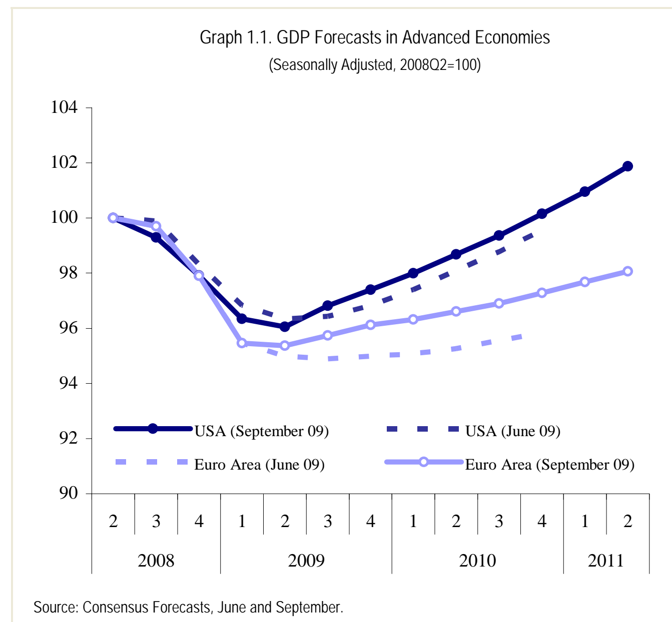
1. Overview

The global crisis which erupted in developed markets and then spread across the world during the last quarter of 2008, has continued to affect the economic outlook—albeit less forcefully—during the third quarter of 2009. In this period, data releases on activity indicated that the recovery continues to gain traction with growth forecasts being revised on the upside after a long period of downward revisions (Graph 1.1.). However, improvements in many leading indicators are still tentative, problems across credit markets linger, and employment remains in a precarious state, all suggesting that the recovery will likely be anemic and protracted.

Graph 1.1. GDP Forecasts in Advanced Economies
(Seasonally Adjusted, 2008Q2=100)

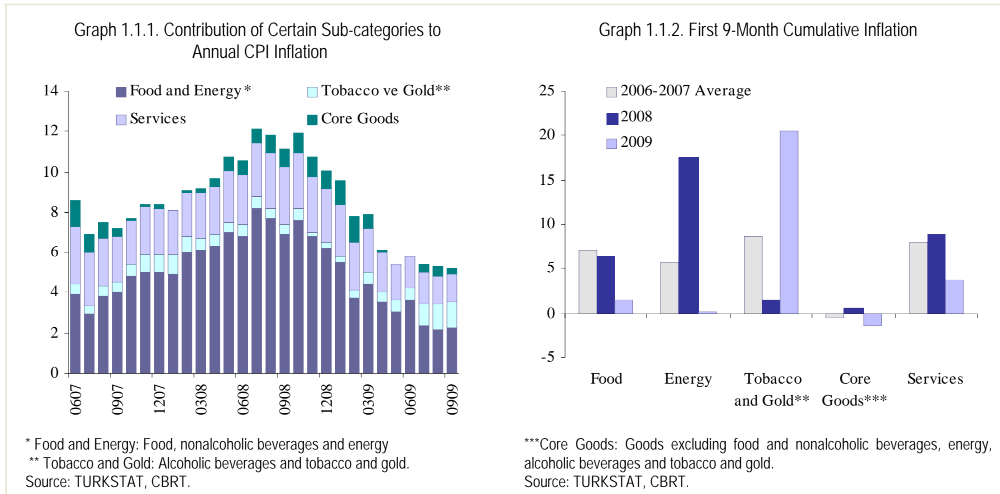


Source: Consensus Forecasts, June and September.

1.1. Inflation Developments

The crisis was characterized by a steep drop in economic activity, mainly driven by shrinking external demand, tighter financial conditions, and rising precautionary saving. The sharp contraction in economic activity and the collapse of commodity prices have brought down inflation rates across the world, including Turkey. In this respect, energy and processed food prices, which are particularly sensitive to commodity price developments, have displayed a sharp decline. Inflation in core goods and services has also slowed down owing mainly to weak domestic demand (Graph 1.1.2). In the third quarter, despite the partial withdrawal of tax cuts within the fiscal stimulus

package, the underlying disinflation trend was strong enough to bring headline inflation downwards. Accordingly, inflation came down to 5.27 percent in September—5.9 percentage points lower than the figure recorded one year ago (Graph 1.1.1).



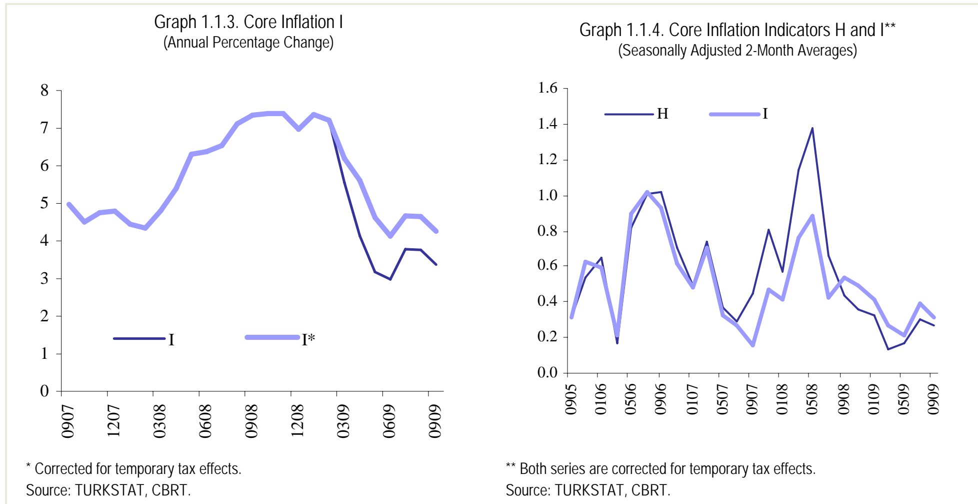
Graph 1.1.1. Contribution of Certain Sub-categories to Annual CPI Inflation

* Food and Energy: Food, nonalcoholic beverages and energy
** Tobacco and Gold: Alcoholic beverages and tobacco and gold.
Source: TURKSTAT, CBRT.

Graph 1.1.2. First 9-Month Cumulative Inflation

***Core Goods: Goods excluding food and nonalcoholic beverages, energy, alcoholic beverages and tobacco and gold.
Source: TURKSTAT, CBRT.

Although the recovery in global economic activity is expected to be slow and gradual, the perception that the worst part of the crisis is over has continued to support optimism across financial markets and increased the appetite for risk during the third quarter. In turn, this has triggered capital inflows to emerging markets, including Turkey. As a consequence, the cost-push impact of rising import prices was offset by the appreciation in the Turkish lira during the third quarter, which has helped core inflation remain at low levels. As of September, the annual rate of change in the core measure excluding unprocessed food, energy, tobacco, alcohol, and gold items (Core index H) is at 2.44 percent. Inflation measured by the I index, which further excludes processed food from the H index, stands at 3.37 percent. Although low level of the core inflation can be partly attributed to temporary tax adjustments, trend inflation still continues to hover at low levels even when corrected for tax changes (Graph 1.1.3 and 1.1.4).



Graph 1.1.3. Core Inflation I
(Annual Percentage Change)

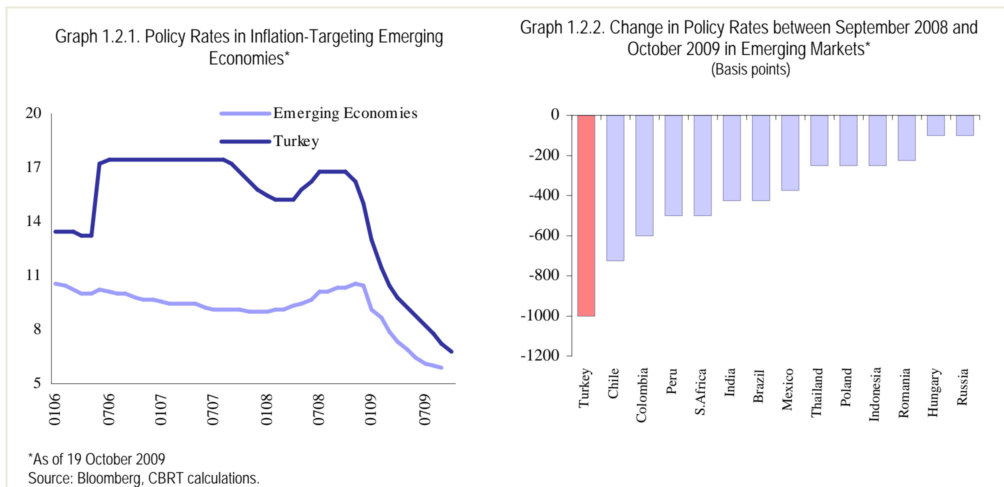
* Corrected for temporary tax effects.
Source: TURKSTAT, CBRT.

Graph 1.1.4. Core Inflation Indicators H and I**
(Seasonally Adjusted 2-Month Averages)

** Both series are corrected for temporary tax effects.
Source: TURKSTAT, CBRT.

1.2. Monetary Policy

Anticipating that inflation would decrease sharply following the last quarter of 2008, the Central Bank of the Republic of Turkey (CBRT) focused on alleviating the potentially harsh impact of the global financial crisis on the domestic economy. In this respect, the CBRT has delivered sizeable cuts in policy rates, while providing liquidity support to facilitate the smooth operation of credit markets. The Monetary Policy Committee (MPC) continued to cut interest rates in the third quarter, bringing the cumulative rate cuts to 1000 basis points since November 2008. Therefore, the CBRT lowered policy rates more than any other emerging market central bank since the intensification of the global crisis (Graph 1.2.1 and 1.1.2).



Graph 1.2.1. Policy Rates in Inflation-Targeting Emerging Economies*

*As of 19 October 2009
Source: Bloomberg, CBRT calculations.

Graph 1.2.2. Change in Policy Rates between September 2008 and October 2009 in Emerging Markets*
(Basis points)

Data releases on inflation and economic activity since the inception of the rate cutting cycle have vindicated these preemptive monetary policy decisions, and thereby strengthened the impact of the policy decisions on expectations, in turn bringing government bond yields to historically low levels.

Government bond yields have further declined in the third quarter, along with the policy rate cuts and decreasing risk premiums. Monetary policy communication played a key role in bringing down longer-term rates, as the downward trend accelerated after providing a medium-term policy perspective in the July Inflation Report.

The cumulative policy rate cuts implemented since November 2008, and the improvements in global risk perceptions have started to have favorable effects on credit markets toward the last quarter. Consumer loan rates, which were reacting rather sluggishly to the policy rate cuts, have displayed a significant decline in this period. Moreover, the CBRT reduced Turkish lira reserve requirements in order to further alleviate the tightness in credit conditions, and thus enhance the effectiveness of the policy rate cuts. Taken together, the recovery in credit markets is expected to continue throughout the last quarter. However, the effectiveness of the credit channel in supporting the economic activity is still partly restrained owing to the ongoing tightness in lending standards for the small- and medium-sized enterprises.

In sum, referring to the partial improvements in labor and credit markets, the MPC indicated after the October meeting that a slowdown in the pace of rate cuts would be considered in the next meeting depending on the economic data and developments. However, it was also noted that lingering problems across the global economy were still a concern and that uncertainties regarding the strength of the recovery remain. Taking these factors into account, the MPC reiterated that it would be necessary for monetary policy to maintain an easing bias for a long period of time.

1.3. Inflation and Monetary Policy Outlook

The second quarter gross domestic product (GDP) release was broadly in line with the outlook presented in the July Inflation Report. GDP displayed a significant upswing after four consecutive quarters of contraction, with domestic consumption demand rising markedly during the second quarter,

mainly owing to the fiscal stimulus package. External demand, on the other hand, remained weak. The rise in consumption demand did not exert inflationary pressures as it was met by a run-down in inventories rather than an increase in production, therefore keeping resource utilization at low levels. Moreover, high unemployment rates have continued to suppress domestic demand. Accordingly, aggregate demand conditions have continued to support disinflation.

Data releases pertaining to the third quarter indicate that the expansionary impact of the fiscal measures have been receding. In this respect, consumption demand, after having increased markedly during the second quarter, has shifted to a weaker course. Although private investment is expected to increase slightly in the third quarter, low capacity utilization and high demand uncertainty is expected to hold back the recovery in capital expenditures. Accordingly, final domestic demand is expected to stay flat in the third quarter, after having increased significantly in the second quarter.

Indicators such as capacity utilization rates and per capita hours worked suggest that resource utilization remains low throughout the economy. Given that ample slack would continue to be a drag on investment and employment, recent signs of improvement in the employment data is not expected to turn into a significant recovery, suggesting unemployment will likely remain elevated for an extended period. Therefore, unit labor costs and domestic demand would continue to support disinflation.

The tightness in credit conditions have been on an easing trend since the July Inflation Report, with the improvement in global liquidity conditions and the decline in risk premiums. Accordingly, the credit channel would begin to support domestic economic activity during the fourth quarter of the year. Furthermore, the impact of the cumulative rate cuts since November 2008 is expected to be more visible in the medium term. However, the rising domestic borrowing requirement of the government, ongoing problems in the global economy, and elevated levels of unemployment would continue restrain credit expansion.

Overall, economic activity is expected to recover gradually, with annual growth rates posting positive figures starting in the last quarter. However, resource utilization is anticipated to remain below the long-term average for

some time. In this context, our medium-term forecasts envisage that the output gap—albeit closing faster than envisaged in the July Report—will remain disinflationary until mid-2012.

Although global economic growth is expected to follow a gradual path, commodity prices continued along a rising trend in the third quarter, with the growing perception that the recovery is on the way. Accordingly, oil prices were above our assumption of 60 USD per barrel in the third quarter. Therefore, the oil price assumptions stated in the past Report are revised in line with futures prices registered in the first half of October. In this context, the previous assumption of end-year oil price levels are revised up from 60 USD per barrel to 70 USD for 2009, from 70 USD to 75 USD for 2010, and from 70 USD to 80 USD for 2011 and thereafter. Moreover, in line with oil prices, imported input prices are also assumed to increase gradually throughout the forecast horizon in response to the slow recovery in the world economy.

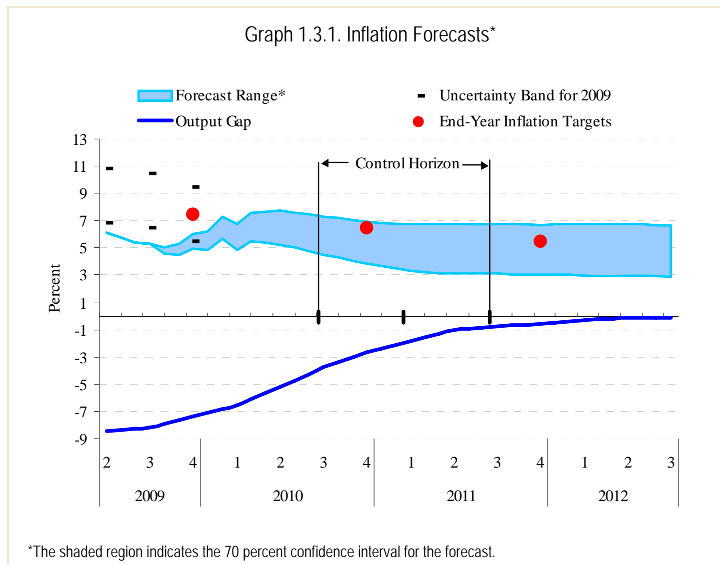
The July Inflation Report envisaged food inflation to be 7.5 percent at the end of 2009 and 6 percent for the following years. However, better than expected outcomes regarding unprocessed food prices necessitated a downward revision in food inflation to 5.8 percent for end-2009, while the projection of 6 percent was maintained for the following years.

In sum, our assumptions were revised upward for oil prices, but downward for food prices. However, because food has a larger share in the CPI basket, our short-term inflation forecast has been revised downward. Accordingly, we now forecast end-year inflation to be 5.5 percent, down from 5.9 percent in the previous Report.

Furthermore, the revised forecasts envisage world interest rates to remain low for an extended period of time. Regarding fiscal policy, it is assumed that the consistent framework outlined in the Medium Term Program (MTP) will be implemented and further enhanced by structural measures that would strengthen fiscal discipline. In this respect, it is assumed that fiscal stance will remain expansionary—but less so than in 2009—throughout 2010, and fiscal tightening would be gradually adopted starting from 2011. Moreover, in line with the MTP, it is envisaged that the rising debt-to-GDP ratios would reverse course steadily starting from 2011, and hence the risk premium would not display any significant changes throughout the forecast horizon.

Against this background, assuming a limited amount of further easing and constant policy rate until the end of 2010, the medium-term forecasts suggest that, with 70 percent probability, inflation will be between 5.0 and 6.0 percent with a mid-point of 5.5 percent at end-2009, and between 3.9 and 6.9 percent with a mid-point of 5.4 percent by the end of 2010. Furthermore, inflation is expected to decline to 4.9 percent by the end of 2011 and to 4.8 percent by the third quarter of 2012 (Graph 1.3.1).

Graph 1.3.1. Inflation Forecasts*



*The shaded region indicates the 70 percent confidence interval for the forecast.

Overall, while the better than expected outcome in food prices has led to a downward revision for the end-2009 inflation forecast, upward revisions in the assumptions for world economic activity and oil prices has offset this impact over the medium term. Taken together, there has been no significant change in our inflation forecasts for end-2010 and end-2011.

The revised forecasts indicate that the output gap will not close soon, supporting disinflation even when policy rates are kept at low levels for an extended period. It is worthy to note that the sharp fall in inflation in the first half of 2009 created significant base effects. This would, *ceteris paribus*, lead to volatility and some mild increases in annual inflation rates until mid-2010 (Figure 5). Afterwards, as the impact of the tax hikes would gradually disappear, inflation is expected to trend downwards starting from the second half of 2010, stabilizing around 5 percent over the medium term. It is critical to note that, inflation would be less persistent, and thus the economic recovery

much smoother, should economic agents take these forecasts as a benchmark in their pricing decisions.

It should be emphasized that any new data or information regarding the inflation outlook may lead to a change in the monetary policy stance. Therefore, assumptions on the future policy rates underlying the inflation forecast should not be perceived as a commitment on behalf of the CBRT.

1.4. Risk Factors and Monetary Policy

Although recent data releases indicate that the worst is likely to be over, concerns regarding the health of the global economy remain. In particular, ongoing problems in credit and labor markets pose downside risks for global activity. Should the global conditions deteriorate again, and consequently delay the domestic recovery, the CBRT would consider another cycle of rate cuts.

The fact that the crisis itself, and the policy responses in reaction to it, are unprecedented in recent history, creates risks regarding the inflation and monetary policy outlook. It is extremely difficult estimate with precision the impact of the recent monetary policy measures taken at the global scale. Although not having resorted to explicit quantitative easing eliminates some of the risks for the Turkish case, it should still be noted that the full impact of the cumulative easing of 1000 basis points since November 2008 would be seen with a lag. In other words, although the baseline scenario does not envisage any policy rate hikes for an extended period, it is important to monitor the impact of the policies closely to ensure an appropriate timely response to any development not envisaged in this Report.

Another possible scenario is a surge in capital inflows to emerging markets owing to the relative improvement of credit risk across these countries. Ample liquidity driven by the expansionary fiscal and monetary policies on a worldwide scale, coupled with rising risk appetites, have led to large capital inflows to emerging markets. The current output gap would imply that a fall in the cost of imported inputs could be rapidly transmitted to consumer prices, suggesting that a further acceleration in capital inflows may exacerbate downward pressures on inflation. Realization of such a scenario could lead to temporarily lower policy rates than envisaged in the baseline scenario.

The CBRT will continue to monitor fiscal policy developments closely while formulating monetary policy. Enhancing the framework set out in the MTP through further structural adjustments that would strengthen fiscal discipline, would support the improvement of Turkey's sovereign risk. Should the goals set out in the MTP be implemented, it would be possible to keep policy rates at single digits throughout the forecast horizon.

Increasing budget deficits on a worldwide scale continue to pose risks on inflation expectations and thus on global interest rates in the longer term. The medium-term forecasts presented above envisage that the slow recovery in global economic activity and rising saving rates will likely keep global interest rates at low levels for an extended period. However, the lack of a clear exit strategy from various fiscal stimulus packages creates upside risks regarding global inflation rates and therefore longer-term global interest rates. In this respect, countries with relatively sounder banking systems and prudent fiscal policies would be more resilient against these risks. These issues once again draw attention to the importance of fiscal discipline.

The course of oil and other commodity prices constitutes another important risk. Ample liquidity driven by countercyclical policies on a global scale creates speculative movements not only regarding emerging market currencies, but also for commodity prices. Therefore, oil and other commodity price developments warrant caution, even under a scenario of a gradual global economic recovery. Nonetheless, weak domestic demand conditions would limit the pass-through stemming from upside cost-push shocks. Therefore, the CBRT will accommodate the short-term volatility in commodity prices, especially when the resource utilization remains at depressed levels. However, if an uptrend in commodity prices reflects a strong and durable rebound in global activity that would in turn create inflationary pressures, then monetary policy will react appropriately to keep inflation in line with medium-term inflation targets.

The CBRT has been taking the necessary measures to contain the adverse effects of the global financial turmoil on the domestic economy. However, prudent monetary policy is necessary, but not sufficient to maintain the resilience of the economy against the global crisis. Therefore, strengthening the commitment to fiscal discipline and the structural reform agenda is also critical for facilitating expectations management and thus for supporting the

effectiveness of the monetary policy decisions. In this respect, timely implementation of the structural reforms envisaged by the Medium Term Program and European Union accession process remains to be of utmost importance.

2. International Economic Developments

Moving into the fourth quarter of 2009, it is becoming apparent that the pressure from the gravest economic downturn since the Great Depression has eased off and the world economy has headed towards a gradual recovery. The stronger-than-expected second-quarter growth and promising third-quarter indicators have strengthened the belief that the worst of the crisis is over, which prompted an increase in risk appetite and provided a strong boost to financial markets during the third quarter.

Leading indicators suggest that the world economy might have grown again by mid-2009. However, it is not clear to what degree the economic growth has resulted from transitory changes, such as inventory buildups and fiscal stimulus packages, which raises questions about the durability of the recovery and causes growth forecasts to differ significantly among economic agents. International institutions, primarily the International Monetary Fund (IMF), emphasize that recoveries from recessions associated with the collapse of asset markets have been typically slower and more prolonged, and therefore expect growth to remain sluggish for an extended period.[1] As a matter of fact, decrease in employment level and frictions in credit markets so far have supported this view.

Having been the principal driver of global growth in recent years, US consumption will have a certain impact on global growth if it returns to former levels. Yet, the rise in US household debt before the outbreak of the crisis and the uncertainty caused by labor markets are expected to boost precautionary savings and continue to dampen consumption. Moreover, as banks have yet to realize much of their losses and default rates on both household and corporate debts are high, tight loan conditions fail to fully ease. Aside from the credit constraints, high idle capacity also restrains investment spending. Thus, the US economy appears to be unlikely to return to pre-crisis growth rates steadily for the foreseeable future.

Downside risks to global growth remain, one of which, as highlighted at the G-20 meetings, is the withdrawal of fiscal and monetary stimulus by advanced economies before a broad-based recovery in private demand. The

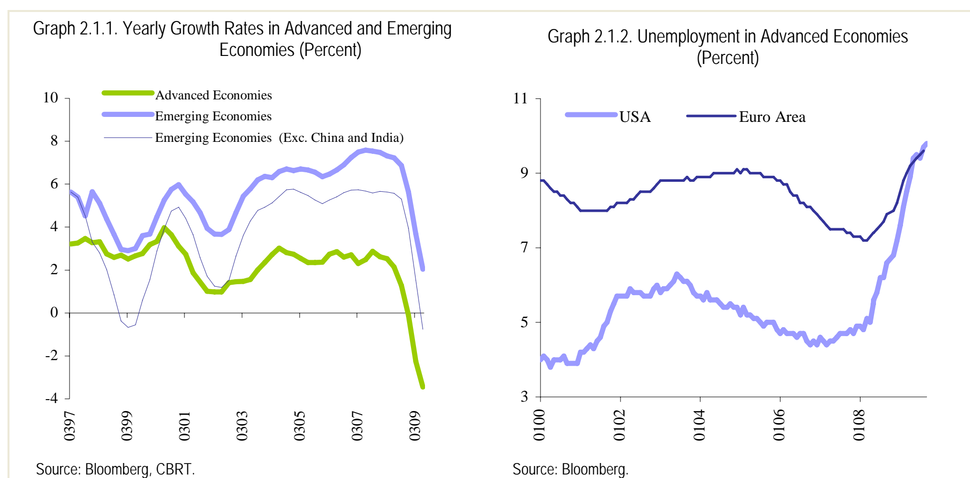
[1] IMF, World Economic Outlook, April.

second risk relates to the prospects for commodity prices. Commodity prices, especially crude oil prices, are expected to climb with the economic recovery. The abundance of liquidity resulting from expansionary monetary measures in the world and the likely entry of speculative capital, which seeks yield, into futures markets are considered to be major risks that cause prices to fluctuate. The materialization and persistence of this scenario may not only stifle growth but also put pressure on global inflation.

In sum, global growth forecasts have been revised upwards since the third quarter. Yet, many continue to have concerns about the sustainability of growth and expect the world economy to recover only slowly and gradually. Accordingly, we revised our projections for global economic activity offered in the July Inflation Report slightly upwards and built our medium-term forecasts in the final chapter of this Report on the assumption that foreign demand remains weak for an extended period of time.

2.1. Global Growth

The weighted average of GDP growth rates in advanced economies fell to –3.4 percent in the second quarter of 2009.[2] In the same quarter, the weighted average of GDP growth rates in emerging economies continued to decline. Excluding both China and India, the GDP growth rate for emerging economies became –0.8 percent during the second quarter (Graph 2.1.1).



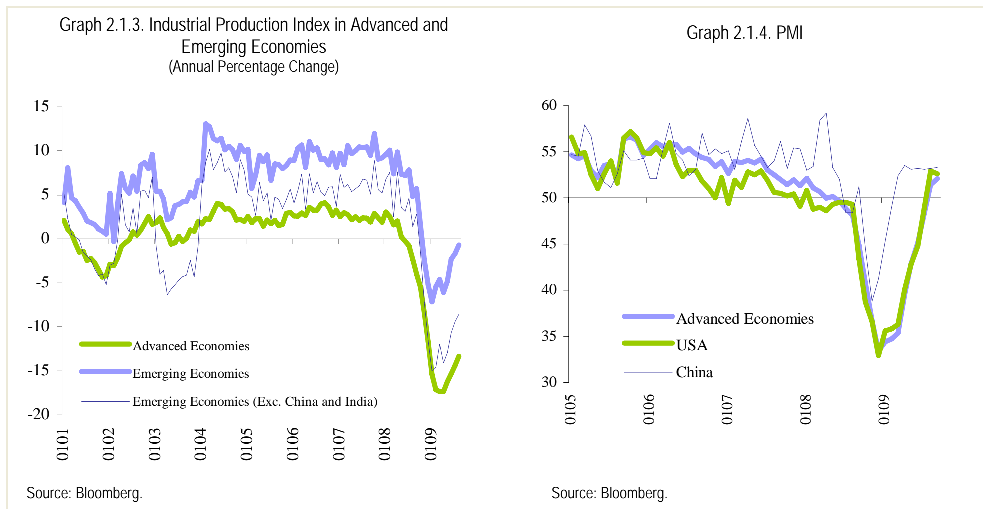
[2] Growth rates are derived from four quarterly cumulative national accounts data. Calculated by the same method, Turkey's GDP has grown by –6.5 percent year-on-year as of end-Q2 2009.

Based on a higher-frequency data analysis, the world economy appears to have grown by 3.0 percent during the second quarter on a quarterly basis following a 6.5 percent contraction in the first quarter.[3] Although the world economy is expected to grow at a high rate stimulated by the increased government spending and stock buildups during the second half of the year, there are major uncertainties regarding the sustainability of growth. Given the expectation that domestic demand will remain weak especially in advanced economies, it is unlikely to maintain a sustainable growth by only expanding government spending. Moreover, increasing unemployment rates in both advanced and emerging economies create doubts about the strength of the growth potential for the world economy. Unemployment climbed to 9.8 percent in the US during September, and to 9.6 percent in the euro area during August (Graph 2.1.2). The data for US weekly first-time unemployment claims suggest that job losses may continue, albeit at a slower pace. The weakening labor market prompts households to increase precautionary savings and to delay consumption, and fuels worries about the speed of recovery.

The rate of decline in the industrial production index is observed to decrease for advanced economies in August. The downturn in the industrial production index for emerging economies has slowed at a more rapid pace, pushing the annual change of the index up to –0.7 percent. However, excluding China and India, the annual change totals to –8.5 percent (Graph 2.1.3).

Graph 2.1.3. Industrial Production Index in Advanced and Emerging Economies
(Annual Percentage Change)

Graph 2.1.4. PMI



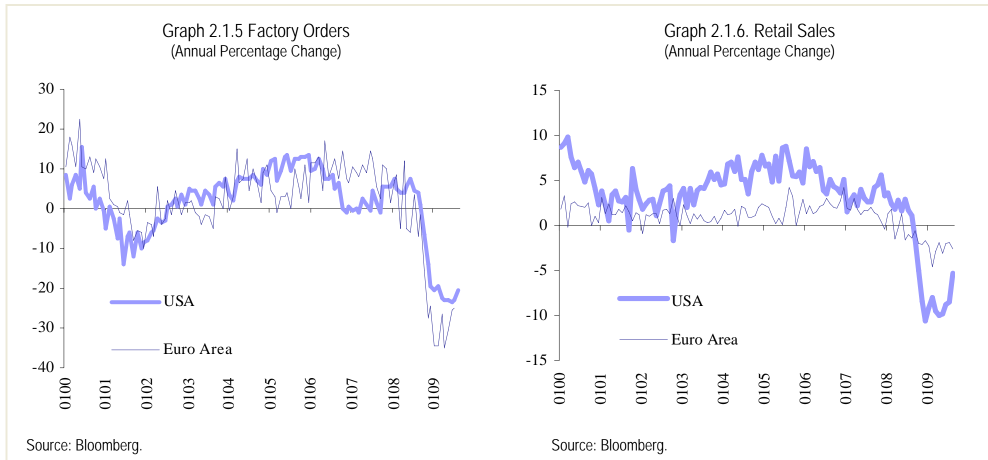
Source: Bloomberg.

Source: Bloomberg.

[3] IMF, World Economic Outlook, October.

After a sharp downtrend since early 2008, the Purchasing Managers Index (PMI) for advanced economies accelerated to 51.4 points in September 2009, rising above the neutral level of 50 points. Having recovered earlier than expected thanks to massive fiscal stimulus packages, the Chinese PMI surpassed the neutral level in March and remained on the rebound since then (Graph 2.1.4).

Meanwhile, US factory orders and retail sales have shown some signs of recovery (Graph 2.1.5 and 2.1.6). Factory orders rose by 2.0 percent on average in seasonally adjusted terms during July-August, compared with the second quarter. Excluding transportation vehicles that are included in the stimulus program, orders increased by 1.5 percent. Orders for durable goods and the PMI new orders sub-index follow the same pattern, strengthening the growth forecasts for the second half of 2009.



Given the strong signs of economic recovery for the third quarter, both the IMF and the Organization for Economic Co-operation and Development (OECD) updated their growth forecasts upwards (Table 2.1.1). Accordingly, the recovery in the euro area is expected to be more limited and prolonged than in the US. Despite those upward revisions, forecasts confirm the belief that the world economy will recover slowly and gradually.

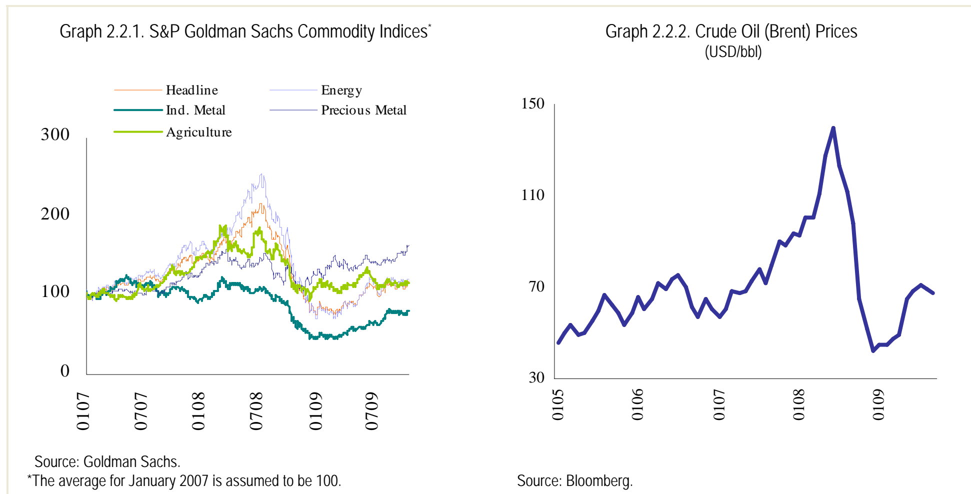
Table 2.1.1. Annual Growth Forecasts

	2009		2010	
	Previous	**Revised**	**Previous**	**Revised**
IMF				
World	-1.4	-1.1	2.5	3.1
Advanced Economies	-3.8	-3.4	0.6	1.3
United States	-2.6	-2.7	0.8	1.5
Euro Area	-4.8	-4.2	-0.3	0.3
Emerging Economies	1.5	1.7	4.7	5.1
OECD				
All OECD	-4.1	-3.7	0.7	-
United States	-2.8	-2.8	0.9	-
Euro Area	-4.8	-3.9	0.0	-
Consensus Economics				
World	-2.3	-2.3	2.6	2.7
United States	-2.6	-2.5	2.4	2.6
Euro Area	-3.9	-3.9	1.0	1.1

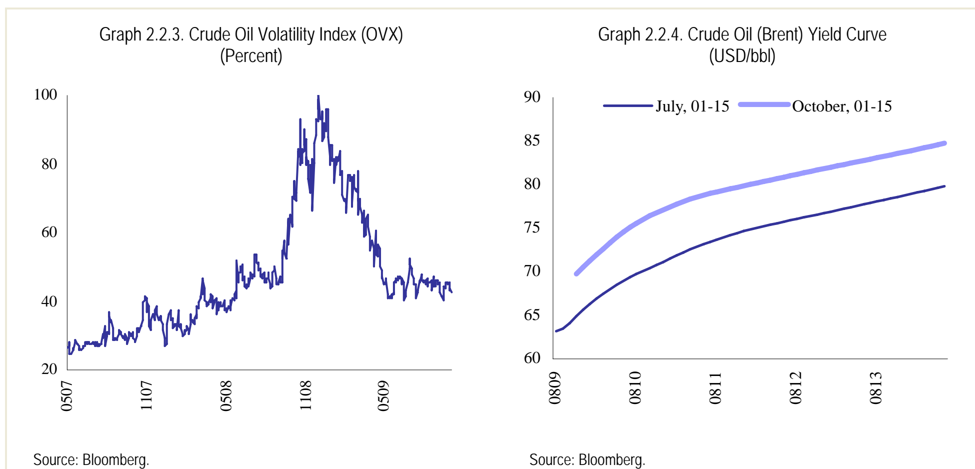
Source: IMF World Economic Outlook, July and IMF World Economic Outlook October Update.
OECD Economic Outlook, June and OECD Economic Outlook, September.
Consensus Forecasts, September and October.

2.2. Commodity Prices

Expectations of global economic recovery, China’s demand for commodities and the uncertainty over the US dollar continued to affect commodity prices in the third quarter. Metal prices soared on China’s continued stock buildup in early third quarter, but later dropped slightly amid mounting hopes of a steady global recovery. After the pick-up in the second quarter, grain prices fell in the third quarter on favorable harvest expectations. Gold prices, on the other hand, are affected by the uncertainty surrounding both the US dollar and the US inflation and soared to historic highs. Meanwhile, despite lower demand and higher stock levels, oil prices rose modestly due to weaker US dollar and OPEC’s (Organization of the Petroleum Exporting Countries) output cut. Accordingly, the S&P Goldman Sachs (GS) Commodity Index jumped by 9.2 percent quarter-on-quarter in the third quarter, but fell by 38.1 percent year-on-year due to the base effect. The GS energy, industrial metals and precious metals indices rose by 12.5, 24.5 and 4.6 percent quarter-on-quarter, respectively, while the GS agriculture index dropped by 5.9 percent (Graph 2.2.1 and 2.2.2).



The oil volatility index flattened out during the third quarter and remained quite unchanged from previous three months (Graph 2.2.3). The slope of the yield curve hardly changed during the past three months, while prices increased at every maturity in response to spot market developments (Graph 2.2.4). Thus, our forecasts in the final chapter of this Report are based on an upward revision of the assumptions offered in the July Inflation Report.



Although OPEC officials stated that the range of 70 to 80 US dollars per barrel of crude oil is acceptable and the over-quota production of several OPEC members put downward pressure on oil prices, there still remain substantial risks. Data from the International Energy Agency (IEA) indicate that, if OPEC leaves output quotas unchanged, the supply/demand ratio is likely to tilt in favor of demand by the final quarter of 2009. Moreover, the fact that OPEC holds two ordinary meetings a year and may delay its supply decisions can trigger severe price movements. In addition, the re-entry of non-producing

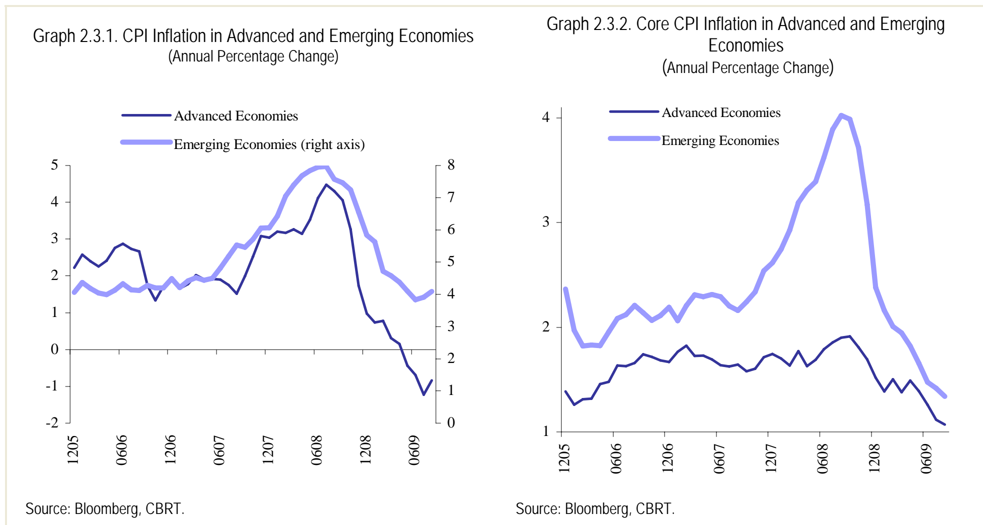
investors into futures markets may stimulate the stocking behavior and cause spot prices to reaccelerate. Therefore, despite strong hopes of a slow global recovery, these risks require prudence against oil and other commodity prices.

2.3. Global Inflation

Having slumped due to the downward pressure caused by the demand and cost conditions since mid-2008, global inflation rose slightly in August 2009 with the gradual removal of the high base effect from a year earlier (Graph 2.3.1). In addition, core inflation figures point to a downtrend in the underlying inflation in both advanced and emerging economies (Graph 2.3.2). Recent monthly inflation data indicate that underlying inflation remains in the positive zone despite fears of deflation fueled by the severe economic crisis (Box 2.1). Moreover, both the inflation compensation data, which shows the difference in yields between CPI inflation-indexed treasury bonds and nominal bonds, and the Consensus Forecasts data suggest that inflation expectations are well anchored.

Graph 2.3.1. CPI Inflation in Advanced and Emerging Economies
(Annual Percentage Change)

Graph 2.3.2. Core CPI Inflation in Advanced and Emerging Economies
(Annual Percentage Change)



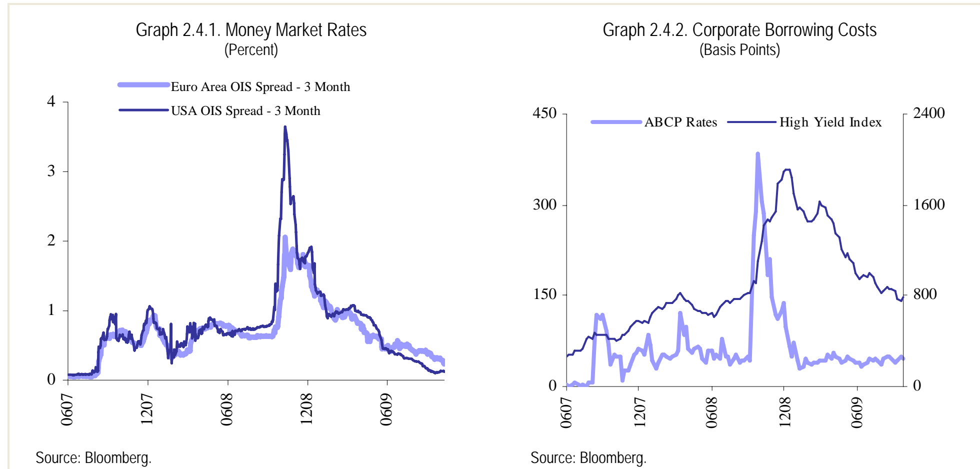
Source: Bloomberg, CBRT.

Source: Bloomberg, CBRT.

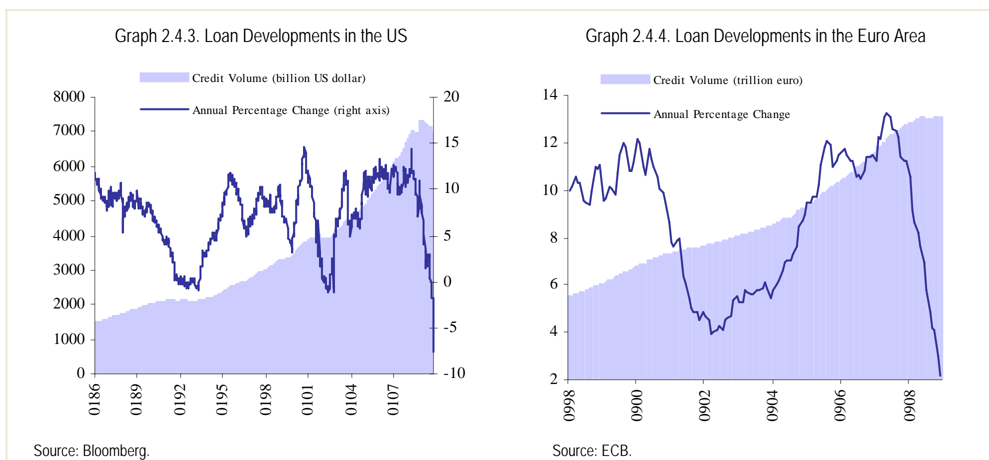
2.4. Financial Conditions and Risk Indicators

The third quarter of 2009 was marked by a moderate decline in market rates boosted by the improved investor sentiment amid expansionary monetary measures, government guarantees and capital injections for troubled banks and hopes of global economic recovery (Graph 2.4.1). Especially borrowing costs for high-risk companies that rise rapidly amid crisis continued to fall in the

third quarter, while interest rates on the asset-based commercial paper market, which lenders consider a safe way to lend, remained stable (Graph 2.4.2).

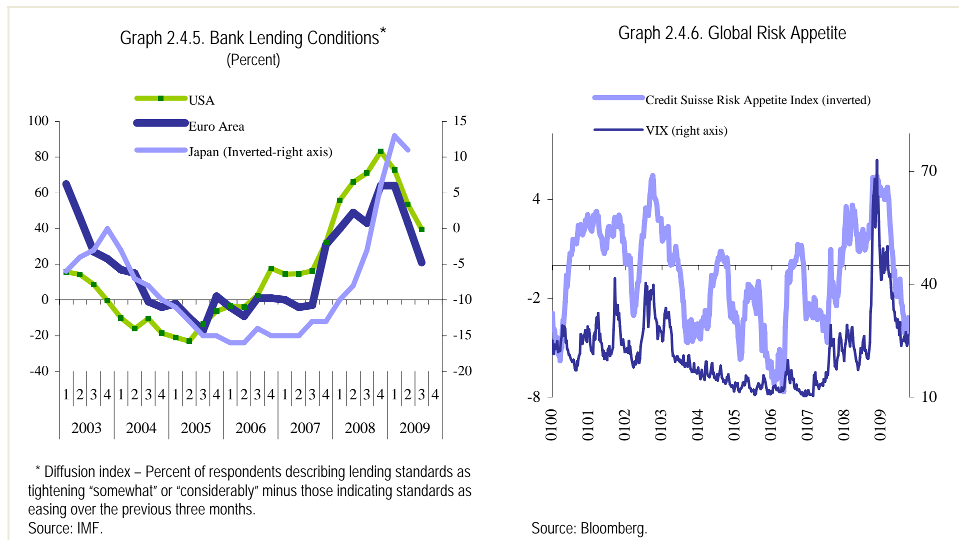


Although market rates and investment costs dropped during the third quarter, tight lending conditions and weaker loan demand still suppress a potential credit expansion. In fact, credit volume in US is observed to continue its contraction since the outburst of the crisis, while the credit volume in euro area has flattened out (Graph 2.4.3 and 2.4.4). It is very remarkable that change in the total credit volume at US deposit banks has dipped to a historic low of 7.7 percent year-on-year as of September 30.



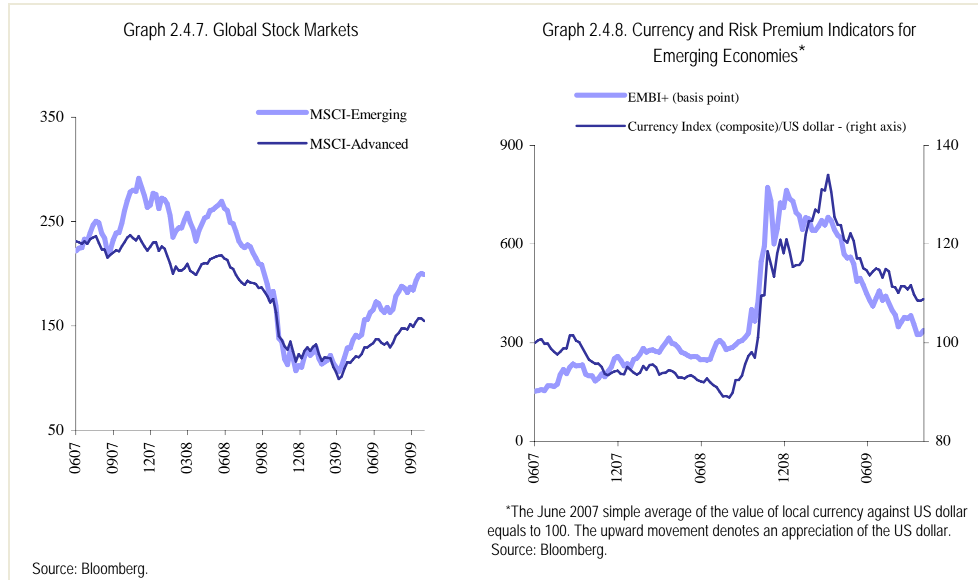
The Federal Reserve's (Fed) and the European Central Bank's (ECB) July 2009 surveys on bank lending reveal that loan conditions are expected to remain tight despite some improvement in the previous quarter and loan demand is likely to remain weak. Banks attributed the tight loan conditions to the uncertain economic outlook and the lower loan demand to reduced funding

needs driven by falling inventory and capital investments of companies (Graph 2.4.5). Furthermore, according to the October 2009 release of the IMF's Global Financial Stability Report, following the writedowns of some 1.3 trillion US dollars so far, banks, especially those in the US, euro area and UK, are expected to report additional writedowns of 1.5 trillion US dollars ahead. These world's major banks are expected to pay off their debt by selling assets in the near future and create a deleverage effect, thereby leading to further tightening in loan supply.



Having improved during the second quarter with the faster-than-expected recovery in economic activity and the growing sentiment that the worst of the crisis has passed, the global risk sentiment continued to strengthen slightly in the third quarter (Graph 2.4.6).

The massive amount of low-cost liquidity injected into markets as part of monetary and fiscal stimulus packages, increased risk appetite and low yields in government bonds of advanced economies boosted the demand for high-risk, thus high-yield emerging-market securities (Graph 2.4.7).



Graph 2.4.7. Global Stock Markets

Source: Bloomberg.

Graph 2.4.8. Currency and Risk Premium Indicators for Emerging Economies*

*The June 2007 simple average of the value of local currency against US dollar equals to 100. The upward movement denotes an appreciation of the US dollar.
Source: Bloomberg.

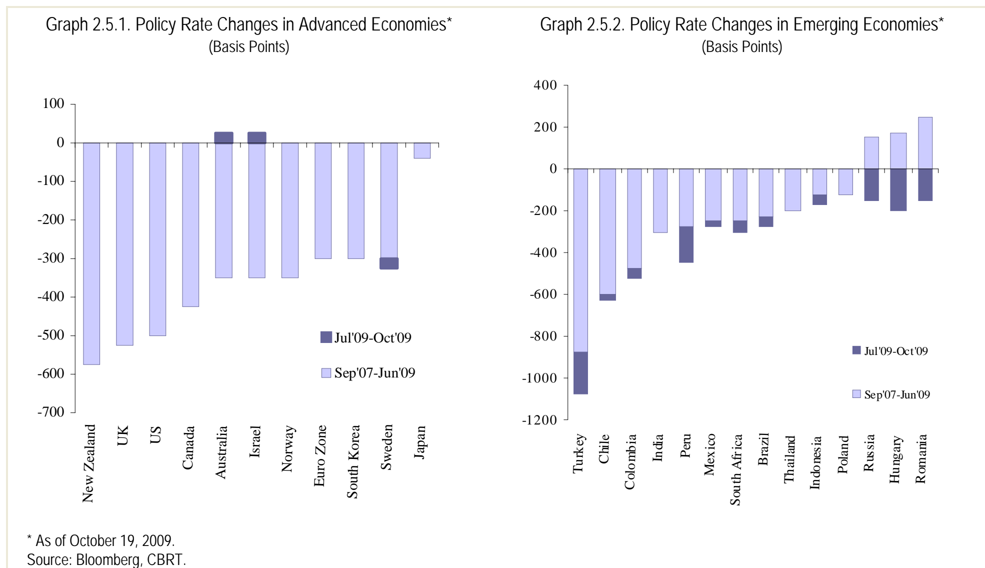
According to the IIF's (Institute of International Finance) October 2009 Report, after having declined in the first quarter of 2009, net capital flows to emerging market economies are projected to be 349 billion US dollars at end-2009 and 672 billion US dollars in 2010, following the marked increase in risk appetite since the second quarter (Box 2.2). In fact, emerging-market currencies seem to have appreciated against the US dollar as capital flows turned positive in the second quarter of 2009 (Graph 2.4.8).

In its October 2009 World Economic Outlook report, the IMF makes a similar projection for 2010. Accordingly, after a severe contraction in 2009, capital flows to emerging markets are expected to rebound in 2010 given the improved global growth outlook. IMF also reports that any hiatus in global growth may reverse the flow.

2.5.Global Monetary Policy Developments

The monetary easing in advanced economies slowed markedly during the second quarter and came to a halt in the third quarter. The Fed and the Bank of Japan (BoJ) were the first central banks among advanced economies to end the monetary loosening by lowering policy rates for the last time in December 2008. Bank of England (BoE) halted monetary easing at the end of the first quarter, while the ECB and the Bank of Canada continued to cut key rates in the second quarter. None of the central banks in advanced economies eased

monetary policy during the third quarter except for the Swiss National Bank, which lowered its policy rate by 25 basis points in July (Graph 2.5.1).



Graph 2.5.1. Policy Rate Changes in Advanced Economies* (Basis Points)

Graph 2.5.2. Policy Rate Changes in Emerging Economies* (Basis Points)

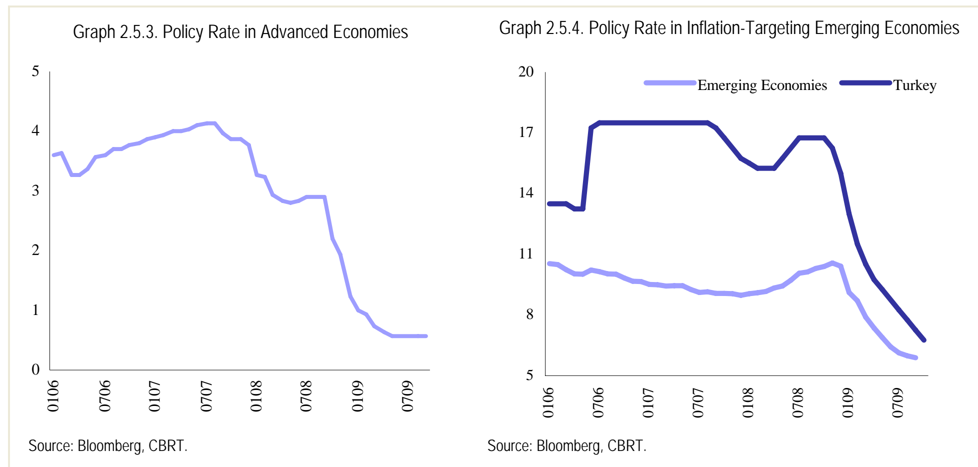
* As of October 19, 2009.
Source: Bloomberg, CBRT.

Despite the commitment of major central banks to leave policy rates unchanged until the end of 2010, the Bank of Israel and the Reserve Bank of Australia raised key interest rates by 25 basis points at their meetings on August 24 and October 6, respectively (Graph 2.5.1). In its post-decision statement, the Bank of Israel noted that the July CPI inflation came in above the expected range of 0.8 – 0.9, the economic contraction bottomed out and the economy resumed an upward growth path. Similarly, the Reserve Bank of Australia stated that unemployment did not rise as far as had been expected and growth prospects for Australia's Asian trading partners appeared to be noticeably better. Both central banks noted the 12-month ahead inflation expectations that are now closer to the upper bound of their targets and the upward revision to growth prospects, and signaled further increases in policy rates.

Monetary policy practices were quite similar among advanced economies during the past quarter, but varied across emerging economies. Fewer emerging-market central banks continued to cut policy rates at a descending pace in the third quarter to contain the impact of the global crisis on economic activity. The mid-crisis financial market fragility offered little room for monetary policy practices; countries such as Hungary, Romania and Russia lowered policy rates delayed monetary easing (Graph 2.5.2). On the other hand,

countries such as Poland, Czech Republic and South Africa are likely to halt monetary loosening and raise key rates in 2010. Similarly, Brazil is another country that is expected to tighten monetary policy by early 2010 depending on its rate of recovery.

In view of these developments, the monetary easing in advanced economies came to a halt in the previous quarter, leaving the composite policy rate unchanged from the second quarter at 0.56 percent (Graph 2.5.3). Meanwhile, emerging economies continued to cut policy rates, albeit at a significantly slower pace, but did not end the easing cycle. In inflation-targeting emerging economies, the composite index fell by 50 basis points from the second quarter, lowering the composite rate to 5.89 percent (Graph 2.5.4).



In sum, although recent data regarding the world economy indicate that the worst of the economic downturn is behind us, unresolved problems and weak employment conditions raise doubts over the strength of recovery.

Box 2.1

RISK OF DEFLATION IN THE US AND THE EURO AREA

The crisis-driven severe economic contraction and falling commodity prices have led to a sharp plunge in inflation. The fact that annual CPI inflation of US and Euro area reached negative values and its permanency (the US CPI has been negative for 7 consecutive months, while the Euro area CPI has been negative for 4 consecutive months) brought the fears of deflation into stage. The resemblance between the early conditions of deflation in Japan and those of the current crisis[4] has fed the current worries. Therefore, this Box analyzes the risk of deflation in the US and the Euro area by comparison to the Japanese experience.

Deflation is simply defined as a "general" and "permanent" decline in prices.[5] Especially in advanced economies with low inflation rates, prices of certain categories of goods may drop due to several factors (productivity gains, technological progress, falling costs, relatively weak demand). Yet, these sector-specific price declines are not defined as deflation unless they spread across all components and are permanent.

Based on the above definition, the Box employs indicators such as diffusion index, core inflation and seasonally adjusted indices in order to analyze how much of the decline in the US and Euro area CPI can be interpreted as deflation risk, and compares the current state to the Japanese deflation experience.

To measure the extent to which the CPI price decline has spread among sub-components, and therefore, to extract information about the risk of deflation, we firstly calculated the diffusion index by using sub-components of the US and Euro area CPI.[6] In addition, we compared the diffusion indices for the US and Euro area to that for the Japan, who has been suffering from deflation for a long time (Graph 1, Graph 2 and Graph 3).

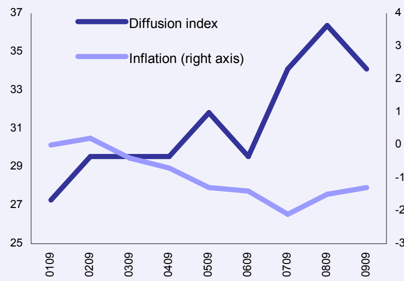
[4] The marked increase in Japanese real estate and stock prices during 1980 led to a sharp downturn in early 1990s. The banking sector was severely affected by the deep correction, and the steep decline in total loans led to a slump in consumer and investment spending. Accordingly, policy rates were lowered to and kept at zero for a long while.

[5] For further information: Bernanke, B. 2002, "Deflation: Making Sure It Doesn't Happen Here", speech, The Federal Reserve Board.

[6] Diffusion index is calculated by dividing the prices of CPI goods that fall or remain flat by the total number of CPI goods. For example, the index equals 10, if prices remain flat or go down year-on-year in 10% of all goods and up in the remaining 90%. The index is based on 145 sub-components for Japan, 70 for the US and 91 for the Euro area.

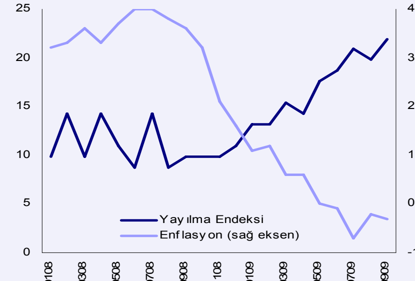
Accordingly, although inflation in the US and the Euro area has recently been negative, the diffusion index still appears to be very low. As compared to the Japanese diffusion index, the decline in the CPI inflation of US and the Euro area is confined to certain categories of goods and does not spread across all components. In fact, the Japanese diffusion index had a range of 60-80 during 2000s, when deflation was at its worst, while the US diffusion index equals 30-40 despite the latest uptrend. The diffusion index is even lower for the Euro area.

Graph 1. US Diffusion Index and Annual CPI Inflation (Percent)



Source: Bureau of Labor Statistics, CBRT calculations.

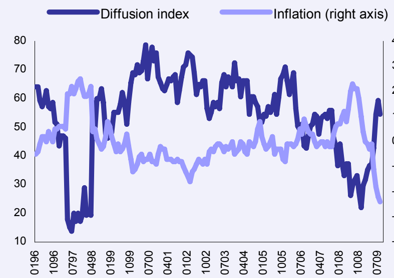
Graph 2. Euro Area Diffusion Index and Annual CPI Inflation (Percent)



Source: Eurostat, CBRT calculations.

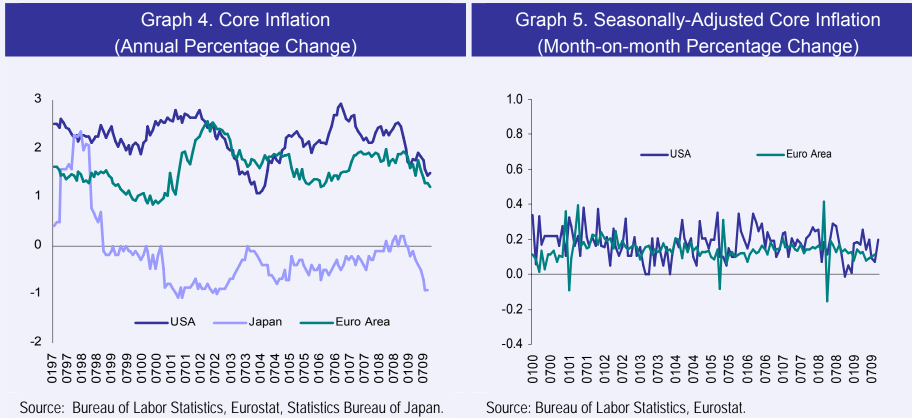
Core inflation indicators can also provide useful information about the risk of deflation in terms of major trend in inflation. Although core inflation data, which exclude transient factors that affect overall inflation (food and energy prices), show that the underlying inflation in the US and the Euro area is on the decline, it is well above the zero bound (Graph 4). Core inflation indices for Japan have been in the negative territory since 2000s. Thus, core inflation data do not point to a recent risk of deflation for the US and the Euro area. However, the permanent year-on-year decline in core inflation requires an analysis of high-frequency data.

Graph 3. Japan's Diffusion Index and Annual CPI Inflation (Percent)



Source: Statistics Bureau of Japan, CBRT calculations.

In this context, Graph 5 shows the monthly changes in seasonally adjusted core inflation indices. Accordingly, while inflation in the US and the euro area shows downward trend in the short run, there is no evidence of a continuous decline in the level of prices



Graph 4. Core Inflation (Annual Percentage Change)

Source: Bureau of Labor Statistics, Eurostat, Statistics Bureau of Japan.

Graph 5. Seasonally-Adjusted Core Inflation (Month-on-month Percentage Change)

Source: Bureau of Labor Statistics, Eurostat.

On balance, there is no sufficient evidence that the US and the Euro area are heading towards deflation. The timely and flexible monetary and fiscal policy measures implemented by these countries and their attempts to take a globally coordinated action have reduced the risk of deflation.

Box 2.2 CAPITAL FLOWS TO EMERGING MARKETS: IIF FORECASTS FOR 2009-2010

The economic uncertainty created by the global financial crisis caused international capital flows to weaken dramatically by the final quarter of 2008. Recently, growing hopes that the worst of the crisis is over has spurred optimism in global financial markets and increased risk appetite. The massive amount of low-cost liquidity injected into markets through global monetary and fiscal measures, together with the increased risk appetite, boosted the demand for emerging-market financial assets. Thus, capital flows to emerging market economies resumed in the second quarter of 2009 and gathered pace in the third quarter. Considering the coming outlook for inflation and monetary policy, the direction and magnitude of capital flows will be a key indicator through the channel of both imported input costs and risk premiums. The IIF's (Institute of International Finance) research note of October 3, 2009, "Capital Flows to Emerging Market Economies", discusses net flows to a sample of 30 key emerging market economies (EMEs) in 2009 and forecasts for 2010. This Box gives a brief account of the IIF's research note.

The direction of capital flows is synchronized with the economic growth cycle. Interest rates in advanced economies hover around historic lows, global growth is triggered by EMEs, and EMEs are now considered to be less risky than in previous crisis episodes, which encourage capitals to flow towards EMEs. On balance, private capital flows to EMEs are expected to fall from 649 billion US dollars in 2008 to 349 billion US dollars in 2009 and accelerate again to 672 billion US dollars in 2010 (Table 1.a). Official capital flows to EMEs (including IMF) are expected to rise in 2009 to 64 billion US dollars.

Table 1. Capital Flows to Emerging Market Economies
(US dollar, billions)

1.a. By Types

	2007	2008	2009*	2010*
Current Account Balance	*529.4*	*540.9*	*371.5*	*334.3*
Private Inflows	**1252.2**	**649.1**	**348.6**	**671.8**
Direct investment	499.8	512.5	343.0	459.4
Portfolio investment	102.1	-81.7	82.2	74.1
Bank loans	431.4	102.7	-82.7	48.5
Non-bank loans	218.8	115.6	6.2	89.7
Official Inflows	**42.9**	**55.5**	**63.6**	**43.4**

1.b. By Regions

	2007	2008	2009*	2010*
Current Account Balance	*529.4*	*540.9*	*371.5*	*334.3*
Private Inflows	**1252.2**	**649.1**	**348.6**	**671.8**
Latin America	228.9	132.4	99.8	150.9
Emerging Europe	445.7	270.1	20.4	179.3
Africa/Middle East	155.4	75.3	37.4	68.7
Emerging Asia	422.2	171.2	191.1	272.9
Official Inflows	**42.9**	**55.5**	**63.6**	**43.4**

*Forecast.
Source: IIF.

Similarly, direct investments plummet during recessions. However, although the global crisis that deepened during the final quarter of 2008 is regarded the worst global recession in sixty years, data available for the first quarter of 2009 suggest that the decline in direct investments has been relatively modest (Table 1.a). Direct investments to EMEs are expected to drop from 513 billion US dollars in 2008 to 343 billion US dollars in 2009, but rise again to 459 billion US dollars in 2010. These forecasts depend on the recovery in both profit rates and the propensity to invest in EMEs, the driver of global growth.

Meanwhile, portfolio investments to EMEs are expected to turn around in 2009 as a whole from the outflow of 82 billion US dollars in 2008. Portfolio inflows appear to have turned positive in February and been on the rise throughout the year.

Bank credits to EMEs are expected to be negative in net terms for 2009, while non-bank lending is believed to have created some net capital inflow. Banks are less eager to lend as they are in balance sheet retrenchment mode. In an environment where there is a significant tightening in bank capital requirements, banks are cautious about emerging market exposures. As non-bank lenders will be under less of a capital constraint, they will be the net creditors for EMEs in 2009.

There are some divergences between regions regarding the pace of increase in capital flows for 2009 and 2010 (Table 1.b). As total capital flows, particularly to the emerging Europe, have generally been on the decline during 2009, those to the emerging Asia have been on the rise, primarily due to the rapid recovery in portfolio investments compared to 2008. In 2010, capital flows to the emerging Europe will continue to improve but remain below the level in 2008, whereas the emerging Asia will outpace the level in 2008 and receive the biggest share of total capital flows.

The emerging Europe, including Turkey, remains the region most deeply affected by the crisis. After having increased to 446 billion US dollars in 2007, net capital flows fell as low as 20 billion US dollars in 2009 (Table 2). Accordingly, the region is expected to account for about 39 billion US dollars of the 64 billion US dollars of official flows in 2009.

Direct investments to the emerging Europe are forecast to have fallen from 133 billion US dollars in 2008 to 69 billion US dollars in 2009, which matches the pattern in Turkey. Directs investments to region are expected to rise slightly to 102 billion US dollars in 2010. Having partially improved after 2008, portfolio investments are forecast to amount to 11 billion US dollars in 2010. In credit side, following a substantial net repayment period in 2009, the region is likely to receive relatively small amounts of net borrowing in 2010.

Table 2. Capital Flows to Emerging Europe (US dollar, billions)

	2007	2008	2009*	2010*
Current Account Balance	*-29.6*	*-26.5*	*-2.7*	*-14.5*
Private Inflows	**445.7**	**270.1**	**20.4**	**179.3**
Direct investment	124.3	133.2	68.9	101.9
Portfolio investment	19.9	-13.9	5.9	11.0
Bank loans	171.3	83.0	-47.3	28.2
Non-bank loans	130.2	67.7	-7.2	38.3
Official Inflows	**4.2**	**20.9**	**39.4**	**16.8**

* Forecast.
Source: IIF.

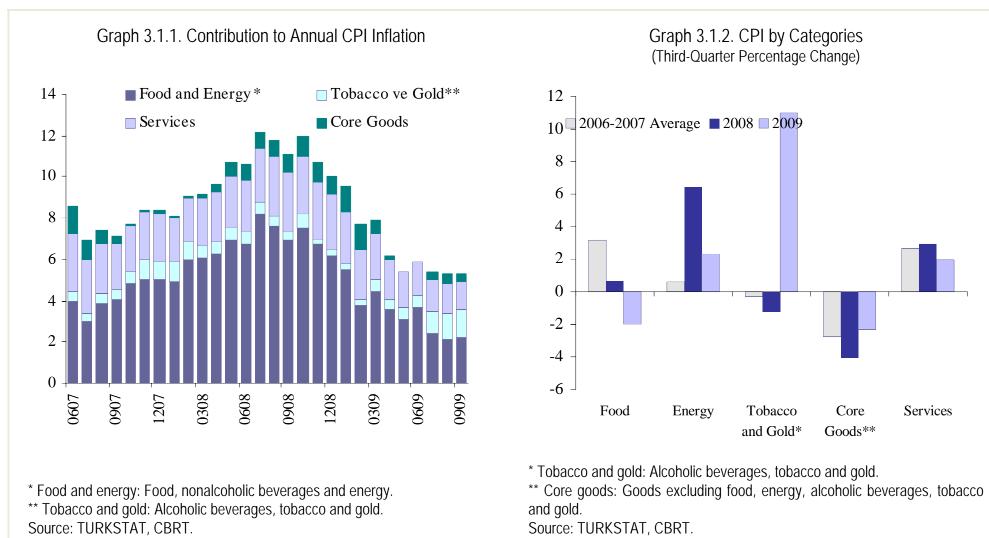
As a result, global capital flows to EMEs, including Turkey, are forecast to edge up in coming months, but still remain below the level in 2007 for the foreseeable future. Yet, countries with a well-established banking system and fiscal discipline are likely to receive higher capital flows.

3. Inflation Developments

3.1. Inflation

Consumer prices were up 0.34 percent in the third quarter of 2009, while CPI inflation fell by 0.46 percentage points quarter-on-quarter to 5.27 percent year-on-year. Facing ongoing pressure from the economic downturn, underlying inflation continued to ease.

During the third quarter, annual food inflation declined markedly, while energy and services inflation continued to edge down year-on-year. However, the contribution of durable goods, tobacco and gold to annual inflation increased (Graph 3.1.1).



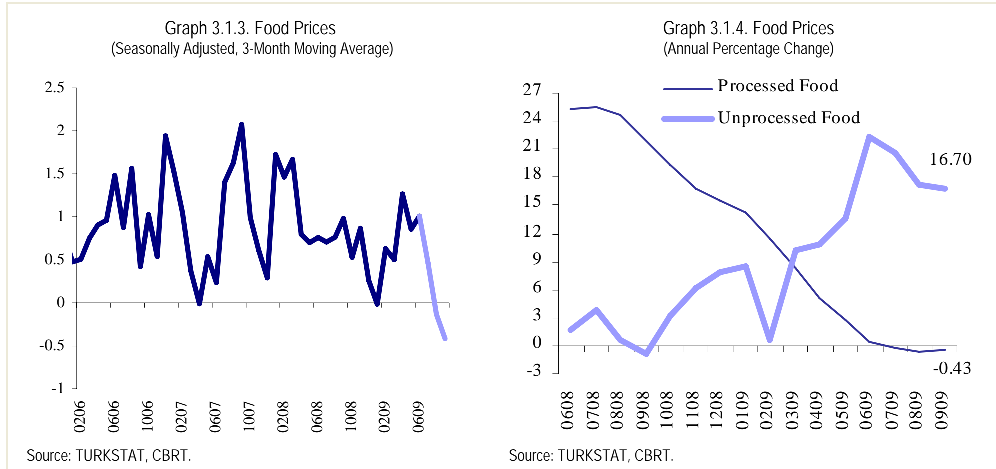
Graph 3.1.1. Contribution to Annual CPI Inflation

* Food and energy: Food, nonalcoholic beverages and energy.
** Tobacco and gold: Alcoholic beverages, tobacco and gold.
Source: TURKSTAT, CBRT.

Graph 3.1.2. CPI by Categories
(Third-Quarter Percentage Change)

* Tobacco and gold: Alcoholic beverages, tobacco and gold.
** Core goods: Goods excluding food, energy, alcoholic beverages, tobacco and gold.
Source: TURKSTAT, CBRT.

The third quarter was marked by the ongoing support of the economic downturn for disinflation. Although tax hikes intended to improve fiscal balance put upward pressure on prices, the annual rate of increase in consumer prices continued to decelerate. Measures included hikes in the lump sum tax on tobacco and fuel products and in the fees for some financial services in July (Graph 3.1.2). These measures added a total of about 0.9 percentage points to CPI inflation. Another highlight of the third quarter was the gradual phase-out of the tax reductions on durable goods, causing prices of core goods to decline less than in previous years (Graph 3.1.2).



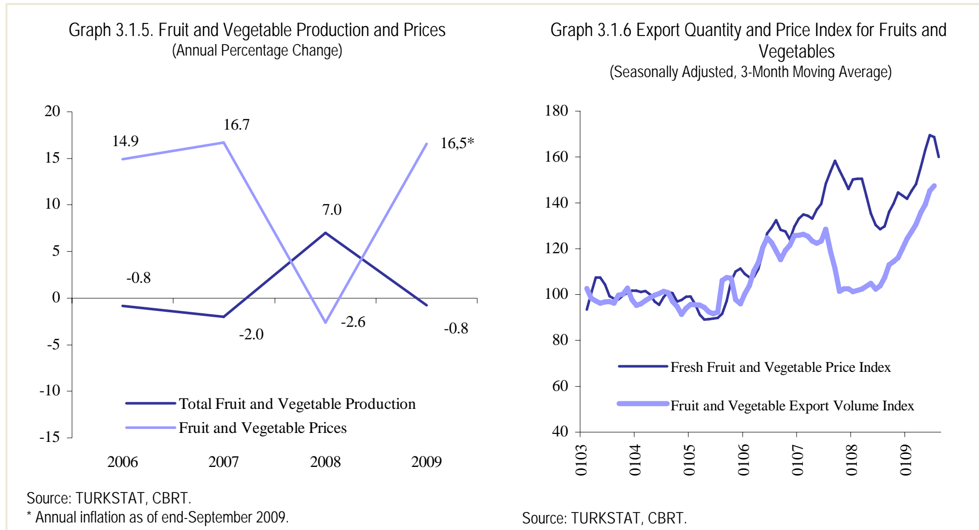
Seasonally adjusted food prices dropped in the third quarter, unlike in previous years (Graph 3.1.3), driving food inflation down by 2.89 percentage points quarter-on-quarter to 6.79 percent year-on-year. Despite having increased remarkably during the first half of the year, unprocessed food prices fell during the third quarter due to the larger-than-usual seasonal drop in fruit and vegetable prices, becoming the key factor in bringing food inflation down (Graph 3.1.4). Yet, skyrocketing meat prices put a constraint on this downward movement.

Table 3.1.1. First Estimation of Crop Production in 2009
(Selected Goods)

	Production (Tons)		Change
	2008	2009	(Percent)
1. Vegetables	27 214 317	26 908 299	-1.1
2. Fruits	15 681 566	15 644 889	-0.2
3. Cereals	29 287 281	33 380 279	14.0
Wheat	17 782 000	20 520 000	15.4
Maize	4 274 000	4 250 000	-0.6
Barley	5 923 000	7 200 000	21.6
4. Oil seeds	1 233 992	1 349 667	9.4
Sunflower	992 000	1 050 000	5.8
5. Sugar beet	15 488 332	16 400 000	5.9
6. Cotton (raw)	1 820 000	1 884 039	3.5

Source: TURKSTAT.

According to TURKSTAT's (Turkish Statistical Institute) first estimation of crop production, vegetable production is expected to fall by 1.1 percent in 2009, while fruit production is likely to remain unchanged from a year earlier (Table 3.1.1). Thus, fruit and vegetable supply faces a gloomy outlook for 2009. Besides, the fact that the export quantity for fruits and vegetables grew robustly from a year ago explains the concurrent, steep increase in unprocessed food prices (Graph 3.1.5 and 3.1.6).



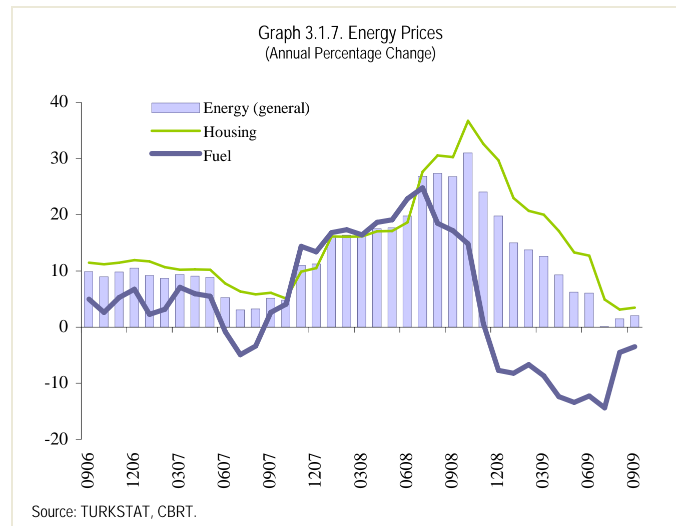
Processed food prices also presented a favorable outlook in the third quarter. In this category, annual inflation continued to ease, while prices went down year-on-year for the first time in the history of the CPI (Graph 3.1.4), as softening in the producer and import prices for cereals and oil seeds, a key component in the processed food basket, had a considerable role in this development (Table 3.1.1). In addition, changes in total demand continued to help lower annual inflation. Annual processed food inflation is likely to rise modestly in coming months owing to the base effect.

Table 3.1.2. Prices for Goods and Services
(Quarterly and Annual Percentage Change)

	2008			2009		
	III	IV	Annual	I	II	III
CPI	**0.78**	**3.03**	**10.06**	**1.05**	**0.77**	**0.34**
1. Goods	**0.05**	**3.61**	**9.93**	**1.22**	**0.60**	**-0.22**
Energy	6.41	1.91	19.81	-0.28	-1.90	2.32
Unprocessed food	-0.29	12.45	7.87	13.29	-3.68	-4.90
Processed food	1.37	-0.20	15.46	-0.93	0.09	0.61
Goods excl. energy and food	-3.52	3.04	3.75	-1.89	4.21	0.17
Durable goods	-2.34	2.45	5.54	-0.27	-2.76	2.70
Durable goods (excl. gold)	-1.80	0.61	3.19	-2.49	-2.23	2.83
Semi-durable goods	0.01	3.42	11.54	-3.46	4.55	-1.65
Non-durable goods	0.74	4.07	9.99	5.21	-1.22	0.04
2. Services	**2.94**	**1.39**	**10.46**	**0.53**	**1.27**	**1.96**
Rents	3.58	2.25	11.85	1.51	1.14	1.43
Restaurants and hotels	2.77	2.34	13.44	1.88	1.19	1.73
Transport	4.35	1.54	16.89	-1.29	1.43	1.15
Other	2.29	0.49	6.40	0.13	1.31	2.57

Source: TURKSTAT, CBRT.

Energy prices increased by 2.32 percent during the third quarter (Table 3.1.2). Tap water rates were up in most cities, while bottled gas prices picked up substantially. Moreover, oil prices climbing to 70 USD/bbl during the third quarter, after averaging around 60 USD/bbl in the second quarter, and the July hike in the lump sum Special Consumption Tax (SCT) on fuel products caused fuel prices to soar by 3.34 percent. Despite price increases, annual energy inflation continued to fall on the back of the high base effect from a year ago, down to 2.01 percent (Graph 3.1.7).

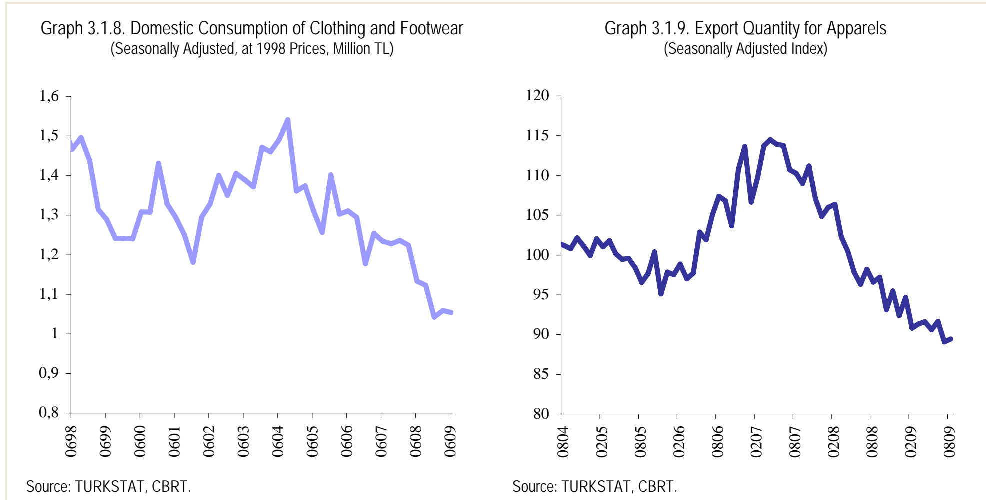


Graph 3.1.7. Energy Prices
(Annual Percentage Change)

Source: TURKSTAT, CBRT.

The lump sum tax on tobacco was raised in July. Accordingly, prices of alcoholic beverages and tobacco products jumped by 12.81 percent in the third quarter, contributing by about 0.6 percentage points to annual CPI inflation.

Annual inflation in core goods (excluding food, energy, alcoholic beverages, tobacco and gold) increased on rising prices of durable goods due to phased-out tax cuts. In this category, annual inflation is expected to rise further on tax adjustments in the final quarter, but underlying prices are not likely to pick up in response to any other change.



Graph 3.1.8. Domestic Consumption of Clothing and Footwear
(Seasonally Adjusted, at 1998 Prices, Million TL)

Source: TURKSTAT, CBRT.

Graph 3.1.9. Export Quantity for Apparels
(Seasonally Adjusted Index)

Source: TURKSTAT, CBRT.

Domestic consumption on clothing and footwear continued to weaken in the second quarter (Graph 3.1.8). The export volume index for apparels trended further down in the third quarter, suggesting that foreign demand remains subdued (Graph 3.1.9). Under current total demand conditions, clothing prices may put further downward pressure on CPI inflation.

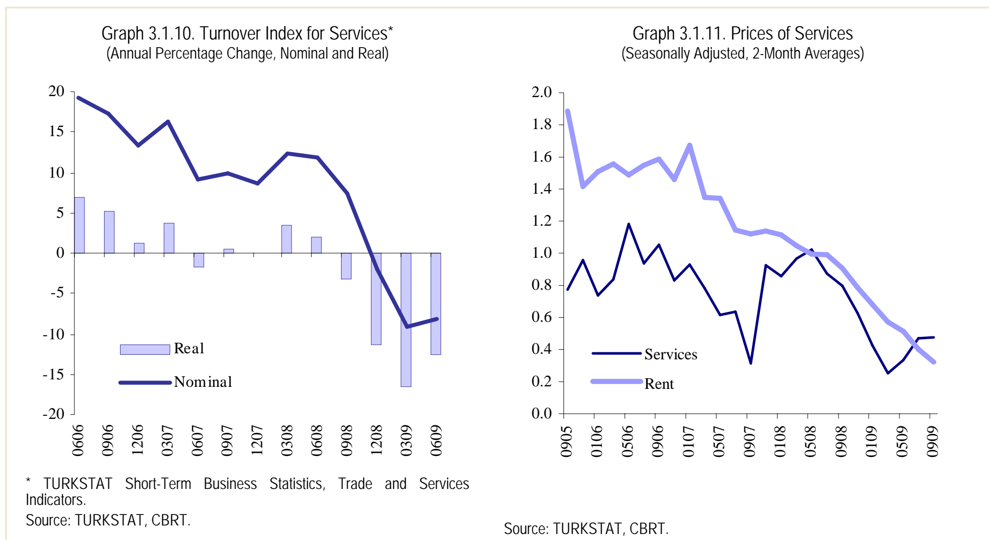
Tax adjustments had a major impact on the prices of durable goods during 2009 (Box 3.1). Prices of durable goods (excluding gold) eased with the temporary SCT and VAT (Value Added Tax) cuts in the first quarter of 2009, yet accelerated by 2.83 percent following the termination of some tax reductions in the third quarter (Table 3.1.3). Tax adjustments now appear to have substantially passed through to prices of durable goods. Given the expiry of the SCT and VAT cuts on October 1, prices of durable goods may rise markedly in the fourth quarter.

Table 3.1.3. Prices of Durable Goods
(Quarterly and Annual Percentage Change)

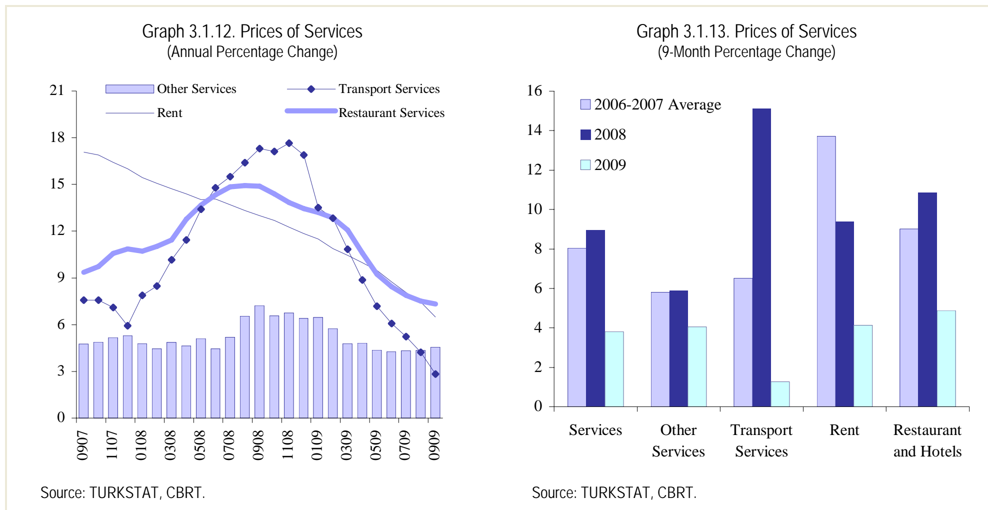
	2008			2009		
	III	IV	Annual	I	II	III
Durable goods (excl. gold)	**-1.80**	**0.61**	**3.19**	**-2.49**	**-2.23**	**2.83**
Furniture	-1.27	-1.31	9.17	-3.17	-7.61	1.03
Electric and non-electric appliances	0.12	6.04	8.13	-4.26	-2.54	3.53
Automobiles	-3.63	-2.30	-2.56	-1.36	-0.11	3.20
Other	1.02	2.27	4.29	0.36	0.20	1.81

Source: TURKSTAT, CBRT.

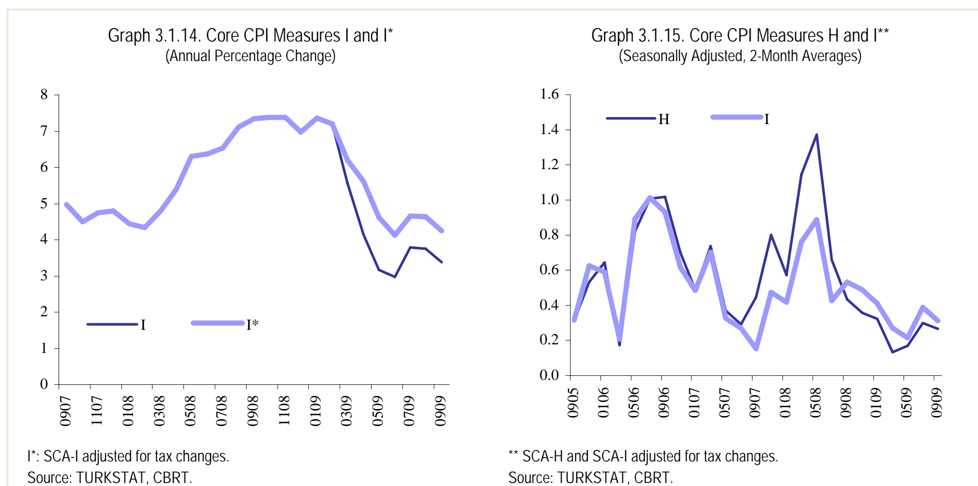
Domestic demand for services remained sluggish during the first half of the year (Graph 3.1.10). In line with this, due to the additional impact of the gradual removal of the high base effect from last year's supply shortages, the annual rate of increase in prices of services continued to trend down in the third quarter. Prices of services rose by a cumulative 3.81 percent in the first nine months, whereas services inflation fell by 5.21 percentage points from end-2008 to 5.26 percent year-on-year. The services sector is expected to recover gradually during the final quarter, while the rate of increase in prices of services are likely to moderate further.

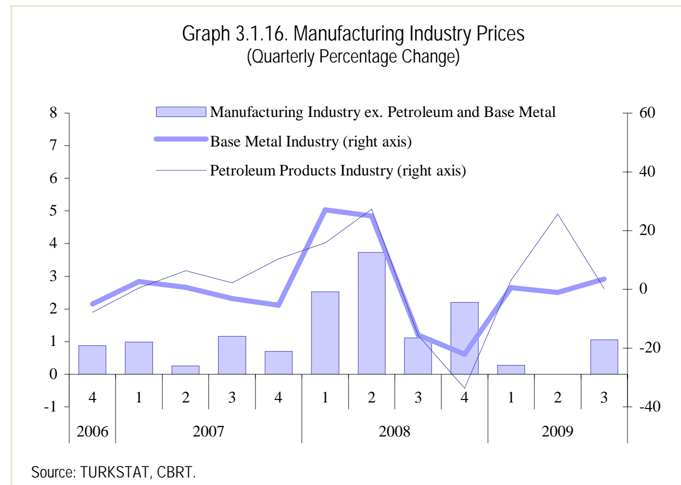


Seasonally adjusted data suggest that underlying services inflation has hit a historic low (Graph 3.1.11). The slowdown is evident across all major subcategories, and prices appear to have increased at a lower rate than in previous years as of the first nine months of 2009 (Graph 3.1.12, Graph 3.1.13). The seasonally adjusted monthly rate of increase in rents has particularly been on a continuous downward spiral, pushing rental inflation down to 6.48 percent year-on-year. Similarly, prices for restaurants and hotels as well as transport services have also slowed down, and annual inflation in both subcategories has plunged to the lowest level in the history of the CPI as of the end of the third quarter.



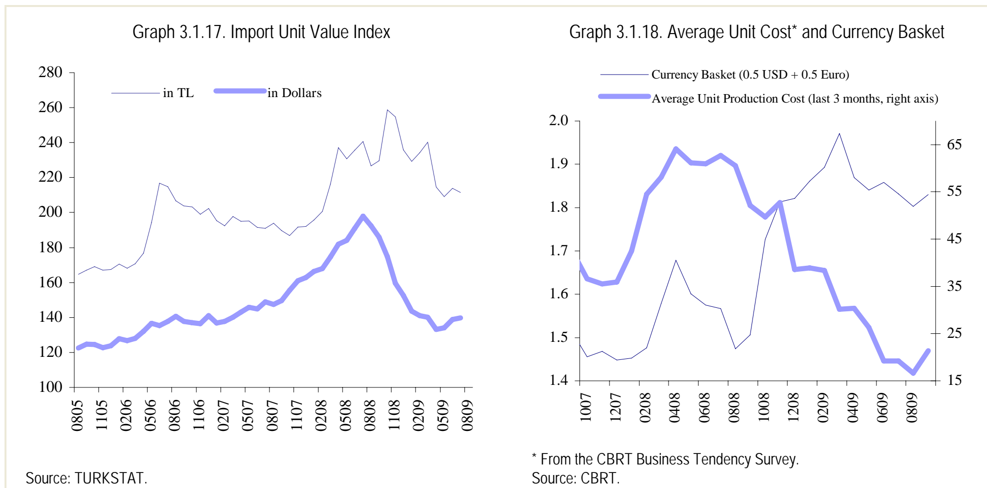
During third quarter, inflation in the core CPI index excluding energy, unprocessed food, alcoholic beverages, tobacco and gold (SCA-H) rose to 2.44 percent year-on-year, while, with a further exclusion of processed food, inflation in the CPI index (SCA-I) climbed to 3.37 percent year-on-year (Graph 3.1.14), largely owing to the more modest seasonal discount on clothing than a year ago and the termination of some tax incentives on durable goods. However, data adjusted for tax changes and seasonality suggest that underlying inflation remained on a downward track during the third quarter (Graph 3.1.15). Yet, it should be noted that both indices may rise, albeit modestly, in the upcoming period, given the expiry of the temporary tax cuts.





Graph 3.1.16. Manufacturing Industry Prices
(Quarterly Percentage Change)
Source: TURKSTAT, CBRT.

Producer prices increased by a mere 0.32 percent during the third quarter. Prices for base metal production picked up on rising international metal prices, whereas producer prices for petroleum products remained quite unchanged quarter-on-quarter. Excluding oil and base metals, manufacturing industry prices rallied amid soaring prices for food production (Graph 3.1.16), which resulted from locally rising meat prices and both locally and internationally rising sugar prices, driven by changes in foreign demand and supply conditions.



Graph 3.1.17. Import Unit Value Index
Source: TURKSTAT.

Graph 3.1.18. Average Unit Cost* and Currency Basket
* From the CBRT Business Tendency Survey.
Source: CBRT.

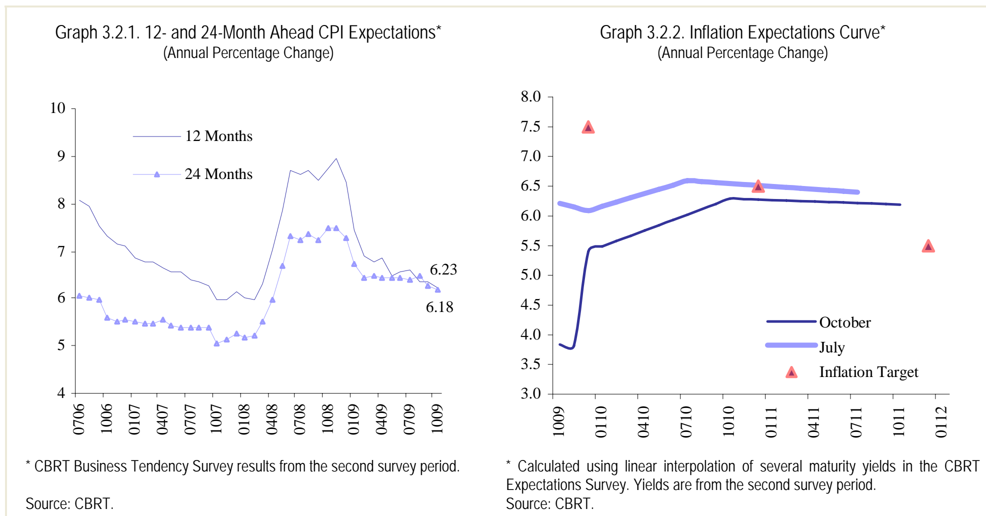
Import prices rose slightly in dollar terms but remained flat in Turkish lira terms. Thus, import prices exerted no significant cost pressure (Graph 3.1.17). Accordingly, the average unit cost continued to hover around low levels (Graph 3.1.18). All in all, although manufacturing industry prices excluding petroleum products increased somewhat quarter-on-quarter, there was no serious cost pressure from producer prices in the third quarter.

3.2. Expectations

Having flattened out during the second quarter, medium-term inflation expectations were back on a downward slope in the third quarter. Inflation expectations slipped down for all maturities, though the longer the maturity, the more limited the decline and the more horizontal the expectations curve (Graph 3.2.1 and Graph 3.2.2).

Graph 3.2.1. 12- and 24-Month Ahead CPI Expectations*
(Annual Percentage Change)

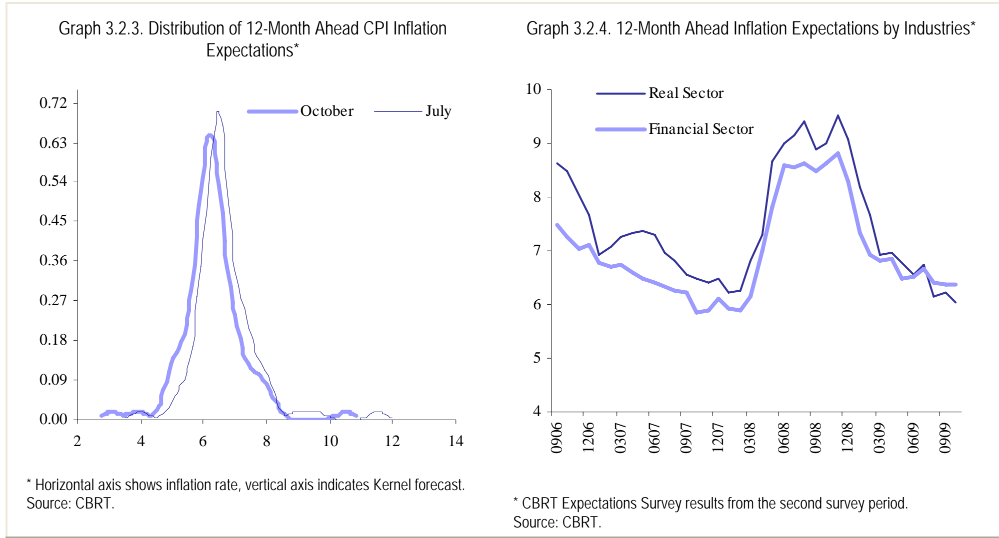
Graph 3.2.2. Inflation Expectations Curve*
(Annual Percentage Change)



* CBRT Business Tendency Survey results from the second survey period.
Source: CBRT.

* Calculated using linear interpolation of several maturity yields in the CBRT Expectations Survey. Yields are from the second survey period.
Source: CBRT.

Currently, expectations for end-2009 are anchored at 5.40 percent, well below the target. The comparison between the inflation path consistent with medium-term targets and the expectations curve reveals that the average end-2010 inflation expectation falls below the target, while expectations for 2011 appear to be above the target at 5.5 percent (Graph 3.2.2). Meanwhile, participants' expectations have remained virtually uniform (Graph 3.2.3).



Graph 3.2.3. Distribution of 12-Month Ahead CPI Inflation Expectations*

* Horizontal axis shows inflation rate, vertical axis indicates Kernel forecast.
Source: CBRT.

Graph 3.2.4. 12-Month Ahead Inflation Expectations by Industries*

* CBRT Expectations Survey results from the second survey period.
Source: CBRT.

Lastly, on the financial and real sector front, expectations followed the same trend in the third quarter and one-year ahead expectations continued to fall (Graph 3.2.4).

Box 3.1

THE COURSE OF DURABLE GOODS PRICES IN 2009: THE IMPACT OF TAX ADJUSTMENTS

Temporary tax cuts have made an immediate impact on prices of durable goods through 2009. In this Box, we analyze these tax adjustments and the resulting fluctuations in prices of durable goods and core inflation measures.

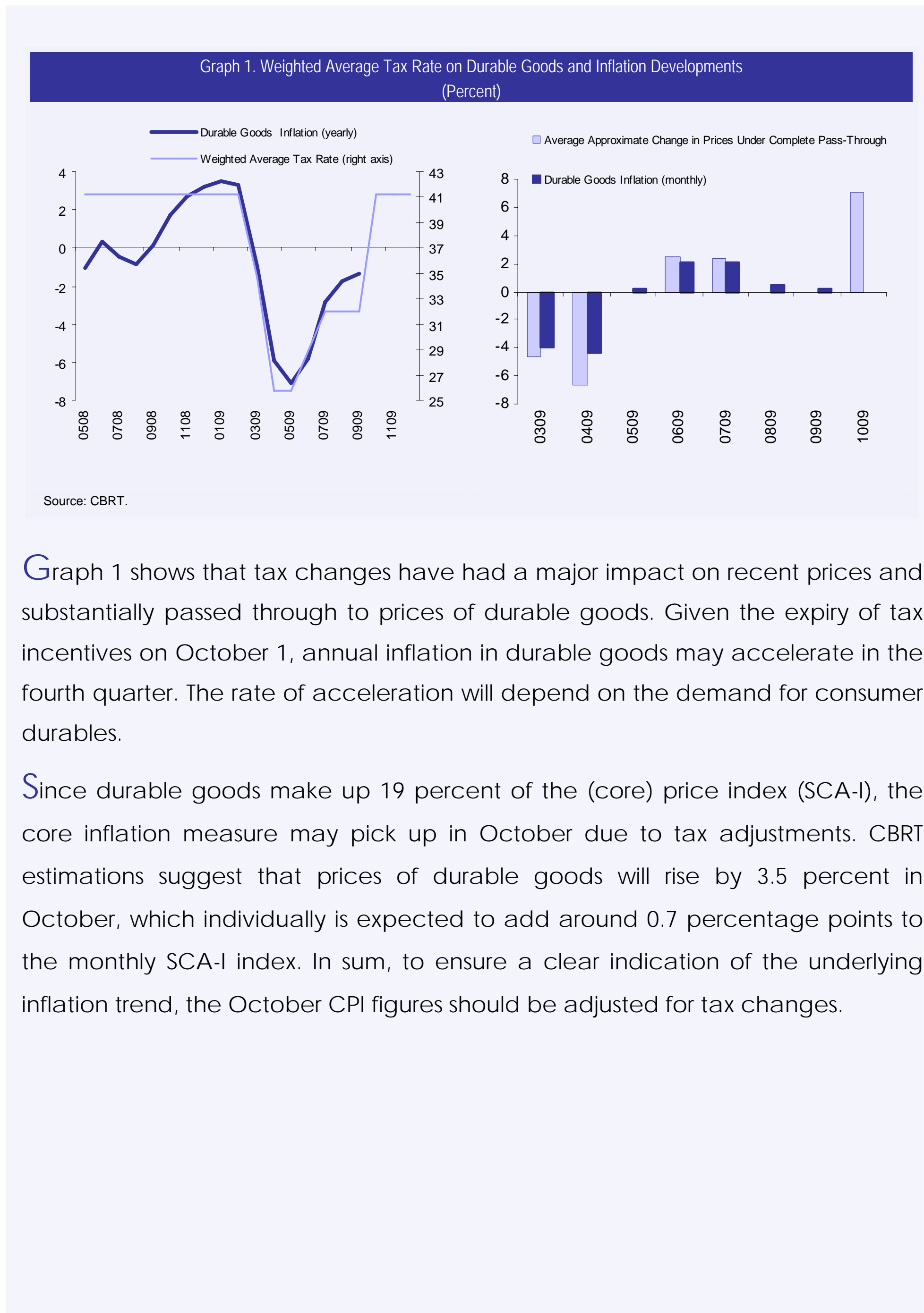
With the growing impact of the global crisis on domestic economic activity during the last quarter of 2008, industries producing durable goods suffered a severe contraction. The Turkish lira depreciated markedly, yet, the exchange rate pass-through had been considerably lower than in previous quarters thanks to falling import prices and the sharp decline in total demand. As a result, annual inflation in durable consumer goods (excluding gold) rose slightly during the final quarter of 2008 (Graph 1).

In order to stimulate domestic demand, the government adopted a package of fiscal measures in March 2009. On March 16, the SCT on some durable goods was temporarily lowered for a period of three months.[1] The second tax adjustment came on March 30, including a VAT cut on certain goods. The government decided, on June 16, to roll back some of the tax cuts and to extend the rest until September 30. Based on the renewed tax rates, we computed the weighted average tax rate on durable goods in Graph 1.[2]

Assuming that these tax adjustments have entirely passed through to prices, tax changes appear to have driven prices of durable goods lower during March and April and higher during June, July and October.

[1] For further information on related tax adjustments see Inflation Report 2009 - III, Box 3.1.

[2] Computations do not cover all durable goods in the CPI basket, and include only categories that benefited from tax incentives, i.e. furniture, white goods and household appliances, audio-visual equipments, automobiles and computer/IT tools. These goods account for a large proportion of durable goods. Computations are based on the assumption that tax adjustments are left intact and fully pass through to prices. Actual realizations may vary depending on the rate of pass-through.



Graph 1 shows that tax changes have had a major impact on recent prices and substantially passed through to prices of durable goods. Given the expiry of tax incentives on October 1, annual inflation in durable goods may accelerate in the fourth quarter. The rate of acceleration will depend on the demand for consumer durables.

Since durable goods make up 19 percent of the (core) price index (SCA-I), the core inflation measure may pick up in October due to tax adjustments. CBRT estimations suggest that prices of durable goods will rise by 3.5 percent in October, which individually is expected to add around 0.7 percentage points to the monthly SCA-I index. In sum, to ensure a clear indication of the underlying inflation trend, the October CPI figures should be adjusted for tax changes.

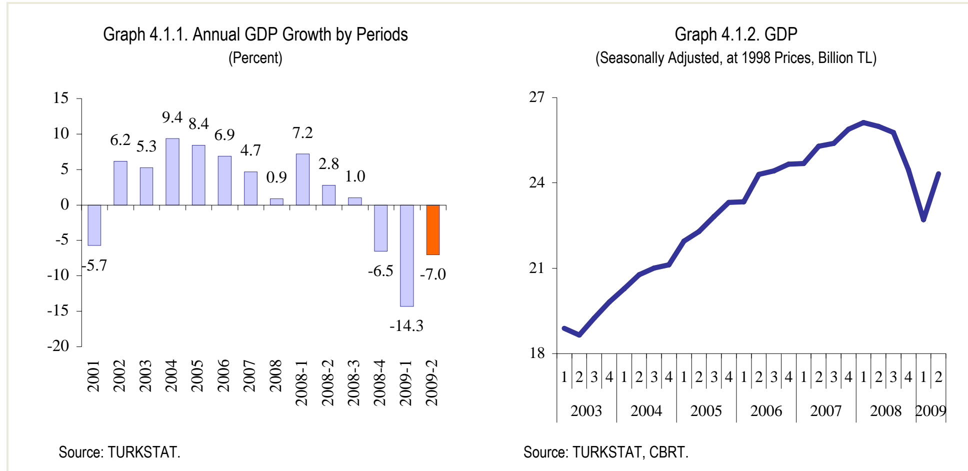
4. Supply and Demand Developments

The second-quarter national accounts data confirmed the outlook presented in the July Inflation Report. Domestic demand picked up on the back of fiscal measures, while foreign demand remained subdued. Accordingly, GDP grew rapidly quarter-on-quarter, bringing an end to the economic contraction that started in the second quarter of 2008. The spending composition revealed that the demand for goods without tax incentives did not recover markedly, substantiating previous observations that the rebound in domestic demand would only manifest itself in certain categories of goods. The continued destocking process had a dampening effect on production and resource use, and therefore caused the rapid, quarterly growth to have less impact on inflation. In addition, the absence of solid signs of recovery in the labor market amplified the demand shortage. Thus, total demand conditions continued to support disinflation.

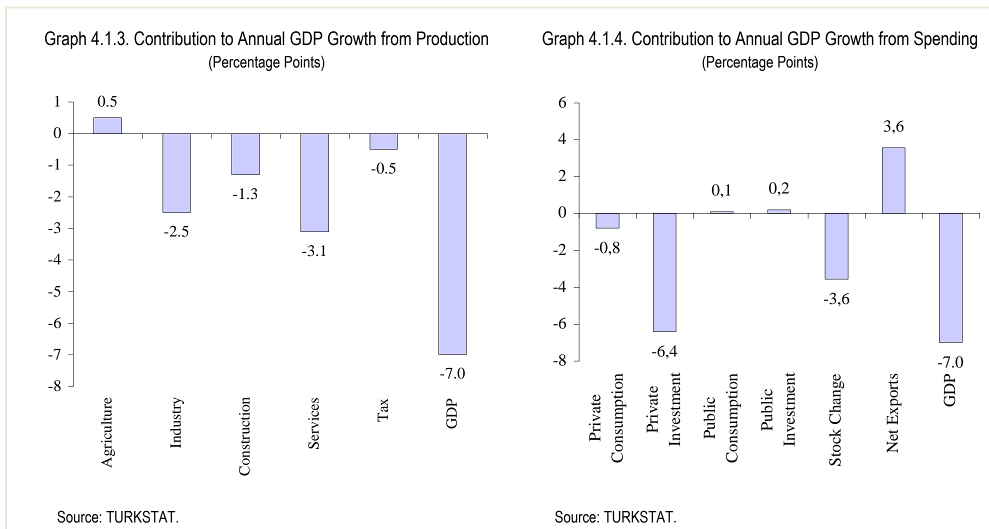
Third-quarter data indicate that fiscal stimulus has a waning impact on domestic demand and consumer demand has weakened following the notable increase in the second quarter. Yet, the outlook for foreign demand has improved somewhat since the release of the July Inflation Report. Moreover, both the lagged impact of policy rate cuts and the relatively improved risk sentiment in the world help to spur loan demand. However, the continued moderation in the medium-term outlook for global economic growth adds to the picture of slow and gradual recovery (Box 4.1). This outlook is likely to delay the decline in unemployment and curb loan demand. Lower resource use may weigh on investment and employment prospects, while total demand conditions would continue to support the downtrend in inflation in the medium term.

4.1. Gross Domestic Product Developments and Domestic Demand

According to the national accounts data released by TURKSTAT, GDP narrowed by 7 percent in the second quarter of 2009 from a year earlier (Graph 4.1.1). With the release of the second-quarter data, Turkey's GDP growth is now revised down from 1.1 to 0.9 percent for 2008, and GDP contraction is revised up from 13.8 to 14.3 percent for the first quarter of 2009. Seasonally adjusted GDP recorded an impressive growth from the first quarter, putting an end to the economic contraction that started in the second quarter of 2008 (Graph 4.1.2).



On the production side, non-farm value-added dropped year-on-year. Although industrial production shrunk by 15.3 percent during the second quarter, industrial value-added fell by only 8.7 percent. The sharp contraction in wholesale/retail trade and transport/communication industries, which are closely linked with the industrial sector, lowered services value-added by 6.3 percent. The services industry made a negative 3.1 percentage point contribution to GDP. Among sub-categories, wholesale/retail trade and transport/communication contributed by a total –3.8 percentage points to GDP. In contrast, financial value-added added 0.7 percentage points to GDP and continued to be the largest contributor of growth (Graph 4.1.3).



On the spending side, private consumer demand made a significantly less negative contribution to annual growth than in the past two quarters. Private investment spending remained weak during the second quarter, and made the biggest negative contribution to GDP. Meanwhile, the contribution from government spending went down from the previous two quarters, while net foreign demand continued to add to GDP growth, albeit slowly (Graph 4.1.4).

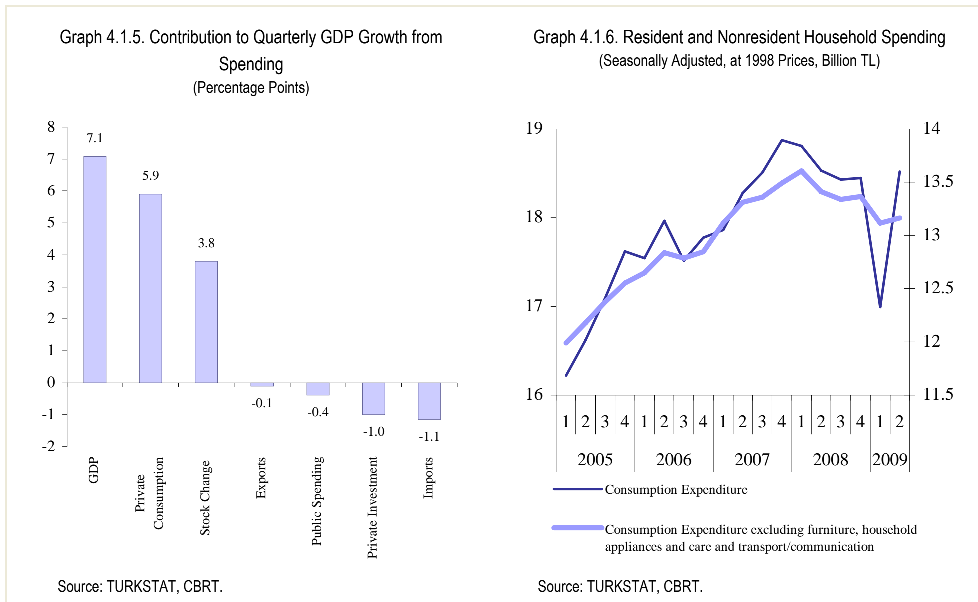
Among sub-categories of resident and nonresident household spending, there has been a notable improvement in the annual change of tax-reduced goods. After having fallen year-on-year for a long time, spending on furniture, household appliances and care increased by 2.7 percent year-on-year during the second quarter. The annual rate of decline in the expenditures for transport and communication services, which, together with furniture, household appliances and care, had been the key driver of the contraction in consumption during the previous two quarters, amounted to 3 percent in the second quarter (Table 4.1.1).

Table 4.1.1. Resident and Nonresident Household Spending
(Annual Percentage Change)

	2007	2008					2009		
	YoY	I	II	III	IV	YoY	I	II	6-month
Resident and nonresident household spending	3.9	6.5	1.4	-1.0	-3.8	0.6	-10.2	-0.6	-5.4
Food, liquor, tobacco	2.0	5.6	2.1	1.4	0.9	2.4	-3.6	2.9	-0.2
Clothing and footwear	-2.2	-0.3	-10.0	-7.3	-15.0	-7.6	-17.0	-7.1	-12.7
Furniture, household appliances and care	2.5	0.4	-4.4	-9.5	-16.5	-7.5	-23.4	2.7	-9.9
Transport/communication	2.8	22.3	10.0	3.5	-14.7	4.3	-21.0	-3.0	-11.9
Restaurants and hotels	2.1	2.2	1.5	-7.7	2.0	-2.3	3.0	1.9	2.5

Source: TURKSTAT, CBRT.

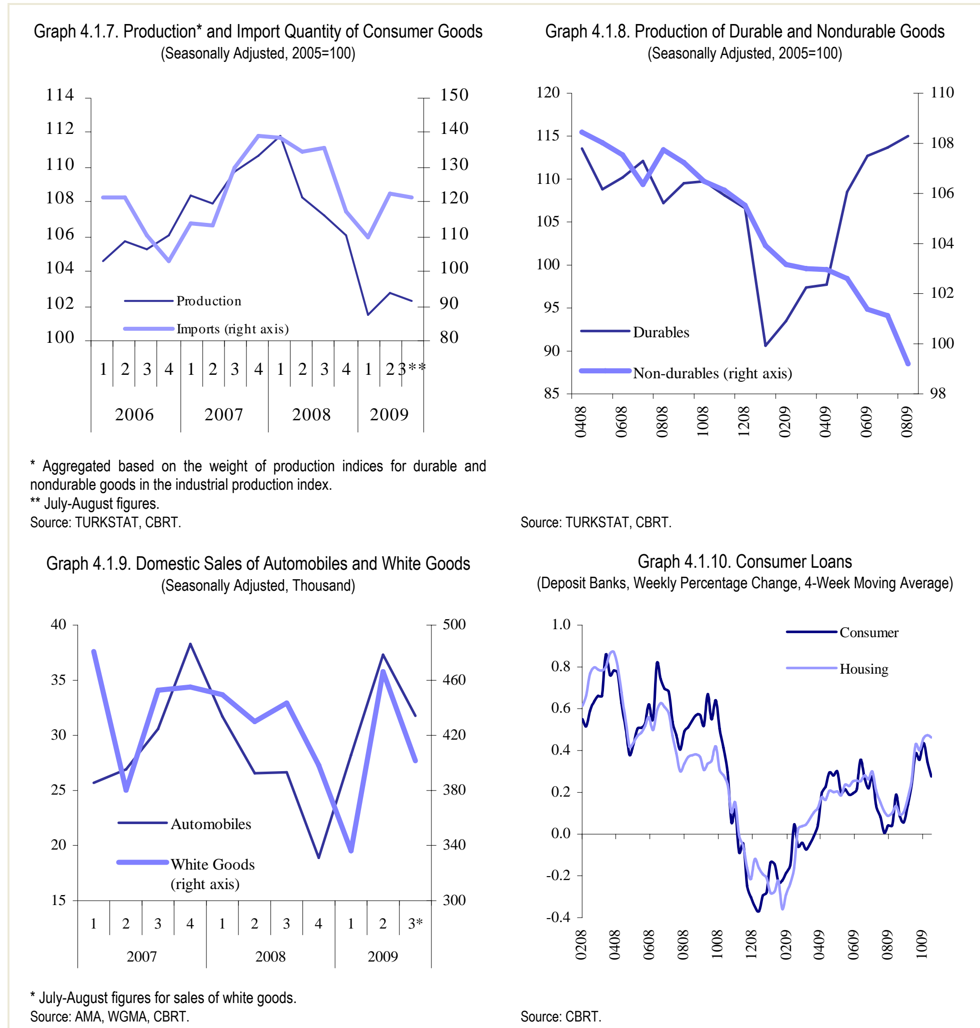
In seasonally adjusted terms, the main driver of GDP growth in the second quarter was the private consumer demand that picked up sharply on fiscal stimulus measures. On the other hand, private investment spending continued to weaken, whereas the inventory change made a significant contribution to quarterly GDP growth with the slowdown in destocking from a quarter ago (Graph 4.1.5).



The trend in categories of goods and related third-quarter indicators help determine whether the second-quarter recovery in private consumer demand develops into a durable one. The second-quarter national accounts data show that the recovery in private consumer spending was largely boosted by the increased demand for goods that benefited from fiscal stimulus packages. On the other hand, the demand for categories that were not affected by tax incentives remained virtually flat (Graph 4.1.6). Recent data releases suggest that this trend is maintained during the third quarter. In fact, while fiscal measures have a waning impact on related categories of goods, the demand for semi and non-durable goods remains anemic.

Accordingly, the production and imports of consumer goods fell during July-August from the second quarter in seasonally adjusted terms (Graph 4.1.7). On the production side, the demand for durable goods has jumped on tax incentives, whereas the demand for non-durable goods that is highly susceptible to any contraction in employment and expendable income has been on an uninterrupted decline for a year. That is, the July-August drop in the production of consumer goods was largely driven by the non-durable goods category (Graph 4.1.8). Sales of automobiles and white goods, which accelerated quickly due to tax incentives and therefore gave a strong boost to private consumer spending, declined quarter-on-quarter during the third quarter with the expiry of tax cuts (Graph 4.1.9). All in all, third quarter indicators

suggest that the marked run-up in consumer demand during the second quarter has moderated.



Graph 4.1.7. Production* and Import Quantity of Consumer Goods
(Seasonally Adjusted, 2005=100)

* Aggregated based on the weight of production indices for durable and nondurable goods in the industrial production index.
** July-August figures.
Source: TURKSTAT, CBRT.

Graph 4.1.8. Production of Durable and Nondurable Goods
(Seasonally Adjusted, 2005=100)

Source: TURKSTAT, CBRT.

Graph 4.1.9. Domestic Sales of Automobiles and White Goods
(Seasonally Adjusted, Thousand)

* July-August figures for sales of white goods.
Source: AMA, WGMA, CBRT.

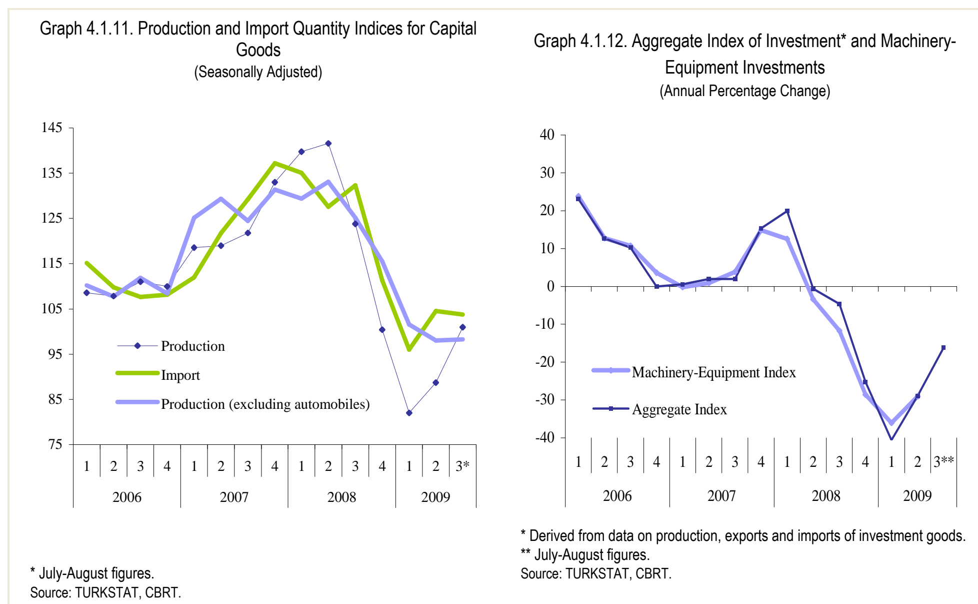
Graph 4.1.10. Consumer Loans
(Deposit Banks, Weekly Percentage Change, 4-Week Moving Average)

Source: CBRT.

There are two channels with distinct functions that are going to affect domestic demand in coming months. The first one is the historically high unemployment that weighs on total expendable income and consumer demand. Secondly, the monetary easing passes through to other borrowing costs, developing conditions to boost loan demand. The credit market has started to gain some ground thanks to policy rate cuts since November 2008 and improved risk sentiment in the world. In fact, banks have recently become more willing to lend, and the number of housing loans has been trending steadily upwards (Graph 4.1.10). Although, the relatively improved global risk sentiment is expected to drive the domestic supply of loans higher, loan demand might be dragged down by weak employment conditions. Therefore,

the pace and strength of the pass-through from the economic recovery into the labor market will have a major impact on loan demand in the upcoming period.

Meanwhile, the production of capital goods, an indicator for investment demand, increased quarter-on-quarter during July-August, whereas imports of capital goods flattened out (Graph 4.1.11). Thus, during the third quarter, private machinery and equipment investments are expected to shrink at a slower year-on-year pace than in previous periods, and rise quarter-on-quarter, after five straight quarters of decline (Graph 4.1.12).



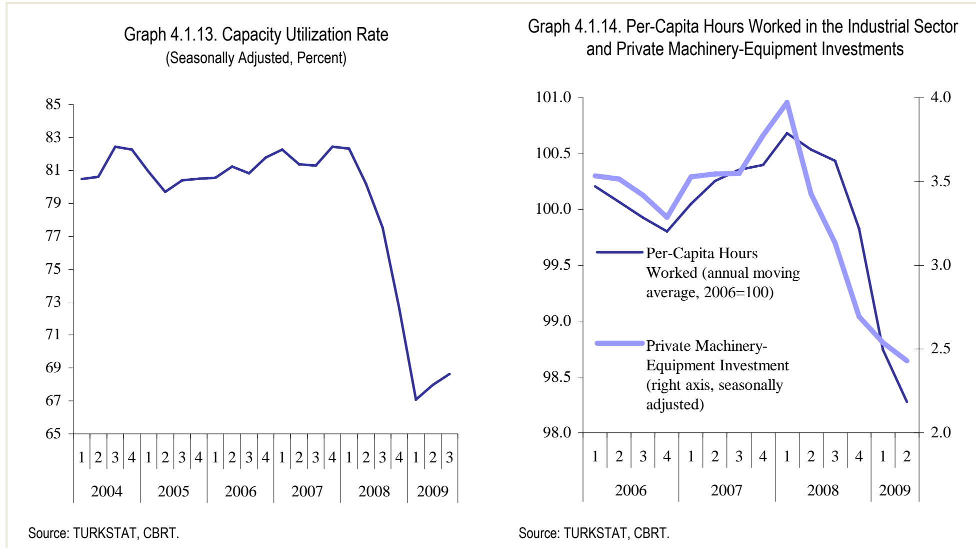
Graph 4.1.11. Production and Import Quantity Indices for Capital Goods
(Seasonally Adjusted)

* July-August figures.
Source: TURKSTAT, CBRT.

Graph 4.1.12. Aggregate Index of Investment* and Machinery-Equipment Investments
(Annual Percentage Change)

* Derived from data on production, exports and imports of investment goods.
** July-August figures.
Source: TURKSTAT, CBRT.

Despite the impending quarterly increase in private machinery and equipment investments for the third quarter, investor sentiment is still weak. In fact, excluding the passenger cars industry that benefited from fiscal measures, the production of capital goods was flat in the third quarter. The lack of solid evidence of global recovery and the increased uncertainty about total demand cause companies to operate at low capacity (Graph 4.1.13). In addition to low capital utilization, per capita hours worked, a measure of labor utilization, also hovers below pre-crisis levels (Graph 4.1.14). The sluggish resource use enables companies to meet the growing demand without additional investment. The idle capacity in the economy reduces the prospects for a rapid and robust recovery in investments amid weaker demand conditions implied by the current outlook for the global recovery.



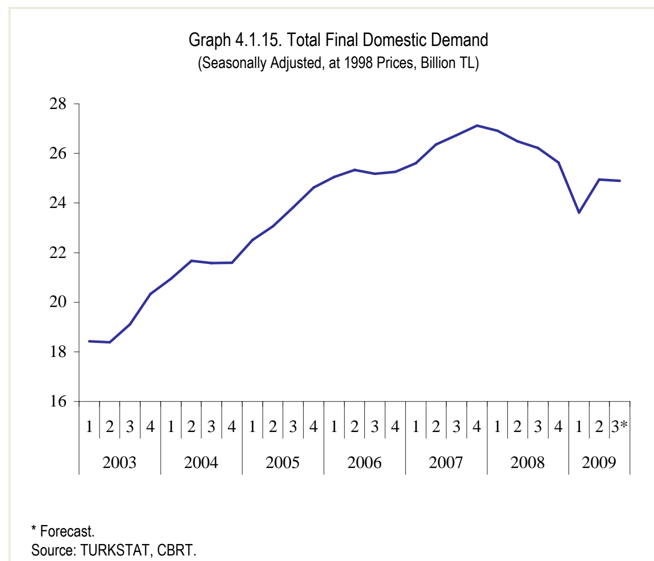
Graph 4.1.13. Capacity Utilization Rate
(Seasonally Adjusted, Percent)

Source: TURKSTAT, CBRT.

Graph 4.1.14. Per-Capita Hours Worked in the Industrial Sector and Private Machinery-Equipment Investments

Source: TURKSTAT, CBRT.

In sum, according to recent data releases, the fiscal stimulus-driven recovery has been confined to certain goods and therefore has failed to affect all categories of private spending. Although a recovery is expected in private-sector investments compared to the second quarter, the low resource use and the high demand uncertainty is expected to further weigh on investments. On balance, after a sharp increase in the second quarter, total final domestic demand is likely to move in a more horizontal direction in the third quarter (Graph 4.1.15).

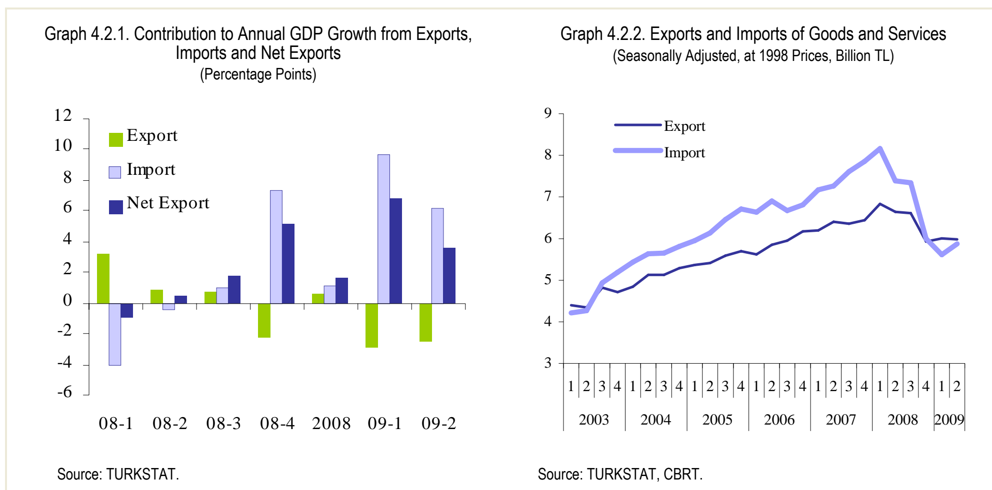


Graph 4.1.15. Total Final Domestic Demand
(Seasonally Adjusted, at 1998 Prices, Billion TL)

* Forecast.
Source: TURKSTAT, CBRT.

4.2. Foreign Demand

Exports and imports of goods and services dropped by 10.1 and 20.5 percent year-on-year, respectively, in the second quarter of 2009. Accordingly, net exports added 3.6 percentage points to annual GDP growth, accounting for –2.5 and 6.1 percentage points, respectively, of export and import growth (Graph 4.2.1). Seasonally adjusted data are in line with the outlook presented in the July Inflation Report. Accordingly, exports fell slightly quarter-on-quarter and remained sluggish, while imports grew on the back of the fiscal stimulus-driven rise in domestic demand (Graph 4.2.2). Thus, net exports made a negative contribution to the quarterly GDP growth (Graph 4.1.5).



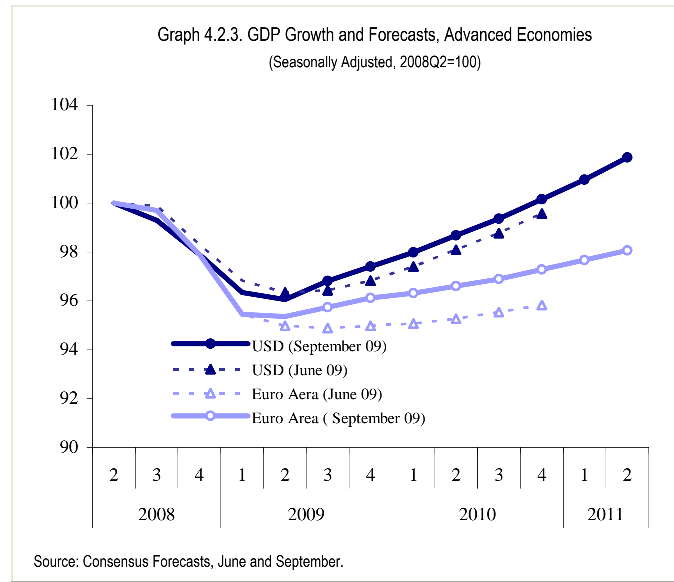
Graph 4.2.1. Contribution to Annual GDP Growth from Exports, Imports and Net Exports
(Percentage Points)

Source: TURKSTAT.

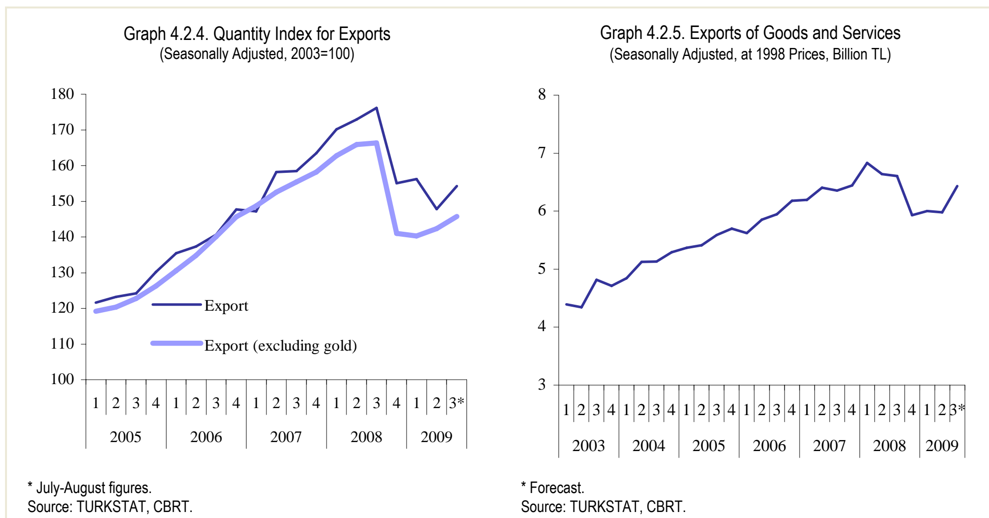
Graph 4.2.2. Exports and Imports of Goods and Services
(Seasonally Adjusted, at 1998 Prices, Billion TL)

Source: TURKSTAT, CBRT.

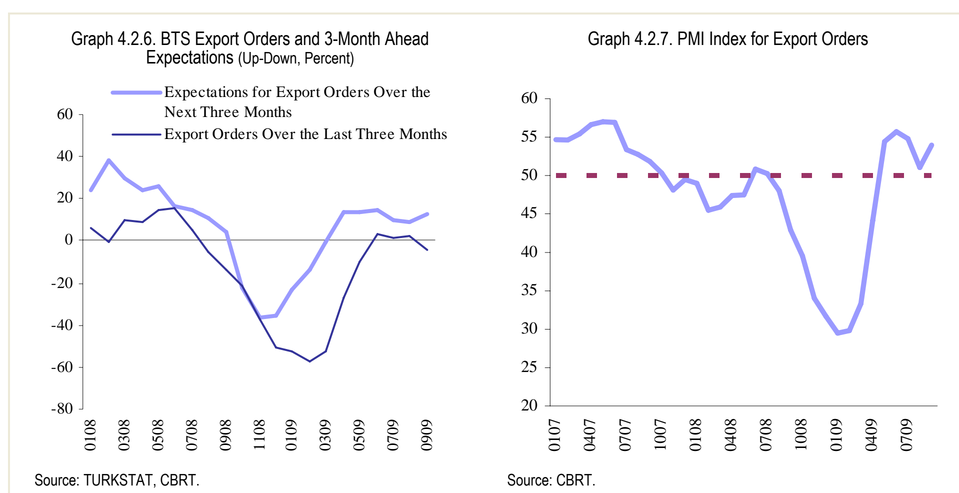
Recent data show signs of improvement in export prospects for the third quarter. In fact, growth forecasts for advanced economies have been more upbeat since September than in the July Inflation Report. The downward revision to growth forecasts for the Euro area, Turkey's greatest export destination, has reversed in recent months, and Consensus Economics revised its Euro area contraction forecast for 2009 downwards from 4.4 percent in the July Survey to 3.9 percent in the September Survey, a forecast unchanged in October. As forecast updates for the Euro area point to a more benign outlook for foreign demand in the short term, expectations about the pace of medium-term recovery have also improved (Graph 4.2.3).



Recent data on exports are consistent with the above outlook. The quantity index for exports fell by 7.6 percent year-on-year during July-August, yet posted a remarkable quarter-on-quarter gain in seasonally adjusted terms (Graph 4.2.4). Given these changes in the exports of goods and the growth in tourism revenues, exports of goods and services are expected to rise quarter-on-quarter during the third quarter (Graph 4.2.5).



Latest data releases also point to an improvement in underlying exports for the third quarter. However, taking into account previous episodes of strong global growth, underlying exports still remain weak (Graph 4.2.4). Hence arise two important questions: whether the third-quarter growth will continue into the upcoming period, and therefore, how long it will take for the external demand gap to narrow down; though the horizontal trend in the export orders from the CBRT's Business Tendency Survey (BTS) and the PMI index for new export orders does not signal additional gains in exports for the final quarter (Graph 4.2.6 and 4.2.7).



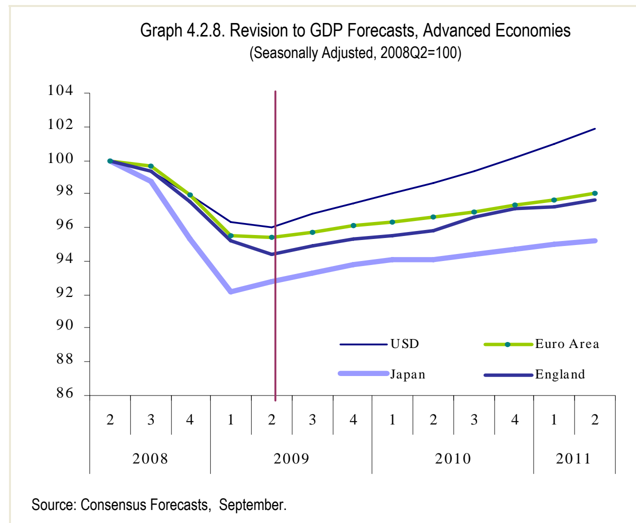
Graph 4.2.6. BTS Export Orders and 3-Month Ahead Expectations (Up-Down, Percent)

Source: TURKSTAT, CBRT.

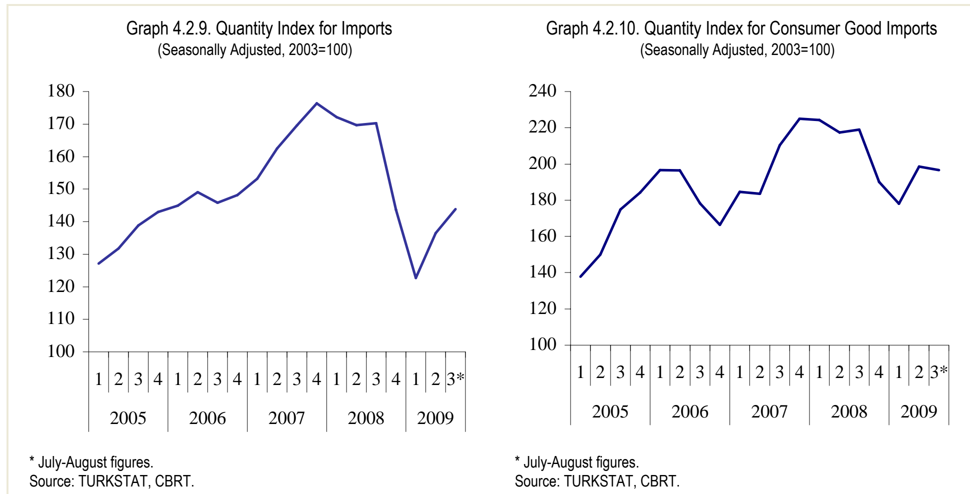
Graph 4.2.7. PMI Index for Export Orders

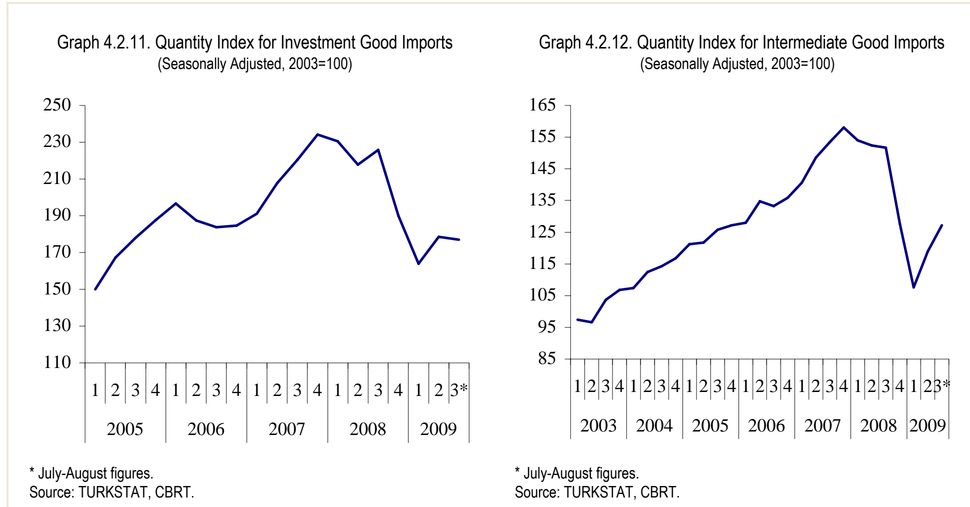
Source: CBRT.

The pace and timing of the global economic recovery will add valuable insight to the looming foreign demand outlook. Forecasts imply that advanced economies will start a slow and gradual recovery by the third quarter, and the second-half growth will slow by early 2010 and bounce back in 2011, which indicates that the continued pursuit of growth-boosting policies by advanced countries, due to expire by the end of 2009, has a favorable effect on the short-term outlook. Thus, exports are expected to grow further in the fourth quarter on worldwide economic measures. However, the medium-term outlook for global growth reveals that the GDP in advanced economies is unlikely to reach pre-recession levels for quite some time. This outlook suggests that the pace of decline in the output gap for advanced economies will be slow, confirming the belief that exports are unlikely to return to previous levels soon. Therefore, foreign demand is expected to further restrain total demand for an extended period of time (Graph 4.2.8).

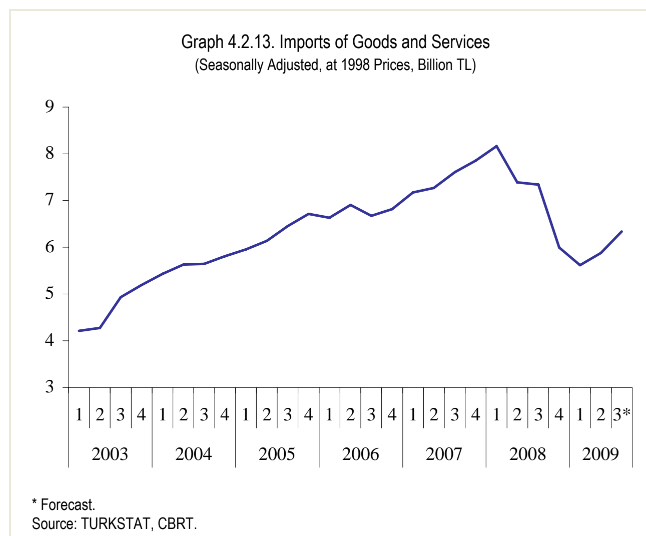


The downtrend in imports ended with the recovery in domestic demand during the second quarter. The quantity index for imports fell by 12.9 percent year-on-year during July-August, running above its quarter-ago average in seasonally adjusted terms. The fiscal stimulus-driven rebound across all sub-categories of imports during the second quarter moderated in consumer and investment goods during the third quarter. The quarterly rise in the total quantity of imports was mainly attributable to intermediate goods (Graph 4.2.9 and 4.2.12).





Total demand conditions will determine the upcoming direction of the demand for imported goods. In coming months, the effects of fiscal measures are expected to fade out, while the forwarded demand for automobiles and durable goods that benefited from tax incentives are likely to put a constraint on total final domestic demand. In view of the improved third-quarter outlook for foreign demand and the indicators briefly discussed so far, imports of goods and services are projected to rise quarter-on-quarter during the third quarter of 2009, though overall imports will likely remain below pre-recession levels for some time (Graph 4.2.13). Yet, export and import forecasts indicate that net foreign demand will continue to contribute positively to annual GDP growth, albeit slowly, in the third quarter of 2009.



4.3. Output Gap

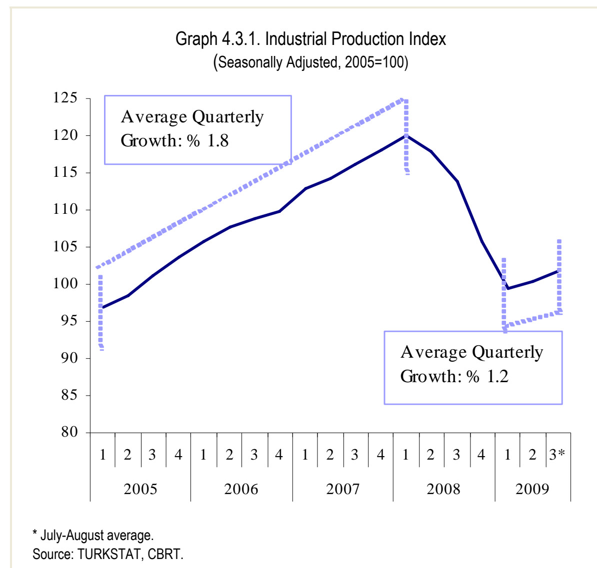
The second-quarter national accounts data were consistent with projections from the July Inflation Report. Turkey's GDP continued to fall year-on-year, but grew rapidly quarter-on-quarter in seasonally adjusted terms. Accordingly, the economic contraction since the second quarter of 2008 has ended. Among seasonally adjusted components of spending, domestic demand recovered on private spending, while foreign demand remained subdued amid ongoing problems in the global economy, causing exports to flatten.

The distribution of the robust quarter-on-quarter increase in domestic demand across components of spending raises doubts about the sustainability of this increase. Among sub-components of private consumer demand, there is a rapid recovery in tax-reduced categories of goods, while the demand for other categories of goods is nearly flat (Graph 4.1.6). Moreover, the shortage and uncertainty of total demand remain severe, causing private investment demand to soften and decline further quarter-on-quarter. These developments confirm our observation that the revival in domestic demand has been confined to certain categories of goods, and therefore is of a transitory rather than a permanent nature.

Third-quarter indicators are also in line with the above outlook. In fact, the production of consumer goods is down from the second quarter owing to durable goods. The opposite trends in the demand for durable and nondurable goods appear to remain virtually unchanged from the second quarter. Among capital goods, the recovery is rather limited in industries excluding transport vehicles (Graph 4.1.11). Thus, the strong third-quarter growth in the production of capital goods has largely been the result of tax cuts, rather than a rebound in investment sentiment. Developments in industries that were not affected by fiscal measures confirm the weakening of total demand, while the continued flattening of the production of intermediate goods indicates that the recent gain in industrial production is not spread across a broad range of industries and is consistent with the prospect of a slow economic recovery.

Third-quarter indicators point to a further modest recovery in economic activity. Despite having plunged by 7.7 percent year-on-year during July-August, industrial production grew by 1.3 percent quarter-on-quarter in seasonally adjusted terms. Although September data on capacity utilization suggest that output continues to grow, according to latest developments, it is still weaker than in periods of robust growth. Current trends in the output level and the pace of recovery indicate that it will take much longer for the output gap to close (Graph 4.3.1)

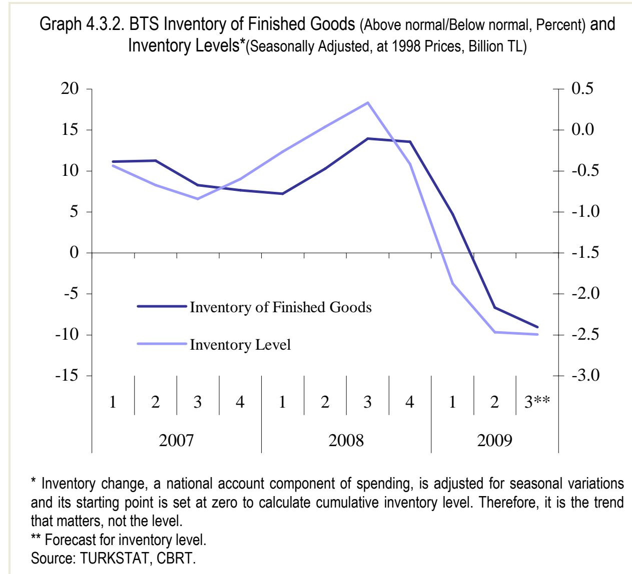
Graph 4.3.1. Industrial Production Index
(Seasonally Adjusted, 2005=100)



* July-August average.
Source: TURKSTAT, CBRT.

Latest inventory shifts suggest that demand uncertainty has a dampening effect on production, and support the very prolonged recovery of the output gap. Third-quarter indicators for production and demand point to a slower destocking. In fact, the CBRT's BTS index for finished goods inventory continued to fall in the third quarter. Thus, the inventory change is forecast to have made further negative contribution to annual growth and positive contribution to quarterly growth in the third quarter (Graph 4.3.2).

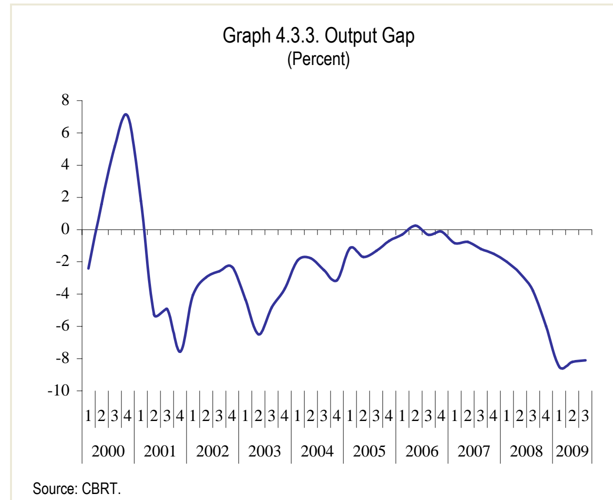
Graph 4.3.2. BTS Inventory of Finished Goods (Above normal/Below normal, Percent) and Inventory Levels*(Seasonally Adjusted, at 1998 Prices, Billion TL)



* Inventory change, a national account component of spending, is adjusted for seasonal variations and its starting point is set at zero to calculate cumulative inventory level. Therefore, it is the trend that matters, not the level.
** Forecast for inventory level.
Source: TURKSTAT, CBRT.

In sum, recent data releases indicate that the slow and gradual economic recovery continued into the third quarter of 2009. Fiscal measures had a waning impact on domestic demand, while foreign demand improved somewhat. Therefore, GDP is forecast to expand quarter-on-quarter during the third quarter, albeit at a quite slower pace than in the second quarter, and contract further year-on-year. On balance, total demand conditions are expected to further support disinflation (Graph 4.3.3).[1]

Graph 4.3.3. Output Gap
(Percent)

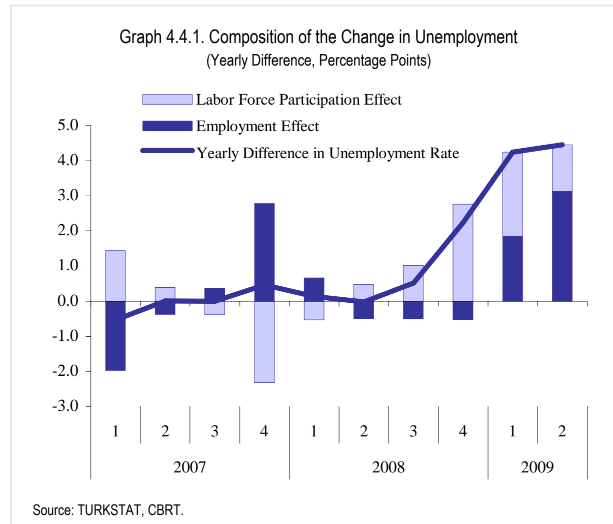


Source: CBRT.

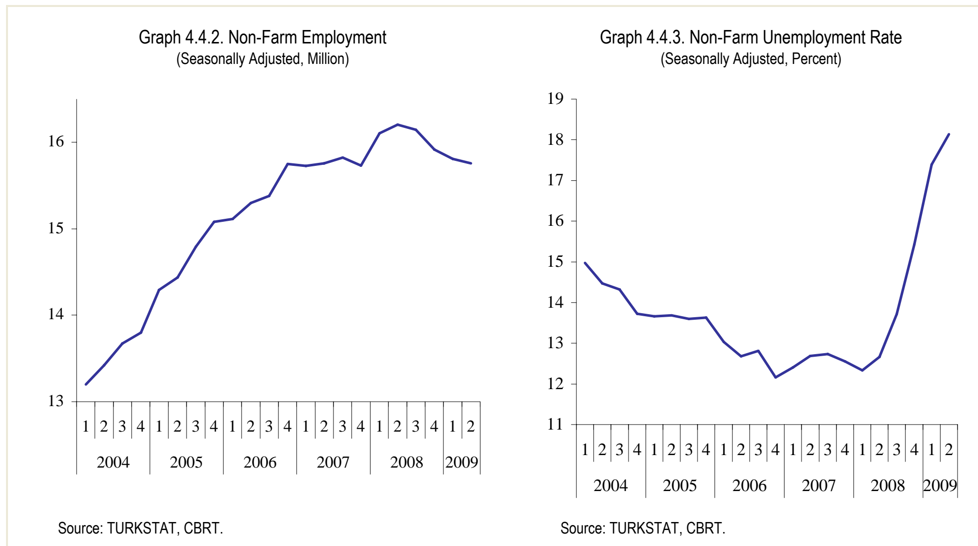
[1] Output gap forecasts for 2009 and onwards are presented in the final chapter of the Report.

4.4. Labor Market

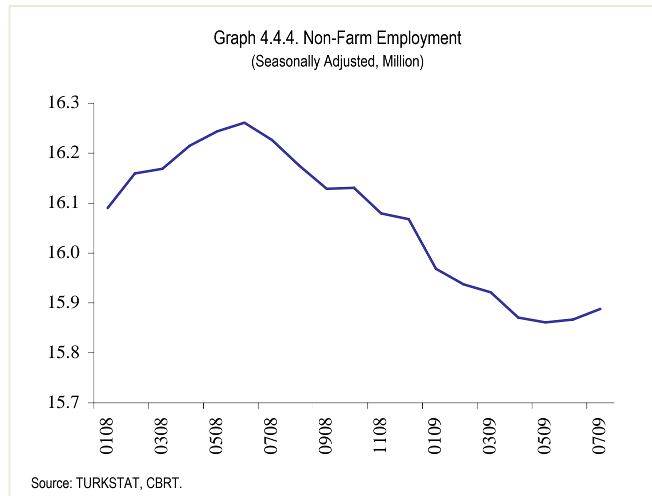
The negative labor market outlook since the second quarter of 2008 worsened further in the second quarter of 2009, causing unemployment to rise in seasonally adjusted terms. Total unemployment increased by 4.5 percentage points to 13.6 percent year-on-year in the second quarter. The fall in employment and the rise in labor participation accounted for 3.1 and 1.4 percentage points, respectively, of the annual rate of increase in unemployment (Graph 4.4.1).



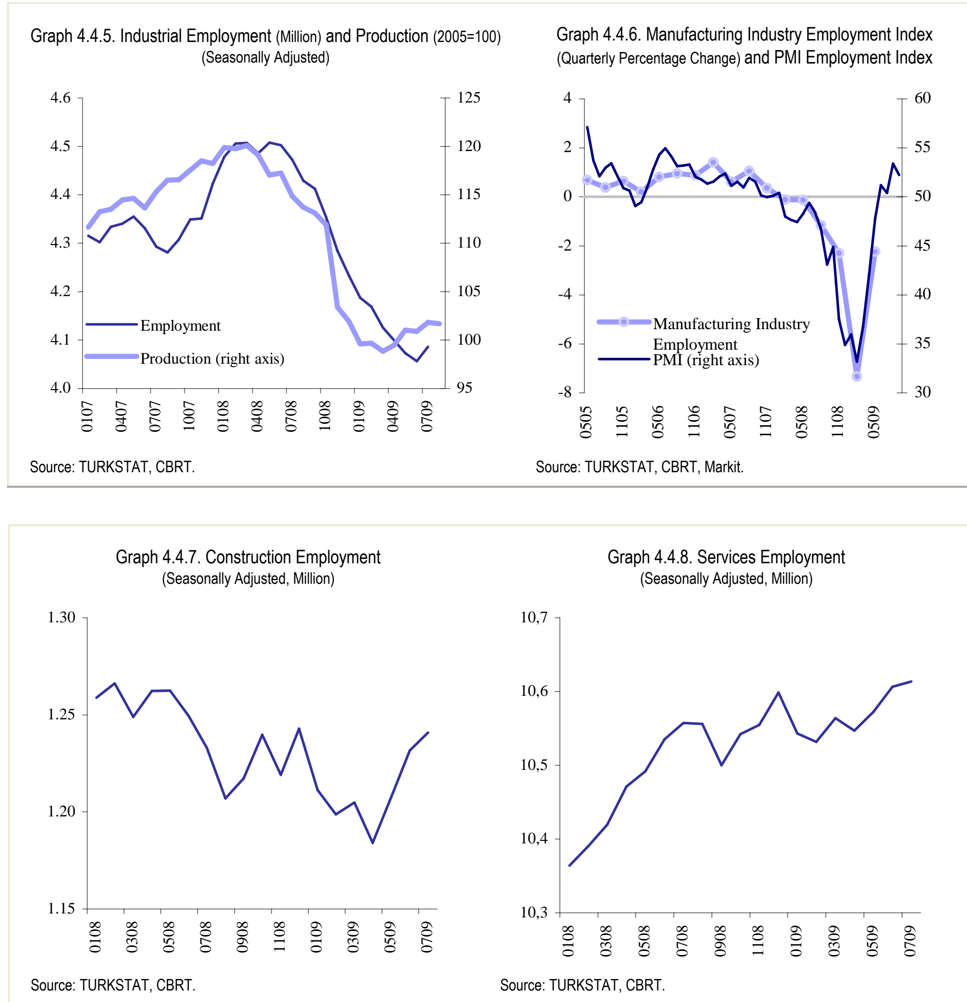
The underlying unemployment trend continued to be downward during the second quarter of 2009. Non-farm employment dropped by 2.8 percent year-on-year and continued to fall in seasonally adjusted terms, though at a slower pace (Graph 4.4.2). With the slowdown in employment and the steep increase in labor participation, non-farm unemployment rose by 5.5 percentage points year-on-year to 17 percent. In seasonally adjusted terms, non-farm unemployment increased by 0.7 percentage points quarter-on-quarter during the second quarter, up a cumulative 4.4 percentage points since the labor market breakdown in the final quarter of 2008 (Graph 4.4.3).



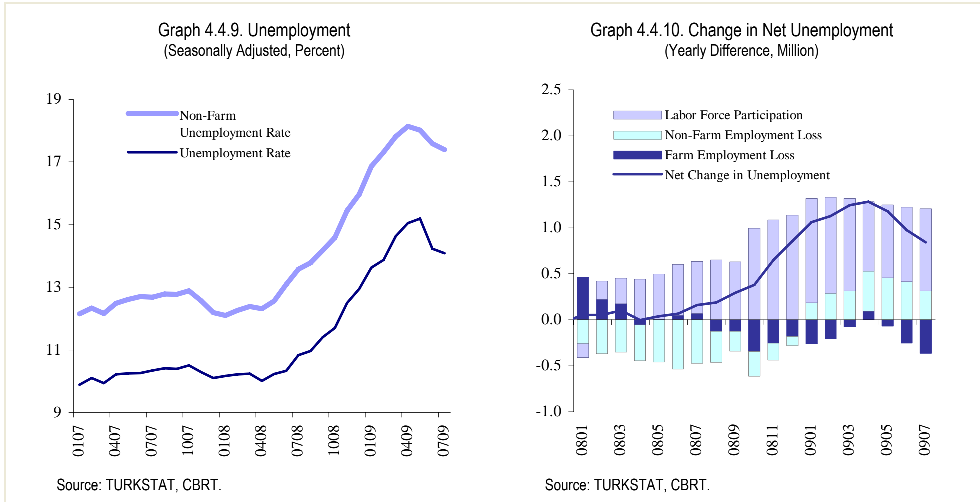
June-August data signal that the downtrend in non-farm employment ended in the third quarter. Having contracted by 1.9 percent year-on-year, non-farm employment moved upward in seasonally adjusted terms for the first time since the second quarter of 2008 (Graph 4.4.4).



Non-farm employment stopped falling with the growing employment in industries of services and construction since May, and rose on the recent pick-up in industrial employment, a trend that continues into the fourth quarter, as suggested by leading indicators (Graph 4.4.5 and 4.4.6). In seasonally adjusted terms, both services and construction employment recovered to their pre-crisis levels, whereas industrial employment continued to hover around low levels due to weak foreign demand (Graph 4.4.7 and 4.4.8).



Recently, the improvement in employment prospects has helped reverse the run-up in unemployment. June-August data indicate that unemployment grew year-on-year, but fell quarter-on-quarter in seasonally adjusted terms. Major drivers of the labor market recovery have been the slowing rise in non-farm labor participation, the upward shift in non-farm employment and the increase in farm employment (Graph 4.4.9 and 4.4.10).



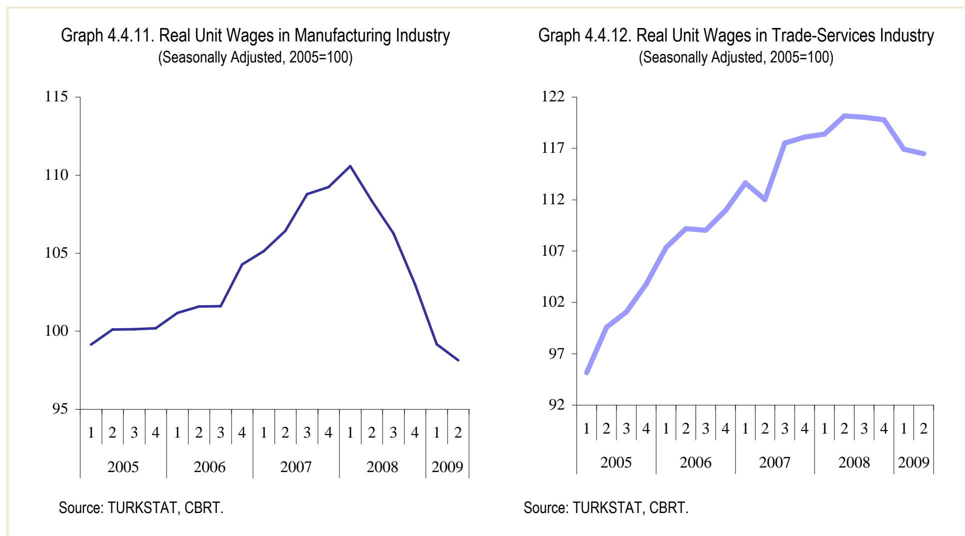
Graph 4.4.9. Unemployment
(Seasonally Adjusted, Percent)

Source: TURKSTAT, CBRT.

Graph 4.4.10. Change in Net Unemployment
(Yearly Difference, Million)

Source: TURKSTAT, CBRT.

Problems in the labor market continued to put downward pressure on total wages across the whole economy during the second quarter. With the reduction in employment losses, the quarterly decline in total real wages has slowed down, which is significantly evident in the manufacturing and trade/services industries. Meanwhile, real wages in building construction continued to decline rapidly, whereas those in non-building construction remained nearly flat (Graph 4.4.11 and 4.4.14).

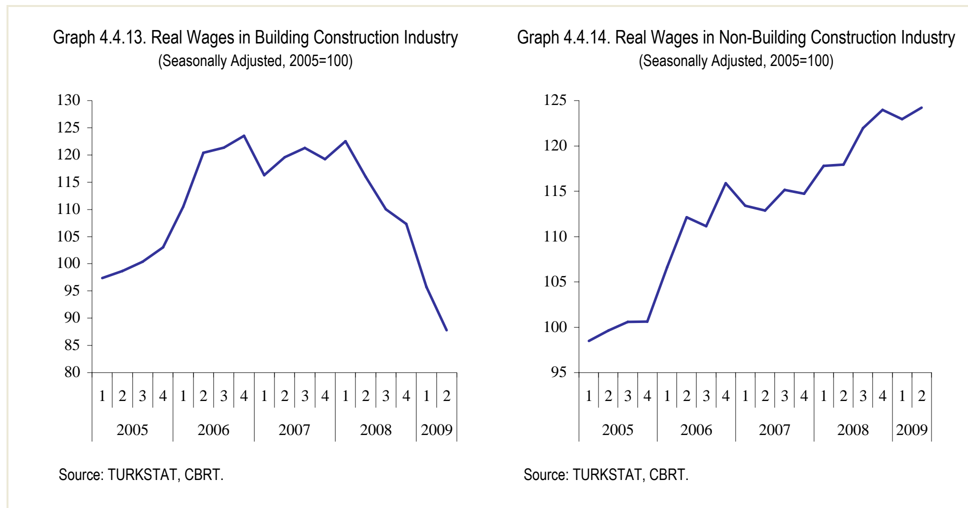


Graph 4.4.11. Real Unit Wages in Manufacturing Industry
(Seasonally Adjusted, 2005=100)

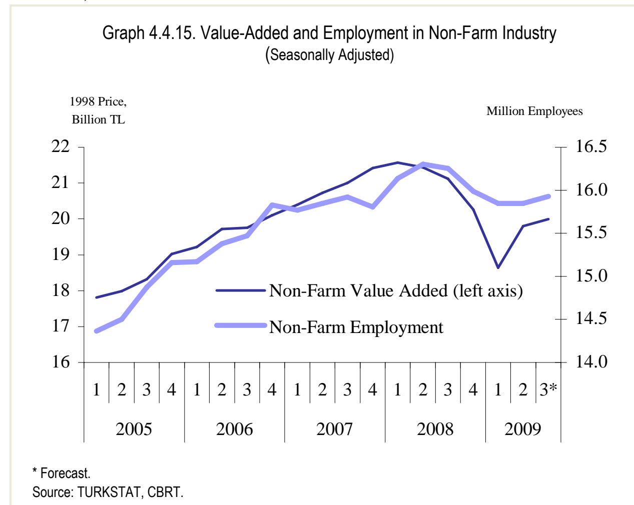
Source: TURKSTAT, CBRT.

Graph 4.4.12. Real Unit Wages in Trade-Services Industry
(Seasonally Adjusted, 2005=100)

Source: TURKSTAT, CBRT.



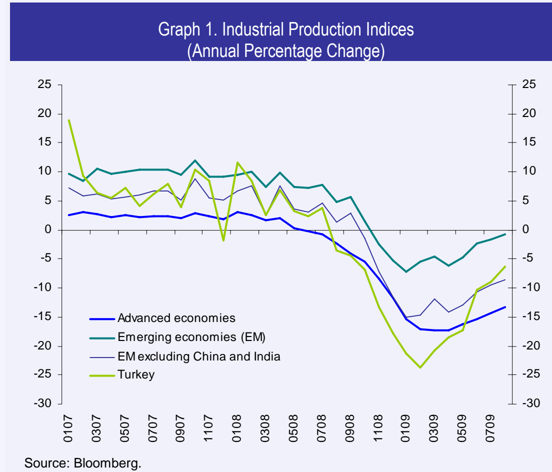
The upcoming trend in employment will depend on the speed and timing of the economic recovery. In view of the near-term outlook briefly discussed so far, economic activity may continue to increase in non-farm industries during the third quarter, while non-farm employment is expected to start growing again (Graph 4.4.15).



In sum, the modest global growth allows the economy to recover only slowly and gradually, while indicators for capacity utilization and per-capita hours worked point to lower resource use. Based on the assumption that idle capacity will weigh further on investment and employment prospects, the labor market is unlikely to see a strong rebound in the near term and unemployment will continue to hover around record highs for quite some time. On balance, the outlook for unit labor cost and domestic demand is expected to bring inflation further down.

Box 4.1 FINANCIAL STRESS AND ECONOMIC ACTIVITY

Graph 1. Industrial Production Indices (Annual Percentage Change)



Source: Bloomberg.

Third quarter data releases seem to indicate that the global economy is finally heading out of the deepest recession since World War II (Graph 1). However, the sluggish recovery in many leading indicators and the continued weakness across global labor and credit markets indicate that downside risks to a robust recovery remain.

With the worst of the crisis seems to be over, the focus has shifted from crisis management to fostering a self-sustaining global economic recovery. In this regard, recent studies show that synchronized recessions associated with financial stress tend to be deeper and longer than other types of recessions.[2] According to these studies, impairment of core financial intermediaries usually tend to be characterized by more anemic and protracted recoveries. Based on these studies, it seems it will take quite a while for the global economy to return to pre-crisis growth rates.

[2] See, Cardarelli, Elekdağ and Lall, (2009), "Financial Stress, Downturns, and Recoveries," IMF Working Paper 09/100; Terrones, Scott and Kannan, (2009), *World Economic Outlook* (April); Balakrishnan, Koeva Brooks, Leigh, Tytell and Abiad, (2009), *World Economic Outlook* (October).

While these studies are very useful, they tend to primarily focus on advanced economies. Those concentrating on the emerging economies are less common and not very comprehensive. In this context, this Box focuses on Turkey and other emerging economies with the goal of analyzing the link between financial stress and economic activity. To this end, the Box will first define financial stress, then discuss how an index could be used to measure financial stress, and finally investigate the historical relationship between financial stress and economic activity.

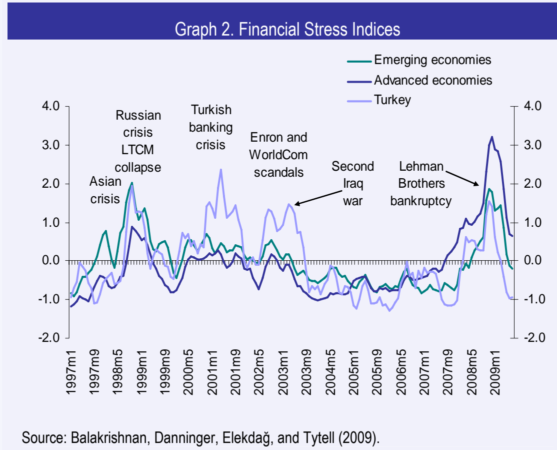
Financial Stress and Measurement

Financial stress, broadly defined is when financial markets are under strain or financial intermediation is impaired. Although historical episodes of financial stress are associated with differing characteristics, common features exist, which include an increase in risk and uncertainty, abrupt and large shifts in asset prices, global liquidity squeezes, and pervasive strains affecting financial intermediation.

There are many dimensions through which a country's financial system could be subject to financial strains. Therefore, to summarize these various financial developments, it would be useful to consider a single composite index that allows a consistent comparison of financial stress across both time and countries. A recent index is the financial stress index (FSI) developed by Cardarelli et al (2008) for advanced economies. Build on this study, Danninger et al (2009)[3] propose a FSI for emerging economies which is composed of five subcomponents. These components broadly attempt to measure exchange market pressures, country-specific credit risk, banking-related financial strains, stress stemming from the stock market, and uncertainty.

[3] Lall, Cardarelli, and Elekdağ (2008); *World Economic Outlook* (October); and Balakrishnan, Danninger, Elekdağ, and Tytell (2009), *World Economic Outlook* (April).

It would be useful to discuss the five subcomponents of the FSI in further detail. The first subcomponent of the FSI is itself an index, namely, an Exchange Market Pressure Index (EMPI), which serves to signal stress originating from exchange markets. The EMPI comprises changes in exchange rates and central bank reserves, whereby an exchange rate depreciation or a sharp drawdown in reserves corresponds to higher exchange market pressures. The second component attempts to gauge country-specific credit risk and is based on JP Morgan's EMBI Global spread: higher spreads imply heightened financial stress. The third component comprises stock market returns whereby a decline in equity prices corresponds to increased securities market-related stress. The fourth component captures financial market uncertainty, and is based on time-varying stock market return volatilities. The five and final subcomponent of the FSI is the banking-sector beta, which is a refined version of the Capital Asset Pricing Model (CAPM) beta. When the stock market is down, a beta greater than 1 (indicating that banking stocks have fallen faster than the overall index) would indicated that the banking sector-related stress have increased. All these subcomponents are standardized and summed to form the FSI.



Graph 2. Financial Stress Indices

Source: Balakrishnan, Danninger, Elekdağ, and Tytell (2009).

The FSI for Turkey, as well as the aggregated FSIs for emerging and advanced economies, respectively, are shown in Graph 2.[4] As seen from the graph, financial stress has been higher across emerging economies when contrasted to advanced economies during episodes of global financial turmoil, especially because emerging economies were relatively more vulnerable to shocks. In fact, except for the latest crisis, many of the recessions across emerging economies during this sample were caused or exacerbated because of shocks originating from emerging economies . From this perspective, the recent financial crisis differs because it erupted initially in advanced economies. As a result, during the crisis, the financial stress in emerging economies increased much later and by a lesser degree than in advanced economies.

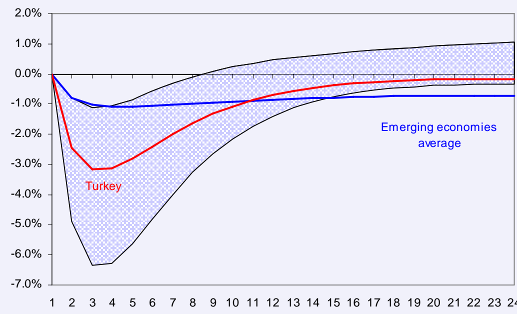
The FSI for Turkey, on the other hand, shows that the financial stress in Turkey exceeded the emerging economy average during the previous episodes of global stress, which is markedly evident during Turkey's banking crisis in 2001 and the second Iraq War in 2003. Recently, the outlook for Turkey's financial stress index is more promising than other emerging economies. The FSI for Turkey has increased more slowly and declined more rapidly than the emerging economy average, which is mainly attributable to the low levels of risk and high capital adequacy ratios of the Turkish banking system. Taken together, the financial stress from banking sector vulnerabilities has been very significant in most countries, but relatively more modest in Turkey.

[4] Indices on the graph are standardized using 3-month moving averages. In other words, a value of 2 means the index exceeds 2 standard deviation above its long-term mean.

The Relationship Between Financial Stress and Economic Activity in Turkey

The global economic downturn calls for a better understanding of the interaction between financial strains and economic activity. Thus, the CBRT developed an econometric model to analyze this interaction. The model makes use of monthly data, whereby the FSI would identify financial market developments, whereas the industrial production (IP) index would capture economic fluctuations.[5] The model includes a foreign block[6], and therefore is intended to explore the effects of both domestic and external financial stress shocks on Turkey's economic activity. By estimating the model over the period from December 1996 through April 2009, we consider two experiments.

Graph 3. Industrial Production Index's Response to Financial Stress (With a 95 Percent Uncertainty Band)

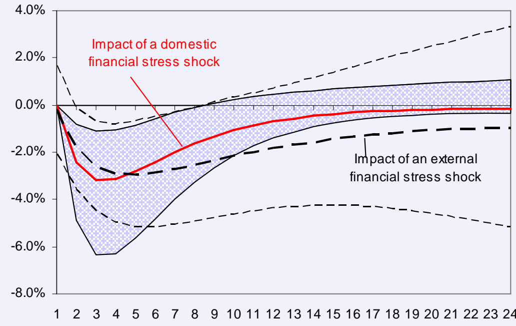


Source: CBRT.

First, we analyze the response of IP to a domestic financial stress shock calibrated to match the recent financial crisis, which was about two standard deviations based on Turkey's FSI (Graph 3).[7] As depicted by the graph, the financial shock affects economic activity quickly, and at the trough, drags IP below trend by 3 percent. However, considering the lower end of the 95 percent confidence band, the shock can actually pull IP below trend by more than 6 percent. When contrasted to the average emerging economy response, while Turkey seems to be more severely affected, it also shows a tendency to recovery from the shock more quickly.[8]

[5] Seasonally adjusted IPI as deviation from linear trend.
[6] See, Elekdağ, Samancıoğlu, and Sarıkaya, "Financial Stress and Economic Downturns in Emerging Markets," CBRT Working Paper, awaiting publication.
[7] The simulation has a monthly shock with a standard deviation of 2.5.
[8] Due to limited data, the sample of emerging economies includes Argentina, Brazil, South Africa, Korea, Hungary, Malaysia, Mexico, Poland, Taiwan and Chile.

Graph 4. Industrial Production Index's Response to Financial Stress in Turkey (With a 95 Percent Uncertainty Band)



Source: CBRT.

Second, we analyze IP's response to an external FSI shock. Graph 4 shows the response of IP to both a domestic FSI shock (previously discussed) and an external FSI shock. As seen from the graph, it seems that the external FSI shock has a more durable impact on economic activity. It should be noted that the simulation considers only a one-period shock. Intuitively, if a more persistent shock were to be simulated (closer to the reality of the recent crisis), the cumulative impact on economic activity would have been deeper and longer.

In sum, these simulations seem to be in line with the view that economic activity could remain suppressed for an extended period. In this context, the medium-term forecasts in this Report assume that economic activity would recover gradually.

5. Financial Markets and Financial Intermediation

5.1. Financial Markets

The crisis that first erupted in advanced financial markets and spread globally by deepening further starting from the fourth quarter of 2008 continued to affect financial markets during the third quarter of 2009, albeit to a lesser extent. Recent data releases on the financial system and the global economic activity indicate that the world economy has moved into recovery thanks to remedy actions taken by government authorities, providing further grounds for a guarded optimism in financial markets in the third quarter. Yet, the slow and unstable improvement in key indicators of global economy suggests that the post-crisis recovery is likely to be slow and gradual.

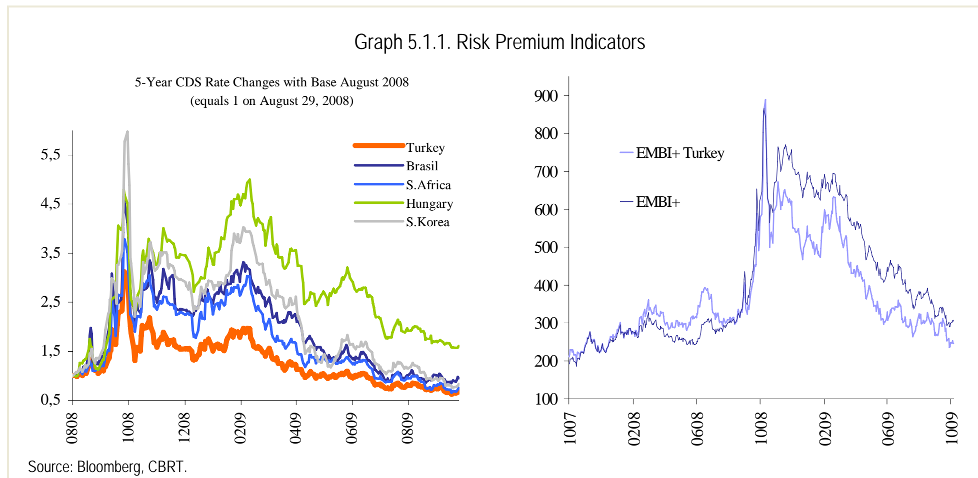
Although concerns about global financial fragility have waned, the massive loss encountered by financial institutions, their need to raise capital and failure to completely remove distressed assets off balance sheets continue to restrict loanable funds. Moreover, the still-elevated perception of credit risk, driven by high unemployment, curbs banks' appetite for lending and blocks the easing of financial conditions.

The financial crisis has not only affected financial markets but also depleted household assets in advanced countries, which, coupled with the uncertainty over the future, has boosted precautionary savings and put downward pressure on consumer spending in advanced economies. In addition, low capacity utilization in advanced economies has caused investor sentiment to drop dramatically. Therefore, the world economy seems unlikely to catch up the pre-crisis strong growth path in the near term.

By contrast, when compared with advanced countries, emerging market economies have shown signs of a more rapid recovery, which is also confirmed by third-quarter data. Yet, the ongoing weakening in foreign demand and the shortage of funds needed to finance the economic recovery continue to pose risk on the rate of recovery in these countries.

Although the world economy is expected to recover slowly and gradually, the perception that the worst of the crisis is over gained ground thereby boosting optimism in financial markets and promoting further bias towards riskier assets during the third quarter. Accordingly, capital flows have been experienced in the third quarter into emerging markets through portfolio movements, as in the second quarter. Meanwhile, emerging market currencies appreciated and stock exchanges moved up at a faster pace than those in advanced economies. In addition, risk premiums for emerging economies continued to fall, even below the pre-crisis levels in most countries (Graph 5.1.1).

Graph 5.1.1. Risk Premium Indicators

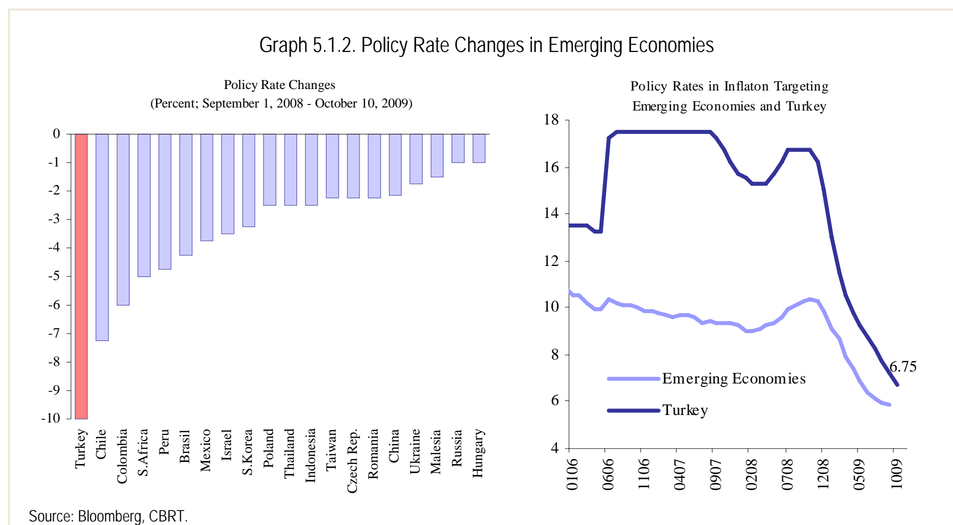


Source: Bloomberg, CBRT.

The financial crisis has not only revealed the fragility of the financial markets and the advanced economies, which traditionally are assumed to be a safe haven, but also shown that most emerging economies, which were previously seen as a danger zone, are not as risky as once believed. Thus, many emerging economies with strong growth potential and a sound economic base are expected to have better global risk ratings, resulting in a stronger position in global financial markets and an easier access to global capital. As such, Turkey ranks among the top emerging economies. The credit-rating agencies' optimism about Turkey and Turkey's lower risk premium than in other emerging economies during the third quarter and throughout the crisis indicates Turkey's declining riskiness (Graph 5.1.1).

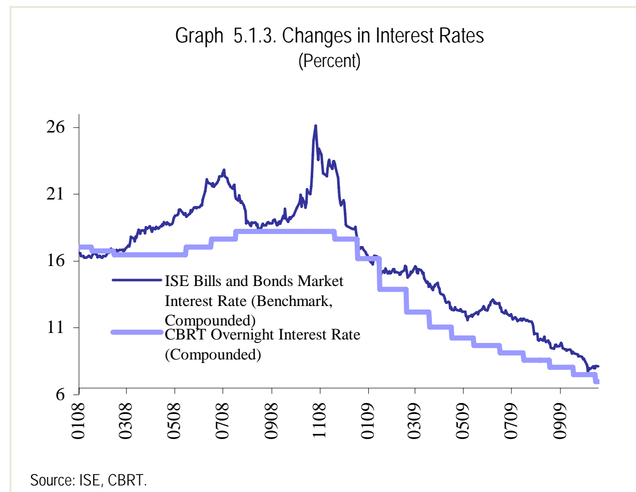
Turkey has stood out from other emerging economies during the crisis, thanks to the sound banking system and the relatively less deteriorated risk premium. With greater room for monetary maneuver, the CBRT has lowered policy rates aggressively to alleviate the effects of the global crisis on economic activity and assumed a leading role among emerging economies. Accordingly, in view of the weakening in aggregate demand, the ongoing tightening in credit conditions and the improved outlook for inflation, the CBRT continued to cut policy rates in the third quarter, totaling 1000 basis points as of October 2009 (Graph 5.1.2). Not only the data on economic activity and inflation but also the risk premium indicators have justified the accuracy of the CBRT's policy decisions.

Graph 5.1.2. Policy Rate Changes in Emerging Economies

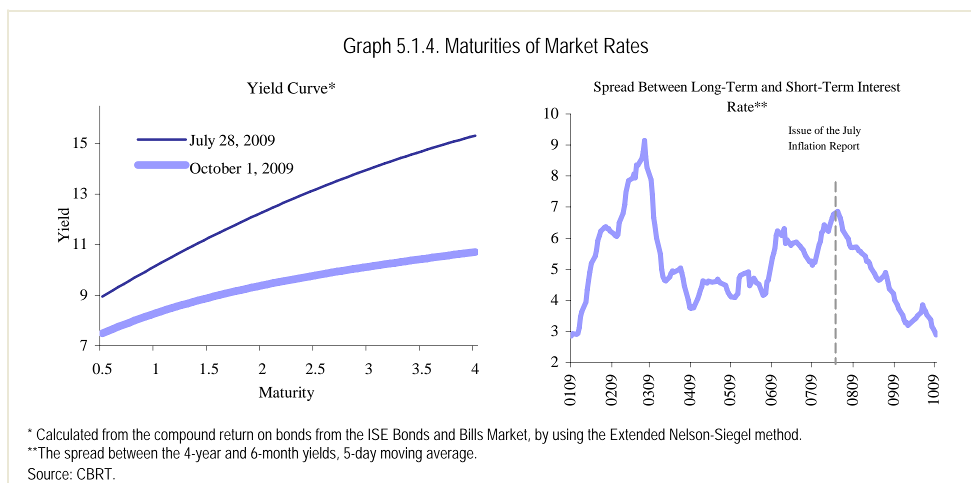


Source: Bloomberg, CBRT.

Market rates continued to trend downward in the third quarter, owing to the monetary easing and the improved risk premium. As the third-quarter data on inflation and economic activity substantiated CBRT's strategy of rapid rate cuts, policy rates had a greater effect on market rates. In addition to policy rate cuts, CBRT's effective communication policy and its expectations management helped reduce market rates. In particular, the well-established medium-term perspective on monetary policy presented in the July Inflation Report accelerated the downtrend in market rates. Furthermore, the improved risk perception during the third quarter and the growing market consensus that the medium-term program launched in September has been consistent and realistic added to the decline in market rates (Graph 5.1.3).

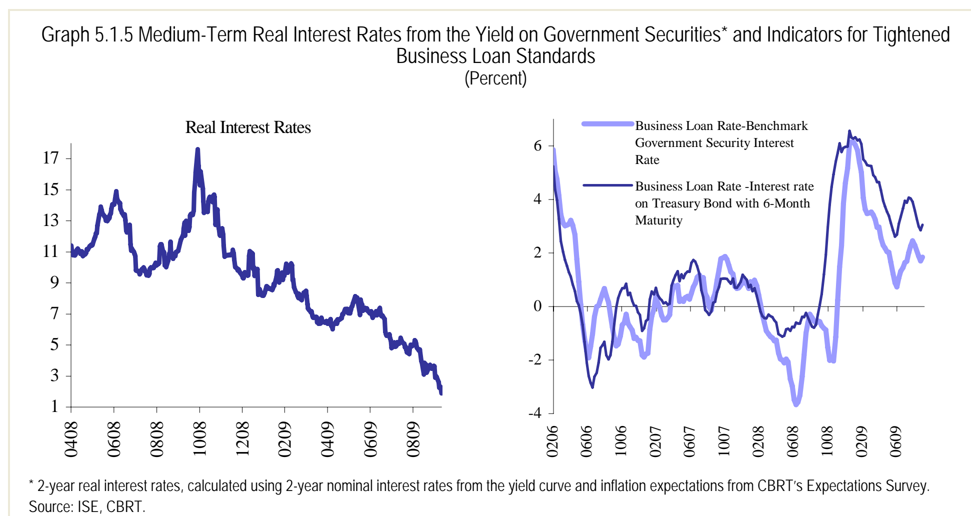


Market rates fell across all maturities. In fact, government bond yields on October 1, 2009 were down from those on July 28, 2009 in every maturity range. The decline in long-term yields has been more pronounced than in short-term yields, flattening the yield curve (Graph 5.1.4). The change in the yield curve is largely attributable to CBRT's well-established perspective on future monetary policy. In the July Inflation Report, the CBRT stated that, if fiscal discipline is restored, policy rates could remain at single-digit levels over the forecast horizon. This statement helped narrow the gap between long-term and short-term yields. The subsequent data on inflation and economic activity supported CBRT's projection and consequently, market expectations for future policy rates converged towards CBRT's perspective and the yield curve flattened more significantly. This change in the yield curve shows the increased impact of CBRT's monetary policy on expectations and transmission mechanisms.



The downtrend in market rates has passed through to medium-term real interest rates, while real market rates went further down from the second quarter and continued to hover around historic lows. The fall of real rates in well-functioning economies during times of recession, which, however, is quite unprecedented for Turkey. In this regard, the current level of real rates is an indicator for the improved effectiveness of monetary policy. Nevertheless, credit risk perceptions are still above acceptable levels causing credit conditions to continue to be tight, albeit at a slower pace, and the effect of falling market rates on economic activity to remain restricted. Yet, financial conditions eased during the third quarter with the decline in credit risk perceptions and more primarily due to CBRT's policy rate cuts, although measures of financial tightening are still running above pre-crisis levels (Graph 5.1.5).

Graph 5.1.5 Medium-Term Real Interest Rates from the Yield on Government Securities* and Indicators for Tightened Business Loan Standards
(Percent)

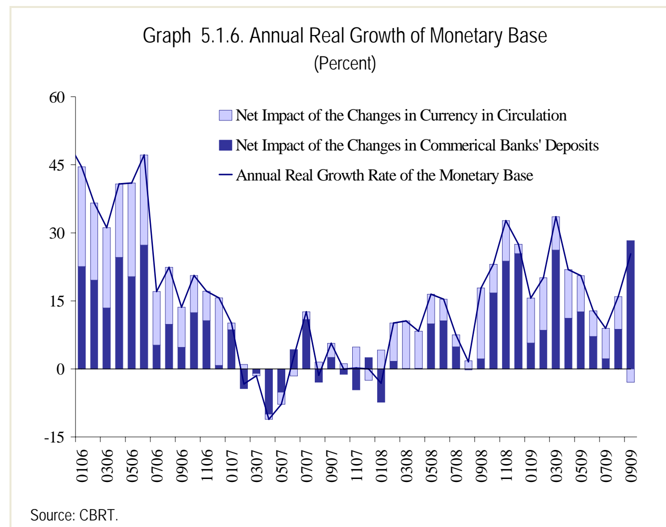


* 2-year real interest rates, calculated using 2-year nominal interest rates from the yield curve and inflation expectations from CBRT's Expectations Survey.
Source: ISE, CBRT.

Despite the continued optimism surrounding financial markets, the sense of uncertainty, a key measure of investment sentiment in economic agents, failed to return to the pre-crisis level in the third quarter. Consequently, the propensity of economic agents to hold relatively low-risk assets and cash continued, albeit to a lesser extent. On the other hand, although the currency in circulation dropped year-on-year in real terms during September, monetary base saw a rapid real growth, owing to the elevated risk-aversion of households and financial institutions during the outburst of the crisis in September 2008. Moreover, the fact that the last days of September in 2008 was marked by the Ramadan holiday increased the demand for cash, creating a base effect that would contribute to the real contraction in the currency in circulation during

September 2009. As a result, despite weak economic activity, monetary base continued to grow year-on-year in real terms (Graph 5.1.6).

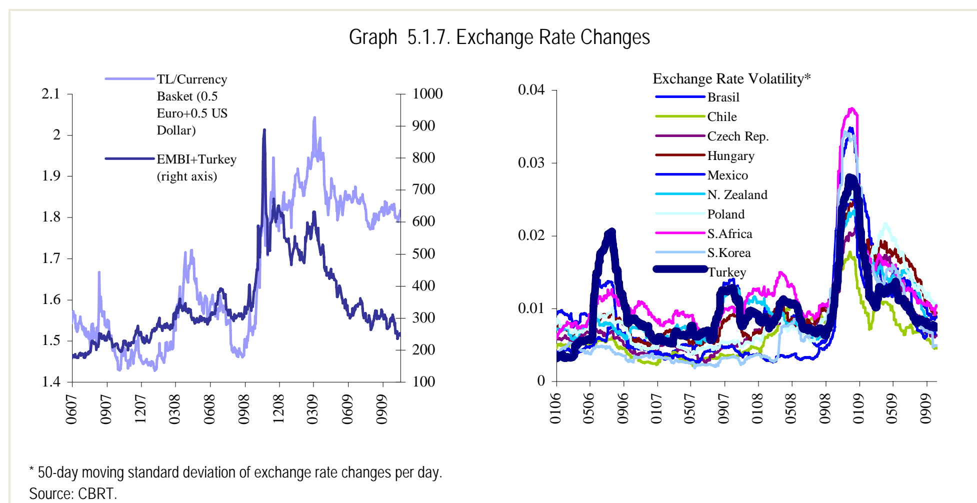
Graph 5.1.6. Annual Real Growth of Monetary Base
(Percent)



Source: CBRT.

The improved perception of global risk helps emerging market currencies appreciate. In terms of changes in currency values, the Turkish lira did not significantly differ from other emerging market currencies in the third quarter. Despite having been volatile at historically high levels and extremely sensitive to global risk appetite, the Turkish lira continued to be relatively less volatile in the third quarter, when country-specific conditions began to unfold following the worst period of the crisis (Graph 5.1.7). As has been the case in previous quarters, the monetary policy decisions of central banks in emerging economies had a very limited short-term effect on their currencies in the third quarter, and the value of these currencies were mainly determined by global risk appetite.

Graph 5.1.7. Exchange Rate Changes

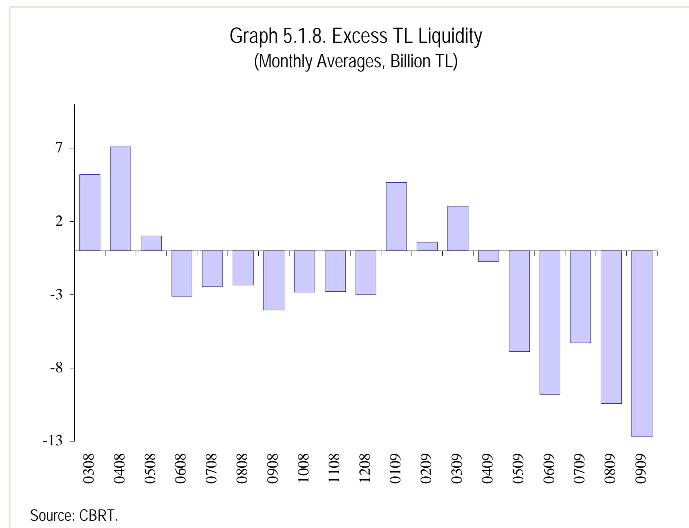


* 50-day moving standard deviation of exchange rate changes per day.
Source: CBRT.

With the easing of the global liquidity shortage and the restored stability in foreign exchange markets, the CBRT resumed the foreign exchange buying auctions that were suspended in October 2008 on August 4, 2009, aiming to secure a strong foreign exchange position as a general strategy. Accordingly, as of October 9, the Bank has bought 2.13 billion US dollars and injected a total of 3.17 billion Turkish liras into the market.

Despite CBRT's liquidity injections through foreign exchange buying auctions, the liquidity shortage in the overnight market during the second quarter of 2009 continued into the third quarter at a more marked pace (Graph 5.1.8). The continued liquidity squeeze has been predominantly caused by new borrowing of Treasury exceeding its redemption, thereby adding to Treasury's account at the CBRT. During the third quarter, the CBRT provided liquidity through regular 1-week and 3-month repo auctions.

Graph 5.1.8. Excess TL Liquidity
(Monthly Averages, Billion TL)



Source: CBRT.

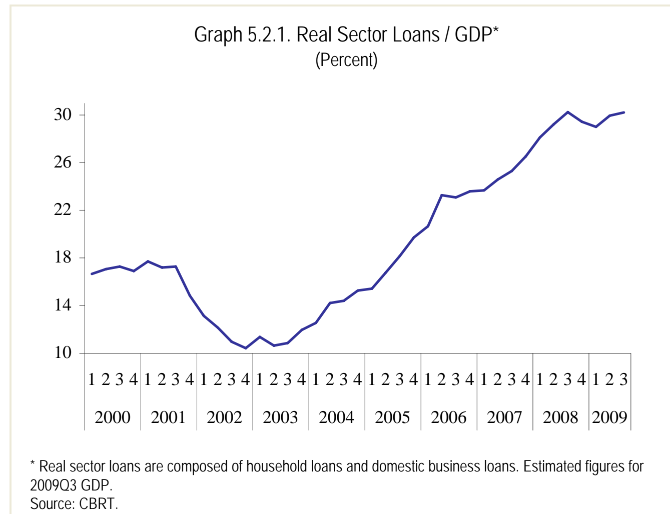
In addition to the measures taken in the last twelve months to minimize the adverse impact of the crisis on financial markets and economic activity, the CBRT lowered the Turkish lira reserve requirement ratio by 1 percentage points to 5 percent on October 16. Accordingly, a permanent liquidity injection of 3.3 billion Turkish liras has been provided to the banking system. The reduction in Turkish lira reserve requirement ratio is expected to help ease credit conditions and support the increase in TL denominated loans. In upcoming months, the Bank may either lower or raise reserve requirements, if necessary, in order to improve liquidity conditions and help ensure the smooth functioning of the credit market, and additionally, consider purchasing government bonds, yet avoiding the risk of market volatility.

To sum up, policy rate cuts continued to have a major impact on money and credit markets and tightness in financial conditions started to ease during the third quarter. CBRT's monetary policy measures are expected to have a more pronounced impact on economic activity in the medium term. Notwithstanding its primary objective of maintaining the price stability, the CBRT will continue to take necessary measures in order to restrict the impacts of the global crisis on economic activity and to help the economy during the exit from the crisis.

5.2. Financial Intermediation and Loans

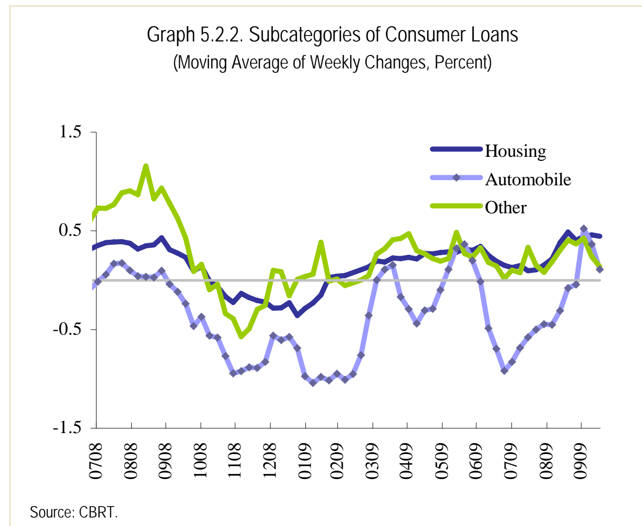
The slight rise in the ratio of business loans to GDP in the second quarter continued into the third quarter (Graph 5.2.1), largely on account of consumer loans. Corporate loans, on the other hand, remained nearly unchanged during the third quarter. The corporate sector continued to be a net re-payer of foreign debt in the first two months of the third quarter.

Graph 5.2.1. Real Sector Loans / GDP*
(Percent)



* Real sector loans are composed of household loans and domestic business loans. Estimated figures for 2009Q3 GDP.
Source: CBRT.

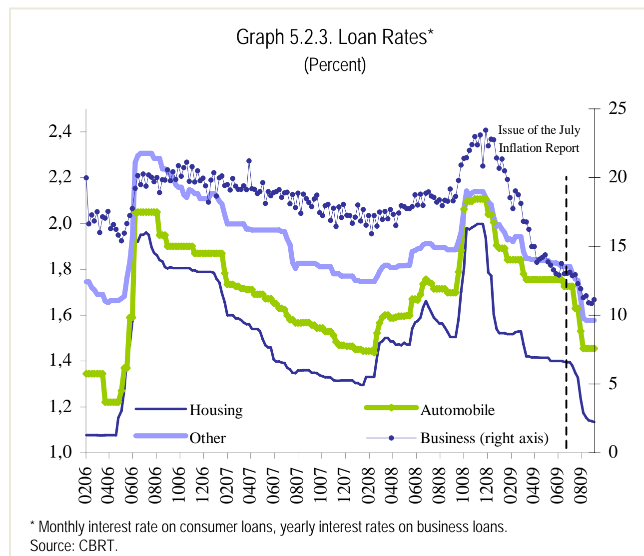
Having continued its weak trend during July and August, consumer loans recovered noticeably in September across all subcategories. However, with the expiration of SCT cuts, the rate of increase in automobile and other loans started to decline again by end-September, while housing loans continued to recover (Graph 5.2.2).



Graph 5.2.2. Subcategories of Consumer Loans
(Moving Average of Weekly Changes, Percent)

Source: CBRT.

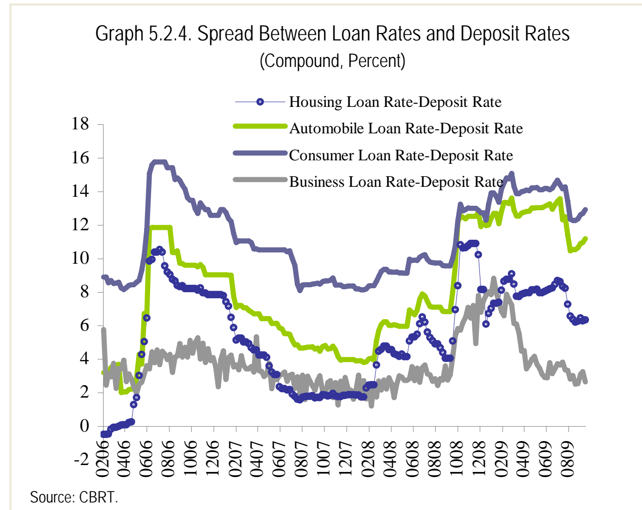
Both consumer and business loan rates plunged during the third quarter (Graph 5.2.3). Unlike the second quarter, consumer loan rates declined at a faster pace than business loan rates in the third quarter, mainly due to CBRT's monetary stance in the July Inflation Report, hinting that short-term interest rates would remain low for a long time. As a matter of fact, the downward trend in loan rates has been stronger following the issue of the July Inflation Report (Graph 5.2.3). Moreover, the launch of 3-month repo auctions in late second quarter seems to have partially contributed to the easing of tight credit conditions.



Graph 5.2.3. Loan Rates*
(Percent)

* Monthly interest rate on consumer loans, yearly interest rates on business loans.
Source: CBRT.

The spread between loan rates and deposit rates narrowed for all types of loans during the third quarter, indicating that credit conditions began to ease (Graph 5.2.4). The credit loosening in the face of a poor overdue debt performance implies an improvement in overall risk perception of the banking sector.



Graph 5.2.4. Spread Between Loan Rates and Deposit Rates
(Compound, Percent)

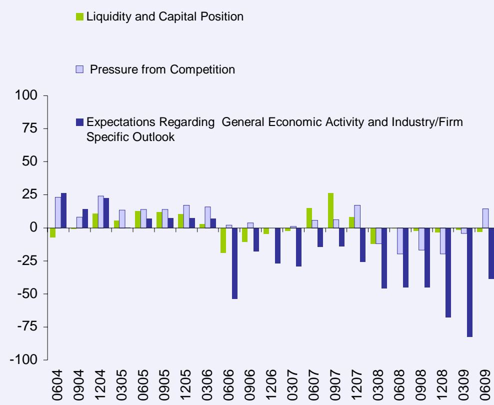
Source: CBRT.

In sum, the credit market shows progress towards recovery thanks to the monetary easing since November 2008 and the improved global risk perception. Heading into the final quarter of the year, the economic climate improves, though slightly, on the back of monetary and fiscal measures, feeding optimism in expectations. Changes in credit conditions are expected to further contribute to the economic recovery in the upcoming period. Yet, the weak appetite for investment and the absence of a significant improvement in employment prospects indicate that the recovery in loans would be gradual.

BOX 5.1 — BANKS' LOANS TENDENCY SURVEY AND CHANGES IN LOANS

Banks' Loans Tendency Survey that is conducted quarterly among major banks contains material information regarding the credit market. The latest survey reflects views on second-quarter developments and expectations regarding the third quarter. Survey data show that competition has helped to ease loan standards for the first time since the outbreak of the crisis (Graph 1). Meanwhile, concerns about the overall economic outlook had less negative impact on loan standards during the second quarter, which indicates that the extreme cautiousness during the crisis is likely to abate gradually amid growing signs of exit from the crisis. In fact, again as suggested by the Survey, for the first time in a long time, loan standards are expected to loosen, rather than tighten, in the upcoming period.

Graph 1. Factors Affecting Business Loan Supply*

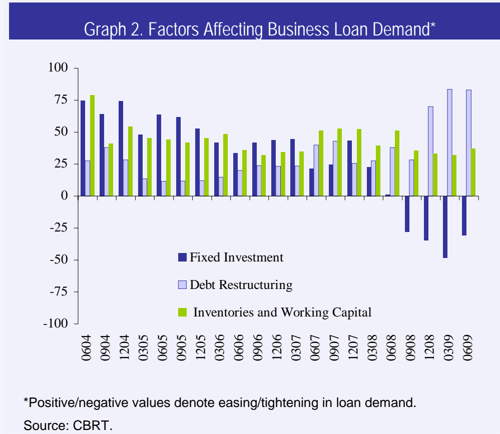


* Positive/negative values denote easing/tightening in loan supply.
Source: CBRT.

The lending survey also reports fund shortages that may, in addition to risk perception and competition, affect banks' loan supply. According to the survey results, limited access to funds has not been among the major factors adversely affecting credit expansion during the first two quarters of 2009 (Graph 1). The rapid adjustment of loan rates and government bond rates to policy rates during the third quarter indicates that the shortage of funds continued to place no constraint on credit expansion in the third quarter.

Changes in credit volume are determined not only by banks' attitudes and constraints, but also by the demand for business loans. Current data signal that the crisis has started to pave the way for a recovery albeit very slowly. Given the low capacity utilization rate in the current circumstances, a weak recovery is unlikely to spur the demand for investment in the short run. A remarkable bounce-back in the economy may increase the need for working capital due to low inventory levels, thus resulting in an increase in loan demand.

Graph 2. Factors Affecting Business Loan Demand*

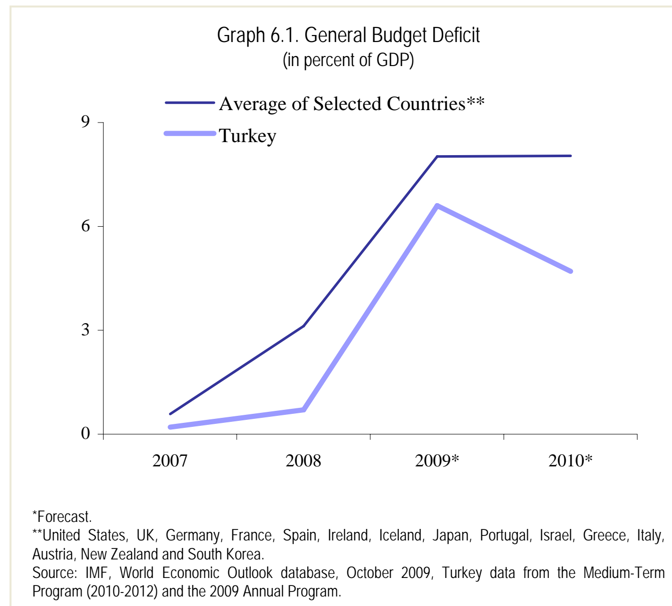


*Positive/negative values denote easing/tightening in loan demand.
Source: CBRT.

The Lending Survey results about the demand for corporate loans are consistent with the above projections. The survey shows that participants expect a slight increase in the demand for corporate loans, particularly for short-term loans. The survey also reveals that the demand for corporate loans was increasingly driven by debt restructuring and financing of working capital rather than investment during the second quarter (Graph 2).

6. Public Finance

Fiscal stimulus measures designed to limit the damage of the global recession continued to drive up budget deficits in both advanced and emerging economies. In addition, the contraction-driven drop in tax revenues accelerated the deterioration of fiscal balances. Accordingly, Turkey's budget deficit grew substantially over 2009 (Graph 6.1).



Graph 6.1. General Budget Deficit
(in percent of GDP)

*Forecast.
**United States, UK, Germany, France, Spain, Ireland, Iceland, Japan, Portugal, Israel, Greece, Italy, Austria, New Zealand and South Korea.
Source: IMF, World Economic Outlook database, October 2009, Turkey data from the Medium-Term Program (2010-2012) and the 2009 Annual Program.

In order to reduce the adverse effects of the fiscal imbalance on expectations and to guide economic agents, Turkey launched a Medium Term Program (MTP) in September, featuring updates of the general macroeconomic climate and budget aggregates. The Program aims to bring the public deficit and debt gradually down to reasonable levels by allowing the government to have a smaller share of resources, which is the key objective of the fiscal policy for 2010/2012. The government is planning to introduce a fiscal rule by 2011 to ensure fiscal discipline, restrict the public debt-to-GDP ratio over the medium term and strengthen the institutional framework. According to the MTP, the legal framework for the fiscal rule would be completed until the end of the first quarter of 2010. These legal measures are intended to ensure a better management of expectations by enhancing the institutional framework of fiscal policy and its medium-to-long term predictability. Meanwhile, the fiscal rule aims to secure that the public sector budget deficit-to-GDP ratio is consistent with a sustainable public debt path over the medium-to-long term. In coming

months, the government will direct spending to priority areas in order to maximize the productivity gains from public spending, and help State Owned Enterprises (SOEs) become more transparent and accountable by strengthening their institutional framework.

According to the MTP that covers the 2010-2012 period, the cost of fiscal packages that incorporate several revenue and spending measures designed to ease the economic contraction is forecasted to be 2.1 and 1.6 percentage points of GDP for 2009 and 2010, respectively. The government plans to cut non-interest expenditures gradually by 2011 and increase tax revenues through improved auditing and compliance. Given the drop in interest rates during 2009, interest expenditures are also expected to edge down. With the steady reduction in budget deficits, the debt-to-GDP ratio is likely to stabilize by 2011 and then start to decline (Table 6.1 and Table 6.2).

Table 6.1. Central Government Budget Performance and Targets
(in percent of GDP)

	2007	2008	2009*	2010**	2011**	2012**
Budget expenditures	**24.2**	**23.8**	**28.2**	**27.9**	**26.7**	**25.6**
Non-interest expenditures	18.4	18.5	22.3	22.4	21.8	21.1
Interest expenditures	5.8	5.3	5.9	5.5	4.9	4.5
Budget revenues	**22.6**	**22.0**	**21.5**	**23.0**	**22.6**	**22.4**
Tax revenues	18.1	17.7	17.3	18.8	18.8	18.7
Budget balance	**-1.6**	**-1.8**	**-6.6**	**-4.9**	**-4.0**	**-3.2**
Primary balance	4.2	3.5	-0.8	0.7	0.9	1.3

* Forecast
** Target
Source: Medium-Term Program (2010-2012), Medium-Term Fiscal Plan (2010-2012), Central Government Budget Performance and Expectations Report for 2009, September 2009.

Since the budget deficit has widened above expectations during 2009, the MTP's objective is to maximize productivity gains from government spending and cut some expenditures. Therefore, the program assumes that there would be no public-sector wage hike for 2010 in real terms. Meanwhile, the patient share was renewed in October 2009 to limit healthcare expenditures, aiming to enable more healthcare providers to operate under a global budget for direct services. In addition, the program envisages that the measures to help restrain unregistered economy and expand the tax base will boost revenues.

Table 6.2. EU-Defined Central Government Nominal Debt Stock Performance and Targets
(in percent of GDP)

	2007	2008	2009*	2010**	2011**	2012**
EU-defined central govt. nominal debt stock	39.4	39.5	47.3	49.0	48.8	47.8

* Forecast, ** Target.
Source: Medium-Term Program (2010-2012), Medium-Term Fiscal Plan (2010-2012), Treasury.

6.1. Budget Developments

Central government non-interest expenditures continued to rise during the first nine months of 2009, while the budget performance worsened further due to tax revenue shortfalls. The central government primary balance delivered a surplus of 4.7 billion Turkish liras, while the fiscal balance produced a deficit of 40.8 billion Turkish liras during the first three quarters (Table 6.1.1).

Table 6.1.1. Central Government Budget Aggregates
(Billion TL)

	Jan-Sep 2008	Jan-Sep 2009	Rate of increase (Percent)	Performance/Target (Percent)
Central government expenditures	165.5	197.2	19.2	76.1
Interest expenditures	41.3	45.5	10.1	79.2
Non-interest expenditures	124.1	151.7	22.2	75.2
Central government revenues	160.7	156.4	-2.7	62.9
I. Tax revenues	127.3	125.3	-1.5	62.0
II. Non-tax revenues	28.8	26.3	-8.6	64.4
Budget balance	**-4.8**	**-40.8**	**-**	**-**
Primary balance	**36.5**	**4.7**	**-**	**10.0**

Source: Ministry of Finance.

Non-interest expenditures rose by 22.2 percent year-on-year during January-September amid soaring current transfers (up 33.7 percent), which account for the largest portion of non-interest expenditures (Table 6.1.2). The rise in current transfers for health, pension and social benefits during the first nine months account for 54.5 percent of the total increase in non-interest expenditures. The sharp rise in these expenditures was largely driven by the social security reform that was launched in late 2008 and the employment package that offers budget transfers to the Social Security Agency (SSA). Furthermore, funds appropriated to finance the SSA's deficit resulting from falling premium revenues have boosted the spending on health, pension and social benefits.

Table 6.1.2. Non-Interest Expenditures
(Billion TL)

	Jan-Sep 2008	Jan-Sep 2009	Change (Percent)	Share of change (Percent)
Non-interest expenditures	**124.14**	**151.66**	**22.2**	**100.0**
1. Personnel expenditures	37.15	42.60	14.7	19.8
2. Purchase of goods and services	15.07	17.33	15.0	8.2
a) Defense-security	4.72	5.69	20.5	3.5
b) Healthcare expenditures	4.83	5.15	6.5	1.1
3. Current transfers	**52.51**	**70.21**	**33.7**	**64.3**
a) Duty losses	1.34	2.81	110.6	5.4
b) Health, pension, social benefits	**26.25**	**41.26**	**57.1**	**54.5**
c) Agricultural support	5.18	3.84	-25.7	-4.8
d) Shares reserved from revenues	14.89	16.13	8.3	4.5
4. Capital expenditures	9.83	10.29	4.8	1.7
5. Capital transfers	2.05	2.19	6.9	0.5

Source: Ministry of Finance.

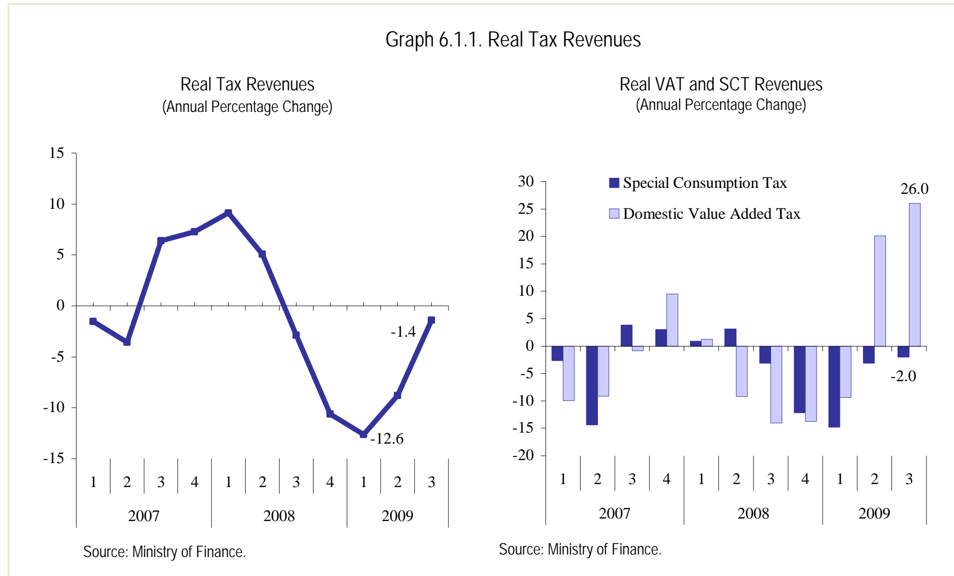
Central government budget revenues dropped by 2.9 percent year-on-year during January-September 2009. Non-tax revenues and tax revenues fell by 31.8 and 1.5 percent, respectively. The severe drop in non-tax revenues was mainly attributable to the base effect-driven plunge in capital revenues. The base effect stemmed from transfers of a privatization fund cash surplus of TL 5.0 billion and port privatization receipts totaling TL 1.0 billion into the general budget during July-August 2008. The VAT on imports declined by 20.3 percent year-on-year during the first nine months of 2009 due to the downturn in imports. Domestic VAT, on the other hand, increased by 19.5 percent owing to the renewed VAT rates on certain goods and services and the relative recovery in domestic demand. Moreover, the reduction in VAT refunds and the VAT revenue from the 3G license auction in April have also added to the marked increase in domestic VAT. With the economic slowdown, income tax, SCT and corporate tax revenues remained stable during the first nine months. However, SCT revenues rebounded somewhat in the third quarter due to the increased lump sum SCT on oil and tobacco (Table 6.1.3).

Table 6.1.3. General Budget Revenues
(Billion TL)

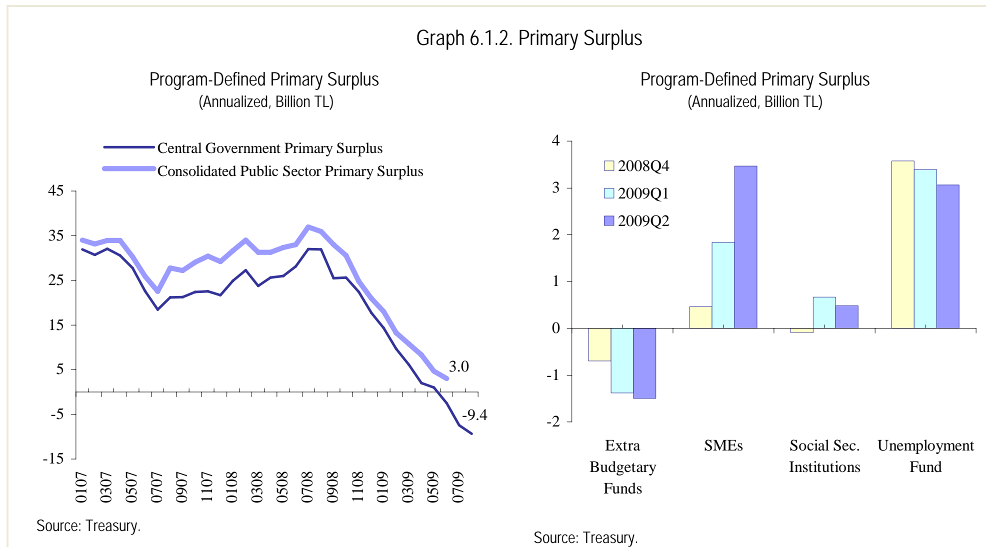
	Jan-Sep 2008	Jan-Sep 2009	Rate of increase (Percent)	Performance/Target (Percent)
General budget revenues	**156.36**	**151.88**	**-2.9**	**62.5**
I-Tax revenues	**127.28**	**125.33**	**-1.5**	**62.0**
Income tax	27.99	28.50	1.8	63.0
Corporate tax	12.38	12.05	-2.7	59.8
Domestic VAT	12.72	15.20	19.5	76.1
Special consumption tax	31.75	31.66	-0.3	64.1
VAT on import	23.32	18.60	-20.3	48.3
II-Non-tax revenues	**14.62**	**9.97**	**-31.8**	**48.6**
Enterprise and property income	6.36	8.52	33.9	115.7
Capital revenues	8.26	1.45	-82.4	11.0

Source: Ministry of Finance.

In real terms, the contraction in tax revenues that started in the third quarter of 2008 has lost pace by the second quarter of 2009 with the recovery in private consumer demand. The VAT and SCT cut on certain goods and services during the second quarter of 2009 has helped VAT revenues recover (Graph 6.1.1).



The public-sector primary surplus performance has been weakening considerably since September 2008 (Graph 6.1.2). In annualized terms, the program-defined central government primary surplus and the consolidated public-sector primary surplus have fallen to their lowest levels in recent years. As the central government primary balance worsens, the primary surplus of extra-budgetary funds and the Social Security Fund narrows, while that of SMEs and social security institutions displays a relatively positive performance (Graph 6.1.2). All in all, the program-defined central government budget and the consolidated public-sector budget are expected to run a primary deficit by the end of the year.

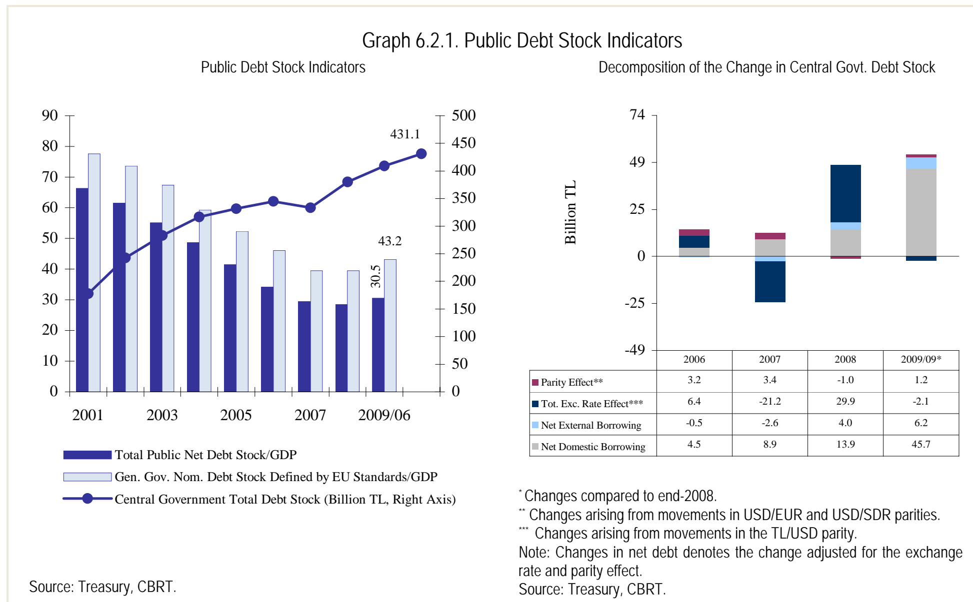


With the acceleration in central government primary budget expenditures since the third quarter of 2008, public investments and public spending made positive contribution to GDP growth during the first half of 2009. According to the MTP, primary budget expenditures are expected to be gradually less contributive to GDP growth. Yet, the cumulative post-crisis measures are forecast to further stimulate the economy in the remainder of 2009 and in 2010, though to a lesser extent. Thus, medium-term forecasts presented in the final chapter of this Report are built on the projection that public spending would continue to support economic activity in the rest of 2009 and in 2010, albeit less strongly, and become neutral by 2011.

6.2. Developments in Debt Stock

The prudent fiscal framework maintained over the past few years reduced the debt burden rapidly and improved the maturity and currency composition of public debt stock to a large extent. However, the sharp drop in total public primary surplus since the final quarter of 2008 pushed the government's borrowing requirement higher. Despite the record-high debt rollover ratio, the robust demand of commercial banks for government papers balanced public borrowing costs against any strains. The MTP aims to contain the rise in the government debt-to-GDP ratio over the next three years.

The central government debt stock increased by 13.4 percent to TL 431.1 billion in September 2009, mainly on account of net domestic debt growth and slightly due to net foreign debt growth. Meanwhile, the ratios of net total public debt stock and EU-defined central government nominal debt stock to GDP climbed to 30.5 and 43.2 percent, respectively, during the first half of 2009 (Graph 6.2.1). Anticipating that the public sector will fail to register a primary surplus and the economy will contract in 2009, public debt stock ratios are likely to rise further in the remainder of 2009.



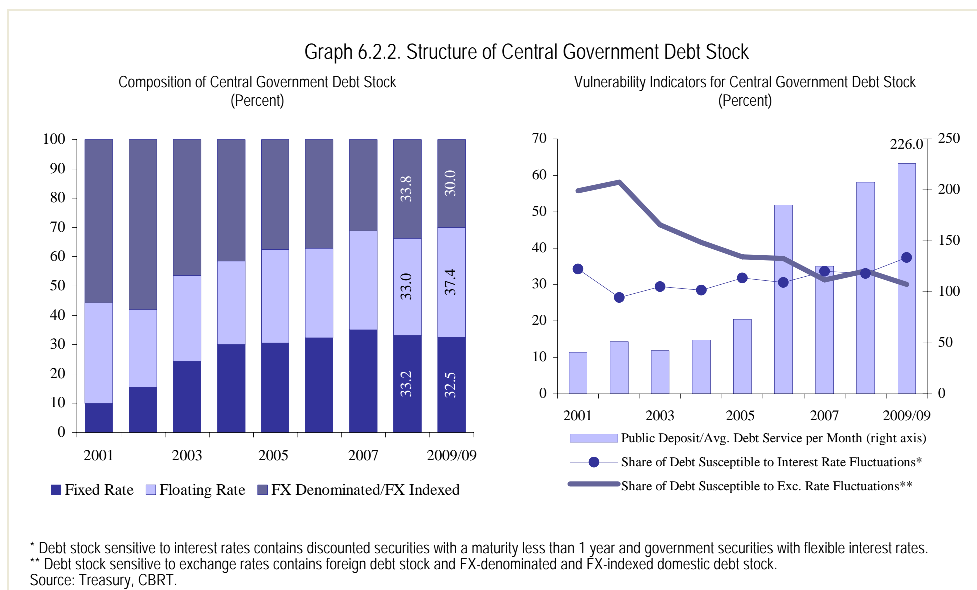
	2006	2007	2008	2009/09*
Parity Effect**	3.2	3.4	-1.0	1.2
Tot. Exc. Rate Effect***	6.4	-21.2	29.9	-2.1
Net External Borrowing	-0.5	-2.6	4.0	6.2
Net Domestic Borrowing	4.5	8.9	13.9	45.7

Graph 6.2.1. Public Debt Stock Indicators

Source: Treasury, CBRT.

* Changes compared to end-2008.
** Changes arising from movements in USD/EUR and USD/SDR parities.
*** Changes arising from movements in the TL/USD parity.
Note: Changes in net debt denotes the change adjusted for the exchange rate and parity effect.
Source: Treasury, CBRT.

With the debt and risk management policies in place since 2003 as part of the strategic criteria and the macroeconomic stability maintained so far, the sensitivity of the public debt portfolio to risks of liquidity, interest rate and exchange rate has decreased considerably. Recently, the share of fixed-rate instruments and exchange-rate sensitive (FX-denominated and FX-indexed) instruments in central government debt stock has declined, while the share of floating-rate instruments has increased (Graph 6.2.2). The increase in the share of floating-rate instruments has been largely driven by the issue of CPI-indexed bonds with a relatively longer maturity.

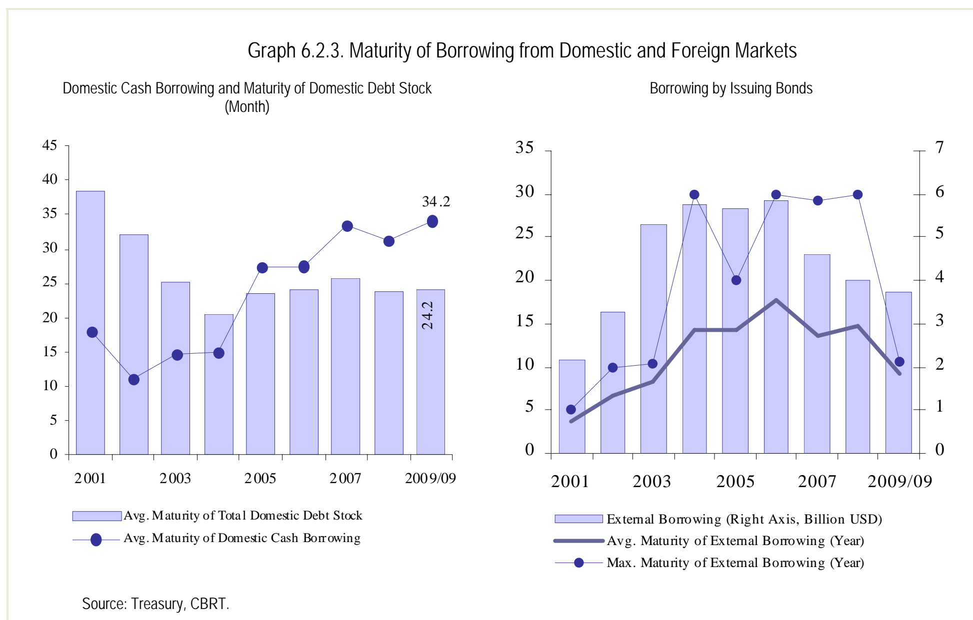


Graph 6.2.2. Structure of Central Government Debt Stock

* Debt stock sensitive to interest rates contains discounted securities with a maturity less than 1 year and government securities with flexible interest rates.
** Debt stock sensitive to exchange rates contains foreign debt stock and FX-denominated and FX-indexed domestic debt stock.
Source: Treasury, CBRT.

Following the financing strategy intended for reducing the liquidity risk, the ratio of public deposits to average monthly debt service ended September 2009 at 226.0 percent (Graph 6.2.2). The average maturity of domestic cash borrowing was longer from the 2008 average, causing the average maturity of total domestic debt stock to climb to 24.2 months in September 2009. In addition, bond issues yielded a USD 3.8 billion worth of long-term foreign debt during January-September 2009 with an average maturity of 9.1 years (Graph 6.2.3).

Graph 6.2.3. Maturity of Borrowing from Domestic and Foreign Markets



Source: Treasury, CBRT.

In sum, the worsening budget performance and the reduced net foreign debt in 2009 led to a significant rise in the government's domestic borrowing requirement. In order to allow the public sector to employ private-sector resources and to maximize the effects of monetary policy decisions in coming months, it is very important to bring the rate of increase in the debt rollover ratio down to reasonable levels, as projected in the MTP.

7. Medium-Term Projections

This chapter summarizes the assumptions underlying forecasts, and presents relating medium-term inflation and output gap forecasts and the monetary policy outlook over a three-year horizon.

7.1. Current State of the Economy, Short-Term Outlook and Assumptions

Economic activity data were consistent with the outlook presented in the 2009 July Inflation Report during the third quarter, while inflation continued to edge lower. Although rising oil prices and measures to restore fiscal balance put upward pressure on prices, the faster-than-expected decline in annual food inflation led to a downward revision of short-term forecasts.

During the second quarter of 2009, domestic demand recovered through fiscal measures, whereas foreign demand remained weak. Despite the marked increase in total consumer demand owing to monetary easing and fiscal measures, the demand for goods that were left out of tax incentives saw no serious recovery. The increased demand was largely met by destocking, placing a drag on production and resource use. Moreover, the labor market failed to show clear signs of recovery, causing the demand uncertainty to grow. Therefore, aggregate demand conditions continued to support disinflation. Since all these changes are in line with the framework offered in the 2009 July Inflation Report, second and third-quarter output gap forecasts, which lay the grounds of our medium-term forecasts, are left unchanged (Table 7.1.1).

Food inflation plunged remarkably during the third quarter of 2009, running well below the projections for the first nine months. Unlike previous years, food prices remained on a downtrend in seasonally adjusted terms. The rate of increase in unprocessed food prices fell at a faster-than-expected pace, while processed food prices declined at an anticipated rate. Thus, our assumption for food inflation is revised downward from 7.5 to 5.8 percent for end-2009 (Table 7.1.1). In addition, in view of the recent changes in oil prices, we revised our assumption for Brent crude oil upwards from USD 60 to 70 for end-2009 (Table 7.1.1).

Table 7.1.1. Revisions to the Assumptions in 2009 July Inflation Report

	2009 July Inflation Report				2009 October Inflation Report			
Output gap	2009 Q2 :-8.2 2009 Q3 :-8.1				Unchanged			
Food prices	2009: 7.5% 2010: 6% 2011: 6%				2009: 5.8% 2010: 6% 2011: 6%			
Oil prices	$60 during 2009 $70 afterwards				2009 Q4: $70 2010: $75 2011: $80			
Euro area growth forecasts[1]	2009		2010		2009		2010	
	CF [2]	*WEO* [3]	*CF*	*WEO*	*CF*	*WEO*	*CF*	*WEO*
	-4.4	-4.8	0.4	-0.3	-3.9	-4.2	1.1	0.3

[1] Consensus Forecasts (CF), July 2009 and October 2009 Bulletins; World Economic Outlook (WEO), July 2009 and October 2009 Bulletins.
[2] CF.
[3] WEO, IMF.

In sum, the starting point of our medium-term forecasts has been duly revised down. Below are the assumptions on domestic economic activity, global growth, commodity prices, financial markets and fiscal policy, which help build medium-term forecasts.

Third-quarter data indicate that the revival in consumer demand during the second quarter has been confined to goods that benefited from fiscal measures, and therefore is not of a durable and strong nature. Similarly, the current idle capacity and high demand uncertainty imply that investments are very unlikely to recover rapidly and robustly. Thus, the sluggish resource use is expected to have a dampening effect on investment and employment prospects in coming months, while the record-high unemployment is likely to curb demand. The recently improved global risk sentiment and the ongoing drop in loan rates bolster borrowing. Yet, the pace and scale of the pass-through of economic recovery to labor market, which will depend on the global growth outlook, is expected to be a key factor to affect loan demand. On balance, we expect aggregate demand conditions and high unemployment to further support disinflation in the upcoming period.

The complete expiry of SCT cuts and the impending hike in electricity tariffs are likely to put upward pressure on inflation in coming months. Yet, annual inflation is forecasted to keep hovering around low levels. Furthermore, it should be noted that the base effects from tax and price adjustments to enhance fiscal balance in 2009 will cause inflation to remain volatile over 2010.

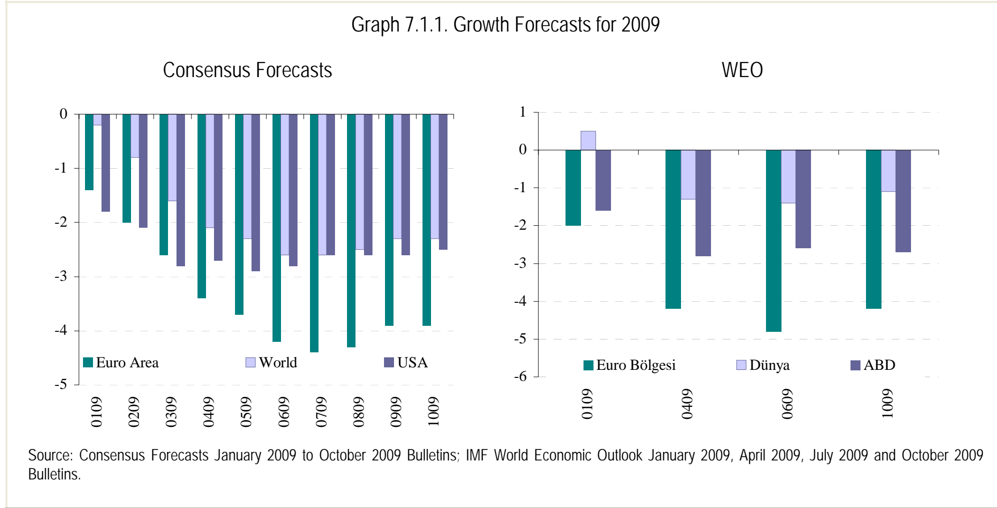
Our assumptions regarding food prices for 2010 and 2011 are based on the baseline scenario offered in the July 2009 Inflation Report. Accordingly, our assumption for food inflation is maintained at 6 percent for both 2010 and 2011 (Table 7.1.1).

Having stabilized around USD 60 per barrel in the second quarter, Brent crude oil prices averaged USD 70 per barrel during the third quarter. Changes in spot prices caused oil prices to rally at every maturity. Despite heightened concerns over a slow global recovery, OPEC's ability to delay output decisions results in abrupt prices changes, while the rush of non-producing investors towards commodity futures promotes stock building, leading to an upsurge in spot prices. Therefore, we revised our oil price assumptions in the past Report upwards to USD 70 for the last quarter of 2009 and to USD 75 and 80 for 2010 and 2011, respectively (Table 7.1.1).

Given the current economic climate, assumptions on global economic activity remain increasingly important in building medium-term forecasts. Therefore, we have incorporated the revised growth forecasts of international institutions released within three months after the July 2009 Report into our medium-term forecasts.

Third-quarter data on the world economy cite a gradual rebound. Not only the stronger-than-expected growth rates in the second quarter but also the ongoing recovery in leading indicators for global economic activity during the third quarter raised perceptions that the worst part of the crisis is over.

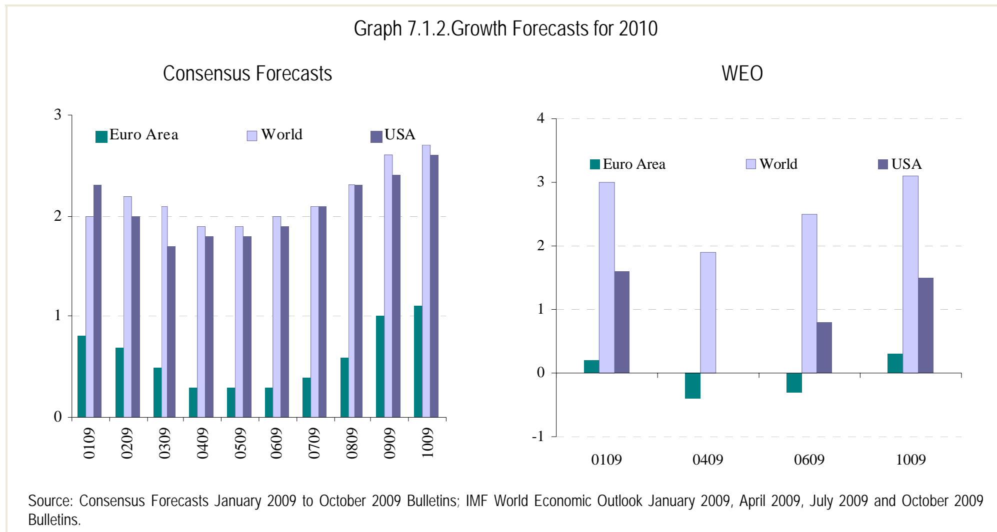
With the mounting signs of global economic recovery, international institutions have revised their global growth forecasts upwards. Consensus Economics revised its global contraction forecast for 2009 downwards from 2.6 percent in June to 2.3 percent in October. Similarly, in its World Economic Outlook report, the IMF lowered its forecast for global contraction from 1.4 percent in June to 1.1 percent in October (Graph 7.1.1).



Graph 7.1.1. Growth Forecasts for 2009

Source: Consensus Forecasts January 2009 to October 2009 Bulletins; IMF World Economic Outlook January 2009, April 2009, July 2009 and October 2009 Bulletins.

In October, both Consensus Economics and IMF revised their global growth forecast for 2010 up to 2.7 and 3.1 percent, respectively (Graph 7.1.2). Among regions, the end-2010 growth forecasts for the US and Euro area are revised upwards, with IMF projecting the first positive euro area growth in a long time.



Graph 7.1.2.Growth Forecasts for 2010

Source: Consensus Forecasts January 2009 to October 2009 Bulletins; IMF World Economic Outlook January 2009, April 2009, July 2009 and October 2009 Bulletins.

Accordingly, in developing our medium-term forecasts, we have revised our assumptions for the global economy slightly upwards from the previous report, though foreign demand is projected to remain weak for an extended period of time.

With the acceleration in central government primary budget expenditures since the third quarter of 2008, public investments and public consumption spending made positive contribution to GDP growth during the first half of 2009. According to the MTP, primary budget expenditures are expected to be gradually less contributive to GDP growth. Yet, the cumulative post-crisis measures are forecasted to further stimulate the economy in the remainder of 2009 and in 2010, though to a lesser extent. Thus, our medium-term forecasts are built on the projection that public spending would continue to support economic activity in the rest of 2009 and in 2010, albeit less strongly, and become neutral by 2011.

In view of the deepening and widening of the global crisis, the CBRT had adopted an aggressive rate cut strategy in the final quarter of 2008. The monetary easing continued into the third quarter of 2009. Accordingly, the Bank cut policy rates by 150 basis points from August to October, totaling a reduction of 1000 basis points since November 2008.

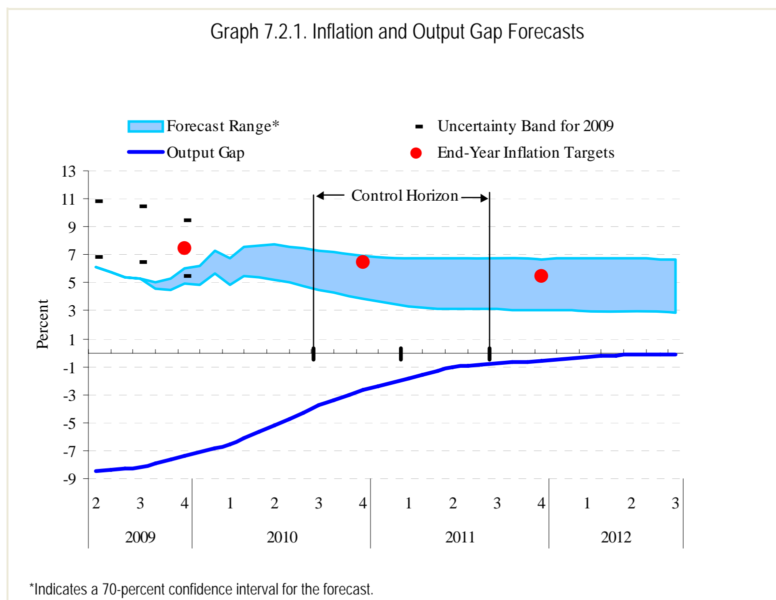
The consistency between the data on economic activity and inflation and CBRT's projections as well as the Bank's effective communication policy have strengthened the impact of monetary decisions on market rates. Moreover, the recently improved risk sentiment has encouraged banks to lend and consumers to borrow. However, financial tightening measures still run above pre-crisis levels. Therefore, we have built our medium-term forecasts on the assumption that the tightening in credit conditions continues, albeit to a lesser extent compared to the previous reporting period.

7.2. Medium-Term Outlook

This part presents our inflation and output gap forecasts and the monetary policy outlook built on the baseline scenario that is developed within the framework of the abovementioned short-term assumptions and projections.

Accordingly, assuming a limited amount of further easing and constant policy rate until the end of 2010, the medium-term forecasts suggest that, with 70 percent probability, inflation will be between 5.0 and 6.0 percent with a mid-point of 5.5 percent at end-2009, and between 3.9 and 6.9 percent with a mid-point of 5.4 percent by the end of 2010. Furthermore, inflation is expected to decline to 4.9 percent by the end of 2011 and to 4.8 percent by the third quarter of 2012 (Graph 7.2.1).

Graph 7.2.1. Inflation and Output Gap Forecasts



*Indicates a 70-percent confidence interval for the forecast.

Our output gap forecasts based on the above assumptions are shown in Graph 7.2.1. Accordingly, the output gap is likely to close at a slightly more rapid pace than in the 2009 July Inflation Report. The revised forecasts indicate that aggregate demand conditions would continue to support disinflation even when policy rates are kept at low levels for an extended period. It is worthy to note that the sharp fall in inflation in the first half of 2009 created significant base effects. This would, *ceteris paribus*, lead to volatility and some mild increases in annual inflation rates until mid-2010 (Graph 7.2.1). Afterwards, as the impact of tax hikes would gradually disappear, inflation is expected to trend downwards starting from the second half of 2010, stabilizing around 5 percent over the medium term. It is critical to note that, inflation would be less persistent, and thus the economic recovery much smoother, should economic agents take these forecasts as a benchmark in their pricing decisions.

It should be emphasized that any new data or information regarding the inflation outlook may lead to a change in the monetary policy stance. Therefore, assumptions on the future policy rates underlying the inflation forecast should not be perceived as a commitment on behalf of the CBRT.

7.3. Risks and Monetary Policy

Although recent data releases indicate that the worst is likely to be over, concerns regarding the health of the global economy remain. In particular, ongoing problems in credit and labor markets pose downside risks for global

activity. Should the global conditions deteriorate again, and consequently delay the domestic recovery, the CBRT would consider another cycle of rate cuts.

The fact that the crisis itself, and the policy responses in reaction to it, are unprecedented in recent history, creates risks regarding the inflation and monetary policy outlook. It is extremely difficult to estimate with precision the impact of the recent monetary policy measures taken at the global scale. Although not having resorted to explicit quantitative easing eliminates some of the risks for the Turkish case, it should still be noted that the full impact of the cumulative easing of 1000 basis points since November 2008 would be seen with a lag. In other words, although the baseline scenario does not envisage any policy rate hikes for an extended period, it is important to monitor the impact of the policies closely to ensure an appropriate timely response to any development not envisaged in this Report.

Another possible scenario is a surge in capital inflows to emerging markets owing to the relative improvement of credit risk across these countries. Ample liquidity driven by the expansionary fiscal and monetary policies on a worldwide scale, coupled with rising risk appetites, have led to large capital inflows to emerging markets. The current output gap would imply that a fall in the cost of imported inputs could be rapidly transmitted to consumer prices, suggesting that a further acceleration in capital inflows may exacerbate downward pressures on inflation. Materialization of such a scenario could lead to temporarily lower policy rates than envisaged in the baseline scenario.

The CBRT will continue to monitor fiscal policy developments closely while formulating monetary policy. Enhancing the framework set out in the MTP through further structural adjustments that would strengthen fiscal discipline would support the improvement of Turkey’s sovereign risk. Should the goals set out in the MTP be implemented, it would be possible to keep policy rates at single digits throughout the forecast horizon.

Increasing budget deficits on a worldwide scale continue to pose risks on inflation expectations and thus on global interest rates in the longer term. The medium-term forecasts presented above envisage that the slow recovery in global economic activity and rising saving rates will likely keep global interest rates at low levels for an extended period. However, the lack of a clear exit strategy from various fiscal stimulus packages creates upside risks regarding

global inflation rates and therefore longer-term global interest rates. In this respect, countries with relatively sounder banking systems and prudent fiscal policies would be more resilient against these risks. These issues once again draw attention to the importance of fiscal discipline

The course of oil and other commodity prices constitutes another important risk. Ample liquidity driven by countercyclical policies on a global scale creates speculative movements not only regarding emerging market currencies, but also for commodity prices. Therefore, oil and other commodity price developments warrant caution, even under a scenario of a gradual global economic recovery. Nonetheless, weak domestic demand conditions would limit the pass-through stemming from upside cost-push shocks. Therefore, the CBRT will accommodate the short-term volatility in commodity prices, especially when the resource utilization remains at depressed levels. However, if an uptrend in commodity prices reflects a strong and durable rebound in global activity that would in turn create inflationary pressures, then monetary policy will react appropriately to keep inflation in line with medium-term inflation targets.

The CBRT has been taking the necessary measures to contain the adverse effects of the global financial turmoil on the domestic economy. However, prudent monetary policy is necessary, but not sufficient to maintain the resilience of the economy against the global crisis. Therefore, strengthening the commitment to fiscal discipline and the structural reform agenda is also critical for facilitating expectations management and thus for supporting the effectiveness of the monetary policy decisions. In this respect, the timely implementation of the structural reforms envisaged by the Medium Term Program and the European Union accession process remains to be of utmost importance.