Bahçeşehir Üniversitesi
Ekonomik ve Toplumsal Araştırmalar Merkezi
Betam

Labor Market Outlook: February 2013

BAHÇEŞEHİR ÜNİVERSİTESİ

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INCREASE IN UNEMPLOYMENT CONTINUES

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Abstract

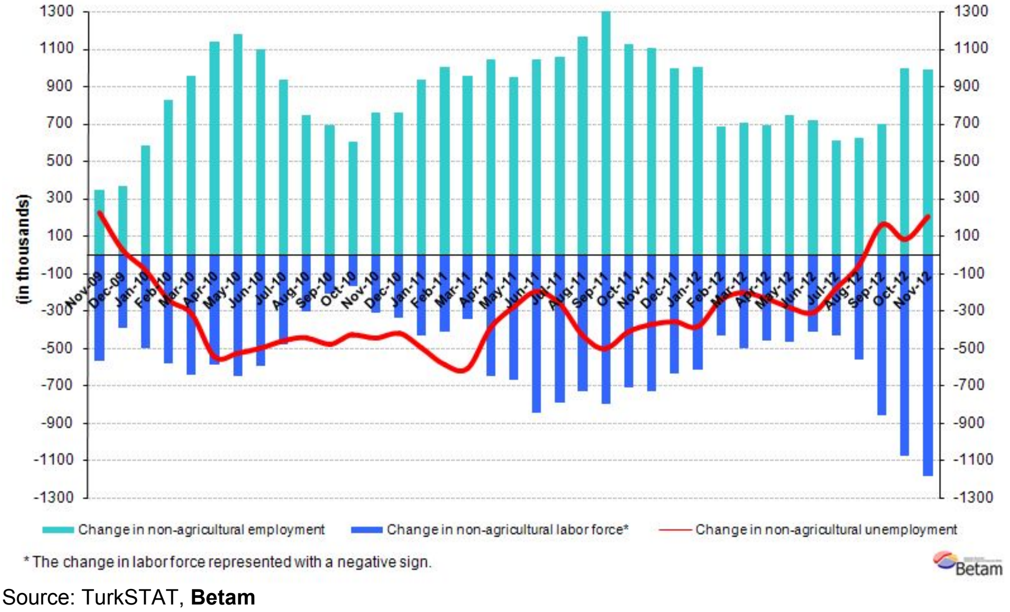
Seasonally adjusted labor market data shows that non-agricultural unemployment increased from 11.6 percent in October 2012 to 11.8 percent in November 2012. Despite the strong increase in non-agricultural employment, stronger increase in non-agricultural labor force leads to an increase in non-agricultural unemployment. Slow but sustainable increasing trend in non-agricultural unemployment that we have been observing since February 2012 continues. Data released by Kariyer.net shows that the slow increase in unemployment might continue in the next period.

Labor market highlight
This month, our analysis on the structural characteristics of labor market focuses on the relationship between growth and employment in different sectors. The results show that this relationship is tight in manufacturing and service. We observe increases in labor productivity in both two sectors after the global economic crisis. On the other hand, employment in construction did not decline during the crisis despite the continuous fall in value added in construction. After the crisis, both value added and employment in construction increase in a parallel manner. In other words, the negative productivity shock that arose in the crisis seems to be permanent. This may be due to a measurement error in construction.

Increase in non-agricultural labor force has been over 1 million

According to the data released by TurkSTAT, non-agricultural labor force increased by 1 million 188 thousand (5.8 percent), the non-agricultural employment increased by 987 thousand (5.4 percent) and non-agricultural unemployment increased by 201 thousand to 2 million 533 thousand persons in the period of November 2012 on a year-on-year basis (Figure 1). Despite the strong increase in non-agricultural employment, an increase of over 1 million in the non-agricultural labor force leads to an increase in non-agricultural unemployment

Figure 1 Year-on-year changes in non-agricultural labor force, employment and unemployment



Source: TurkSTAT, **Betam**

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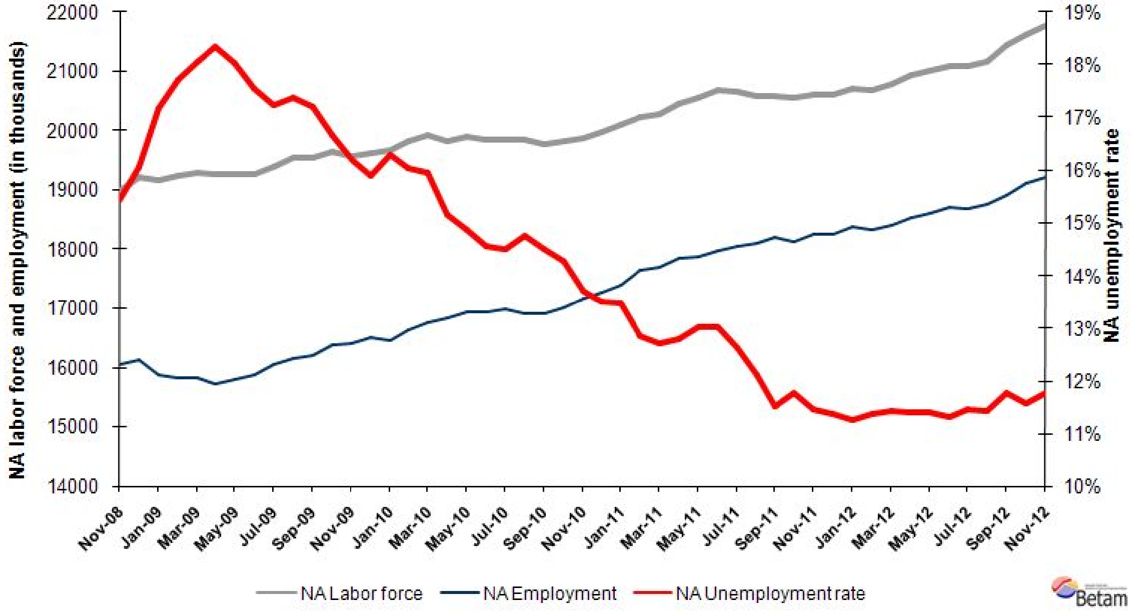
Increasing trend in seasonally adjusted non-agricultural unemployment continues

According to seasonally adjusted data, the non-agricultural labor force increased by 169 thousand to reach 21 million 784 thousand in the period of November 2012 compared to the period of October 2012 (Figure 2, Table 1). Non-agricultural employment increased by107 thousand to reach 19 million 221 thousand. Consequently, the number of persons employed in non-agricultural sectors decreased by 62 thousand and non-agricultural unemployment rate increased from 11.6 percent to 11.8 percent.

Figure 2 Seasonally adjusted non-agricultural labor force, employment and unemployment

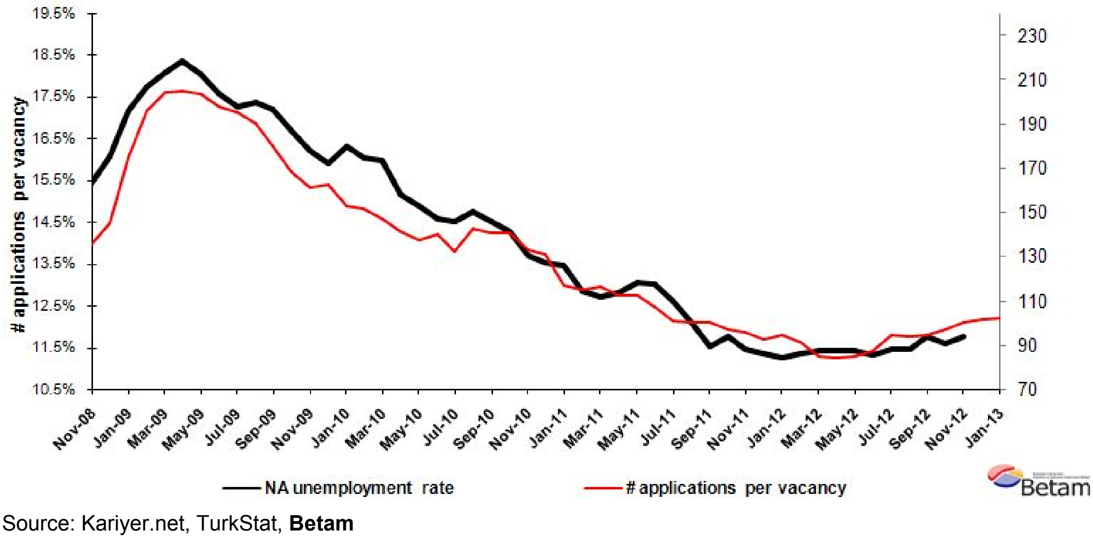


Source: TurkStat, **Betam**

According to Kariyer.net data, increase in non-agricultural unemployment continues

Application per vacancy calculated by using series released by Kariyer.net indicates that the increase non-agricultural unemployment rate will continue in the period of December 2012.[1]

Figure 1 Seasonally adjusted non-agricultural unemployment rate and application per vacancy



Source: Kariyer.net, TurkStat, **Betam**

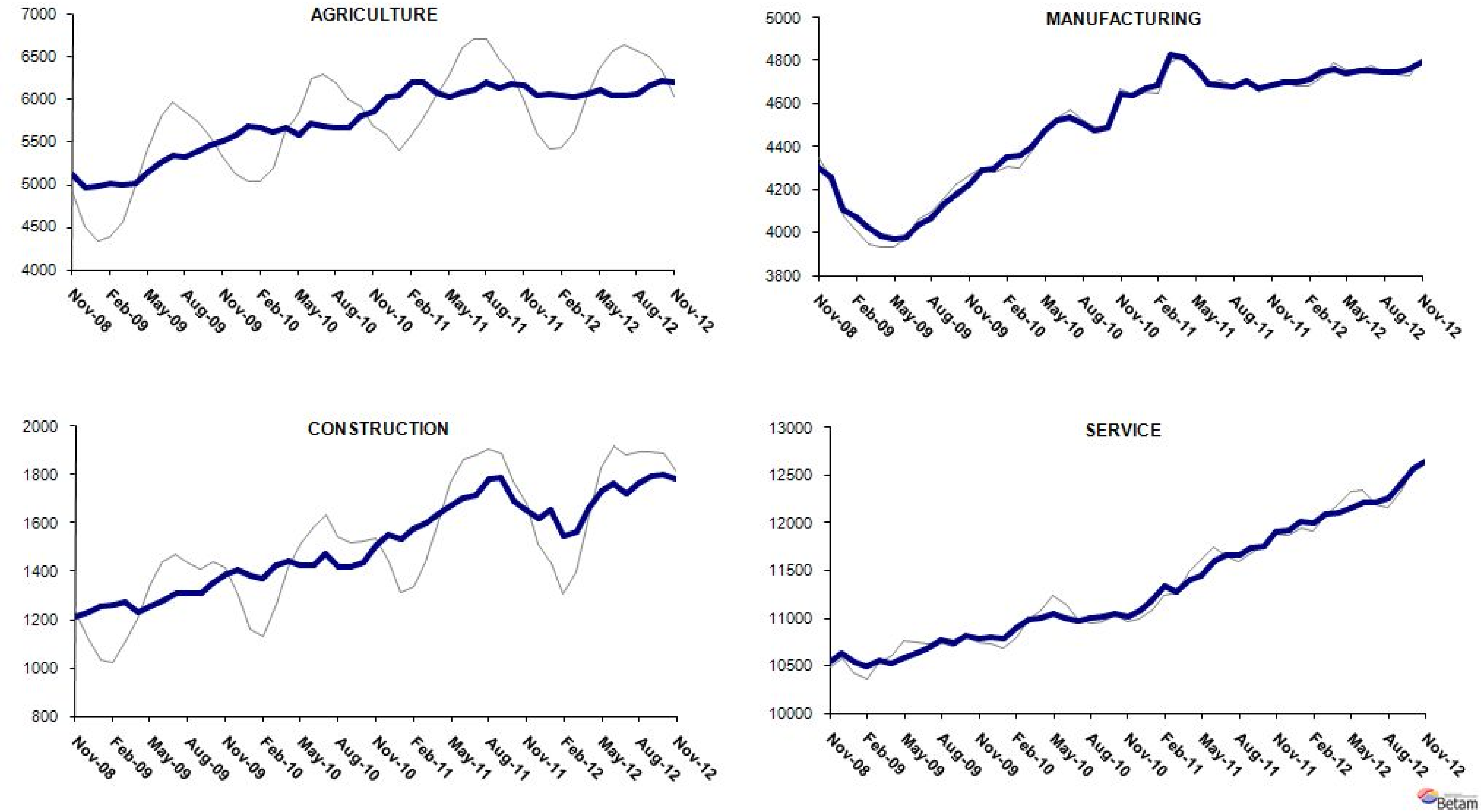
[1] Betam has been calculating application per vacancy using series released by Kariyer.net for a while. Seasonal and calendar adjustment procedure is applied to application per vacancy series. A decrease in applications per vacancy may be caused by an increase in vacancies or by a decrease in the number of applications. An increase in vacancies signals economic growth while decreasing number of applications indicates a decrease in number of people looking for a job.

Increase in service employment continues

Seasonally adjusted data shows that the increase in service employment has been continuing in the period of November 2012 (Table 2, Figure 4).[2] Manufacturing employment increased by 38 thousand, while construction employment decreased by 17 thousand in this period.

[2] Seasonal adjustment procedure is applied to each sector of employment series separately. Hence the sum of these series may differ from the seasonally adjusted series of total employment. The difference stems from the non-linearity of the seasonal adjustment process.

Figure 2 Employment by sectors (in thousands)[3]



Source: TurkStat, **Betam**

[3] Grey lines indicate seasonally adjusted series, where dark blue lines represent raw data.

LABOR MARKET HIGLIGHT

Decoupling between economic growth and employment

There is a relationship between economic growth and employment due to changes in the concentration of capital and in labor productivity. GDP growth (increase in value added) has been moving over employment growth with some exceptions. GDP growth is higher than employment growth when there are increases in the concentration of capital and/or labor productivity. Hence, value added per employee increases continuously, which governs the dynamics of growth. However, employment might not follow declines in GDP during crisis periods. If firms predict that contraction in demand and hence in production will not last long, i.e. if they predict that the crisis will be temporary; they may restrict the number of layoffs or even not lay off workers at all. Note that firing is costly due to factors such as severance pay, loss of experienced employees etc. Also, the firms may lower hours of work and wages to temper the costs of not being able to reduce employment following a decline in production.

The relationship between GDP growth and employment varies across sectors. In order to understand the sectoral relationships, we seasonally adjust the sectoral Gross Domestic Product series (calculated using the product approach) and let the first quarter of 2005 be the base quarter (100). We present indices and figures in Figure A and Table A.

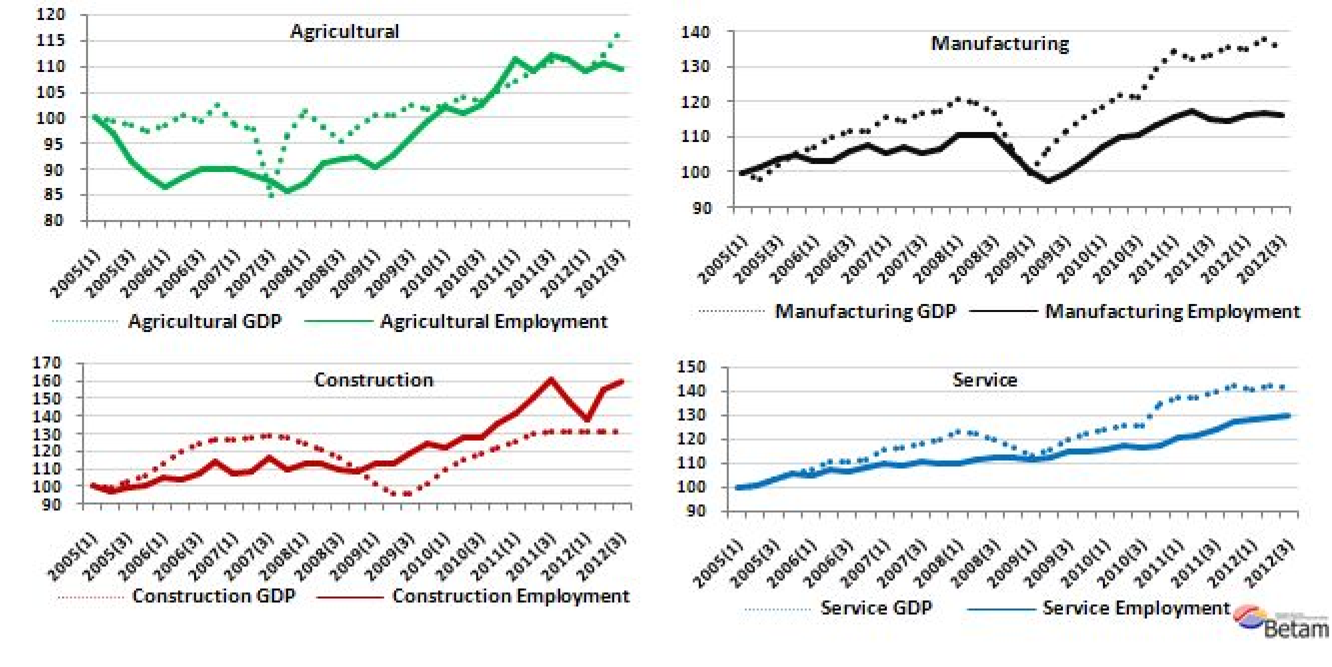
As seen in Figure A, there is no clear relationship between growth and employment in agriculture due to the dominance of family farms in agricultural production. However, the relationship in manufacturing is tight. Both before and after the crisis, value added increased at a faster speed than employment, indicating an increase in labor productivity in manufacturing. During the crisis, employment fell following a decrease in value added.

Looking at the service sector, we observe an increase in labor productivity before the crisis, similar to the one in the manufacturing sector. During the crisis, value added in service decreases, while employment is stagnant. We think that this is extraordinary. The underlying reason could be that the added value of self-employed women, which increased during the crisis, are not reflected in national accounts. Other reasons need to be investigated. The value added index of the service sector has been consistently increasing since the first quarter of 2009. It increased from 113.1 to 141.6 (25 percent), while the employment index of the service sector increased from 111.7 to 129.8 percent (an increase by 16 percent). This indicates that labor productivity increased, just like it did before the crisis.

Developments in construction sector are very different from other sectors and very surprising indeed. Normally, we would expect a similar relationship in construction to the one in manufacturing. Hiring costs for unskilled workers employed in the construction sector are relatively low. When there is an increase in demand, employment may not decrease at best. However, if there is an increase in demand, it is not economically normal that employment increases. Obviously, there was an anomaly in the construction sector during the 2008-09 crisis. Value added in construction decreased continuously from the 3th quarter of 2007 to the 3th quarter of 2009. During this period, the value added index of the construction sector decreased from 129.2 to 95.6 (25.3 percent). We would expect a large negative impact on employment especially given that the contraction lasted for two years. However, construction employment increases slightly (1.4 percent) in this period. Consequently, employment index in the construction sector hovers above the value added index since the first quarter of 2009. Following this period, the value added index increased by 29 percent, while the employment index increased by 28 percent from the fourth quarter of 2009 to the third of 2012. In other words, negative productivity shock that happened during the crisis seems to be permanent rather than temporary, which obviously raises red flags. Also, while value added in construction has been stagnant during the past couple periods, there are sudden increases and decreases in employment.

Consequently, we think that there could be a measurement error in construction employment. Due to the small share of construction in overall employment (7 percent), this potential measurement error will not cause changes in the overall employment and unemployment figures. We still think that it would be a good idea for TUIK to look into employment series in construction more carefully.

Figure A Indices of sectoral growth and employment: 2005(1)-2012(3) (Seasonally adjusted, 2005(1)=100)



Source: Gross Domestic Product, Product Approach (Constant Prices Base 1998), Household Labor Force Survey ; TukStat, İndex Calculations; **Betam**

Table A Indices of sectoral growth and employment: 2005(1)-2012(3) (Seasonally adjusted, 2005(1)=100)

	Agricultural GDP	Manufacturing GDP	Construction GDP	Service GDP		Agricultural Employment	Manufacturing Employment	Construction Employment	Service Employment
2005(1)	100	100	100	100	2005(1)	100	100	100	100
2005(2)	99.2	97.9	99.8	100.9	2005(2)	97.2	101.6	97.5	100.5
2005(3)	98.5	101.9	102.8	103.0	2005(3)	91.5	103.7	99.0	103.1
2005(4)	97.5	105.4	106.4	105.8	2005(4)	89.1	104.7	100.1	105.4
2006(1)	98.5	107.1	113.6	107.9	2006(1)	86.7	103.4	104.8	105.4
2006(2)	100.4	109.8	119.5	111.2	2006(2)	88.6	103.0	104.2	107.1
2006(3)	99.5	111.5	124.1	110.7	2006(3)	90.1	106.2	107.1	107.0
2006(4)	102.5	112.0	127.0	111.6	2006(4)	90.1	107.5	114.4	108.7
2007(1)	98.5	115.6	127.1	116.0	2007(1)	90.0	105.4	107.4	110.0
2007(2)	97.7	114.6	128.0	116.2	2007(2)	88.8	107.0	109.0	109.5
2007(3)	85.2	116.9	129.2	118.5	2007(3)	87.6	105.6	117.0	110.9
2007(4)	96.7	117.4	127.5	120.1	2007(4)	85.9	106.7	110.0	109.8
2008(1)	101.4	120.9	124.8	123.1	2008(1)	87.4	110.3	113.6	110.4
2008(2)	98.0	119.5	121.4	122.0	2008(2)	91.2	110.4	113.3	111.8
2008(3)	95.5	116.6	116.8	120.2	2008(3)	92.0	110.3	109.8	112.8
2008(4)	98.2	106.8	109.1	116.5	2008(4)	92.5	105.3	108.7	112.2
2009(1)	100.5	99.7	101.7	113.1	2009(1)	90.6	100.6	112.8	111.7
2009(2)	100.7	106.3	96.0	116.0	2009(2)	92.8	97.3	112.9	112.7
2009(3)	102.3	111.9	95.6	119.6	2009(3)	96.2	100.0	118.6	114.6
2009(4)	101.8	115.7	102.0	122.5	2009(4)	99.4	103.3	124.5	115.0
2010(1)	102.6	118.4	109.9	124.0	2010(1)	102.0	107.4	122.7	116.2
2010(2)	104.0	121.7	115.9	125.4	2010(2)	100.8	110.1	127.9	117.8
2010(3)	103.3	121.3	118.8	126.0	2010(3)	102.5	110.8	128.2	116.9
2010(4)	105.2	129.4	122.3	135.1	2010(4)	105.8	113.5	135.5	117.4
2011(1)	107.0	134.2	126.1	137.1	2011(1)	111.4	115.7	141.1	121.0
2011(2)	109.2	132.2	130.7	137.3	2011(2)	108.9	117.3	150.5	121.9
2011(3)	111.0	133.6	131.3	139.9	2011(3)	112.0	114.9	161.0	123.7
2011(4)	111.5	135.9	131.2	142.6	2011(4)	111.4	114.6	148.8	127.3
2012(1)	109.0	135.2	130.9	140.9	2012(1)	108.9	116.4	138.3	128.2
2012(2)	112.0	138.0	131.1	142.1	2012(2)	110.5	116.8	155.8	129.4
2012(3)	117.0	135.1	131.7	141.6	2012(3)	109.5	116.4	159.5	129.8

Source: Gross Domestic Product, by Product Approach (Constant Prices 1998 Base), Household Labor Force Survey ; TukStat, İndex Calculations; **Betam**

Table 1 Seasonally adjusted non-agricultural labor force indicators (in thousands)

	Labor force	Employment	Unemployment	Unemployment rate	Monthly changes		
October-09	19649	16373	3277	16.7%	**Labor force**	**Employment**	**Unemployment**
November-09	19564	16395	3169	16.2%	-85	22	-108
December-09	19615	16495	3121	15.9%	51	100	-49
January-10	19667	16460	3207	16.3%	52	-35	87
February-10	19812	16634	3179	16.0%	145	174	-28
March-10	19933	16752	3181	16.0%	121	119	2
April-10	19830	16826	3004	15.2%	-103	74	-176
May-10	19895	16937	2958	14.9%	64	111	-46
June-10	19838	16948	2890	14.6%	-56	12	-68
July-10	19858	16980	2878	14.5%	20	32	-12
August-10	19852	16923	2929	14.8%	-6	-57	51
September-10	19781	16911	2870	14.5%	-71	-12	-59
October-10	19833	17002	2830	14.3%	52	91	-39
November-10	19883	17159	2724	13.7%	50	157	-106
December-10	19962	17265	2697	13.5%	79	106	-27
January-11	20102	17396	2706	13.5%	139	131	9
February-11	20230	17633	2596	12.8%	128	238	-109
March-11	20282	17704	2578	12.7%	52	70	-18
April-11	20468	17847	2621	12.8%	186	144	43
May-11	20549	17871	2678	13.0%	81	24	57
June-11	20671	17979	2692	13.0%	122	108	14
July-11	20646	18043	2603	12.6%	-25	64	-89
August-11	20594	18103	2491	12.1%	-52	60	-112
September-11	20578	18210	2368	11.5%	-16	107	-123
October-11	20545	18128	2417	11.8%	-33	-81	49
November-11	20607	18249	2358	11.4%	61	121	-60
December-11	20597	18258	2339	11.4%	-10	9	-19
January-12	20714	18384	2329	11.2%	117	126	-9
February-12	20672	18324	2349	11.4%	-42	-61	19
March-12	20789	18417	2372	11.4%	117	93	24
April-12	20926	18540	2386	11.4%	137	123	14
May-12	21015	18619	2396	11.4%	89	79	10
June-12	21083	18701	2382	11.3%	68	82	-14
July-12	21088	18675	2412	11.4%	5	-26	30
August-12	21170	18749	2421	11.4%	82	74	8
September-12	21436	18913	2524	11.8%	266	163	103
October-12	21615	19114	2501	11.6%	179	201	-22
November-12	21784	19221	2563	11.8%	169	107	62

Source: TurkStat, **Betam**

Table 2 Seasonally adjusted employment by sector (in thousands)

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
October-09	5451	4180	1353	10813				
November-09	5505	4225	1386	10789	54	44	33	-24
December-09	5576	4290	1405	10793	71	66	19	4
January-10	5674	4300	1381	10789	98	10	-24	-4
February-10	5663	4350	1372	10893	-11	50	-9	104
March-10	5618	4358	1424	10990	-46	8	52	96
April-10	5670	4400	1445	10995	52	42	21	5
May-10	5573	4473	1423	11048	-97	73	-22	53
June-10	5711	4526	1423	11005	138	53	0	-43
July-10	5680	4538	1470	10969	-31	12	47	-36
August-10	5660	4508	1416	11000	-20	-30	-54	31
September-10	5658	4475	1418	11015	-2	-33	2	15
October-10	5801	4490	1439	11051	143	15	22	36
November-10	5858	4645	1509	11012	56	155	70	-39
December-10	6030	4640	1550	11070	172	-5	41	58
January-11	6034	4676	1533	11185	4	36	-17	115
February-11	6189	4686	1577	11333	155	11	44	148
March-11	6201	4827	1601	11277	12	141	24	-56
April-11	6081	4814	1638	11399	-121	-14	37	121
May-11	6018	4765	1675	11445	-63	-48	37	46
June-11	6082	4692	1706	11601	64	-73	31	156
July-11	6106	4684	1717	11654	24	-9	11	53
August-11	6188	4680	1782	11666	82	-4	65	12
September-11	6133	4706	1786	11737	-55	26	4	71
October-11	6182	4672	1690	11761	49	-35	-95	24
November-11	6162	4684	1657	11911	-19	12	-33	151
December-11	6047	4698	1620	11925	-115	14	-37	14
January-12	6051	4702	1655	12016	4	5	35	90
February-12	6043	4714	1545	12006	-7	12	-110	-9
March-12	6030	4745	1561	12089	-14	31	16	83
April-12	6062	4760	1658	12113	33	16	97	24
May-12	6107	4743	1734	12156	45	-18	76	43
June-12	6040	4754	1764	12208	-68	11	30	52
July-12	6042	4753	1720	12216	3	-1	-44	7
August-12	6050	4751	1765	12267	8	-2	45	51
September-12	6159	4746	1794	12405	109	-5	29	138
October-12	6209	4759	1801	12562	50	13	8	158
November-12	6198	4797	1784	12645	-11	38	-17	83

Source: TurkStat, **Betam**