

## REVISION IN THE UNEMPLOYMENT SERIES

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### Abstract

Seasonally adjusted labor market data shows that non-agricultural unemployment rate decreased from 11.1 percent to 11.0 percent in the period of February 2014. We observed strong increases in both non-agricultural labor force and employment in this period. Seasonally adjusted labor market series show that employment increased in all sectors. Employment increases in manufacturing and construction sectors are especially interesting. On the other hand, key revisions in definitions of labor market series made by TurkStat have caused jumps in the series. Hence, in the next few periods, labor market series should be treated with caution.

### Revision in labor market series<sup>1</sup>

Turkstat has made key revisions in labor market series beginning February 2014. These revisions made labor market series compatible with the standards of European Union Statistics. Accordingly, the revisions can be broadly grouped into 5 categories: (i) change in reference week in the Household Labor Survey as each week of the survey year (ii) change in the sampling design (iii) change in rural/urban distribution based on the new administrative allocation (iv) change in job search process (it was decreased from 3 months to 1 month). Given the revisions, we observe certain breaks in the labor market series. This leads to major changes in especially sectoral employment series. Turkstat states that revisions to these new measurements in the labor market series take time to settle. Hence, short term fluctuations in the labor market should be treated with caution.

### Extraordinary increases in non-agricultural labor force and employment

According to the data released by TurkStat, non-agricultural labor force increased by 1 million 324 thousand (6.2 percent) and non-agricultural employment increased by 1 million 57 thousand (5.6 percent) in the period of February 2014 (Figure 1). Consequently, the number of persons unemployed in non-agricultural sectors decreased by 124 thousand. Increase in non-agricultural labor force is the highest observed during the last few years. Similarly, non-agricultural employment increased over 1 million.

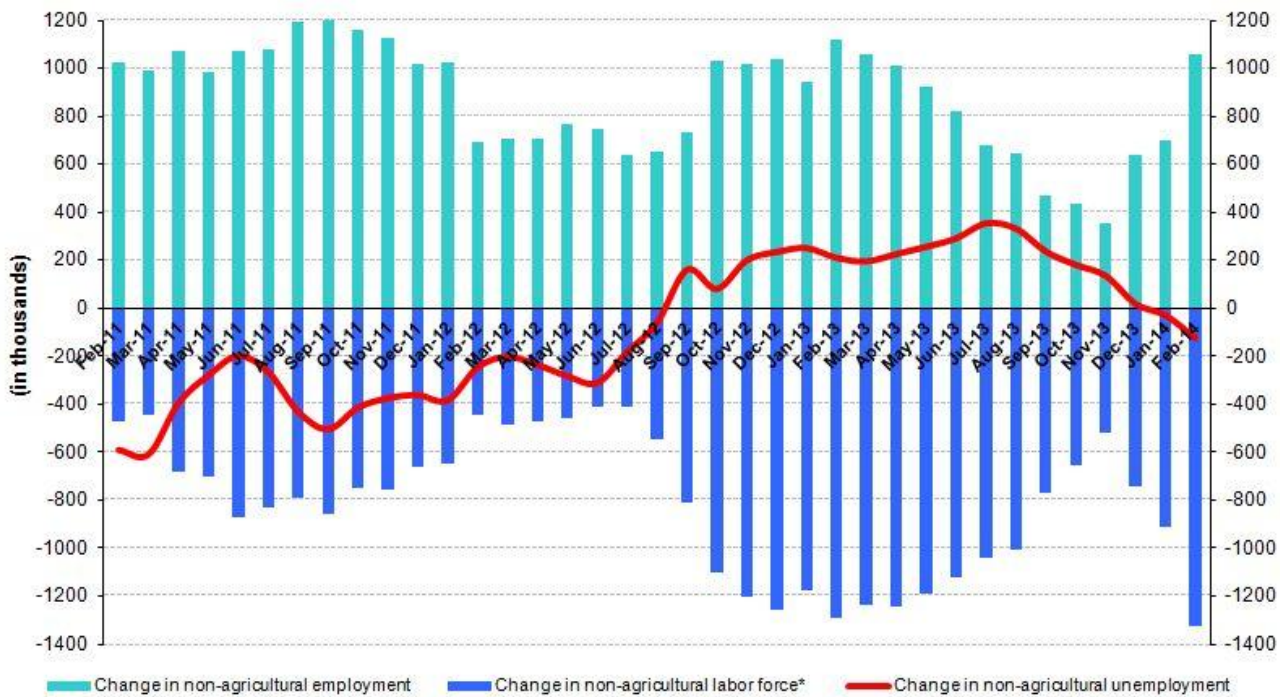
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<sup>1</sup> [http://www.tuik.gov.tr/HbGetir.do?id=16007&tb\\_id=6](http://www.tuik.gov.tr/HbGetir.do?id=16007&tb_id=6)

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



\* The change in labor force represented with a negative sign.

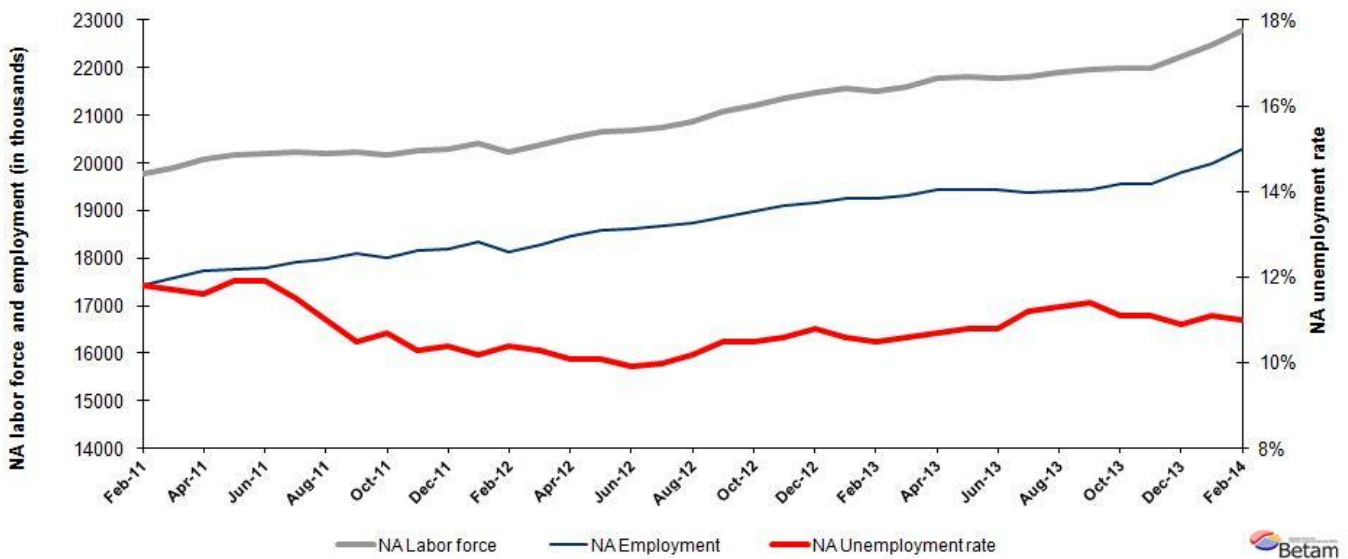


Source: TurkSTAT, **Betam**

**Non-agricultural unemployment decreased by 0.1 percentage point**

According to seasonally adjusted data, non-agricultural labor force increased by 293 thousand in the period of February 2014 compared to the period of January 2014, and reached 22 million 784 thousand (Figure 2, Table 1). Non-agricultural employment increased by 283 thousand and reached 20 million 278 thousand. Hence, the number of persons unemployed in non-agricultural sectors increased by 10 thousand and non-agricultural unemployment rate decreased from 11.1 percent in the period of January 2014 to 11.0 percent in the period of February 2014.

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



Source: TurkStat, **Betam**

## According to Kariyer.net data, non-agricultural unemployment might increase in the next period

Our calculations based on the seasonally adjusted application per vacancy statistics calculated using Kariyer.net series indicate that we accurately predicted the direction of unemployment for the last two periods.<sup>2</sup> The Kariyer.net series also indicates that non-agricultural unemployment might slightly increase in the period of March 2014.

Figure 3 Seasonally adjusted non-agricultural unemployment rate and application per vacancy



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

## Strong employment increase in manufacturing sector

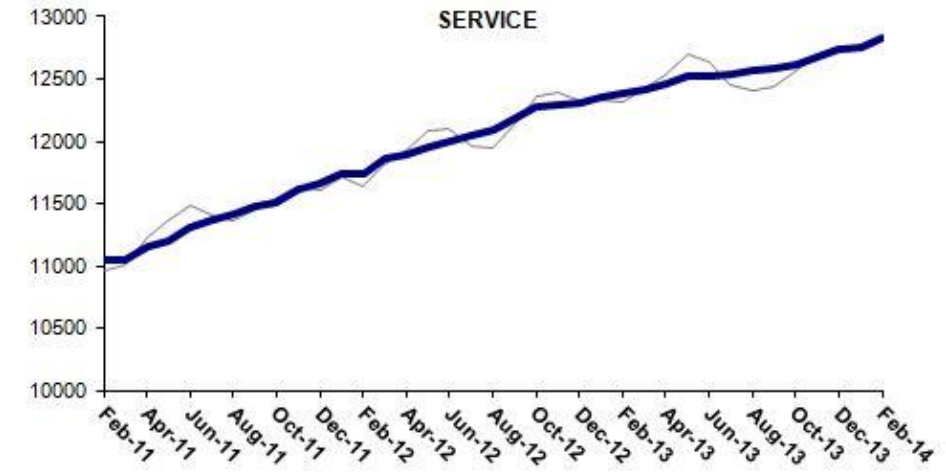
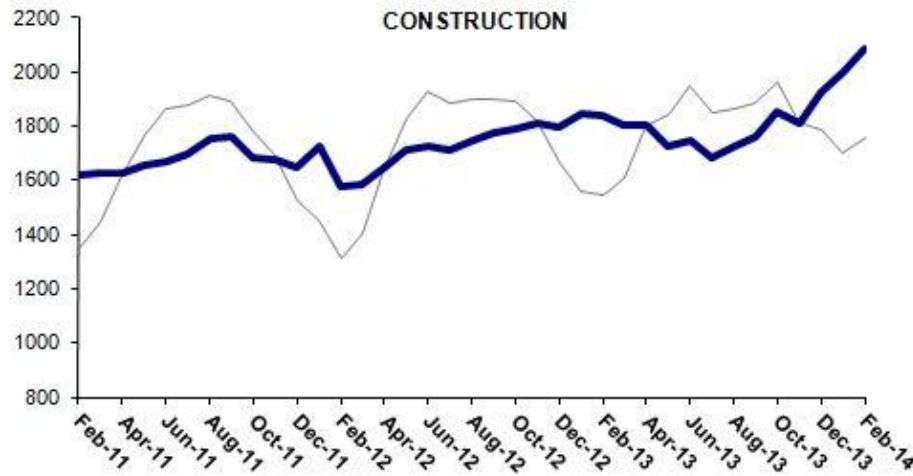
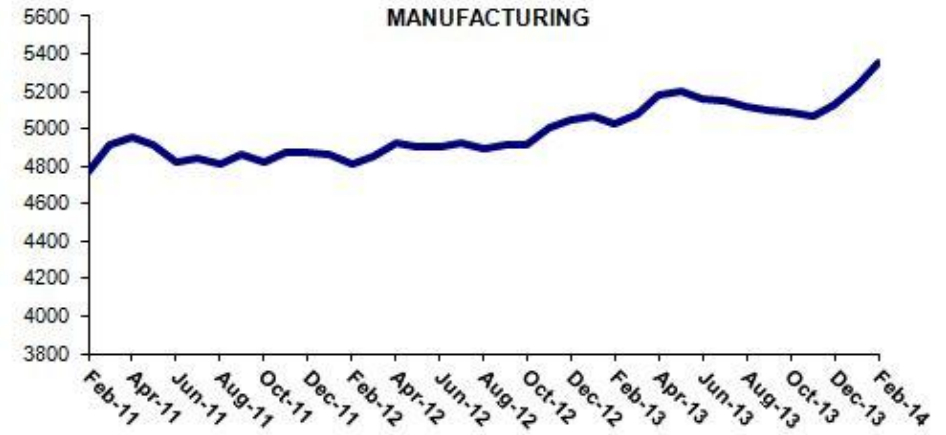
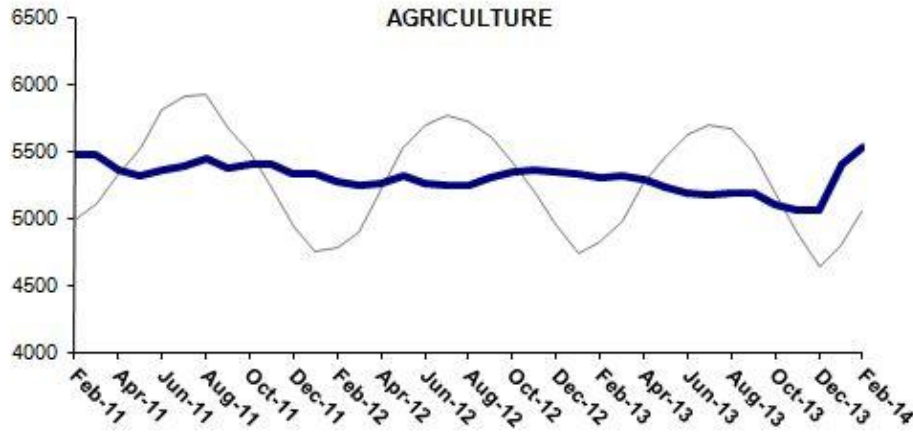
Seasonally adjusted labor market series show that employment in manufacturing sector increased by 127 thousand in the period of February 2014 (Table 2, Figure 4).<sup>3</sup> Employment in services continues to rise, amounting to 69 thousand in this period. Similarly, employment in construction sector increased consecutively during the last three periods, the rise being 86 thousand in this period.

On the other hand, agricultural employment increased by 347 thousand in the period of January 2014 and increased by 135 thousand in the period of February 2014. TurkStat states that the revision in rural/urban definition led to major changes in sectoral employment in rural areas.

<sup>2</sup> 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. Monthly labor market series released by TurkStat is the average of three months. Therefore, application per vacancy statistics calculated using Kariyer.net series is the average of three months as well.

<sup>3</sup> Employment in each sector is seasonally adjusted 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 4 Employment by sectors (in thousands)<sup>4</sup>



Source: TurkStat, Betam

<sup>4</sup> Grey lines indicate seasonally adjusted series, where dark blue lines represent raw data.

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

	Labor force	Employment	Unemployment	Unemployment rate	Monthly changes		
					Labor force	Employment	Unemployment
January-11	19767	17355	2412	12.2%			
February-11	19768	17435	2333	11.8%	1	80	-79
March-11	19909	17580	2329	11.7%	142	145	-3
April-11	20067	17739	2328	11.6%	157	159	-2
May-11	20160	17761	2399	11.9%	93	22	71
June-11	20202	17798	2404	11.9%	42	37	5
July-11	20237	17910	2327	11.5%	35	112	-77
August-11	20204	17982	2222	11.0%	-33	72	-105
September-11	20235	18110	2125	10.5%	30	128	-98
October-11	20176	18017	2159	10.7%	-59	-93	34
November-11	20255	18169	2086	10.3%	79	152	-73
December-11	20290	18180	2110	10.4%	35	11	24
January-12	20415	18333	2082	10.2%	125	153	-28
February-12	20237	18132	2105	10.4%	-179	-201	22
March-12	20387	18287	2100	10.3%	150	155	-5
April-12	20545	18470	2075	10.1%	158	183	-25
May-12	20659	18572	2087	10.1%	113	102	11
June-12	20675	18628	2047	9.9%	16	56	-40
July-12	20754	18679	2075	10.0%	80	51	29
August-12	20870	18741	2129	10.2%	115	62	53
September-12	21080	18867	2213	10.5%	211	126	85
October-12	21208	18981	2227	10.5%	127	114	13
November-12	21368	19103	2265	10.6%	160	122	38
December-12	21479	19159	2320	10.8%	111	56	55
January-13	21555	19270	2285	10.6%	76	111	-35
February-13	21506	19248	2258	10.5%	-49	-22	-27
March-13	21600	19310	2290	10.6%	93	62	31
April-13	21772	19442	2330	10.7%	172	132	40
May-13	21798	19444	2354	10.8%	27	2	25
June-13	21791	19438	2353	10.8%	-7	-6	-1
July-13	21814	19371	2443	11.2%	23	-67	90
August-13	21888	19415	2473	11.3%	74	44	30
September-13	21950	19448	2502	11.4%	62	33	29
October-13	22004	19562	2442	11.1%	54	114	-60
November-13	21994	19553	2441	11.1%	-10	-9	-1
December-13	22224	19802	2422	10.9%	230	249	-19
January-14	22492	19995	2497	11.1%	267	193	74
February-14	22784	20278	2506	11.0%	293	283	10

Source: TurkStat, **Betam**

**Table 2 Seasonally adjusted employment by sector (in thousands)**

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
January-11	5373	4819	1576	10959				
February-11	5474	4767	1618	11050	101	-52	42	91
March-11	5469	4914	1625	11041	-5	147	7	-9
April-11	5361	4958	1630	11151	-108	44	5	110
May-11	5315	4915	1653	11193	-46	-43	23	42
June-11	5364	4826	1669	11302	49	-89	16	109
July-11	5380	4846	1696	11367	16	20	27	65
August-11	5441	4816	1758	11409	61	-30	62	42
September-11	5373	4866	1763	11481	-68	50	5	72
October-11	5407	4823	1683	11511	34	-43	-80	30
November-11	5401	4870	1676	11623	-6	47	-7	112
December-11	5326	4873	1648	11660	-75	3	-28	37
January-12	5332	4864	1723	11745	6	-9	75	85
February-12	5278	4808	1578	11746	-54	-56	-145	1
March-12	5243	4850	1584	11854	-35	42	6	108
April-12	5263	4930	1649	11890	20	80	65	36
May-12	5310	4908	1713	11952	47	-22	64	62
June-12	5252	4900	1725	12002	-58	-8	12	50
July-12	5249	4926	1711	12042	-3	26	-14	40
August-12	5240	4892	1751	12098	-9	-34	40	56
September-12	5305	4911	1776	12179	65	19	25	81
October-12	5347	4917	1789	12275	42	6	13	96
November-12	5357	5003	1810	12290	10	86	21	15
December-12	5341	5051	1798	12310	-16	48	-12	20
January-13	5329	5073	1847	12350	-12	22	49	40
February-13	5300	5023	1842	12383	-29	-50	-5	33
March-13	5312	5083	1806	12421	12	60	-36	38
April-13	5292	5176	1807	12459	-20	93	1	38
May-13	5234	5200	1728	12516	-58	24	-79	57
June-13	5184	5163	1746	12529	-50	-37	18	13
July-13	5178	5146	1684	12541	-6	-17	-62	12
August-13	5192	5117	1727	12571	14	-29	43	30
September-13	5187	5096	1765	12586	-5	-21	38	15
October-13	5102	5090	1856	12616	-85	-6	91	30
November-13	5063	5064	1809	12680	-39	-26	-47	64
December-13	5051	5131	1927	12744	-12	67	118	64
January-14	5398	5232	2004	12759	347	101	77	15
February-14	5533	5359	2090	12828	135	127	86	69

Source: TurkStat, **Betam**