmkt* is weighted export demand, *pmsh* is the weighted export price of Turkey's trade partners (denominated in Turkish lira), *pxc* is the weighted export price of Turkey's main competitors in foreign markets (denominated in Turkish lira), *pgdp*, *pmgs* and *pxgs* are Turkey's GDP, import and export deflators respectively, *rpm* is the relative import price (*pmgs – pgdp*), and *rpx* is the relative export price (*pxgs – pxc*). Small letters denote variables in logarithms. The estimated elasticities of the volume equations are broadly in line with previous studies but the export price elasticity is at the upper end of the range. The price equations suggest that import and export prices are mainly determined by foreign prices.

The trade balance is given by:

$$TB_t = PXGS_t{}^{*}XGSV_t - PMGS_t{}^{*}MGSV_t \quad (5)$$

Using equations (1)-(4), it is possible to calculate the elasticity of the trade balance to a change in the nominal exchange rate or domestic price level. The overall elasticity depends on the respective shares of exports and imports in GDP. Using current shares and taking the estimates at face value, a 1% depreciation of the nominal exchange rate (or equivalently a 1% reduction in the GDP deflator) would *ceteris paribus* reduce the trade deficit as a share of GDP by 1.4% in the long run.

ANNEX 1.A2

Empirical analysis of inflation expectations in Turkey

To better understand the formation and evolution of inflation expectations in Turkey, a reduced-form inflation expectations equation similar to the one presented in Baskaya *et al.* (2008, 2010), Bevilaqua *et al.* (2007) and CBRT (2012, Box 7.2) was estimated:

$$\pi^{e}_{t+12} = \beta_0 + \beta_1\, \pi_{t-1} + \beta_2\, \pi^{T}_{t+12} + \beta_3\, er_{t-1} + \beta_4\, ip_{t-2} + \beta_5 embi_{t-1} + \beta_6\, oil_{t-1} + \epsilon_t \quad (1.A2.1)$$

The lag structure of the right-hand side variables is chosen to reflect the latest available information to survey respondents. π^{e}_{t+12} is the 12-month ahead CPI inflation expectation (from the Central Bank of the Republic of Turkey (CBRT) survey),[1] π_{t-1} the past month's annual CPI inflation rate to proxy for backward-looking behaviour[2] and π^{T}_{t+12} the 12-month ahead (time-varying) inflation target rate. Monthly inflation targets are constructed by interpolating official end-year inflation targets. Anticipated pass-through effects are captured by annual nominal changes of an exchange rate basket (equally weighted US dollar and euro), *er*, with a positive value indicating depreciation. Demand pressures are proxied by deviations of the seasonally-adjusted industrial production index, *ip*, from its trend (calculated using a Hodrick-Prescott filter). The potential influence of risk perceptions on inflation expectations is taken into account by adding a composite risk indicator "EMBI+ Turkey",*embi*, partly reflecting the fiscal position and stance. Finally, as Turkey imports a large share of the energy it uses, oil prices potentially affect inflation expectations and this is reflected by the inclusion of year-on-year changes of (North Sea crude) oil prices in US dollar, *oil*. Results from various unit root tests, while partly mixed, generally suggest the presence of a unit root in the time series of *embi* and hence the first difference of this variable is used in the regressions.

The fit of the model is good as indicated by the high adjusted R^2 (Table 1.A2.1). All coefficients have the expected sign, although the oil price coefficient is statistically insignificant. The inflation target appears to play a greater role than past inflation in the formation of inflation expectations – a result that is robust to a range of different combinations of the right-hand-side variables. Moreover, demand conditions, anticipated pass-through effects and risk perceptions also appear to influence inflation expectations. The coefficient of the latter implies that an increase in the EMBI by 100 basis points leads to a rise in inflation expectation by 0.2 percentage points.

To analyse whether the weight of the determinants of inflation expectations has changed over time, rolling regressions with a 36-months window are conducted (Figure 1.A2.1). The results suggest that the role of past inflation remained relatively stable since 2009 with some weakening in the recent past. The jump of the coefficient at the end

Table 1.A2.1. **Inflation expectations estimation results**

OLS estimates

Variable	Coefficient
Constant	0.122
	(0.807)
Past inflation	0.311
	(15.226)***
Inflation target	0.726
	(20.755)***
Exchange rate	0.028
	(5.097)***
Industrial production	0.093
	(5.156)***
EMBI+ Turkey	0.002
	(1.864)*
Oil price	0.002
	(0.708)
Adjusted R^2	0.98
Number of observations	112
Time period	1/2003 – 4/2012

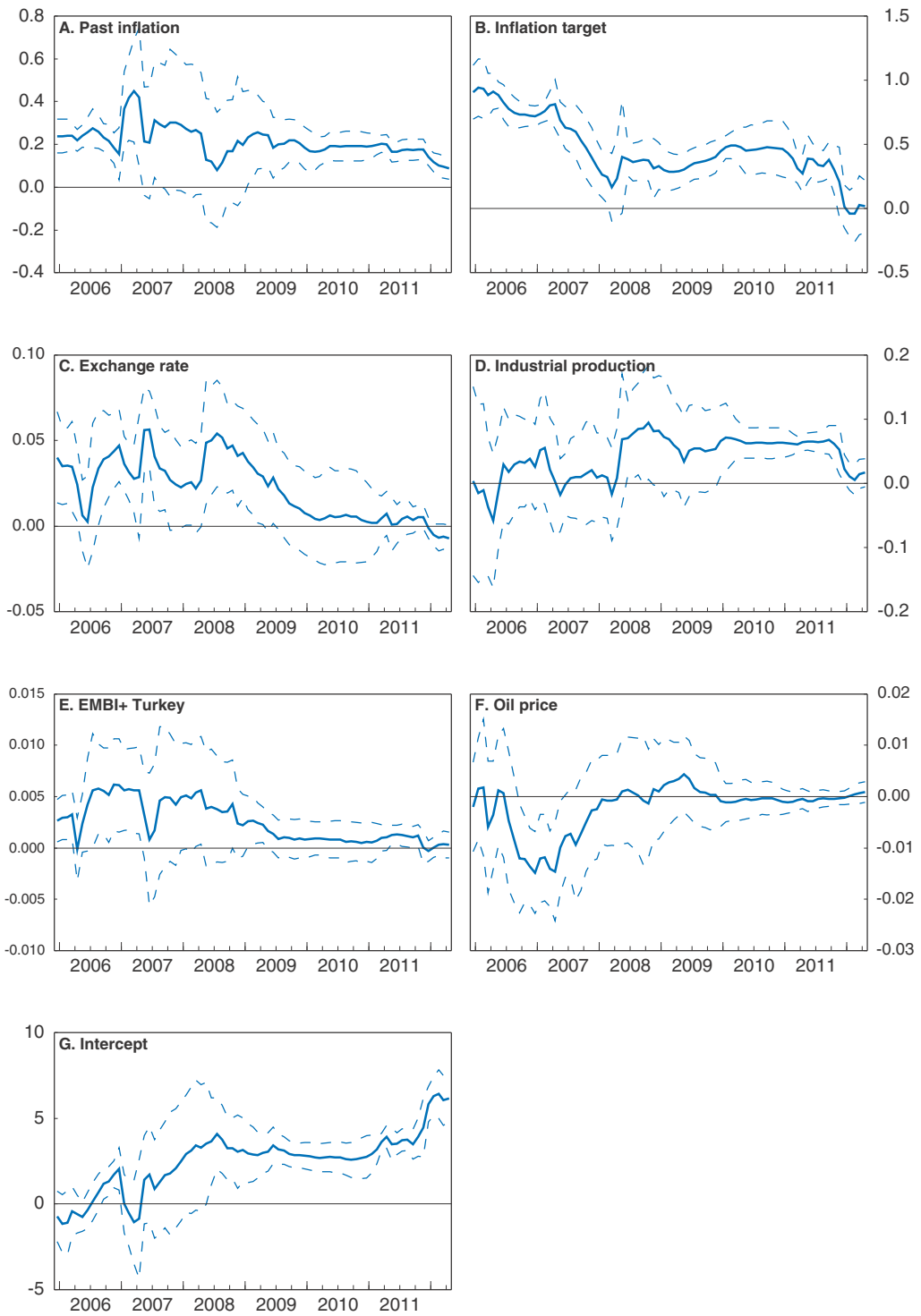
Note: The dependent variable is the survey-based 12-months-ahead CPI inflation expectation. T statistics are in parentheses. Newey-West robust standard errors are used. *, ** and *** indicate significance at the 10%, 5% and 1% level, respectively.
Source: OECD estimates.

of 2006 could reflect the fact that at this time inflation overshot the target for the first time since the adoption of an (implicit) inflation targeting regime (see main text). This is consistent with the finding that the weight of the inflation target started to decline around the same time. The coefficients of the exchange rate and risk perceptions have fallen since 2008, while that of industrial production has increased, although some weakening occurred very recently. The only coefficient that has substantially gained weight over time is the intercept, which suggests that inflation expectations remained stable in the recent past, but at a level above the official inflation target.

Using a panel data set with individual survey participants' expectations over time instead of average expectations as employed in the analysis above, Baskaya *et al.* (2012) are able to exploit greater variation of the dependent variable. They find a gradual fall of the weight of past inflation since 2010. This could be due to the high volatility of actual inflation or, as stressed by the authors, could signal improved effectiveness of central bank communication at convincing survey participants of the temporary nature of inflation surges. In addition, they find that the CBRT inflation forecast (for 12-month-ahead expectations) and the inflation target (for 24-month-ahead expectations) continue to serve as an anchor for inflation expectations.

Figure 1.A2.1. **Changing impacts on inflation expectations**

Coefficient estimates and 95% confidence intervals from rolling regressions[1]



1. Using a 36-month rolling window running to the date marked on the x-axis.

Source: OECD estimates.

StatLink http://dx.doi.org/10.1787/888932659483

Notes

1. The use of market-based inflation expectations as the dependent variable resulted in partly counter-intuitive results, which may be due to the short time span of the series (available only since September 2009).
2. Results using core inflation instead of headline inflation were broadly similar but led to a reduction in the fit of the regressions. Therefore the results are not reported.

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Chapter 2

Structural reforms to boost long-term growth

Turkey has the potential to achieve strong sustainable growth and job creation but further reforms in the labour market, education and product markets are required for such gains to materialise. In recent years, growth has been largely driven by the industrial catch-up of Anatolian regions, although the Marmara area in the West has also been very dynamic. At the same time, export diversification towards the Middle East and Africa has helped support the expansion. In the process, labour force participation has started to rise anew, but around one third of new low-skilled jobs have been created in the informal sector, in firms exposed to competition from less-advanced emerging economies. Sustaining vigorous growth over the longer run therefore requires pushing ahead with a number of structural reforms that are conducive to higher productivity within each sector and ensure resources are allocated in areas where they are most productive. First, Turkey's rigid labour market regulation needs to evolve, so as to encourage job creation in the formal sector. Second, further progress with education reform, from pre-school all the way to the tertiary level and vocational training, is needed to boost growth and bring about employment gains in the formal sector. Third, implementing product market reforms, notably in network industries, would unleash productivity gains in those sectors and be a boost to the rest of the economy. A set of alternative growth scenarios through 2030 illustrates how progress on these various fronts can lift productivity growth and deliver lasting improvements in living standards.

Turkey's strong growth performance during the 2000s, averaging over 5% in the decade through 2011, rested on two developments: employment growth, which broadened and was particularly vigorous in newly emerging regions in inland Anatolia; and productivity growth, which picked up, mainly in the developed Western regions. Turkey's long-term economic performance will largely depend on future policy choices to sustain these developments:

- *Broader employment growth*: while skilled employment has continued to grow in the entire country, the so-called "Anatolian tiger" regions have created many new jobs for the low-skilled, outside traditional agriculture. However, continued progress in increasing labour utilisation, which has led to an upturn in Turkey's low employment rate, cannot be taken for granted, for two reasons: *i)* newly growing activities are exposed to competition from low-cost countries and are highly sensitive to variations in Turkey's external competitiveness; and *ii)* as Turkey's labour rules are rigid and costly, job creation for the low-skilled often occurs in sub-optimal forms of business organisation, namely informal and semi-formal activities. Going forward, the challenge is therefore to sustain the pace of job creation by preserving Turkey's price competitiveness and further shifting resources to more formal and higher-productivity enterprises. This calls for important structural reforms.
- *Productivity catch-up*: efficiency gains in existing activities in and outside agriculture, and the shift of resources to higher-productivity manufacturing and services have underpinned the economy-wide productivity gains recorded over the past decade. Developed regions in the West, where the higher-productivity medium-to-high tech activities are principally located, have been at the forefront of this process. To sustain productivity growth, further improvements in human capital, a more supportive regulatory environment for doing business and more efficient physical infrastructures are required.

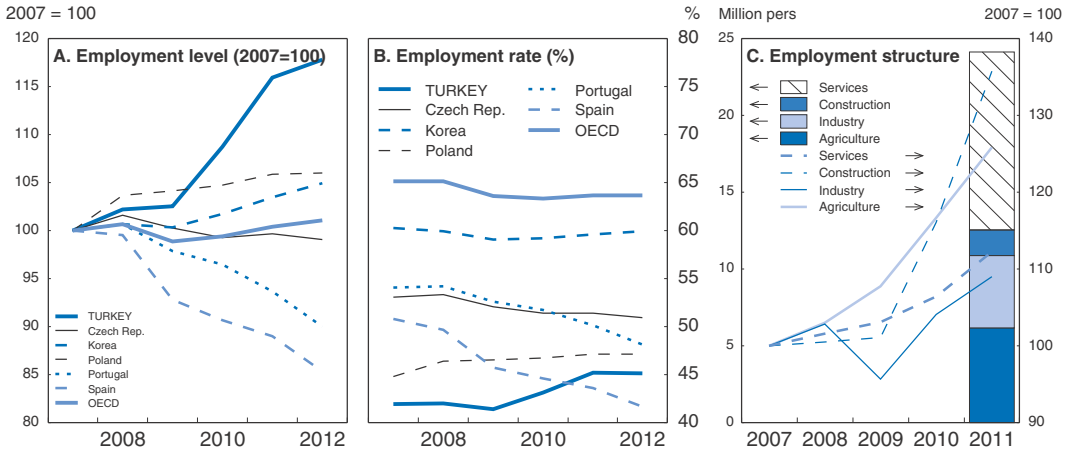
This chapter reviews recent developments and policy initiatives in both areas, and lays out scenarios for future growth on the basis of alternative assumptions concerning reforms that will affect employment and productivity performance.

More and better jobs

Broadening employment opportunities

The Turkish economy has created numerous new jobs outside agriculture over the past decade (Figure 2.1). This was driven partly by the emergence of new, first-generation enterprises in previously non-industrial, low-income regions in inland Anatolia[1] (Figure 2.2). Medium-sized enterprises with 50-250 employees have been the engine of this development. Between 2002 and 2010 they have increased their employment on average by 5% annually, more than in both smaller and larger firms. Their performance has been particularly strong in Central and South-eastern Anatolia. In these regions medium-sized enterprises' employment and exports increased on average by about 8 and 15% annually,

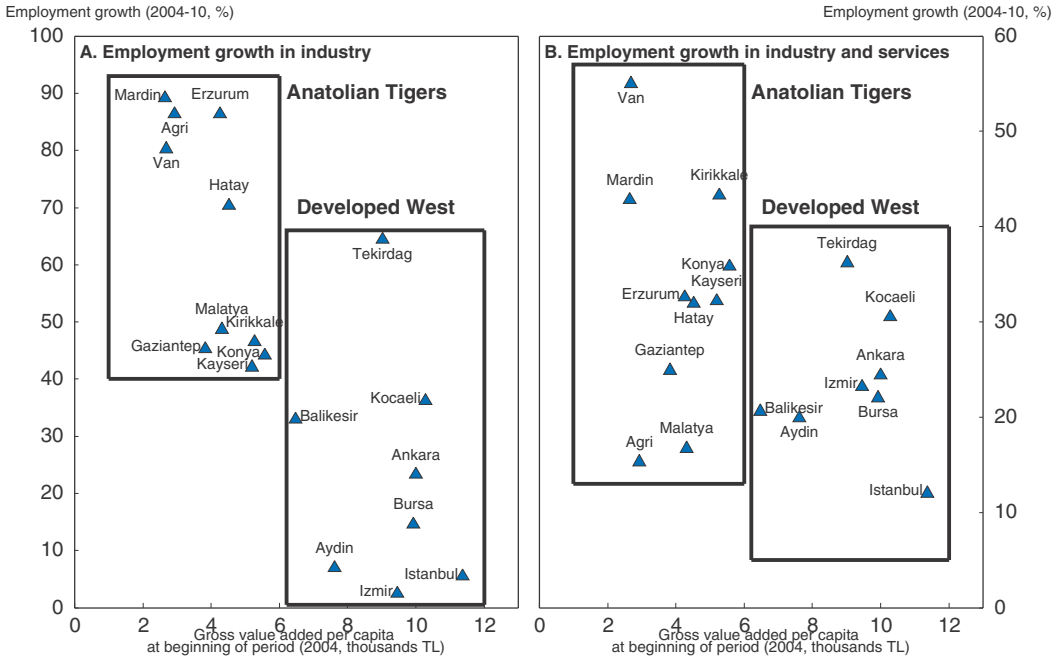
Figure 2.1. **Strong employment performance**



Source: OECD, OECD Economic Outlook and Main Economic Indicators databases.

StatLink http://dx.doi.org/10.1787/888932659502

Figure 2.2. **Strong job creation in emerging regions**



Note: Employment growth in selected NUTS 2 regions. NUTS 2 regions are named according to the largest province (NUTS 3) that they include. Istanbul, Ankara and Izmir are both NUTS 2 and NUTS 3 regions.
Source: Turkish Statistical Institute.

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respectively.[2] Among Turkey's 1 000 largest industrial enterprises, about 350 are now located outside the traditional industrial centres.[3]

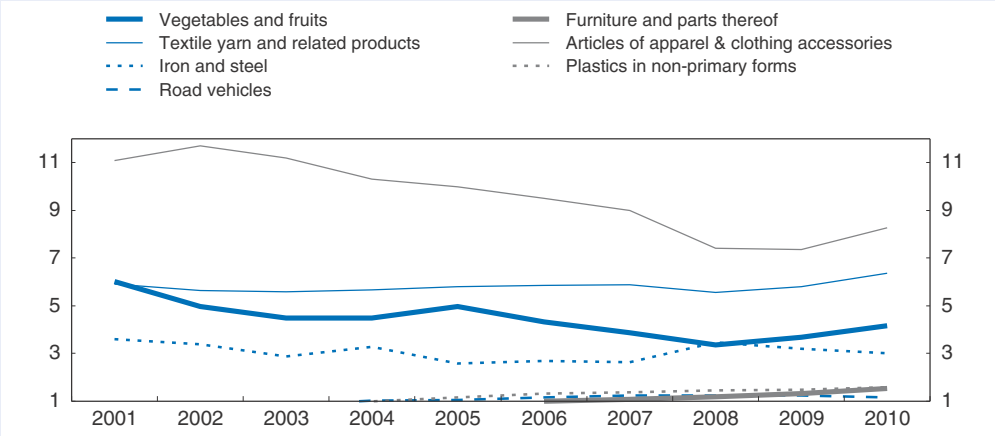
These enterprises tend to specialise in export-oriented manufacturing. While Western regions are more vertically integrated with EU economies, the new regions trade more with countries in the Middle East and North Africa (MENA). In 2009, 51% of exports from developed regions with a GDP per capita level above 75% of the national average, all located

in the Western part of the country, were directed to the EU and 22% to the MENA region. In contrast, only 26% of the exports of the remaining regions were directed to the EU but 49% to MENA. Iraq became Turkey's second-biggest export market after Germany. The new regions specialise in less sophisticated and relatively low-tech activities such as textile, food, plastic and metal products. However, they account for a growing share in the more rapidly expanding export markets. In the currently weak world trade environment, this diversification has made Turkey's exports and employment more resilient (Box 2.1).

Box 2.1. **New growth regions and Turkey's trade specialisation**

Revealed comparative advantage (RCA) analyses suggest that compared to other high-growth emerging economies, Turkey's shift in trade specialisation towards medium-to-high tech exports has been rather slow over the past two decades – despite a remarkable growth of these exports from Western regions. Fruit and vegetables and some other primary products from the agricultural sector, as well as textiles, clothing and steel products remain the core areas of RCA. More recently, cars, furniture, metal and plastic products have become additional specialisation areas (Figure 2.3).

Figure 2.3. **Turkey's revealed comparative advantages, 2001-10**



Note: Revealed comparative advantage is measured by the "Balassa" indicator $RCA_{ij} = (X_{ij}/X_{it})/(X_{nj}/X_{nt})$, where X_{ij} = exports by country i (n = total OECD) of good j (t = total goods). As an example, a score of 6 in clothing products means that the share of clothing products in Turkey's exports is six times higher than their share in global exports.

Source: OECD calculations based on data from OECD, International trade by commodity statistics database.

StatLink *http://dx.doi.org/10.1787/888932659540*

More detailed analyses show that Turkey's export structure has remained more typical of lower-income countries. Using the methodology proposed by Hausman et al. (2007), Atiyas and Bakis (2011) calculate an indicator reflecting the statistically-expected level of GDP per capita implied by the export specialisation pattern of each country. On this measure, Turkey's export specialisation, both in 2005 and 2009, was similar to countries with a lower GDP per capita level, and less sophisticated than that of countries with a GDP per capita level comparable to Turkey's. Using Hausman and Hidalgo's (2010) approach, Atiyas and Bakis also estimate an indicator of the average number of competitor countries that each country faces in its various export activities. This index captures to what degree a country has gained distinct competitive advantages, i.e. the more its products are differentiated, the less competition it faces. According to this index Turkey has 34 competitors on average across its export portfolio, compared to 24 for Korea and 26 for Israel.

Box 2.1. **New growth regions and Turkey's trade specialisation** *(cont.)*

More detailed analyses show that Turkey's export structure has remained more typical of lower-income countries. Using the methodology proposed by Hausman et al. (2007), Atiyas and Bakis (2011) calculate an indicator reflecting the statistically-expected level of GDP per capita implied by the export specialisation pattern of each country. On this measure, Turkey's export specialisation, both in 2005 and 2009, was similar to countries with a lower GDP per capita level, and less sophisticated than that of countries with a GDP per capita level comparable to Turkey's. Using Hausman and Hidalgo's (2010) approach, Atiyas and Bakis also estimate an indicator of the average number of competitor countries that each country faces in its various export activities. This index captures to what degree a country has gained distinct competitive advantages, i.e. the more its products are differentiated, the less competition it faces. According to this index Turkey has 34 competitors on average across its export portfolio, compared to 24 for Korea and 26 for Israel.

This inertia in trade specialisation is partly due to the fact that Turkey's low-tech exports have grown rapidly thanks to the productive mobilisation of otherwise difficult-to-employ groups. Their members might otherwise have stayed unemployed or inactive in urban areas, or would have remained hidden unemployed in agriculture. This capacity to mobilise low-skilled groups has also slowed the shift in trade specialisation, and contributed to the vulnerability of Turkey's export sector to low-cost competition.

Anatolian regions benefitted also from the growth of Turkish construction companies abroad, which have gained large market shares in the broader region. Construction service exports have grown towards expanding markets like Russia, Kazakhstan, Turkmenistan, Saudi Arabia and Iraq. As a result, Turkish firms now come only second after China in terms of share in the total number of global construction companies (Engineering News Record, 2011). Construction abroad helps reduce Turkey's trade deficit. In 2011, exports of construction equipment and material made up 20% of total Turkish exports.

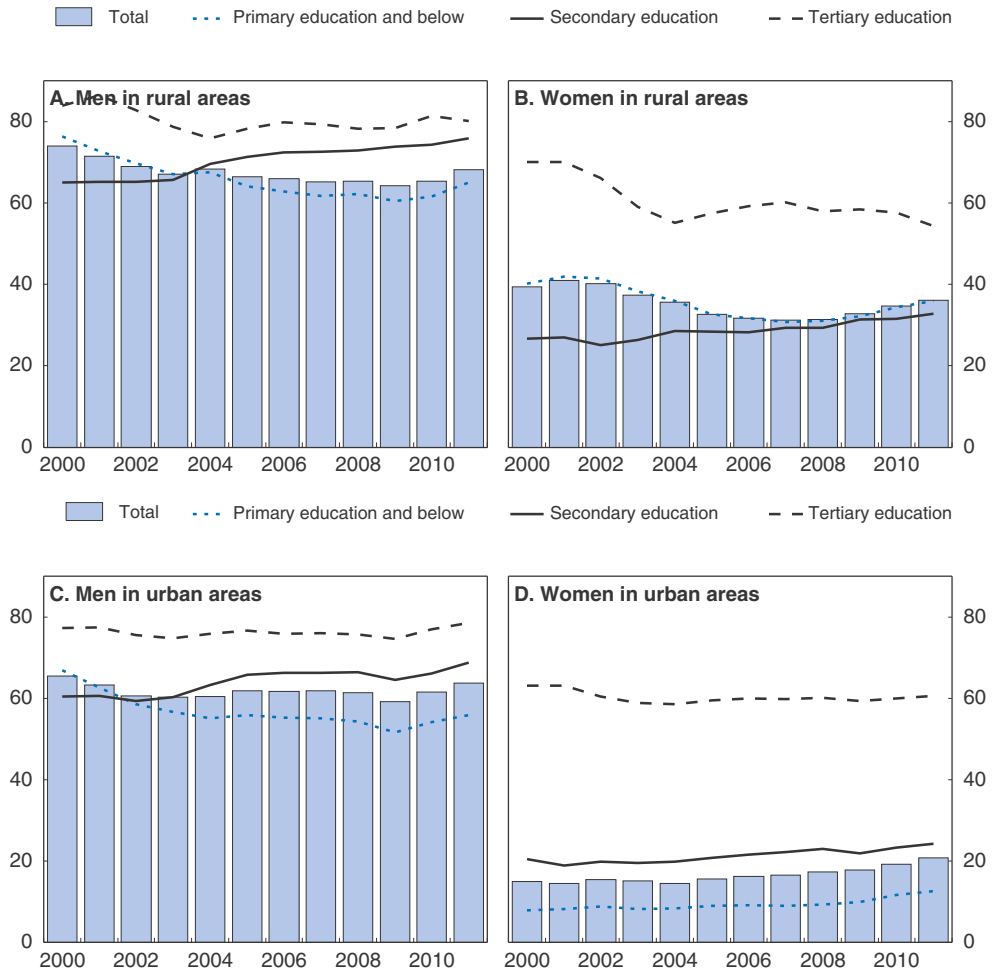
Creating jobs outside agriculture for the low-skilled has been a major contribution of the "Anatolian tigers" to Turkey's growth. In 2011, workers with primary education or less represented 66% of Turkey's working age population and 55% of total employment.[4] The traditionally very low employment rate of these groups had further declined in the earlier part of the 2000s as a result of exits from agriculture. In contrast, starting from 2007, and despite headwinds from the global economy, their employment rate increased due to the new wave of industrialisation, but also in agriculture (Figure 2.4).

As a result, the average "active life expectancy" (*i.e.* years of participation in the labour market) of Turkey's population is rising. After reaching a trough in 2006 – at one of the lowest levels in the OECD at about 24 years – active life expectancy increased to 26.5 years by 2011.[5] This reflects greater participation in all age groups, including those with traditionally very low activity rates. From 2006 to 2011, the participation rate of the 20-24 age cohort rose from 49.5 to 54%, and that of the 50-60 cohort from 38 to 42%.

Even so, participation rates remain particularly low for the very low-skilled,[6]women and elderly (54-65 years) workers, at 26%, 29% and 33%, respectively, in 2011. In rural areas, these groups are often counted as "unpaid family workers" (engaged in family farms at a low productivity level). Many of them become openly inactive when migrating to urban areas. Limited demand for their labour and low wages has traditionally discouraged them

Figure 2.4. **Low-skilled and aggregate employment rates have recently improved**

Employment rate of working age population according to educational attainment, in %



Source: Turkish Statistical Institute.

StatLink http://dx.doi.org/10.1787/888932659559

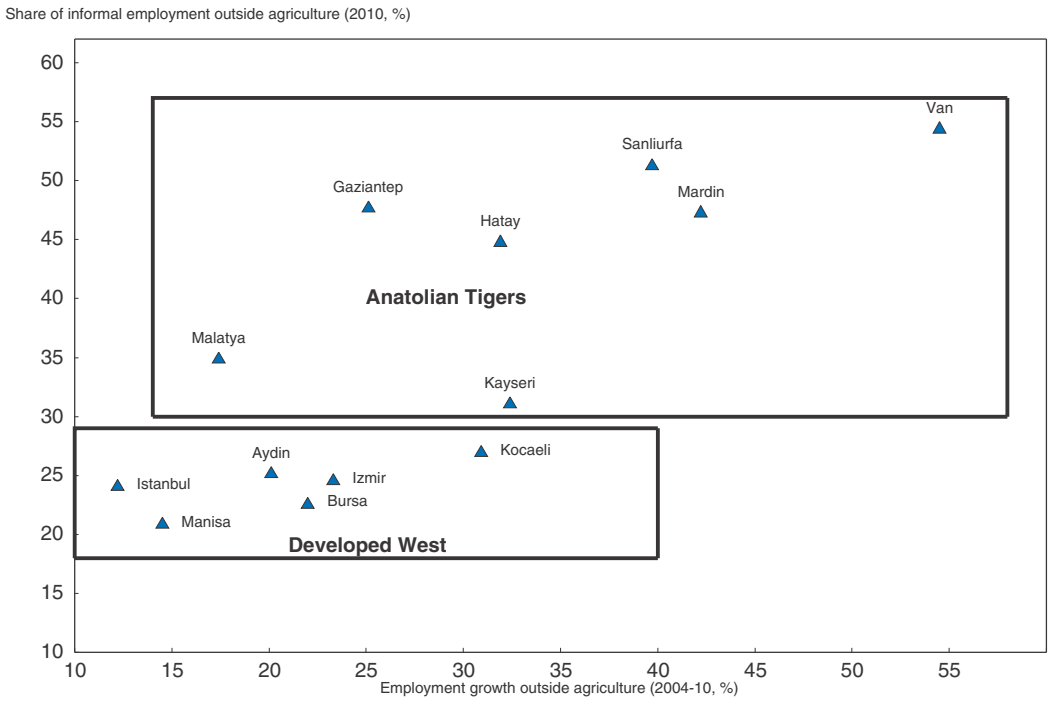
from searching for jobs. Higher labour demand in urban areas would raise their labour force participation.

Shifting employment to the formal sector: indispensable labour market reforms

Low-skilled job creation has largely taken place outside the formal sector, in informal and semi-formal activities.[7] In 2011, 87% of the workers with less than primary education worked informally, as did 55% of those with only primary education. Their employment grew more rapidly in the regions resorting extensively to informal employment (Map 2.1 and Map 2.1). In certain regions, which achieved particularly strong employment growth in the 2000s, such as the broader NUTS2 regions around Kocaeli, Kayseri and Van, the share of informality in non-agricultural employment has in fact increased between 2004 and 2010, despite policy efforts to reduce informality. The link between informality and low-skilled employment results from the rigid and costly labour market rules in the formal sector. The strength of this link was confirmed by Turkey's recent experience: certain

Figure 2.5. **Job creation in emerging regions has drawn on informality**

Share of informal employment and employment growth in selected NUTS 2 regions



Source: Turkish Statistical Institute.

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limited and temporary employment incentives which significantly reduced the employment costs of certain categories of workers in the formal sector paid off by stimulating formal employment for eligible groups. Similar incentives introduced in 2012 in the least developed regions (Box 1.2) could have a similar impact in the future.

Labour costs

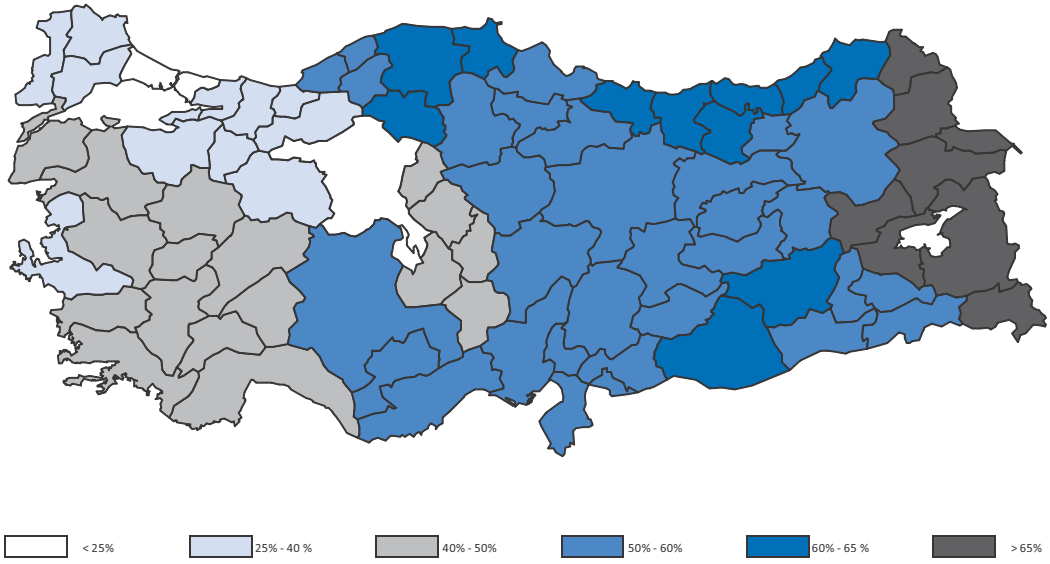
Turkey's official minimum wages as a percentage of median wages, at about 67% in 2010, are the highest in the OECD.[8]The average tax wedge on labour, reflecting mainly social security contributions, was also long one of the highest. It declined to about 35% in 2010, after a cut in social security contributions, and the phasing in of a personal income tax allowance in 2008, but remains above the OECD average.

Minimum wages generally grow at least in line with inflation. The employment cost floor set by minimum wages and social security contributions in the formal sector is even higher in enterprises subject to collective bargaining.[9] This floor reduces labour demand for the low-skilled in the formal sector.[10]However, many enterprises avoid these costs by employing workers outside the legal system, especially in the less developed regions. Household Labour Force Survey data suggest that 40 to 50% of workers in Central and Central-Eastern Anatolia may be earning less than the minimum wage. Taking into account the tax wedge of about 35%, this would imply that well above half of wage earners in these regions are employed below official minimum employment costs. Baskaya and Hulagu (2011) and Baskaya *et al.* (2012) confirm that in Turkey informal employment is the main channel of real wage adjustment to economic circumstances. At the same time, in

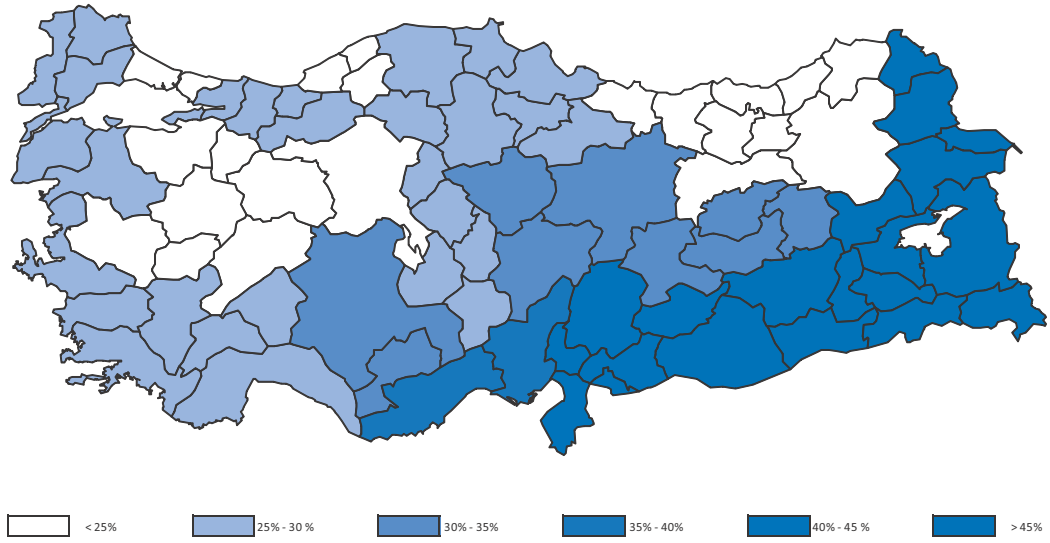
Map 2.1. **Informal employment in Turkey's 26 NUTS2 regions**

As a share of total employment in %, 2011[1]

A- Share of informal employment in total employment



B- Share of informal employment in employment outside agriculture



1. Share of workers not registered with the Social Security Institution, including unregistered self-employed workers.

Source: Turkish Statistical Institute..

the Western regions where nominal living costs are high, minimum wages appear binding also in the informal sector (in terms of net income earned by workers) while informal employers, even if they pay their workers the net minimum wage, save on the non-wage labour costs.

Rigidity of permanent contracts

Turkey is one of the OECD countries with the most rigid employment protection rules for permanent workers, due to a very expensive severance payment regime. As with the minimum wage, the consequence is the spread of informal employment in the sectors and

regions not sufficiently competitive to cope with these constraints, and where excess demand for jobs enable employers to circumvent the law. In addition, distortions arise within the formal sector: as severance benefits are based on seniority and only paid to workers losing their jobs involuntarily, workers with permanent contracts are very reluctant to change jobs. This undermines turnover from lower to higher-productivity activities. In turn, enterprises minimise their severance liabilities through extraordinary means, for example by terminating "permanent" contracts before one year of employment (which is needed for severance entitlement), before rehiring the same workers. As a consequence one third of all "permanent" contracts are less than one-year old.[11] Other firms may ask newly hired employees to sign un-dated resignation letters, to facilitate future employment adjustments (Gursel and Imamoglu, 2012).

Finally, financially strained enterprises may be unable to meet their severance liabilities. In many bankruptcy cases workers' entitlements are plainly lost. According to the Ministry of Development only about 10% of job terminations are subject to any severance compensation economy-wide. Gursel and Imamoglu (2012) estimated that no more than half of the resulting liabilities are actually paid. The benefits to workers of this source of rigidity in the formal sector are therefore limited.

Restrictions on temporary work

Fixed-term contracts and agency work are authorised only under very special circumstances. Amongst OECD countries, Turkey has the most restrictive rules for temporary contracts. Moreover, while a number of countries have recently eased access to these contracts, Turkey has not modified its rules. A new law authorising temporary work agencies and temporary contracts was adopted by the Parliament in 2009, but, after strong trade union opposition, the President vetoed the law. As a result, fixed-term contracts play a very marginal role in the Turkish labour market.

Against this backdrop, a "semi-formal" sector has emerged: formal firms register and legally employ a core workforce, but in addition use informal workers to cope with fluctuations in business conditions. Semi-formality appears widespread in volatile manufacturing sectors (such as textiles and clothing) and in service sectors such as transportation, hotels and restaurants. According to the Ministry of Labour, constraints on temporary hiring force many formal firms to use overtime rather than creating new jobs.[12]

A new draft law was submitted for discussion to the social partners in November 2011 to authorise temporary work and temporary work agencies. It proposes to liberalise fixed-term contracts in special cases: when market demand for an enterprise is extraordinarily volatile, and outside the core business area of the enterprise. The number of temporary workers in an enterprise should not exceed 20% of all workers, and the total duration of a temporary engagement should not exceed 12 months (three times four months). Employers need to pay temporary workers the same wages and benefits as for permanent workers. This draft law is an important initiative, but it appears more restrictive than in other OECD countries and these restrictions may impede the shift of the bulk of temporary employment to the legal sector. The initiative could generate some institutional duality in the labour market, as experienced in a number of other OECD countries, but it has large potential benefits in Turkey as, if successful, it can bring more people into the formal economy.

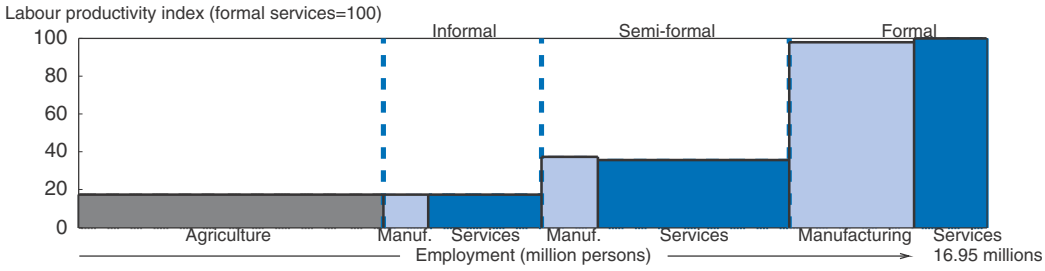
Women's work

Compared to men, a larger proportion of Turkish women prefers to work part-time, or in other flexible forms of employment. The incompatibility between these forms and the existing labour regulations creates additional incentives for informal employment. This negative bias for women became particularly visible in the recent crisis and post-crisis period: 1 million of the 1.6 million net new jobs created for women between end-2008 and end-2011 were in the informal sector. The informality bias in their employment worsens women's income expectations and working conditions, even for those with university education (World Bank, 2009; Aran *et al.*, 2009).

Informal employment keeps workers' productivity and incomes low. Enterprises resorting to it have only limited access to professional management, financial markets, and foreign partners. They face important limitations to their technological and commercial development. Many of such structural weaknesses are deeply rooted, independent from the legal status of enterprises, and cannot be remedied by formalisation.[13] Yet, as the existing regulatory environment does not facilitate the shift of employment to larger, more efficient and more professionally managed firms, the "informality trap" becomes penalising for the economy as a whole.

The shift of a higher share of employment to formality would be expected to entail significant productivity gains (Figure 2.6). There is a link between the prevailing forms of business organisation and the aggregate productivity and competitive performance of an economy. Gains can be achieved by reducing constraints which limit the convergence of enterprises toward more effective scales and forms (Braguisky *et al.*, 2011; Garicano *et al.*, 2012). The benefits associated with the transfer of production factors to the formal sector are therefore potentially large for Turkey.

Figure 2.6. **Labour productivity and degree of formalisation in selected sectors**



Note: 2010 Turkstat data was used to calculate the proportion of informal workers across enterprise size classes. Three sectors are distinguished on this basis: *i)* the "informal sector" (where firms employ a majority of informal workers – around 65% on average), *ii)* the "semi-formal sector" (where enterprises employ a sizeable share of informal workers – around 20% on average), and *iii)* the "formal sector" (where only a minority of informal workers are employed – around 5% on average). The labour productivity level of each sector was estimated as a weighted average of labour productivity in constituent size classes. Certain sectors raising particularly severe productivity measurement problems, including the government sector, and a small number of large service sector enterprises were excluded.
Source: OECD estimates based on Turkstat data.

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Formalisation would also bring major benefits to Turkish workers by improving social protection against unemployment and income loss, exploitation and unsafe workplaces. For these benefits to materialise, advantages associated with formal employment may need to be strengthened. At present, employees and employers often collude to avoid

social contributions in order to increase net earnings for employees and reduce labour costs for employers. For employers, financial incentives are obvious. For employees, limited social insurance coverage (in particular when they already have health coverage through green cards, as dependants of other workers, or, after 2012, via universal health insurance) may provide incentives for non-compliance. For example the fact that only around 17.5% of the formal sector workers who lost their job during 2009-10 received any insurance benefits may reduce incentives for compliance.[14]

Reform requirements for encouraging formalisation are now well-known. Far-reaching changes are needed in the labour market (OECD 2008 and 2010, World Bank 2010c). A more flexible labour contract for permanent workers, a less costly severance payment regime, legal availability of temporary and agency work, and lower minimum wages – possibly differentiated across regions to account for differences in living costs, and for young workers– are called for. The government is indeed working on a labour market reform package including many of these elements, in the framework of a new National Employment Strategy being discussed with social partners.

Box 2.2. **Recommended priorities for labour market and formalisation reforms**

- A new and more flexible labour contract should be negotiated with social partners, as envisaged in the ongoing discussions on a National Employment Strategy. It should be introduced for all new hires on permanent contracts.
- The severance payment regime should be re-designed in line with international best practices, to make permanent labour contracts more flexible. Temporary and agency employment should be allowed, without sectoral restrictions.
- Official minimum wages should be kept in check. Wage adjustments to productivity gains should be sought more through collective bargaining at enterprise level. Official minimum wages could be differentiated across regions, and for young workers, to account for very large differences in living costs and productivity levels.
- Employment prospects of vulnerable groups such as youth and women, and workers in less advanced regions, can be bolstered with social security contribution cuts (of the same type as the temporary pro-employment measures introduced in the crisis).
- The scope and eligibility conditions for the official unemployment insurance scheme should be broadened. This is key for progress towards "flexicurity" adapted to the Turkish context.

Boosting productivity growth

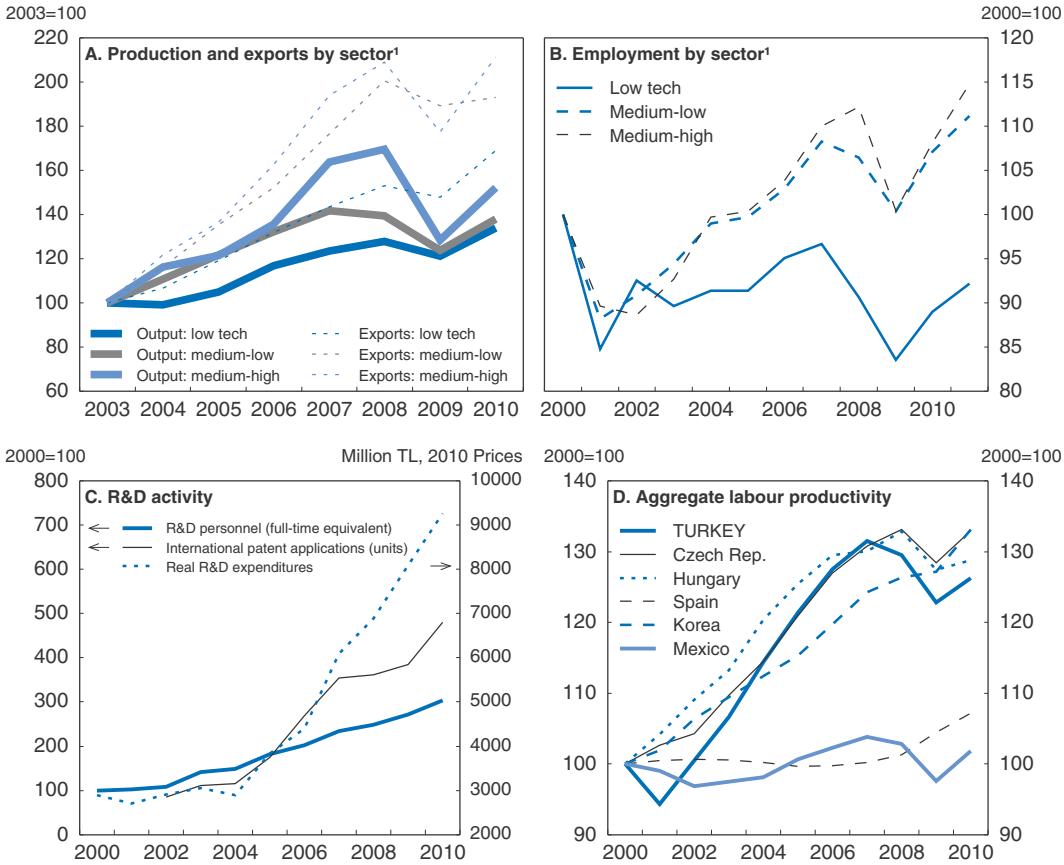
Productivity growth is driven both by efficiency gains in existing activities ("within-sector" gains) and by the transfer of resources to higher-productivity activities ("between-sector" gains). Earlier research had found that the shift of resources from agriculture to manufacturing and services had been the main channel of productivity growth in Turkey until the early 2000s (Alam *et al.*, 2008). An update of this analysis for this *Survey* indicates that "within" gains inside manufacturing and service sectors (including via the shift of resources from lower to higher-tech activities) has since been the central channel.[15]

The growth of higher-tech activities appears to have accelerated in the 2000s. Higher-technology activities have expanded particularly rapidly in the Western urban centres and

especially in the broader Marmara region around Istanbul (OECD, 2008), which accounts for 45% of Turkey's GDP (in 2008). Istanbul alone generates 28% of Turkey's GDP (in 2008) and employs 23% of the non-agricultural workforce (in 2011).

Western regions have a better-skilled labour force: in Istanbul for example, 44% of the labour force has secondary education or more, as against 35% for the rest of the country. A large and prosperous middle-class is thriving in the region, driving consumption demand and diffusing new life- and work-styles. The higher share of university-educated individuals amongst women of working age (12% versus 7.8% in the rest of the country) helps explain the rise in double-income earning households and the higher labour force participation.

Figure 2.7. **Medium-to-high tech sectors have grown strongly and promoted productivity growth**



1. Low tech sectors comprise manufacturing of tobacco products, textiles, wearing apparel, leather products, wood products, paper products, furniture and others; medium-low tech sectors comprise printing and reproduction of recorded media, manufacture of coke and refined petroleum products, rubber and plastic products, other non-metallic mineral products, basic metals and fabricated metal products, except machinery and equipment; medium-high tech sectors comprise manufacturing of chemical products, machinery and equipment, electrical equipment, motor vehicles and other transport equipment.

Source: OECD calculations based on Turkish Statistical Institute data; OECD, OECD Economic Outlook database; Undersecretariat of Treasury.

StatLink http://dx.doi.org/10.1787/888932659616

The share of medium-to-high-tech sectors in Turkey's total manufacturing exports increased from 30% to more than 60% between 2002 and 2008, and their share in total output rose from 23% to about 30%. Medium-to-high tech firms increasingly invest in R&D activities (Map 2.1). Estimates on the basis of Yalçin (2012) suggest that their average labour productivity level is about twice as high as that of low-tech sectors. The expansion of these activities is therefore an important driver of Turkey's aggregate productivity growth (Figure 2.7).

The emergence of high-productivity services is another driver of productivity-enhancing structural change – even if it is less well captured in official statistics. The rising number of middle-income households and of sophisticated enterprises fosters demand for advanced services. High-quality residential and non-residential real estate development, organised retail trade, a wide range of private education services, and business services in finance, computer software and logistics are among the fastest growing sectors in Western regions. The broader Istanbul area has become not only a major consumer but also a major exporter of these services in the wider Eurasia and MENA region.

These structural changes have been accelerated by FDI inflows. A record was attained in 2006, when they totalled $20.2 billion, concentrated mostly in the Istanbul area and mostly in financial services, transport and communications. The Marmara region was already the main magnet of FDI inflows to Turkey before the 2000s, receiving about 80% of the national total between 1980 and 2000. FDI inflows have picked up again after the global crisis (Box 2.3).

Box 2.3. **The recent acceleration of FDI inflows in the Istanbul region**

According to the Istanbul Chamber of Commerce, FDI in the city jumped by 110% in 2011. The reported number of newly-established FDI firms rose from 3 000 in 2010 to 4 700 in 2011.* Banking, insurance, transportation and advanced manufacturing in electronics and chemicals were the main invested sectors. The principal source countries were Germany, France, the United Kingdom and Iran. Numerous new entries into banking and finance appear in line with the authorities' ambition to develop Istanbul as a financial centre.

Global firms have also expanded their activities in Istanbul with a broader regional perspective. They aim at servicing both the Turkish domestic market and markets in Eurasia and Africa. For example, Microsoft's Middle East and Africa office in Istanbul is the software company's centre for operations in 79 countries. Intel manages its operations in 64 countries from Istanbul and Coca Cola its operations in about 90 countries. The transformation of Istanbul into a multinational enterprise hub has been an important facet of the development of Turkey's service economy.

*Octagonanews website 27.02.2012.

The development of high-productivity activities rests on sufficient availability of human capital and high-quality regulatory and physical infrastructures. Medium-to-high-tech sectors in Turkey compete with more advanced OECD countries which are better-equipped than Turkey in these areas. Further promoting structural change therefore requires additional efforts to strengthen the human capital base, to align key regulations with international best practice and to develop better physical infrastructure.

Improving education and human capital

Upgrading education is key for strengthening long-run growth, as highlighted in the special chapter on education in the 2006 *OECD Economic Survey of Turkey*. Turkey still has the human capital characteristic of a developing country. In 2009, 69% of the adult population had less than upper secondary education (80% in the 55-64 age cohort and 60% in the 25-34 age cohort), against an OECD average of 27%. Only 13% of the adult population had tertiary education (10% in the 55-64 age cohort and 18% in the 25-34 age cohort), against an OECD average of 30%. The average expected time in education had reached 13.7 years for boys and 12.9 years for girls in 2009, against OECD averages of 17 and 18. In addition, the proportion of science, engineering and technical students at both tertiary and vocational secondary levels is comparatively low.

Since the late 1990s, stepped-up policy efforts helped extend the length of compulsory education and increase school enrolment rates. Compulsory primary education was extended from five to eight years, and enrolment rates in compulsory education rose from 85% in 1997 to 99% in 2011 – close to the goal of 100% by the early 2010s. Pre-school enrolment also increased, with transition to free pre-school education at age 5 in pilot provinces. Extending pre-school education is essential because it reduces the influence of socio-economic background on educational achievement. Net enrolment rates in secondary education increased from 38% in 1997 to 67% in 2011. These policy efforts facilitated labour market participation for both genders across regions and socio-economic groups.

As a result of resource constraints,[16] but also because of complex pedagogical and school organisation challenges in a socio-economically, culturally and regionally very heterogeneous country, the average quality of education has remained rather unsatisfactory to date. Turkey's performance in OECD-PISA tests of academic proficiency of 15-year-old students has improved over time but remains very low on average. Substantial differences across regions and socio-economic groups persist.[17] At the same time, a small proportion of high-quality education institutions succeed in equipping a small portion of students with very strong skills, meeting international standards. Turkey's challenge is to combine extended schooling with quality convergence.

A particularly weak point to date has been the unsatisfactory quality of vocational education. About 84% of primary education graduates start secondary education, but drop-out rates are high, especially from vocational education. Only about half of the 15-19 age cohort remains in school.[18] It has been argued that this is because upper secondary education as such does not provide skills that are valued in the labour market (Education Reform Initiative, 2009). Even if certain vocational streams are more successful than in the past, notably vocational schools for tourism and health care and the technical high schools established in organised industrial zones, there is ample room for progress. Turkey took new initiatives in this area. In 2009 a new Vocational and Technical Education Strategy was adopted in co-operation with the EU's SVET (Strengthening Vocational Education and Training) programme. In 2010 a strategy and action plan for "Strengthening the Relationship Between Employment and Training" were adopted to upgrade technical and vocational education's capacity to meet labor market needs. Besides, it was noted that the knowledge of English remains too limited and should be strengthened, given the needs of a globalising economy (Koru and Äkesson, 2011).

More decentralisation and competition in the provision of education services could contribute to strengthening the system, as evidenced by the successful growth of private foundation universities. Private schools (authorised and under the supervision of the Ministry of Education) have grown in the 2000s at pre-school, primary and secondary levels. As of today 10% of university students and 3% of students in lower levels are in private institutions, and the government expects the latter to reach 5% in 2015 (Forbes, 2012). While a welcome source of pedagogical innovation and quality competition, it is important that this development does not amplify socio-economic inequalities in education. Scholarships and other measures to mitigate socio-economic segregation in education would help.

Turkey's education policy efforts are now developing in two directions, which may be potentially conflicting in terms of resource allocation and policy priority:

- As emphasised in the Ministry of Education's 2010-14 Strategic Plan (Government of Turkey, 2009), raising and rebalancing quality throughout the education system is the priority for the 2010s, following the focus on quantitative targets in the 2000s. The Ministry plans notably to draw more massively on information technologies to support teaching practices in classrooms.[19] OECD experience suggests that efficiency gains are achievable, notably by improving the autonomy and accountability of schools and universities. Despite some steps towards regional decentralisation within the Ministry of Education, the autonomy of education institutions at all levels is still very limited. Public universities remain under tight central control, in contrast to private foundation universities which have successfully piloted pedagogical and curricula innovations.
- At the same time, a new law adopted in April 2012 by Parliament extends the length of compulsory education. By putting the minimum length of education at 12 years, the Law provides Turkey with one of the longest durations of compulsory education in the OECD. This is planned to be divided into three periods of four years. At the end of the first four years, at age 10, access will be given to religious vocational education. For the other vocational streams, branching will start at age 15 (10thgrade). The authorities acknowledge that shifting to 12 years of compulsory education will raise a range of practical and fiscal challenges.

The importance of lifelong education

Education policies can enhance Turkey's human capital endowment only gradually, because cohorts above the education age dwarf in number those entering the labour force. Those in need of further training are found in large numbers, even in young age cohorts: in the 25-34 age cohort for example, 39% of men and 58% of women have only primary education or less. Since these individuals will remain in the labour force until 2040-50, upskilling is essential.

A specific but important issue in this regard concerns future labour force exits from agriculture. About 25% of total employment is still in farming, and this population has limited formal skills: 88% of farmers have only primary education, and 15% are illiterate. Given that many of them may leave rural areas and seek employment in cities in the years ahead, upskilling this population to improve employability in urban areas is part of the lifelong education challenge.

New initiatives have been launched in this area. The employment agency Iskur now offers technical courses to the registered unemployed. A new programme called

"Specialised Training Centers" (Uzmanlasmis Meslek Edindirme Merkezleri – UMEM) teaches more specialised skills, on the basis of curricula developed in co-operation with employers. These courses, however, are generally attended by the better skilled: workers with primary education or less represented 26% of Iskur and 47% of UMEM course participants in 2010. Furthermore, in line with recommendations in earlier *OECD Economic Surveys*, the government has decided to participate in the OECD's "Skills Strategy", including the Programme of International Assessment of Adult Competencies. This programme will help evaluate, for the first time, the existing skills profile of the working-age population in order to help establish upskilling priorities.

Lifelong learning is crucial for future productivity, employment, and growth performance. The existing human capital stock is not adequate to meet the expanding skill requirements in the labour market: according to a 2009 survey, 16% of FDI firms and 38% of SMEs faced skill bottlenecks in their business development. Upskilling in newly developing regions would, in particular, permit many relatively low-tech industries to access more professional knowledge, improve quality and productivity and thus competitiveness.

Box 2.4. **Recommendations on education policies**

Higher-quality education at all levels, including upskilling and lifelong learning, ought to be a top policy priority. This calls for reallocating fiscal resources to this area. Against this background the following priorities stand out:

- Offer effective lifelong education programmes to upgrade the labour market skills for adults whose schooling was inadequate.
- Continue to develop pre-school education, which reduces the influence of the socio-economic background on educational achievement.
- Reduce the large quality gaps among both schools and universities by granting them more autonomy in exchange for more accountability for performance, and by shifting to per student funding with adjustments for socio-economic disadvantages.
- In vocational education, emphasise generic skills. Vocational schools should co-operate with the business sector in developing and teaching their curricula.
- Emphasise the improvement of English education. All secondary and tertiary education graduates should gain a working command of English as a tool to access global knowledge.
- The decision to shift to 12 years of compulsory education should not pre-empt quality improvements in the existing streams of education.

Modernising the regulatory framework for doing business

The growth of modern, high-productivity sectors also calls for a more supportive regulatory framework. Full openness to competition requires free and unconstrained market entry conditions, and opportunities to operate flexible forms of business organisation. Despite the authorities' efforts over the past decade to streamline the regulatory environment for doing business, including through the joint public-private sector Council for the Improvement of the Investment Environment (YOIKK), the regulatory environment continues to have shortcomings. According to the latest available vintage of OECD regulatory indicators, business regulations were still the most restrictive in the OECD in 2008. Progress was made since 2003 but was limited to specific areas, such as

streamlining the licensing rules. The degree of administrative control on business activities, the extent of state ownership in industry, and the complexity of regulatory procedures continued to distinguish Turkey from other OECD countries (see Annex A1in the *Assessment and Recommendations* above, which summarises Turkey's recent structural and institutional reforms in the areas identified as top priorities in earlier OECD *Economic Surveys* and in *Going for Growth* surveillance).

The update of OECD regulatory indicators in 2013 should help take stock of the extent and success of Turkey's ongoing reform efforts. Partial information on the past five years suggests that Turkey's initiatives, while significant, have fallen short of the bolder reform efforts in several other OECD countries (OECD, 2012a). Turkey appeared in an average position in terms of responsiveness to OECD structural reform recommendations since 2007.[20] It was among the more responsive countries in "labour utilisation enhancing" areas (such as reducing employment costs – owing to temporary measures introduced during the crisis), but among the least responsive in "labour productivity improving" measures (such as product market liberalisation and privatisation reforms). In terms of the broad reform agenda, Turkey progressed less, according to these indicators, than implied by its relative GDP per capita level and large catch-up potential.

Turkey's comparative position in other international assessments of business environments confirms that the ongoing reform efforts are ambitious, but outcomes have been less conclusive to date than in some other countries (Box 2.5).

Box 2.5. **Turkey's position in international business environment comparisons**

Turkey is 71st among the 183 countries covered in World Bank's 2012 *Doing Business Indicators*. Areas ranking comparatively well include starting new businesses and enforcing contracts. The most significant shortcomings are registered in dealing with construction permits and resolving insolvencies. Urban and real-estate planning appears as an area where the regulatory environment falls particularly short of international best practices. The multiplicity of administrative layers makes the real-estate planning environment particularly opaque and risks creating room for illicit practices.

The World Bank's 2010 *Investment Climate Assessment* report on Turkey showed that a number of important improvements were achieved in the business environment in the second half of the 2000s: *i)* the reduction of the corporate income tax rate from 30% to 20% in 2006; *ii)* the simplification of business start-ups through the reduction of required steps from 13 in 2004 to six in 2009; and *iii)* the emergence of a continuous private-public sector consultation mechanism through the joint Council for the Improvement of Investment Environment (YOIKK). Nonetheless, the report found that "with multiple ministries being in charge of different business areas, responsibilities allocated to institutions are not always linked towards a single regulatory reform strategy. This creates difficulties when it comes to establishing priorities and taking the lead for reform, and often results in overlapping responsibilities within and across levels of government".

Turkey has equally an intermediary position in the World Bank's *International Governance* benchmarking exercise. In the 2000s, Turkey's economic governance improved according to these indicators, with gains in "voice and accountability", "government effectiveness", "rule of law", and "control of corruption". As of 2010 Turkey ranked higher than Mexico, China and India, but was below OECD averages.

Box 2.5. **Turkey's position in international business environment comparisons** *(cont.)*

Turkey was placed 59th out of 133 countries in the World Economic Forum"s 2010-11 *Global Competitiveness Report*, two places above its position in the earlier edition in 2009-10. Relative strengths included the size and growth of the domestic market, the intensity of local competition and infrastructure of reasonable quality (particularly roads and air transport, while ports and energy infrastructure required upgrading). Weaknesses included the functioning of the labour market, the quality of primary, secondary and tertiary education, and the efficiency and transparency of public institutions.

All these indicators are closely correlated, and position Turkey in the upper-middle half of the assessments, with relatively limited gains in the most recent period.

Shortcomings in Turkey's regulatory environment have long been evident in network industries such as energy, telecommunications and transportation. These services play a major role for productivity growth and economy-wide competitiveness (Nicoletti *et al.*, 2010; Arnold *et al.*, 2011). Turkey's shortcomings in these areas may be due to the legacy of state ownership and lack of competition. According to the OECD 2008 product market regulation (PMR) indicators, Turkey had the OECD's most restrictive and competition-unfriendly regulations in railway and road freight transportation, and some of the most restrictive rules in electricity, natural gas and postal services. In contrast, significant reforms were implemented in air transportation, which yielded remarkable benefits (Box 2.6). Another sector with remaining obstacles to competition is agriculture, as discussed in the *Assessment and Recommendations*.

Box 2.6. **The positive experience of air transportation reforms**

The air transport system epitomizes the benefits associated with liberalisation reforms in network sectors (Gönenç and Nicoletti, 2001). Turkey's policymakers pursued an innovative and competitive development of this sector over the past two decades. The business framework has been liberalised with open bilateral air service agreements with other countries (111 of Turkey's 122 bilateral air service agreements are now open to competition between several carriers). New entry by domestic airlines was allowed on several domestic routes. An innovative public-private partnership model was developed to modernise the airports, including for the construction of a major international airport in Istanbul.

Turkish Airlines, the partly privatised national air carrier, was an engine of this change. After the reforms, it expanded strongly its cargo and passenger traffic – the latter by an annual rate of 17% between 2006 and 2011. In 2011, it was servicing 146 international and 41 domestic cities and had become one of the largest airlines in Europe. Other local airlines and air routes have also expanded and average air fares fell. Turkey's domestic air passenger traffic skyrocketed in the last nine years from 9 to 51 million annual passengers, and its international traffic rose from 25 to 52 million.

A new vintage of competition-friendly reforms are now required in the air transportation system, including for more competitive slot allocation in the congested airport hubs, to preserve fully open competition between incumbents and new entrants, and between carriers of various sizes (Competition Policy Authority, 2012).

Box 2.7. **Recommendations on competition and product market reforms**

- In network industries with monopolistic elements, especially energy and telecommunications, competitive segments should be fully opened to competition.
- Naturally monopolistic segments should be managed in cost-minimising ways under independent regulatory supervision.
- The comprehensive energy liberalisation plans prepared in the 2000s should be fully implemented.
- Competition conditions across all main sectors of the economy should be scrutinised, especially in the key service industries not exposed to trade competition. The competition authority can play this monitoring role, as with its first report on competition in 2012.

Conclusions

Turkey's structural reform agenda should be sharpened to sustain the two key sources of growth in the future: *i)* broadening employment opportunities, notably for the low-skilled majority of the working age population; and *ii)* sustaining productivity growth, notably by accelerating the shift of resources to higher-productivity activities. This agenda calls for broad-based structural reforms. According to the scenarios presented in Annex 2.A1, such ambitious reforms could boost Turkey's level of output and incomes by as much as 25% relative to a baseline by 2030.

Notes

1. See "The Rise of Anatolian Tigers", Box 1.1 in OECD (2008).
2. Based on the enterprise database of the Central Bank of the Republic of Turkey, which includes balance sheets and financial reports from about 2000 enterprises generating nearly half of Turkey's total manufacturing sales and exports. A balanced panel of 1 500 enterprises has been analysed by the Research and Monetary Policy Department for the purposes of this OECD Survey (Yalçin, 2012).
3. Enterprises which are part of the Istanbul Chamber of Industry's "top ISO 1000" list. The traditional industrial centres are Istanbul, Izmir, Ankara, Adana, Bursa and Kocaeli. New ones include cities like Gaziantep (with 32 of the top 1000 industrial entreprises), Kayseri (with 26), Konya (with 21) and Kahramanmaras (with 16).
4. Workers with primary education or less are considered to have "low skills" throughout the Survey. The length of primary education was however extended from five to eight years in 1997. The "low skilled" working age population therefore includes cohorts with eight years of education, cohorts with five years of education, as well as individuals with less or no formal education. In 2011, 6.6, 18.8 and 9.8 million individuals belonged to these groups, respectively.
5. These estimates are prone to measurement error, however, as the Household Labour Force Survey may not fully capture informal work of retirees.
6. Very low-skilled workers are those without a school diploma, and may be illiterate. In 2011 they represented 18% of the working age population.
7. Informal employment is found not only in SMEs, but also in large modern enterprises and their sub-contractors. Many use these practices in order not to cross the "30/50/250 employee" thresholds which increase their corporate responsibilities and costs (building social facilities, hiring various categories of support staff, more demanding employment adjustment rules, etc).
8. The minimum wage as a share of the average wage is, at about 35%, closer to the OECD average. This gap between minimum/median wage and minimum/average wage ratios reflects the high level of remunerations in the productive enterprises of Western regions.

9. In 2012, the net monthly minimum wage is TL 720 (around 310) and the average total employment cost of a minimum wage earner TL 1064 (460). In enterprises subject to collective bargaining, due to additional salary instalments and other benefits, the average employment cost of a minimum wage earner is about TL 1600 (670). Some 15% of wage earners are covered by collective agreements.

10. The elasticity of labour demand to wage costs is relatively high. According to a recent estimation, a 1% increase in the total labour cost of a worker may yield a 0.53% fall in his/her probability of remaining employed in the next quarter (Papps, 2010). Various employment incentives introduced as a response to the global crisis, mostly in the form of sizeable reductions in employer social security contributions, have been successful and served as a natural experiment confirming this sensitivity. The strongest impact was observed for female workers (see OECD-ILO, 2011).

11. During 2009-10, 6.25 million job contracts were terminated, 48% of which before one year of seniority.

12. Discussing requirements for additional labour market reforms in late 2010, the Minister of Labour stated that if more flexible employment forms had been available, the Turkish economy would have created more jobs in the post-crisis recovery. He suggested that while the economy creates around 110 000 new jobs for each percentage point growth in GDP, with the availability of more flexible employment forms this figure would rise to about 140-150 000 (E-kolay net, 2010).

13. For example, the limited educational background and human capital of owners and managers of informal enterprises cannot be improved by formalisation. Recent research reviewed by Taymaz (2009) suggests that productivity gaps between formal and informal firms can be traced back to differences in scale economies and also professional and technical skills of owners and managers.

14. Among the 6.25 million workers who voluntarily or involuntarily exited employment in the formal sector during 2009-10, one third were legally eligible for unemployment benefits. Among these, only half had completed their minimum contribution period. As a result, only 17.5% of job losers in the formal sector received any unemployment benefits. Taking into account the workers having lost their jobs in the informal sector, 12% of Turkey's unemployed were receiving unemployment benefits in 2011.

15. Employment in agriculture fell from 30% in 2004 to 25% in 2010. As a result, the bulk of productivity gains were achieved within manufacturing (by a yearly average of 2.4% between 2004 and 2010) and services (for example by 2.4% in wholesale and retail trade, 3.5% in transportation, and 8.2% in financial services).

16. The surge in enrolment rates is a fiscal challenge. There were 3.8 million students in secondary education in 2009 against 2.3 million in 2000, and 1.8 million students in tertiary education up from 1 million. Meanwhile, the number of pupils in pre-school education increased from 212 000 to 804 000. Public education expenditures increased steadily during the same period, but public spending per student did not increase and remains one of the lowest in the OECD, even in PPP (purchasing power parity) terms.

17. In the 2009 PISA tests, 60% of 15-year-old Turkish students could not solve simple mathematical problems. Socio-economic determinants weighed on outcomes: the average reading score of the children of the top income quintile families reached 514, while that of children of lowest quintile families was 421. Some 64% of children from the first group were attending the higher-quality schools, while this was the case of only 7% of children from the lowest quintile (Education Reform Initiative, 2011).

18. Among the 6.3 million individuals in the 15-19 age cohort in 2009, 2 million were neither in school nor in employment. Turkey's NEER (neither in education nor in employment) rate, at 32%, is still the highest in OECD, against an average of 11% for the other countries. This cohort will stay in working age until 2060.

19. The FATIH project (the "Movement of Increasing Opportunities and Technology" in the school system) was designed for this purpose by the Ministry of National Education, supported by the Ministry of Transport, Maritime Affairs and Communications. The aim is "to enable all teachers in primary and secondary schools to instantly access any document on the web that they may need for their class, project the documents on an interactive smart board (in replacement of traditional black boards), and enable students to use tablet PCs in order to provide an integrated interactive education environment".

20. A responsiveness score was compiled by estimating whether policy initiatives were taken in the critical areas identified by the OECD in each year or not (OECD, 2012a).

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ANNEX 2.A1

Long-term growth scenarios

To gauge the impact of the policy reforms discussed in this chapter on long-term growth, this annex presents several growth scenarios based on a new, stylised, cross-country long-term growth model (OECD, 2012c). Starting from a baseline growth projection, which incorporates likely structural policy developments in line with but less far-reaching than the recommendations in this *Survey* affecting labour participation and productivity (see Box 2.A1.1), the impact of reforms that affect labour force participation and human capital is investigated at the 2030 horizon, which would imply higher growth.

Box 2.A1.1. **Growth model and baseline assumptions**

The supply side of the economy consists of a standard Cobb-Douglas production function with constant returns to scale featuring physical capital K_t, human capital per worker h_t, employment L_t, and multi-factor productivity (MFP), A_t, which mainly captures efficiency gains and technological progress:*

$$Y_t = K_t^{\alpha}(A_t h_t L_t)^{1-\alpha} \quad (1)$$

The share of capital α is set equal to one third. Employment is further decomposed into trend over-15-year-old population Pop_t, trend labour force participation rate (for the over 15 year olds) $LFPR_t$, and trend unemployment u_t:

$$L_t = Pop_t * LFPR_t * (1 - u_t) \quad (2)$$

To compute trend output growth, the future evolution of each of the components is projected based on a set of baseline assumptions, which incorporate a number of likely policy developments in the areas of education, labour participation and productivity:

- The population projections are from the United Nations Population database. Turkey's population aged 15 and above is projected to grow by 24% between 2012 (55 million) and 2030 (70 million).
- Trend unemployment is assumed to gradually return to pre-crisis levels at a speed that depends on labour market policies and institutions. For Turkey, trend unemployment is projected to stabilise at 9.2% by 2023, as against 9.3% currently.
- Capital intensity (the ratio of productive capital to trend output), is assumed to ultimately stabilise as observed in many developed economies. In Turkey capital intensity has trended upwards in the recent past and this is projected to continue for some time, but, at a diminishing rate. The estimated capital ratio is projected to increase from 1.50 in 2012 to 1.62 in 2030.

Box 2.A1.1. **Growth model and baseline assumptions** *(cont.)*

- Each country is assumed to converge to its own steady-state level of MFP. This level depends on country-specific factors and product market regulations (PMR) and is assumed to grow at the global rate of technological progress of 1.3% per year observed among advanced economies over 1996-2006. In addition, the speed of convergence from the current MFP level to the steady-state level depends on trade openness. The baseline assumes that countries with strict PMR such as Turkey slowly converge to the level prevailing in the average OECD country in 2011. This implies a higher steady-state MFP level and hence boosts catch-up productivity growth, resulting in MFP growth in Turkey averaging 1.5% per year between 2012 and 2030 in the baseline.
- Labour force participation is projected using a "cohort" approach. This allows combining assumptions about future age-cohort-specific participation behaviour with demographic projections. In the baseline, cohort-specific participation rates are influenced by developments in educational attainment. In particular, improvements in educational attainment are estimated to reduce participation of young cohorts (15-24 years) but to increase them for older cohorts (25-50 years). In addition, recently implemented pension reforms are taken into account via a gradual reduction of the exit rates of older cohorts from the labour force. Under these baseline assumptions, the trend labour force participation rate is projected to increase from the current 49% to 55% by 2030.
- Educational attainment has slowly converged across high- and medium-income countries in the past (Morrison and Murtin, 2012). The baseline therefore assumes that the educational attainment of cohorts aged 25-29 will continue to converge to the world leader (Korea, which itself will continue to expand educational attainment) at the average speed observed across countries over 1960-2005 – equal to 1% per year. It is then assumed that each age-cohort keeps the educational attainment obtained between the ages of 25 and 29 and, combined with demographic projections, the average years of schooling of the population can be computed. For Turkey this implies that the average years of schooling of the adult population will increase from close to 7 in 2012 to about 8.5 in 2030 (see below). The number of years of schooling across the population is then converted into a human capital measure based on estimates of returns to schooling.

The last assumption does not fully reflect the extension of compulsory education to 12 years legislated in April 2012, which will entail an increase in the average duration of schooling by 2030 to about 9½ years (provided that it is implemented for the entire student population already from the school year 2012/13, as stipulated by a May 2012 implementation decree). However, the OECD cross-country model assumes that a year of schooling delivers the same increase in knowledge and skills in all education systems. Since the quality of education in Turkey is still well below the international average, the effects on growth of the increase in average schooling years are likely overestimated in this model. Accordingly, the boost to GDP ascribed in the model's baseline to the assumed improvements in educational attainment may be broadly in line with what can be hoped for from the new Turkish legislation.

The period investigated in the new Long-Term Baseline (LTB) published in the May 2012 *OECD Economic Outlook* (OECD, 2012c) extends to 2050. This longer horizon is mainly chosen to analyse the effects of population ageing on fiscal balances, which is not the focus of this chapter. The shorter horizon to 2030 reduces some of the large uncertainties inherent in any long-run growth projection and focuses attention on the likely benefits of reforms within a foreseeable future.

* For details on baseline assumptions, underlying approaches and estimations, as well as data sources see OECD (2012c).

In the baseline, trend GDP is projected to grow on average by 4.4% annually between 2012 and 2030, with some decline over time. The contributions from longer schooling, increased labour market participation and MFP growth to the average annual GDP growth rate amount to 0.5, 0.4 and 1 percentage points, respectively.

The labour force participation rate, while increasing over time in the baseline, will still remain low in Turkey compared to other OECD countries in 2030. Deeper labour market reforms than in the baseline scenario, such as the ones recommended in this Survey, could help speed up the convergence to higher participation rates. In a first scenario it is thus assumed that Turkey's ratio of the average years spent in the labour force to life expectancy of currently 34% converges towards the 46% observed in Switzerland, one of the leading countries in terms of aggregate participation, the gap closing by 5% per year. In this scenario aggregate labour force participation would increase to 60% (rather than 55%) by 2030, with significant effects on trend GDP growth. The trend growth rate picks up by 0.6 percentage points on average annually compared to the baseline and the level of trend output would be 10% higher in 2030.

Lifting the average duration of schooling of the adult population to 10 years between 2012 and 2030 (similar to the improvement observed in Korea over the past two decades) would increase average annual trend growth by 0.8 percentage points and the level of potential output by 15% by 2030 relative to the baseline, assuming major quality improvements in the education system, the key strategic priority of Turkey's education policy.

Finally, in an "ambitious" structural reform scenario, the effects of the reforms in the labour market and educational reforms are combined. GDP growth would pick up by 1.3 percentage points annually relative to the baseline over 2012-30 and potential output increase by 25% in 2030.

Table 2.A1.1. **Long-term growth scenarios**

	Baseline	Labour market scenario	Education scenario	Combined scenario
Average potential GDP growth 2012-30, in per cent	4.4	5.0	5.2	5.7
Difference in level of potential output relative to baseline in 2030, in per cent		10	15	25
Labour force participation rate in 2030, in per cent	55	60	56	61
Average years of schooling of the adult population in 2030	8.5	8.5	10	10
Memorandum items:				
Average MFP growth 2012-30, in per cent	1.5	1.5	1.5	1.5
Average capital stock growth 2012-30, in per cent	4.9	5.2	5.4	5.8
Average population (aged 15 and above) growth 2012-30, in per cent	1.3	1.3	1.3	1.3
Structural level of unemployment in 2030, in per cent	9.2	9.2	9.2	9.2

Source: OECD estimations.

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OECD PUBLISHING, 2, rue André-Pascal, 75775 PARIS CEDEX 16
(10 2012 14 1 P) ISBN 978-92-64-12796-8 – No. 60181 2012

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Please cite this publication as:

OECD (2012), *OECD Economic Surveys: Turkey 2012*, OECD Publishing.
http://dx.doi.org/10.1787/eco_surveys-tur-2012-en

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Volume 2012/14
July 2012

OECD*publishing*
www.oecd.org/publishing

ISSN 0376-6438
2012 SUBSCRIPTION (18 ISSUES)
ISSN 1995-3429
SUBSCRIPTION BY COUNTRY

ISBN 978-92-64-12796-8
10 2012 14 1 P