UNEMPLOYMENT IS INCREASING,
LABER FORCE PARTIPATION IS DECREASING

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Executive summary

The observed stagnation in the growth rate in the last six months has been reflecting on the labor force indicators. While the non-agricultural employment decreased in absolute terms losing its upward trend in the last quarter of 2007, the non-agricultural unemployment attained 12.5 percent in 2007. However, the decline in the labor force participation rate has prevented a further increase in it.

Women are driven out of the labor market. As the urban labor force participation of the women declined rapidly, the number of the housewives increases by 10 percent up to 12 million 494 thousand. Women drop out of the labor market to go back to housework.

Decelerated growth is raising unemployment

In this study, GDP, employment, unemployment and labor force participation series are seasonally adjusted in order to explore the relationship between the economic conjuncture in Turkey and unemployment.[1] Given that TurkStat publishes data that has not been deseasonalized, only reasonable comparisons are made with respect to the data from a year ago. This provides information on the previous year, however fails to shed light on the current situation. Therefore, it is necessary to deseasonalize the data.[2]

GDP series come from the 1998-based data that TurkStat has just released. The data on the labor market is calculated using the revised statistics for the period 2006(4)-2007(3) that TurkStat has distributed on the basis of the results of Address Based Population Registration System (ABPRS). We move the data back to 2000 using these numbers (see Box 1).

Data shows that the decelerated growth has been affecting the employment negatively since the second quarter of 2007. The deseasonalized GDP figures indicate that the growth has really decelerated, which is at its lowest since 2003 (Graph 1).
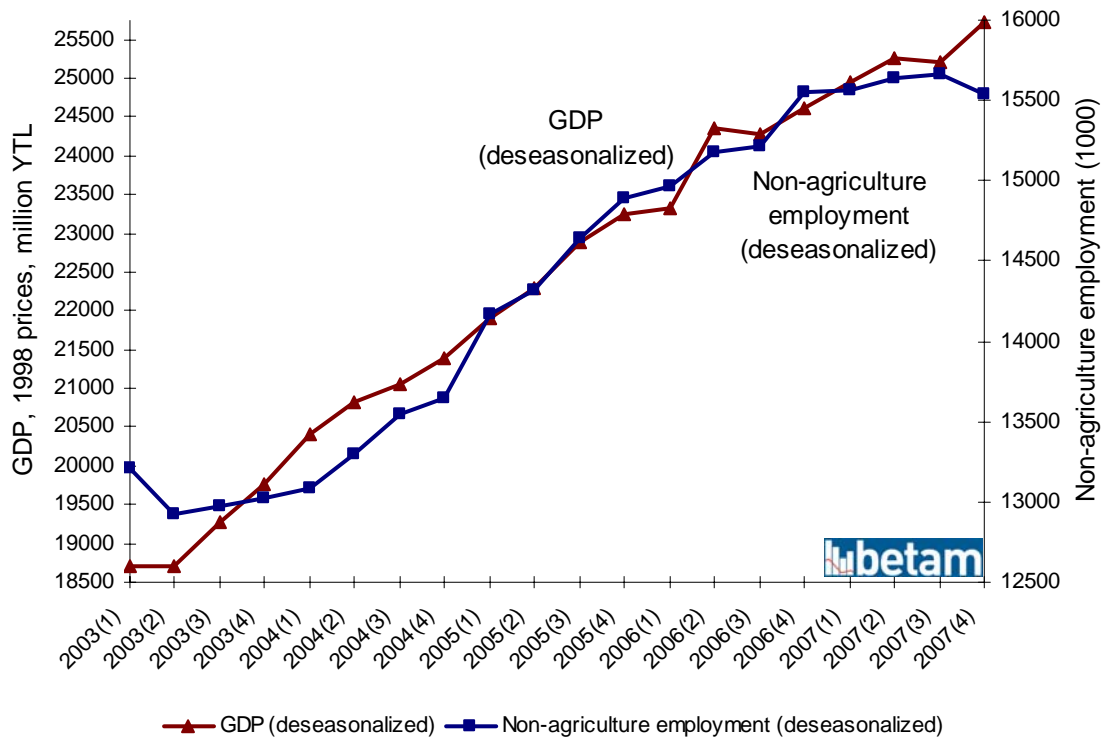
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[1] GNP and employment series are deseasonalized for the periods 1998(1)-2007(3), and 2000(1)-2007(3), respectively. The methods of TRAMO ve X-12 are used for this purpose. The results of X-12 are preferred because it provides more consistent conclusions econometrically. DEMETRA is used as software.
[2] Nevertheless, one should bear in mind that the additional errors are introduced in this process.

Graph 1: GDP and non-agriculture employment (2003-2007)

Source: TurkStat, **betam**

The effects of the stagnation of the growth on the labor market seem clear now. In the deseasonalized series, the non-agricultural employment seems to have increased by 10,000, 71,000 and 26,000 in the first three quarters of 2007, respectively. For the first time since the last quarter of 2003, it fell in absolute terms, by 124,000, in the last quarter of 2007 (Graph 1).
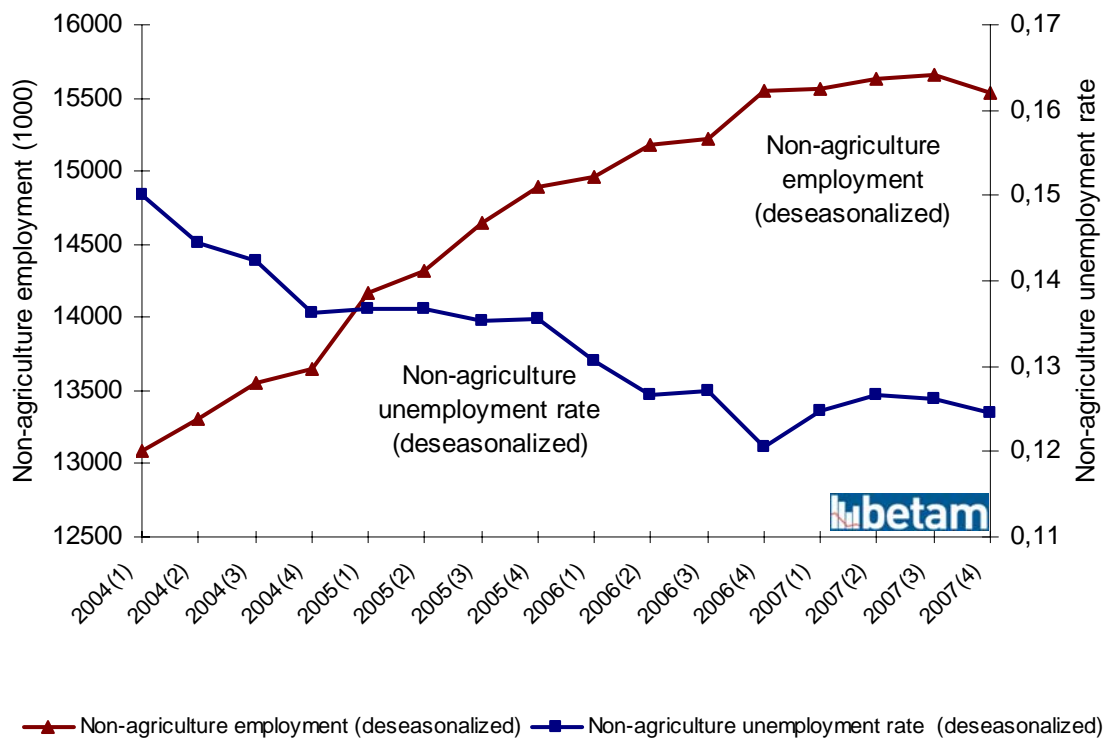

Box 1: Adjusting the data

There is a difference of around 3.7 millions between TurkStat's current population estimations and the results of ABPRS. TurkStat published the results of Household Labor Force Survey with a correction regarding the population estimate only for the period 2006 November (fourth quarter) – 2007 November (fourth quarter). Besides, TurkStat claims that the correction has not changed the percentage distribution in the labor force indicators. It released two the labor force series for the period 2006(4)-2007(3), the new one appropriate to ABPRS and the old one based on the older population projections. Dividing the new one by the old, we come up with 0.9379 for the last quarter of 2006 and 0.9374, 0.9371 and 0.9368 for the first three quarters of 2007, respectively. These coefficients show the extent to which ABPRS results discounted the labor force indicators. Then, we adjust the data covering the period prior to the last quarter of 2006 with the new series by multiplying by the corresponding coefficients.(Appendix 1: Data)

The non-agricultural unemployment seems to have moved to a higher plateau due to the inability of increasing employment and the ongoing fall in the agricultural employment. The non-agricultural unemployment rate has gone up from 12 percent in the last quarter of 2007 to an average of 12.5 percent in 2007 (Graph 2).

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Box 2: Definitions of Labor force indicators

1. Working age population = all above 15
2. Labor force participation rate = Labor force / population of working age
3. Labor force = Employed + unemployed
4. Employment rate = Employed / population of working age
5. Unemployment rate = Unemployed / Labor force

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Graph 2: Non-agriculture employment and non-agriculture unemployment rate (2004-2007)
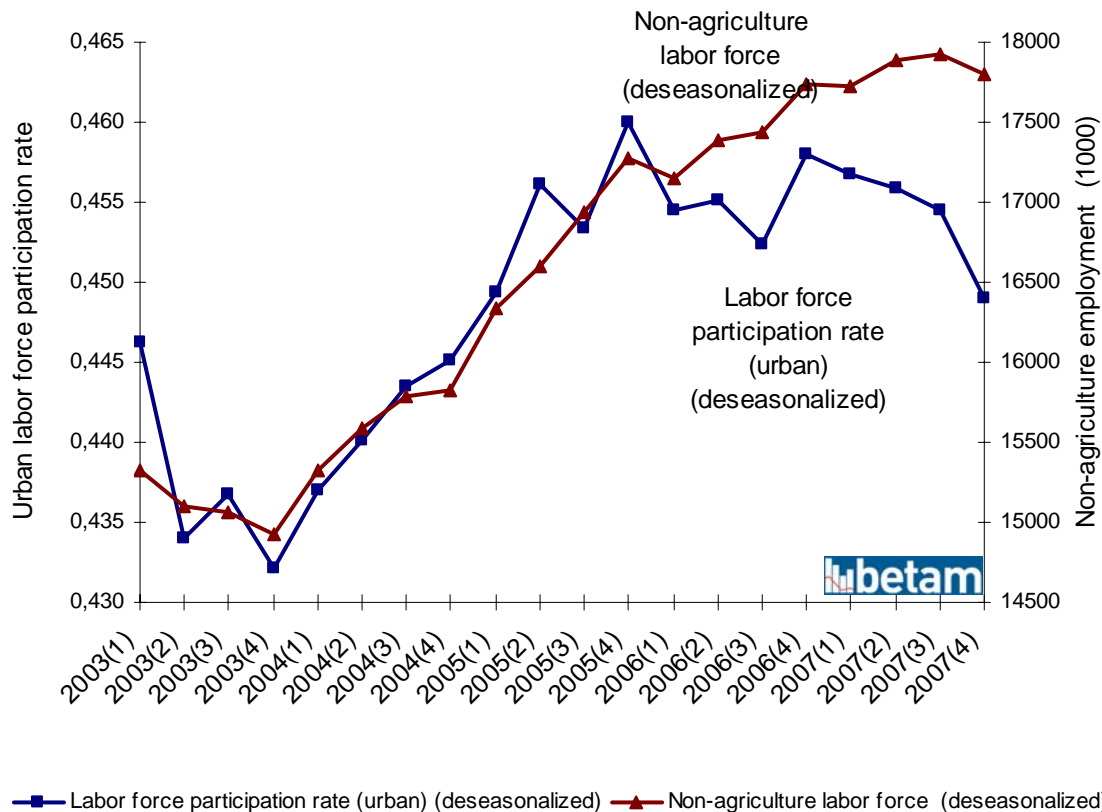

Source: TurkStat, **betam**

However, this hides more serious problems in the labor market. The opposite movement of the non-agricultural employment and unemployment observed until the last quarter of 2006 seems to have ceased in 2007. Having considered the roughly 500 thousand potential entrants into the non-agricultural labor market, the stagnation in the non-agricultural employment should have caused a remarkable upswing in the non-agricultural unemployment rate. However, this has not been observed due to the stable regression in the labor force participation. [3].

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[3] The rate of labor force participation in the non-agricultural sectors cannot be measured as the number of the people of working age in the non-agriculture is not defined. See the definitions of the labor force indicators in Box 2.

Labor force participation is falling; the women are leaving the labor market

The deseasonalized urban labor force participation rate has constantly been on a downward trend since the last quarter of 2006. Thus, the deseasonalized agricultural employment has not remarkably increased with a fall in the last quarter of 2007. The non-agricultural employment is decreasing at the moment following an increase of 139 thousand by each quarter between 2000 and 2006 (Graph 3).

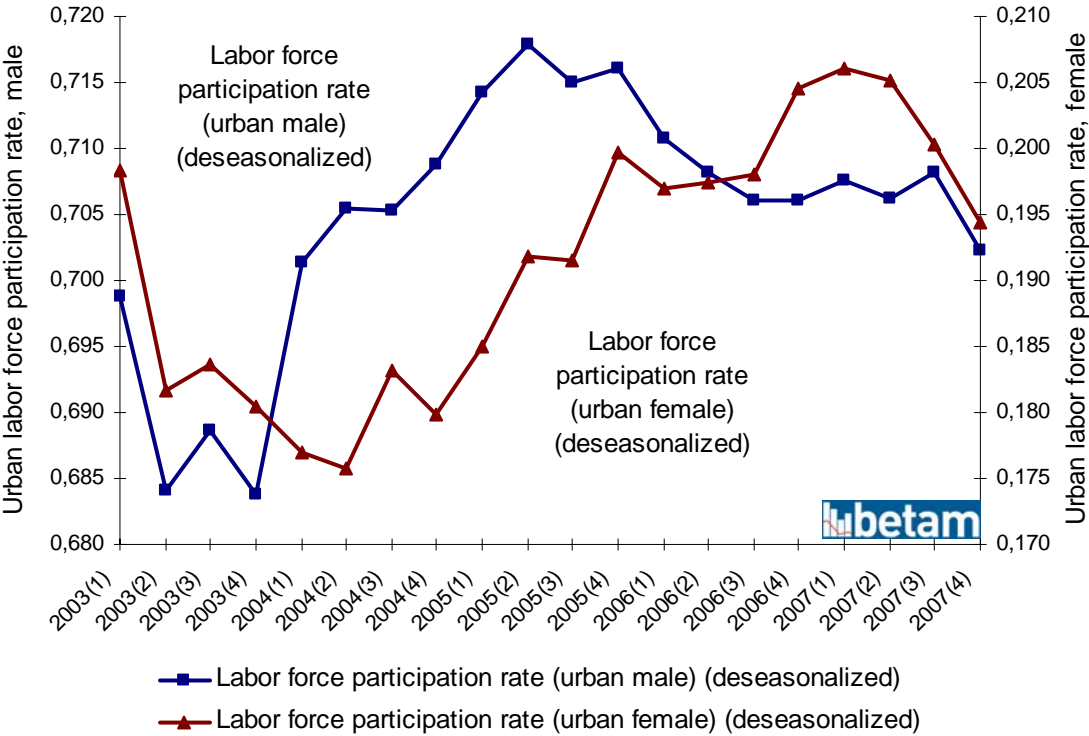**Graph 3: Non-agriculture employment & urban labor force participation rate**

Source: TurkStat, **betam**

The recent downward movement in the labor force participation rate indicates two major points: First, the non-agricultural unemployment rate has slightly decreased from 12.7 percent which it reached in 2007 May, as the non-agricultural employment remained stable and the non-agricultural employment regressed. But, according to our measurement, had the employment maintained the pre-2007 momentum afterwards, the non-agricultural unemployment would have risen to 13.9 percent.[4] As a result, the unemployment if broadly-defined, i.e. including those people who are not looking for a job but able to work, continues to rise swiftly. The number of those who is not looking for a job but able to work consistently increased to a rough estimate of 1 million and 750 thousands since 2007 June. Thus 4 million and 186 thousands of people are included in the broadly-defined unemployed people.

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[4] In the deseasonalized series, the average increase in the non-agricultural labor force in each quarter was 0.9 percent between 2000 and 2006. This has fallen to 0.1 percent in 2007. We calculate the non-agricultural labor unemployment rate of 13.9 per cent by dividing the value obtained by increasing the non-agricultural labor force by 0.9 percent for each quarter of 2007 by the non-agricultural unemployment.

When we think of the gender differences in the urban labor force participation, it seems that the decline in the women employment causes deterioration in the overall indicators. In the second half of 2007, the urban labor force participation rates fell by 0.4 and 1.1 for the men and women, respectively (Graph 4). The labor force indicators for the women show that the number of housewives increased by 10.4 percent, as many as one million and 175 thousands from May to December of 2007.[5] As a result, one reason for the small decline in the non-agricultural unemployment after 2007 May seems the fact that the women are dropping out of the labor force in the face of fewer employment opportunities.

Graph 4: Urban labor force participation rate, male and female (2003-2007)

Source: TurkStat, **betam**

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[5] (http://www.TurkStat.gov.tr/).