

Turkey's GDP Growth Peeks as Domestic Demand Surge

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Executive Summary

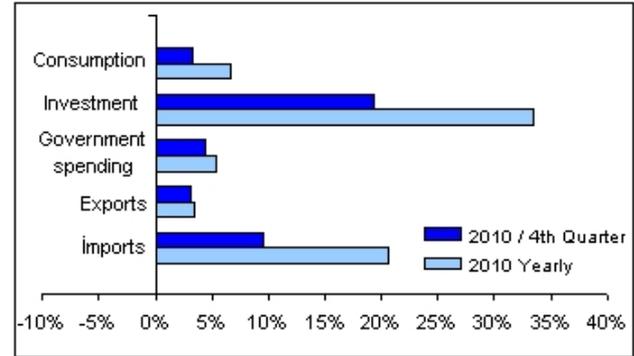
According to data released by Turkstat, Turkey's real GDP increased at a rate of 3.6 percent in the fourth quarter of 2010 (seasonally adjusted, from third quarter to fourth quarter). Yearly growth rate in 2010 was 8.9 percent for the whole year. The increase in real GDP mostly reflected increases in domestic demand but especially investment demand.

According to Betam's component by component analysis of seasonally adjusted real GDP, the largest contribution to growth came from increases in private investment. Private investment increased by 19 percent quarter to quarter in the fourth quarter and by 34 percent, annually. Its contribution to growth was 3.7 percentage points in the fourth quarter and 5.4 percentage points, annually. Contributions from private consumption expenditures remained slightly below third quarter at 2.3 percentage points quarter on quarter but a high of 4.7 percentage points, annually.

Government expenditures increased in the fourth quarter but its contribution to growth was small both in the fourth quarter and for the whole year; 0.6 and 0.8 percentage points, respectively. Hence, the main driver of real GDP growth was increases in private domestic demand and not government expenditures.

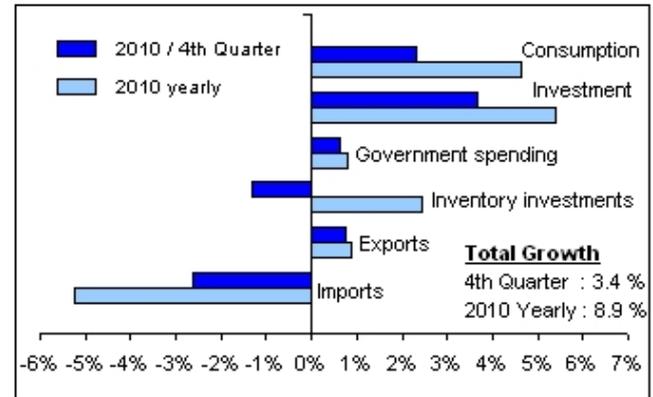
Net exports contributed negatively to both quarterly and annual growth as expected; -1.9 and -4.4 percentage points, respectively. High growth in real GDP fueled capital inflows and the current account deficit reached 6.5% at the year end in 2010.

Figure 1: GDP components: Changes from the previous quarter and previous year



Source : TurkStat, Betam. Quarterly indicators are seasonally adjusted and calendar day corrected.

Figure 2: Contributions to real GDP growth quarterly and annually



Source : TurkStat, Betam. Quarterly indicators are seasonally adjusted and calendar day corrected.

Surge in private investment in the fourth quarter

Figures 1 and 2 show the change and contributions of each component to the real GDP growth on a quarter to quarter and annual basis. The sum of the contributions of the components in the fourth quarter is 3.4% which is different than that of Turkstat's

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report of 3.6% because Betam seasonally adjusts each component separately.¹

In the fourth quarter, the increase in private investment demand was unexpectedly high, an increase of 19.4% quarter on quarter, and was the main contributor to quarterly growth. It added 3.7 percentage points to real GDP growth. This increase is a sign that the real sector expectations are very optimistic about the economic activity in 2011.

The annual increase in private investment is also quite high, 33.5%, and its contribution to annual real GDP growth is 5.4 percentage points.

Consumption keeps pace in the fourth quarter

In the fourth quarter consumption expenditures increased by 3.3% and contributed 2.3 percentage points to real GDP growth. In the third quarter consumption had contributed to growth by about the same amount. On a yearly basis, consumption increased by 6.6% in 2010, and contributed 4.7 percentage points to annual real GDP growth.

Government expenditures play a minor role

In December, we had observed a large increase in government spending, however, the effect on GDP growth remained small. Government expenditures increased by 4.4% from the third quarter and contributed 0.6 percentage point to quarterly real GDP growth. Contribution to annual growth also remained low, about 0.8 percentage points.

We see that the 8,9 percent annual real GDP growth was mainly due to the increase in private domestic demand. The high growth rate in 2010 increased the government revenues giving the government an opportunity to decrease the budget deficit. The budget deficit did decrease from 4.9% of GDP in 2009 to 3.8% in 2010, but could have decreased more. In fact, if the government decreased its expenditures and limit the GDP growth rate to keep it closer to the target growth rate of 6.8%, then the current account deficit might have been lower.

Exports increase in the fourth quarter

In the fourth quarter exports increased by 3.1% from the third quarter and contributed 0.7 percentage

points to real GDP growth. In the first and third quarters we had seen exports decrease.

Exports of Turkey still have not fully recovered from the global recession in 2008. Foreign demand remains low as Turkey's main trading partner Europe is recovering slowly. The uncertainty in the Middle East is not helping either. Yearly growth in Turkey's exports was 3.4 percent in 2010 and contributed 0.9 percentage point to annual real GDP growth.

On the other hand, imports have surged. Annual increase in imports was 20.7% and it subtracted 5.2 percentage points from the change in real GDP in 2010. Increase in imports was also high at 9.5% in the fourth quarter and subtracted 2.6 percentage points from quarterly change in real GDP. The current account deficit of Turkey reached 6.6% of GDP in 2010.

Approximately 20% of Turkey's imports are energy related raw materials such as fuel oil and natural gas, and 50% is imports of other raw materials and intermediate goods. An increase in domestic demand, especially investment demand, therefore, causes a large increase in imports. The recovery period in 2010 once again showed that Turkey's high growth - high current account deficit dilemma is not going to disappear any time soon.

2010 forecasts and 2011 expectations

Betam releases its quarterly and annual growth rate estimates on a monthly basis in the series "Monthly Economic Outlook and Forecasts." In our January and February releases we had estimated the 2010 annual growth rate to be 8.9% which turned out to be a spot on guess. We had estimated the quarterly growth rate to be 2.6% for the fourth quarter and pointed to the large increases in estimated investment demand. The fourth quarter GDP growth was 3.6% and reflected the large increases in investment. Finally, we had estimated the current account deficit to be 6.5% and according to TurkStat releases, it is officially 6.6%.

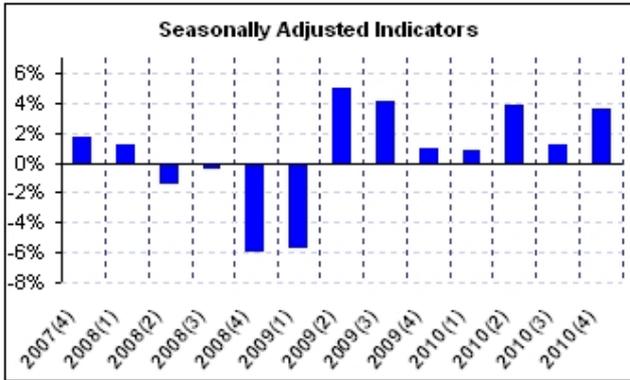
We expect the growth rate to moderate in 2011. In fact we see some signs of deceleration in the first quarter which we report in our March release of "Monthly Economic Outlook and Forecasts" series.

The real GDP growth in 2010 was far from the 6.8% rate expected/targeted by the government in the Medium Term Program (2011-2013). The high

¹For details see Box1 in the appendix.

current account deficit which followed the high real GDP growth has made many economists and the Central Bankers in Turkey mostly uncomfortable. In fact, the Central Bank is now working hard to limit the credit loan expansion by increasing the reserve requirements on banks. To what extent the Central Bank will be successful in its efforts remains to be seen, however, we believe that it will help cool down the economy in 2011 nevertheless.

Figure 3: Quarter-on-quarter real GDP growth rate



Source : TurkStat, Betam

Box 1: Calculation of quarterly GDP growth and contributions.

Sub-components of GDP are grouped into 3 categories:

1. Final domestic demand consist of final consumption expenditure of resident households (Consumption), sum of government final consumption and investment expenditure (Government expenditure), investment expenditure of private sector (Investment)
2. Net foreign demand for goods and services represents the difference between exports and imports of goods and services.
3. Change in inventories (stocks) shows how stocks changes with compared to previous quarter (for details look Box 2)

In order to find quarterly GDP growth, the following formulation is used for all sub components of GDP separately:

Since X represents 'Change in GDP component'

Contribution of X to growth can be calculated as follows:

$$= (X_t - X_{t-1}) / GDP_{t-1}$$

Differences between the methodologies used by Betam and TurkStat in seasonally adjusting the real GDP

TurkStat seasonally adjusts and calendar day corrects total GDP series but not its components separately. However, each component of GDP may show different seasonal characteristics. Therefore, Betam eliminates the effects of seasonality and calendar day from the components separately and constructs the adjusted GDP series as the sum of the adjusted components. These two methodologies yield quantitatively different results and both of them are used frequently in the related literature.

Box 2: Change in inventories (stocks) and its contribution to growth

'Stock change' shows that how stocks change compared to previous period

$$\text{Stock change}_t = \text{Stock}_t - \text{Stock}_{t-1}$$

Therefore increase (decrease) in inventories is caused by increase (decrease) in the difference between two period rather than increase (decrease) in stocks.

However, TurkStat estimates the change in stocks is as residual between production and expenditure accounts. Moreover this sub-component also includes statistical discrepancy.

Let's say the difference between production and expenditure account ε_{t-1} , 'stock change' in time t is as follows:

$$\text{Stock change}_t = \text{Stock}_t - \text{Stock}_{t-1} + \varepsilon_{t-1}$$

Finally, contribution of change in 'Stock change' can be found as follows:

$$\text{Contribution of 'Stock change } t \\ = (\text{Stock}_t - \text{Stock}_{t-1}) / GDP_{t-1}$$

or

$$\text{Contribution of 'Stock change } t \\ = ((\text{Stock}_t - \text{Stock}_{t-1} + \varepsilon_t) \\ - (\text{Stock}_{t-1} - \text{Stock}_{t-2} + \varepsilon_{t-1})) / GSYH_{t-1}$$