

4. Supply and Demand Developments

The second-quarter national accounts data turned out to be more favorable compared to the outlook presented in the July Inflation Report. Economic activity lost momentum quarter-on-quarter as expected, whereas the slowdown in domestic demand was less than expected. Amid the plunge in imports, net exports contributed positively to quarterly growth, as envisaged. Thus, the divergence between the recovery rates of domestic and external demand during the exit from the crisis was decelerated. Third-quarter data indicate that the slowdown in economic activity still persists. Seasonally adjusted data for industrial production edged up in the July-August period compared to the second quarter, while domestic demand indicators pointed to an ongoing slowdown.

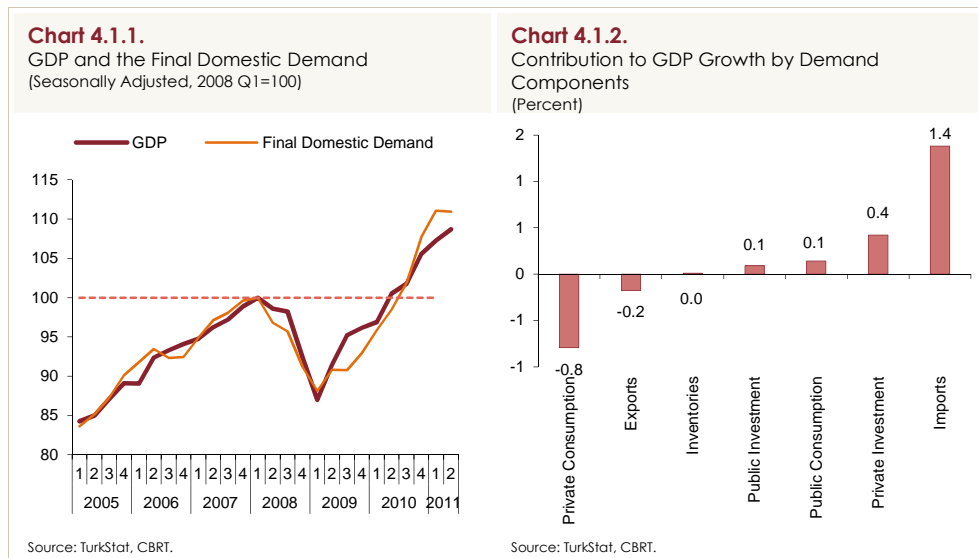
Despite the better-than-envisaged realization in the second quarter, a weaker medium-term outlook for the economic activity is assumed amid worsening external demand conditions. Notwithstanding the deterioration in the global growth outlook, economic activity is expected to settle into a mild growth path in the upcoming period, in view of the balancing effects of the adopted policy measures on domestic demand. However, the unfavorable global growth outlook keeps the downside risks brisk against domestic economic activity (Box 4.1).

Given the current outlook of receding unit labor costs owing to productivity gains in addition to low capacity utilization rates amid the weak external demand, aggregate demand conditions are not expected to pose upward pressure on inflation. Despite the weak external demand, the correction in the current account deficit that started with the decline in imports, is expected to continue in the upcoming period.

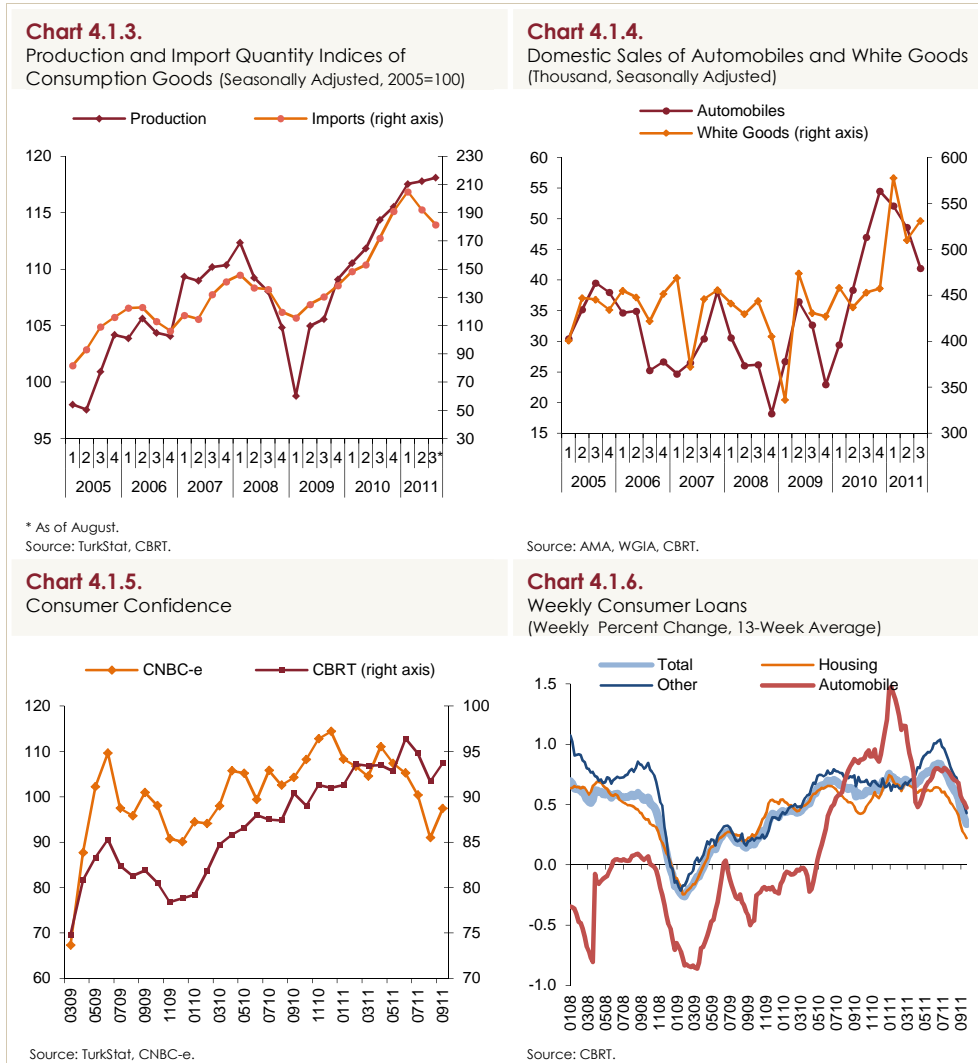
4.1. Gross Domestic Product Developments and Domestic Demand

The national accounts data released by TurkStat suggest that GDP posted a year-on-year increase by 8.8 percent in the second quarter of 2011. The largest contributor to annual growth was private demand, for both consumption and investment. On the other hand, the negative contribution to growth by net external demand remained unchanged in this period.

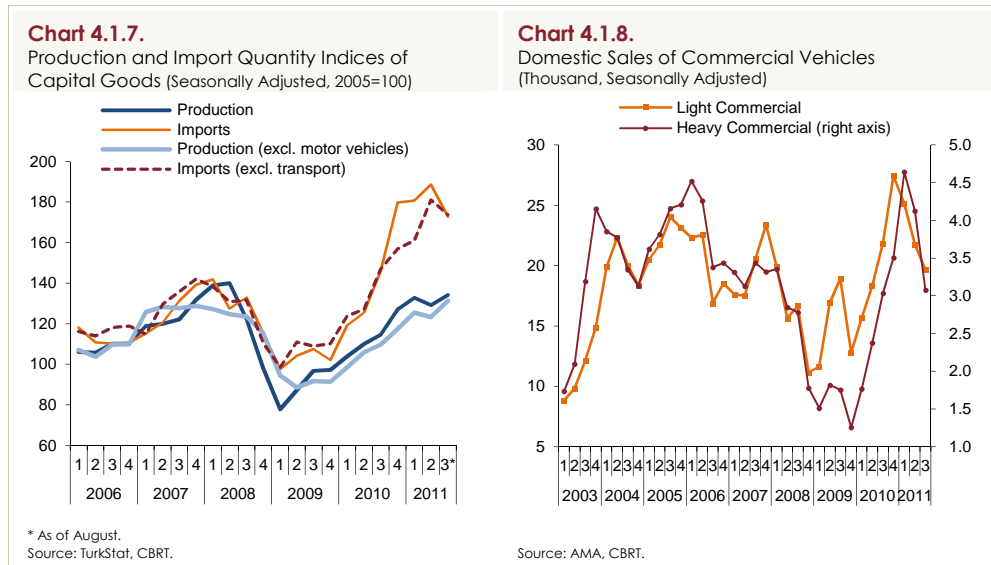
Seasonally adjusted data suggest that the GDP slowed down slightly quarter-on-quarter, increasing by only 1.3 percent in the second quarter (Chart 4.1.1). Meanwhile, final domestic demand remained flat in this period. The analysis of the contributions to quarterly growth indicates an essentially unchanged inventories with net external demand standing out as the main driver of growth (Chart 4.1.2). Despite the diminishing contribution of exports to growth amid the weak global economic growth in the second quarter, contraction in imports was more pronounced compared to exports due to the slowdown in domestic demand as well as the depreciation of the TL.



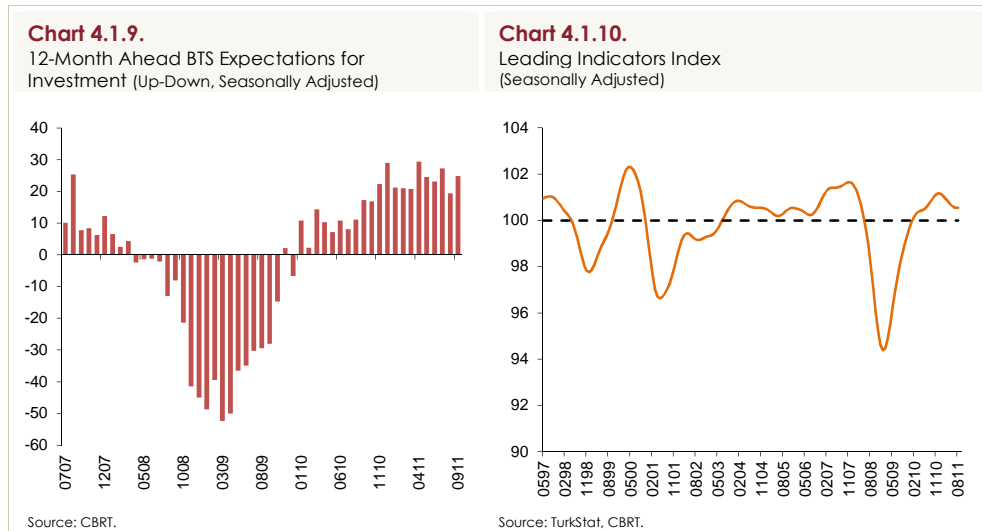
Third-quarter data indicate that the slowdown in final domestic demand that started in the second quarter still continues. In the July-August period, production of consumption goods, which is one of the private consumption demand indicators, remained almost flat, whereas, imports of consumption goods declined (Chart 4.1.3). Fueled also by the depreciation of the TL, automobile sales maintained its downtrend in the third quarter, while the sales of white goods recorded an increase following a sharp decline in the second quarter (Chart 4.1.4). In addition, developments in the consumer confidence index also points a slowdown in consumption demand (Chart 4.1.5).



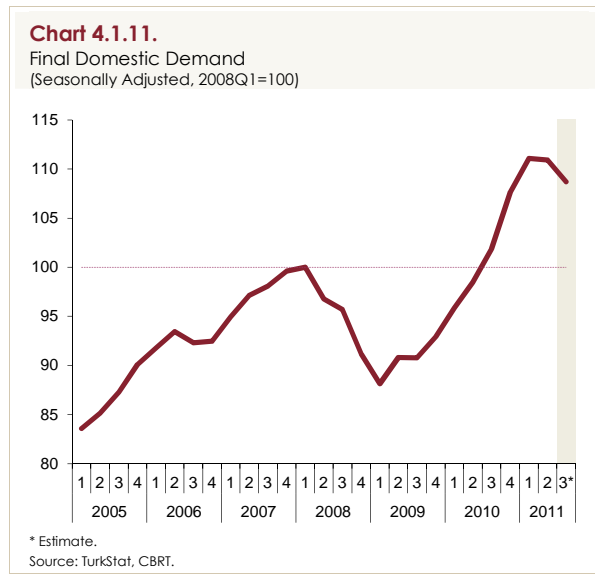
Leading indicators point to a mild course also for investment demand. Indeed, the data for the July-August period indicate a limited increase in the production and a decline in the imports of capital goods (Chart 4.1.7). On the other hand, the downtrend in the domestic sales of light and heavy commercial vehicles continued into the third quarter (Chart 4.1.8). Similarly, consumer loans recorded a significant slowdown in the third quarter (Chart 4.1.6).



Domestic demand indicators signal a temporary slowdown in the third quarter, followed by a mild course of economic growth thereafter. 12-month ahead Investment expectations obtained from the BTS remain stable at high levels, pointing to the absence of a significant deterioration in investment sentiment (Chart 4.1.9). Most of all, the index formed by the aggregation of selected leading indicators of economic activity also signals that the slowdown in economic activity will remain limited (Chart 4.1.10).

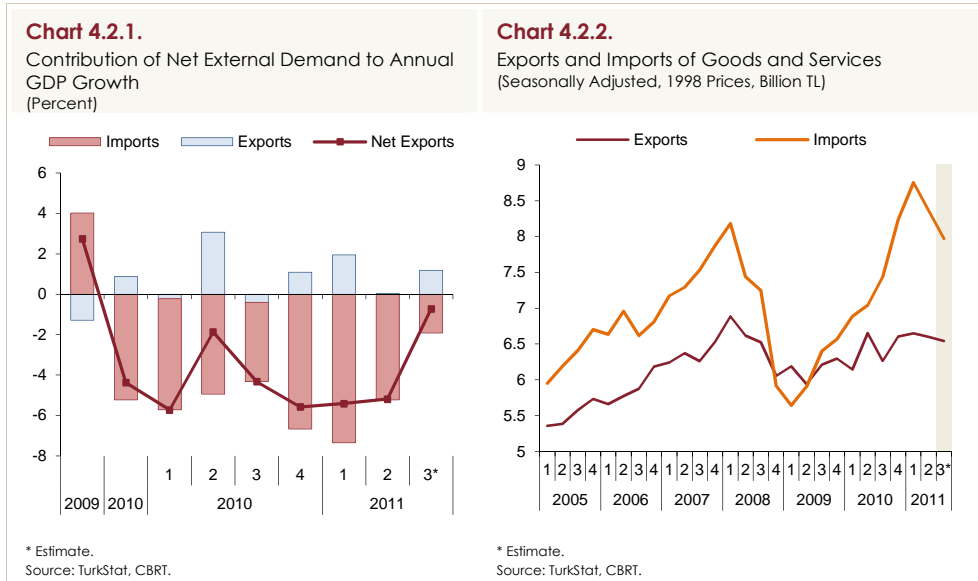


In sum, given the recently announced data, domestic demand is estimated to have contracted in the third quarter on a quarterly basis (Chart 1.4.11). However, domestic demand is expected to display a mild pace of growth in the medium term. Meanwhile, in view of the CBRT's monetary policy implementations as well as the deterioration in global risk perceptions which feeds into depreciation of the TL, the decomposition of aggregate demand may change in the upcoming period in favor of domestic products, thus contributing to the normalization of the current account balance.

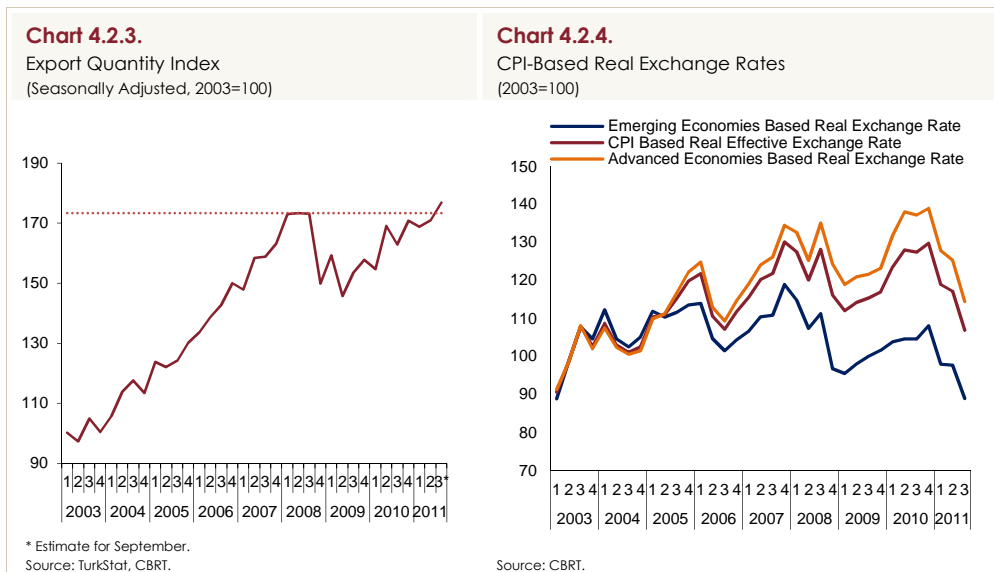


4.2. External Demand

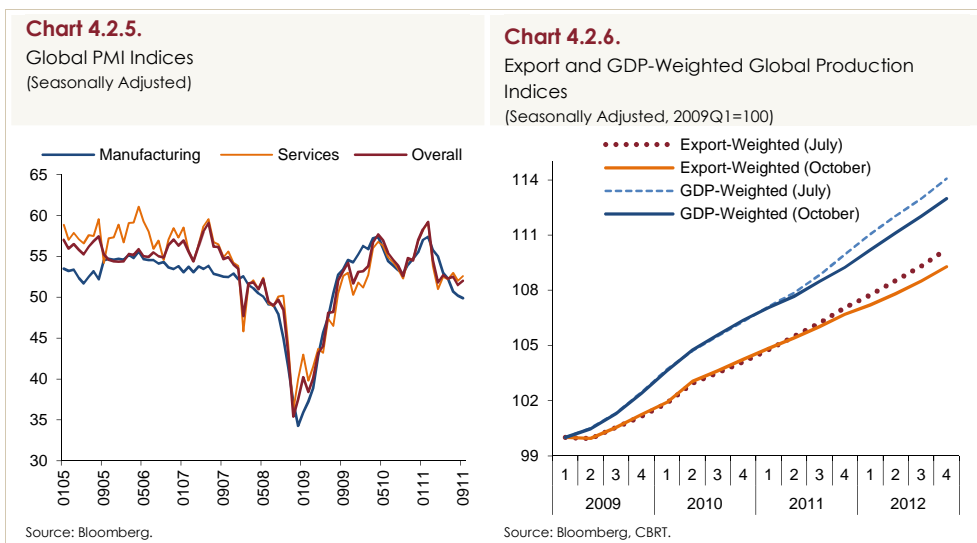
The second-quarter external demand developments turned out to be slightly worse than projected in the July Inflation Report. Exports of goods and services increased by 0.2 percent year-on-year, putting a cap on the contribution of exports to annual growth. Meanwhile, imports of goods and services recorded a year-on-year upsurge of 18.8 percent, further contributing negatively to growth (Chart 4.2.1). As per the analysis of the seasonally adjusted data, a different outlook appears for the near term. While exports followed an almost flat course in the second quarter, imports declined on a quarterly basis for the first time since the first quarter of 2009 (Chart 4.2.2). Accordingly, the demand components were further balanced with the net external demand contributing positively to growth.



As a result of the turmoil in the euro area, which was less severe and more localized than the current one, both the exports quantity index and the exports of goods and services had contracted in 2010. On contrary, recent data releases point that, despite the global turmoil, export quantity index reached its pre-crisis level after a lapse of twelve quarters, by posting an increase in the third quarter (Chart 4.2.3). This indicates that the ongoing depreciation of the real exchange rate since the last quarter of 2010 bolstered the relative competitiveness of firms in external markets (Chart 4.2.4).

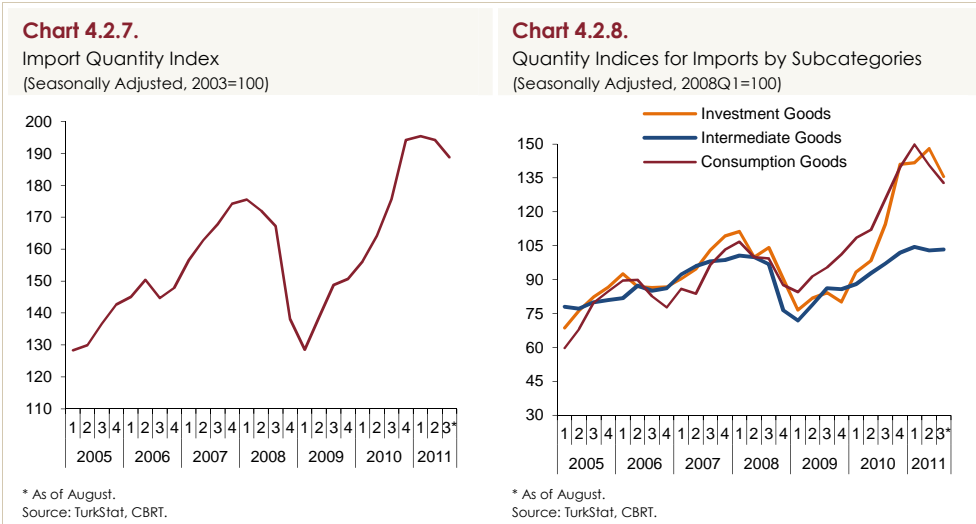


Recent developments in international markets heighten uncertainties regarding the global economic activity. The growing probability of default in Greece, classification of Italy, one of the leading economies of the EU, among the troubled countries, the U.S. economic growth coming to a standstill, and the weak course of the Japanese economy give way to a slowdown in economic activity on a global scale. Indeed, an analysis of the global PMI indices indicates that the manufacturing industry index hit 27-month low in September, remaining below the neutral level of 50. As for the services sector, PMI for the services sector followed a weak course throughout the third quarter (Chart 4.2.5). Moreover, the deterioration in both investor and the consumer confidence due to mounting perception that no solution to global problems would be introduced in the short term also led to worsening of the medium-term growth outlook. Downward revision of both the GDP-weighted as well as the export-weighted global production index confirms the negative outlook (Chart 4.2.6). Accordingly, global problems are expected to further restrict the external demand even with the competitiveness provided by the exchange rate movements.

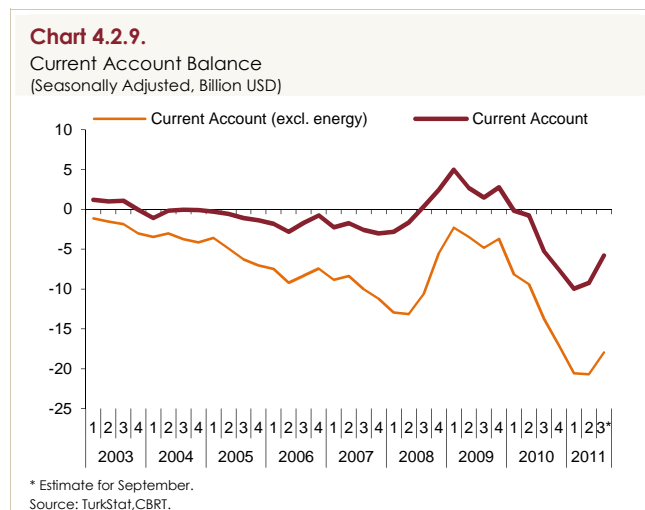


The import quantity index, which has followed a weak course since the start of 2011, remained below the previous quarter's average in the July-August period (Chart 4.2.7). As for the subcategories of import quantity index, imports of intermediate goods edged up, while imports of consumption and investment goods declined (Chart 4.2.8). Parallel to the depreciation of the Turkish Lira, imports of passenger cars, mainly the transport vehicles, and durable consumption goods plummeted. Amid the depreciation of the real exchange

rate coupled with the slowing loans and loosening domestic demand, imports of goods and services are estimated to have posted a quarter-on-quarter decline in the third quarter (Chart 4.2.2).

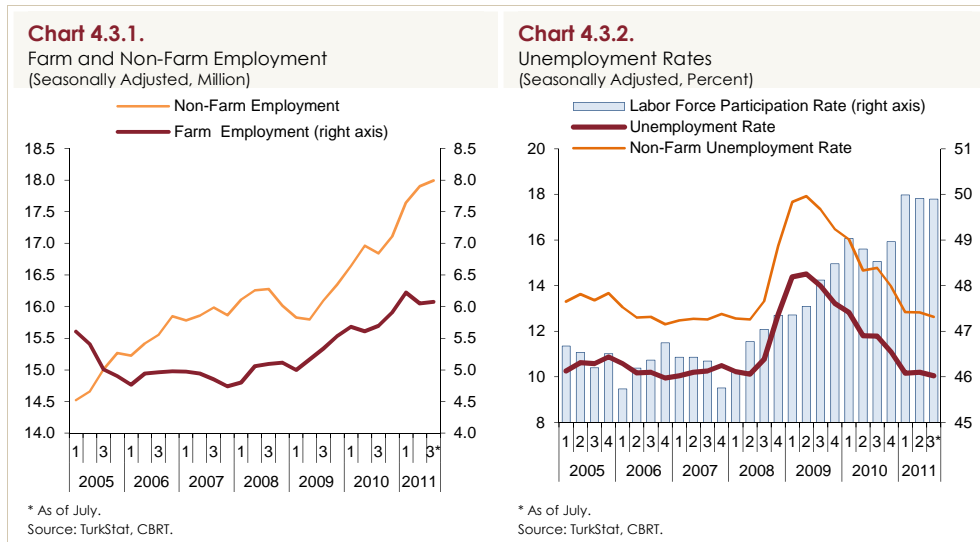


In sum, net external demand is expected to contribute positively to growth in the third quarter. Balancing of domestic and external demand supports the improvement of the current account balance. The gap between imports and exports is expected to narrow further in the upcoming period, thereby improving the current account balance. However, adopting structural measures to enhance productivity and savings is critical in order to permanently bring the current account balance to reasonable levels.

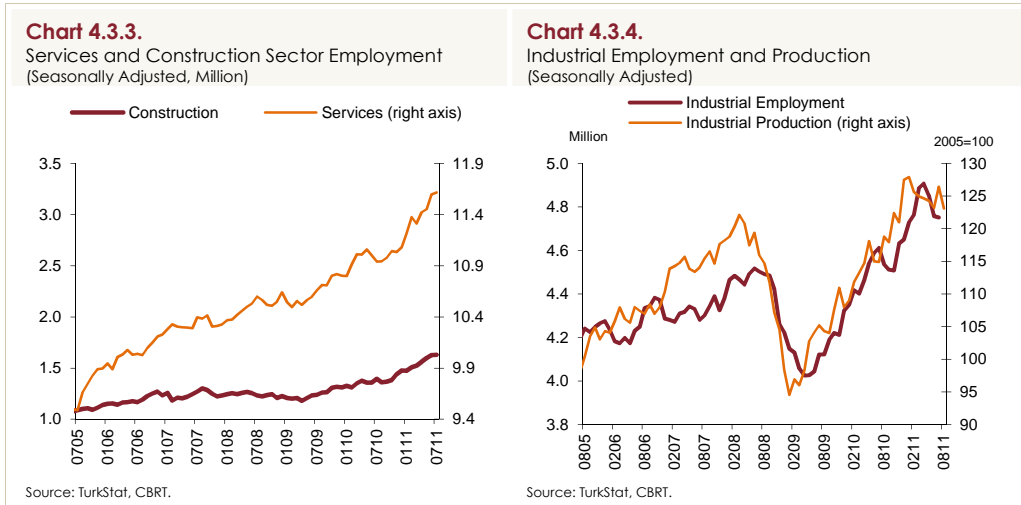


4.3. Labor Market

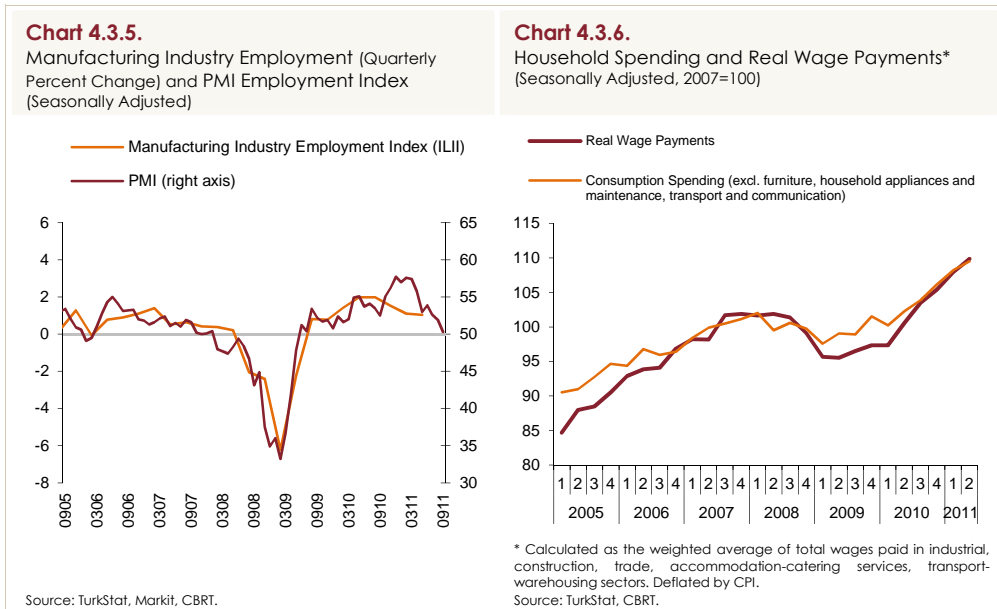
Second-quarter employment developments were broadly consistent with the outlook presented in the July Inflation Report. Seasonally adjusted data on industrial employment declined as expected, while non-farm employment growth posted a quarter-on-quarter slowdown. Moreover, farm employment, having been on the rise since the second half of 2010, went down in this period, albeit remaining above the pre-crisis levels (Chart 4.3.1). Accordingly, the unemployment rate, which reverted to its pre-crisis level in the first quarter of 2011, remained flat in the second quarter, and edged down in July (Chart 4.3.2).

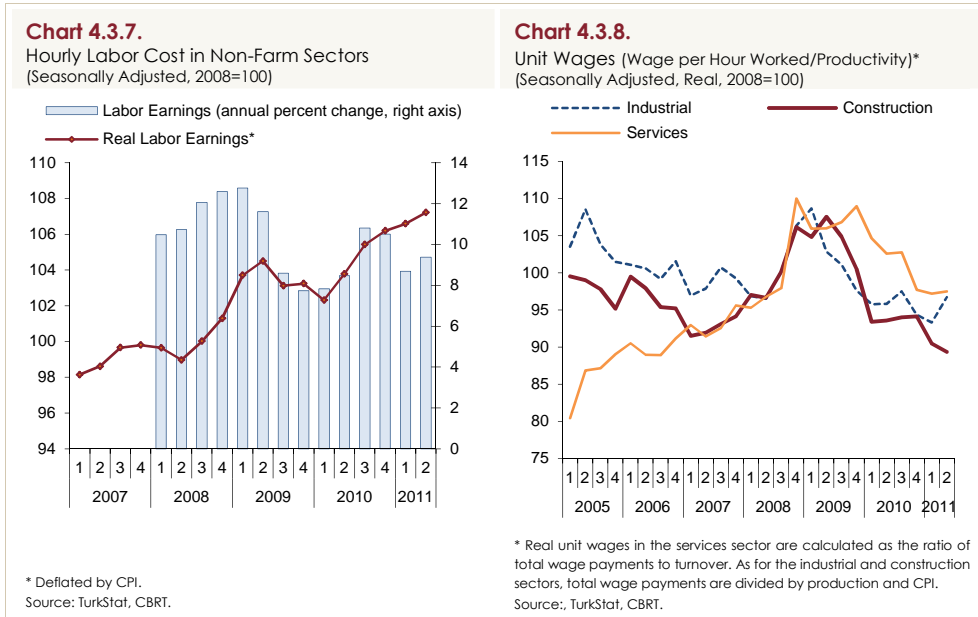


Services and construction sectors contributed positively to seasonally adjusted non-farm employment, while industrial employment receded in the second quarter of 2011 (Charts 4.3.3 and 4.3.4). Even though this outlook remained unchanged in June, employment growth in services and construction sectors slowed down in July, while the downtrend of industrial employment waned. Given the scale of the sector in terms of the number of employees, the acceleration of employment in the construction sector since the onset of 2011 is notable.

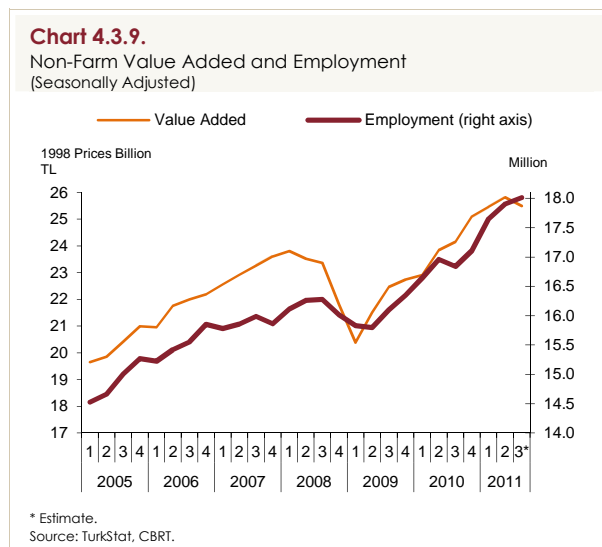


Recent developments in the industrial sector indicate that having followed a decline for five consecutive months, seasonally adjusted industrial production posted a month-on-month increase in July before falling back in August. Given the persistent downtrend of the PMI employment index in the August-September period, a leading indicator of the developments in industrial employment, as well as the deterioration in the economic outlook for the U.S. and the euro area, recovery of the employment conditions in the industrial sector is likely to take time (Chart 4.3.5).





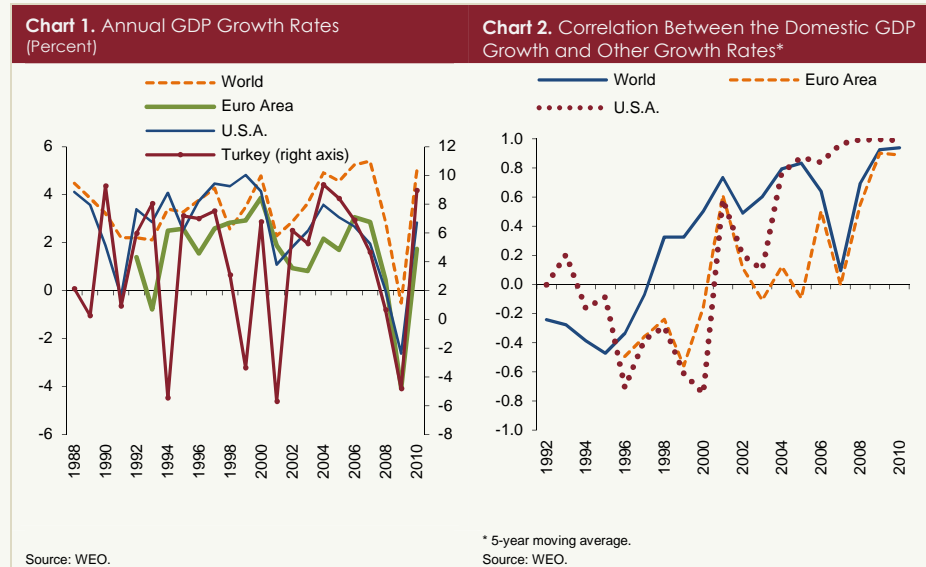
An evaluation of labor market developments in terms of their contribution to domestic demand reveals that wage payments have continued to bolster domestic demand in the second quarter of 2011 (Chart 4.3.6). On the other hand, considering wages as a cost item, non-farm hourly earnings index, published under the Labor Cost Indices, edged up quarter-on-quarter in real terms in the second quarter of 2011 (Chart 4.3.7). However, real unit wages which also take productivity developments into account, increased only in the industrial sector in the said period (Chart 4.3.8). This increase reflects the decline in production, and therefore, does not indicate a labor-driven cost pressure on prices.



To sum up, in the April-July 2011 period, the average non-farm employment growth rate slowed down amid the worsening industrial employment. Third-quarter leading indicators point to an ongoing stagnant outlook in industrial employment. However, global problems are expected to put a cap on employment opportunities in the forthcoming period. Accordingly, non-farm employment growth is expected to lose pace quarter-on-quarter in the third quarter of the year (Chart 4.3.9).

Box 4.1 The Relation Between Business Cycles in Turkey and the Global Economy

The analysis of the relations between global growth and the Turkish economic growth indicates that, prior to 2001, in periods of contractions in the domestic economy, global growth continued, pointing that country-specific factors were more influential on the crises during this period (Chart 1). In the post-2001 period on the other hand, domestic economic growth has been more closely linked to global developments. Furthermore, this link is stronger with the U.S. economy, with which our trading activities are more limited compared to euro area (Chart 2). This observation leads us to consider that our economy is also prone to non-commercial channels like the interest rates that are sensitive to the developments in the U.S. economy, liquidity conditions, capital flows and confidence sentiments. Hence, this Box analyzes the relation between the domestic national income and its components to business cycles in the U.S. and the euro area.



Obtaining business cycles by decomposing a time series is common in the literature. Accordingly, in order to analyze the relation between economies, correlations on national income cycles can be used. The sign of the correlation indicates the direction, while its absolute value displays the strength of the relation.

However, interactions between economic aggregates can emerge at various time spans. For example, while the impact of some shocks appears in the short term, other shocks may be influential in the long term. Hence, obtaining cycles for different time spans (2-4 quarters, 4-8 quarters, etc.) will provide a more detailed analysis of the relationships. As a matter of fact, by using the band-pass filters, Baxter and King (1999) and Christiano and Fitzgerald (2003) obtained cycles for different time spans, enabling more detailed analyses. In view of the transformation of the Turkish economy in the post-2001 period, Akkoyun et al (2011) analyzed the relationship of the national income cycles in the Turkish economy to the euro area and the U.S., by using the wavelet method, which is superior to band-pass filters in terms of its ability to detect the structural changes and temporary shocks.¹

Each series were decomposed into trends and cycles at various frequency bands by using the wavelet method (Table 1). Scale 1 (D1) shows cycles with the highest frequency (short-term). The higher the scale, the longer the period cycles. Therefore, scale 2 (D2) and scale 3 (D3) show the cycles with medium-term frequency, while scale 4 (D4) denotes cycles with longer term frequency.

Table 1. Frequency Ranges of Trends and Cycles

Scales	Frequency Range
Scale 1 (D1)	2-4 quarters
Scale 2 (D2)	1-2 years
Scale 3 (D3)	2-4 years
Scale 4 (D4)	4-8 years
Trend (A4)	8 years and above

The relationship between the national income cycles of the euro area and the U.S. was analyzed by using the GDP series in addition to its components on the expenditure side, in order to identify the source of the relation (Table 2). In view of the structural transformation that the Turkish economy experienced after 2001, the sample was divided into two sub-samples as 1995Q1-2001Q3 and 2001Q4-2010Q4. In order to isolate the effects of the crisis that led to global contraction as of 2008, the analysis was repeated for the 2001Q4-2007Q4 period. Results indicate that in the post-2001 period, the relation of the derived business cycles with the external developments increased remarkably for each GDP component, especially at frequencies between 2-8 years.

¹ For details on the selection and application of the filters, see Akkoyun et al. (2011) and Akkoyun, Doğan and Günay (2011).

Although the correlations between the domestic economy and the euro area as well as the U.S. are lower for exports at the frequency range of 0-2 years, the relationship is very strong at 2-8 years frequency.

Table 2. Correlations of Domestic Cycles with Euro Area and the U.S. National Income Cycles

	1995Q1-2001Q3		2001Q4-2010Q4		2001Q4-2007Q4	
	Euro Area	U.S.	Euro Area	U.S.	Euro Area	U.S.
National income						
D1 (0-1 year)	-0.20	0.28	0.47	-0.02	0.12	0.22
D2 (1-2 years)	-0.32	0.42	0.96	0.81	0.84	0.63
D3 (2-4 years)	0.77	0.24	0.84	0.89	0.74	0.87
D4 (4-8 years)	0.60	0.50	0.85	0.99	0.87	1.00
Exports						
D1 (0-1 year)	-0.14	-0.07	0.04	0.15	-0.02	0.42
D2 (1-2 years)	0.33	-0.20	0.57	0.52	0.43	0.21
D3 (2-4 years)	0.74	0.13	0.95	0.94	0.94	0.92
D4 (4-8 years)	0.25	0.42	0.94	0.92	0.90	0.97
Private Consumption						
D1 (0-1 year)	-0.09	0.17	0.34	-0.05	0.13	0.06
D2 (1-2 years)	-0.71	0.33	0.65	0.61	0.61	0.42
D3 (2-4 years)	0.71	0.52	0.72	0.82	0.62	0.83
D4 (4-8 years)	0.63	0.58	0.66	0.94	0.66	0.94
Private Machinery and Equipment						
D1 (0-1 year)	0.30	-0.41	0.12	0.11	0.12	0.21
D2 (1-2 years)	0.31	0.24	0.61	0.74	0.71	0.77
D3 (2-4 years)	0.76	0.29	0.77	0.84	0.55	0.72
D4 (4-8 years)	0.78	0.68	0.63	0.92	0.65	0.94
Imports						
D1 (0-1 year)	-0.24	-0.10	0.10	0.17	0.37	0.16
D2 (1-2 years)	-0.06	-0.07	0.81	0.83	0.62	0.80
D3 (2-4 years)	0.52	0.24	0.75	0.84	0.64	0.82
D4 (4-8 years)	0.64	0.52	0.69	0.95	0.68	0.95

The high correlation between the domestic private consumption and private machinery and equipment investment and the U.S. economy at 2-8 years frequency indicates that the external developments can be influential not only through the exports channel but also via the domestic demand. The fact that the capital flows, risk appetite, and the movements in exchange rates and interest rates, which are sensitive to global developments, are influential on financial conditions and confidence sentiment, leads one to consider domestic demand indicators as an alternative channel of influence for global developments. As for the high correlations between imports and the U.S. economy, the evolution of the imported components of private consumption and investment are considered to play a significant role.

In sum, given the structural transformation our economy went through in the post-2001 period, business cycles using national income and its components were analyzed with respect to their relations to cycles in the euro area and the U.S. at various frequency ranges. The conducted analyses indicate that the relationship between the Turkish economy and the global economies grew significantly in the post-2001 period. Moreover, the analysis of the relationship between the Turkish economy and global economies in the post-2001 period shows that the correlation is higher for the U.S. economy than the euro area in the medium and long term (2-8 years). This points to the significance of non-commercial channels effective on our economy.

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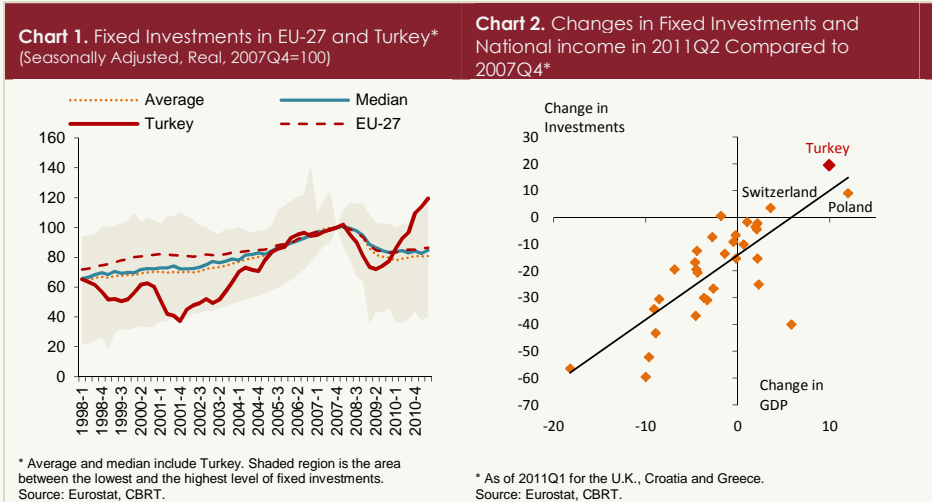
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Box 4.2 Recent Developments in Investment

Accumulation of capital stock by fixed Investments not only increases the potential production but also enhances the efficiency of the factors of production other than capital, thereby improving the global competitiveness. Thus, limited capital losses or increasing the capital stock during the crisis periods are crucial for maintaining and improving competitiveness in the medium term. For that reason, Turkey's investment performance² was analyzed in comparison to EU and Latin American countries, given the trading partnership and the structural similarities, respectively.

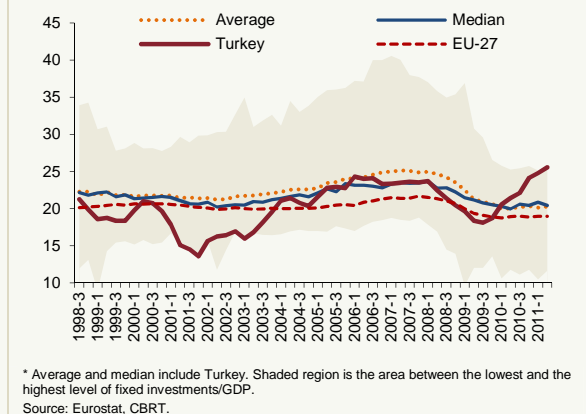
Fixed Investments in EU and Turkey

The analysis suggests that investments in Turkey recovered strongly in the global crisis period, in comparison to EU countries. As a matter of fact, while investments in the EU were below the pre-crisis levels in the second quarter of 2011, investments in Turkey hover well above the pre-crisis levels (Chart 1). Out of the 32 countries analyzed, the national incomes of only eleven countries could go beyond the 2007Q4 level, and investments in only four countries exceeded the pre-crisis levels. Turkey, which is one of these four countries besides Luxembourg, Switzerland and Poland, became the country with the highest growing investments compared to the pre-crisis period (Chart 2).



² Fixed investments include the machinery and equipment investments of the public and the private sector.

Chart 3. Fixed Investments/GDP in EU-27 and Turkey*
(Fixed Prices, Percent)

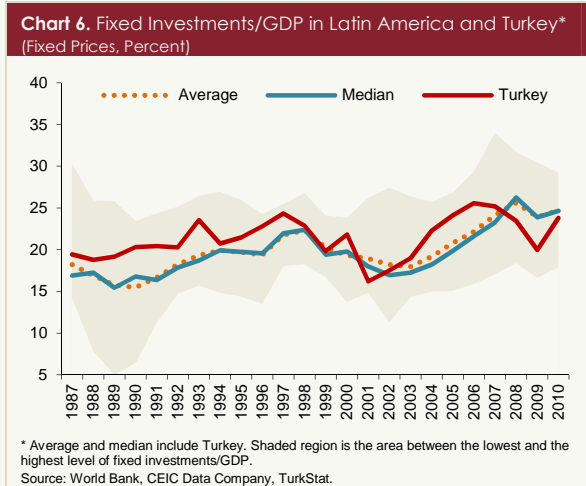
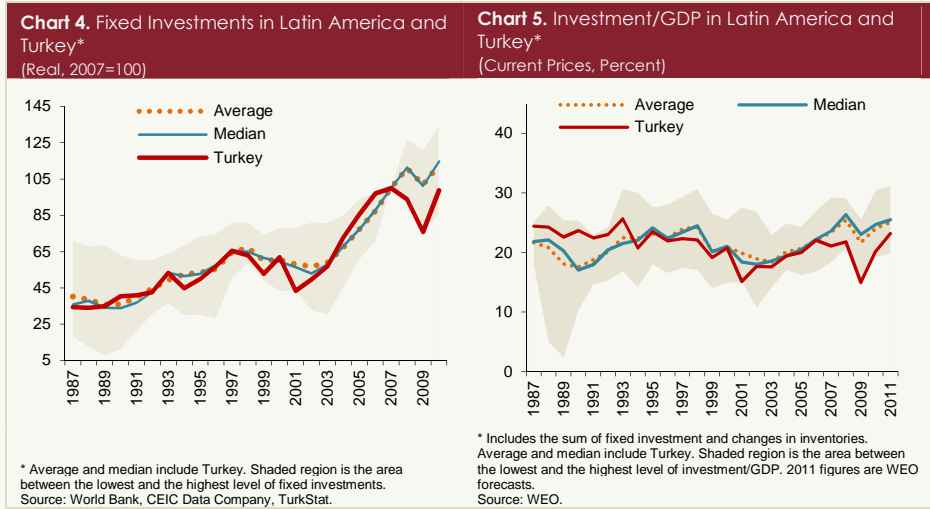


Investment depends on factors such as the changes in expected profitability ratios, coverage of irrevocable costs and access to financing, and thus displays higher volatility than national income. Indeed, the analysis of the changes in national income and investment suggests that while the changes in national income ranged between 12-18 percent across European economies, changes in investment were between -60 percent to 20 percent compared to pre-crisis levels. This confirms the relatively higher volatility of investments compared to national income during the global crisis (Chart 2). The robust course of investments in Turkey in the post-crisis period provided a higher investment to GDP ratio in the second quarter of 2011, even though GDP posted a high growth as well (Chart 3). This increase is even more striking given the fact that, in terms of investment/GDP ratio, Turkey lagged behind the EU averages between 2001 and 2007, the period after the 2001 crisis, which broke out due to Turkey-specific reasons, until the global crisis.

Investments in Latin America and Turkey

The relatively robust course of investments in Turkey compared to EU, where the global crisis is deeply felt, brings out the question of whether the same conclusion also applies to other countries with structural similarities to Turkey. Accordingly, analyzing the course of investment in the selected Latin American countries in comparison to Turkey will be informative. The adverse impact of the global crisis on investments in Turkey is similar to EU, where the propensity to invest declined, but it is different than in Latin America, where the propensity to invest remained unchanged (Charts 1 and 4).

This led Turkey to lag behind Latin America in terms of the investment to GDP ratios, calculated with the current prices (Chart 5). However, calculated with the fixed prices, the comparison of the course of investment to GDP ratios reveals that the deterioration in Turkey is comparable to Latin America, which performed relatively far better than EU (Charts 3 and 6).³ This also gives significant clues about the effects of the global crisis by regions.



³ As stated in the Inflation Report 2011-III, since the first quarter of 2005, import unit value index for investment goods has diverged from the overall index, in favor of the latter. This evidence when coupled with the divergence of fixed and current investment in Turkey from Latin America brings out the question of whether the import dependency of investment differs between Turkey and Latin America.

In sum, the relatively low level of investment in Turkey during the 2001-2007 period, declined amid the global crisis (similar to EU but unlike Latin American countries). However, starting from the third quarter of 2009, investment in Turkey displayed a relatively exceptional rebound when compared to EU, and converged to Latin America, which was not severely hit by the crisis. This points that the Turkish economy has the potential to expand its capital stock and national income, and also shows that the debates on an “overheated Turkish economy in the post-crisis period” are controversial. Meanwhile, it is remarkable that the divergence in investment occurred in a period of tight global liquidity conditions and heightened demand uncertainty. Lastly, the robust course of investment has the potential to generate macro financial risks in the short term, but it will enhance competitiveness and productivity in the medium and long term.