

## SEVERE INCREASE IN UNEMPLOYMENT

Seyfettin Gürsel\* Melike Kökkızıl\*\* and Selin Köksal \*\*\*

### Executive Summary

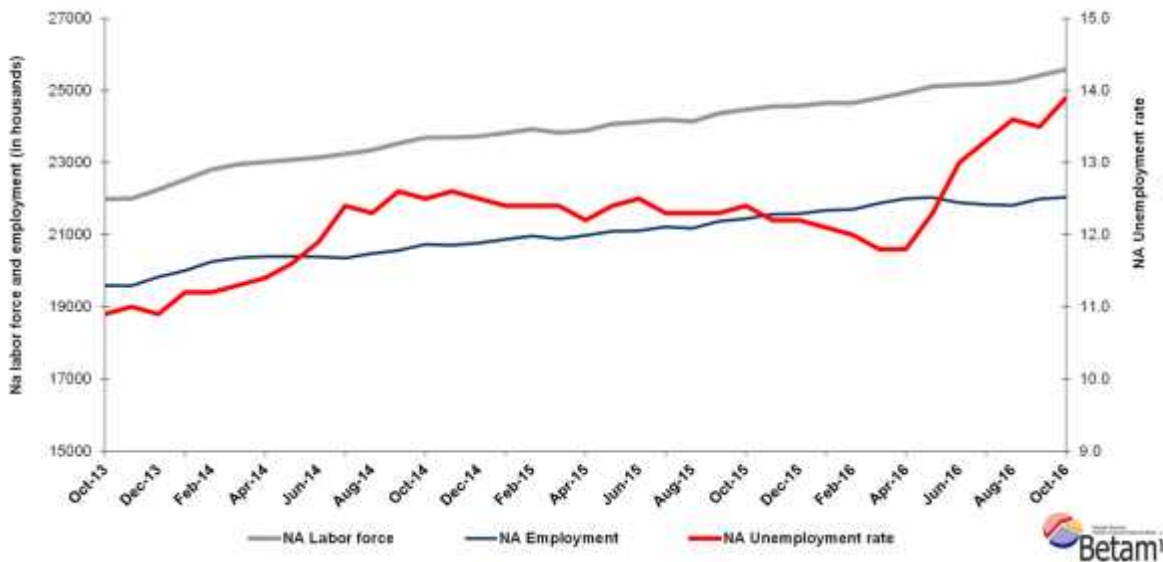
Seasonally adjusted labor market data show that nonagricultural unemployment rate increased by 0.4 points and reached 13.9 percent in the period of October 2016. The unemployment rate has been following an increase trend since May; however, it showed a limited decline in the previous period. In the period of October 2016, the number of people employed in agriculture, and construction declined by 69 thousand and 42 thousand whereas the number of people employed in industry and service sectors increased by 22 and 66 thousand, respectively. Parallel to these developments, nonagricultural labor force increased by 172 thousand and reached 25 million 592 thousand while the number of people employed in non-agricultural sectors grew by 46 thousand and increased to 22 million 35 thousand. As a result, the number of non-agricultural unemployed increased by 126 thousand and reached 3 million 557 thousand. Betam's forecasting model predicts that the non-agricultural unemployment will remain constant at 13,9 percent level in the period of November.

### Strong increase in non-agricultural unemployment

According to the seasonally adjusted labor market data, nonagricultural labor force increased by 172 thousand and reached 25 million 592 thousand while nonagricultural employment increased 46 thousand and reached 22 million 35 thousand compared to the period of September 2016 (Figure 1,

Table 1). The number of people unemployed in nonagricultural sectors increase 126 thousand and nonagricultural unemployment rate reached 13.9 percent. We observe a strong increase in the number of unemployed due to the weak increase in the non-agricultural employment.

**Figure 1 Seasonally adjusted non-agricultural labor force, employment, and unemployment**



\*Prof. Dr. Seyfettin Gürsel, Betam, Director, seyfettin.gursel@eas.bau.edu.tr

\*\*Melike Kökkızıl, Betam, Research Assistant, melike.kokkizil@eas.bau.edu.tr

\*\*\* Selin Köksal, Betam, Research Assistant, selin.koksal@eas.bau.edu.tr

Source: Turkstat, Betam

## Nonagricultural unemployment rate is expected to remain constant in the period of November

Betam's forecasting model had predicted that the seasonally adjusted nonagricultural unemployment rate would increase by 0.1 points and reach 13.6 percent level in October 2016. With 0.3 percentage point more than our forecast, non-agricultural unemployment rate in the period of October 2016 realized as 13.9 percent. Betam's forecasting model predicts the seasonally adjusted November 2016 nonagricultural unemployment will remain constant at 13.9 percent level. Forecasting model details are available on Betam's website.<sup>1</sup> Kariyer.net<sup>2</sup> application per vacancy series used in the Betam forecasting model is depicted in **Error! Reference source not found.** Kariyer.net series is only one of the inputs of Betam forecast model. Indeed, several variables such as employment agency (İŞKUR) data, reel sector confidence index, capacity utilization rate are used in forecasting. Taken into account all these factors, Betam's forecasting model predicts that seasonally adjusted nonagricultural unemployment rate will remain constant in the period of November 2016.

Figure 2 Seasonally adjusted nonagricultural unemployment rate and application per vacancy



Source: Kariyer.net, Turkstat, Betam

## Employment losses in agriculture and construction sectors

According to seasonally adjusted sectoral labor market data, the number of people employed in agriculture, and construction declined by 69 thousand and 42 thousand, respectively. On the other hand, the number of people employed in industry and service sectors increased by 22 and 66 thousand, respectively (Figure 3, Table 2).<sup>3</sup> We observe a slight recovery in services employment with a 66 thousand increase. Moreover, employment losses in

<sup>1</sup> For detailed information on Betam's forecasting model, please see Betam Research Brief 168 titled as "Kariyer.net Verisiyle Kısa Vadeli Tarım Dışı İşsizlik Tahmini"

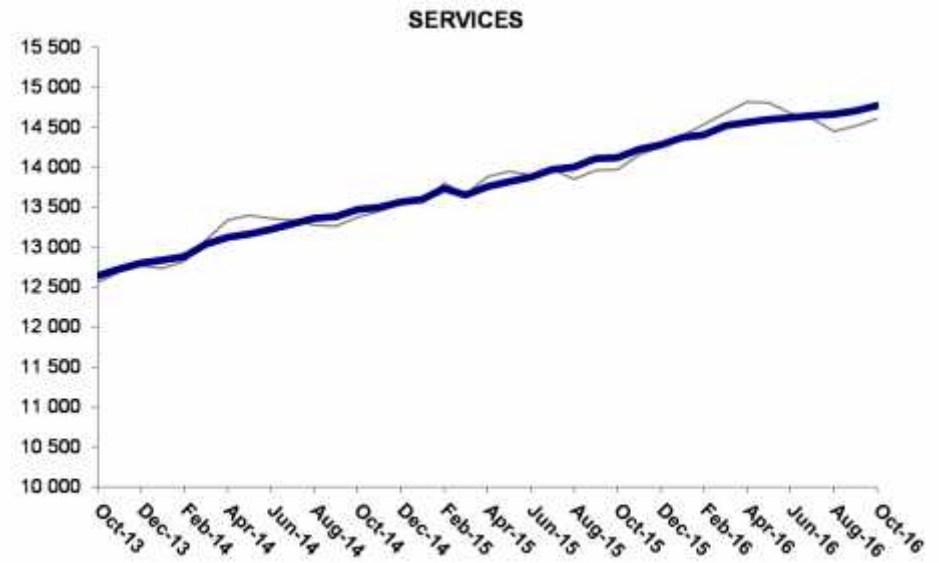
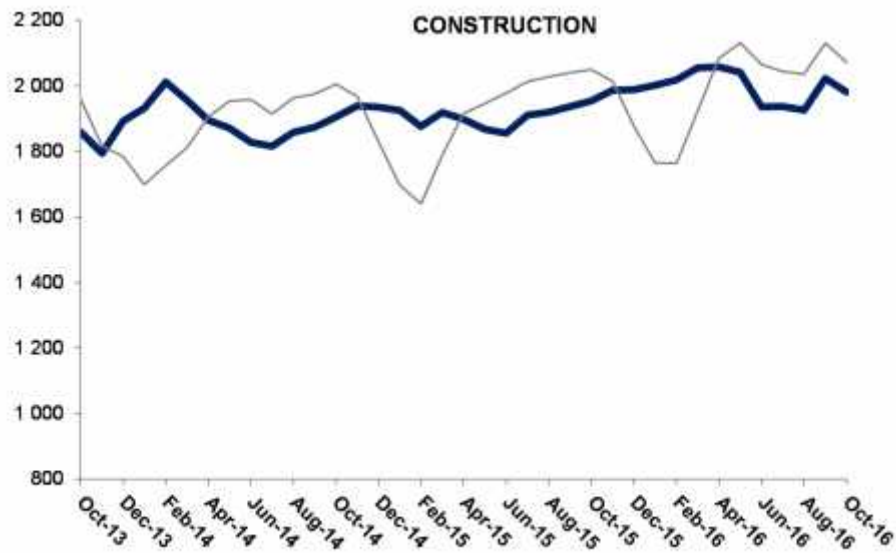
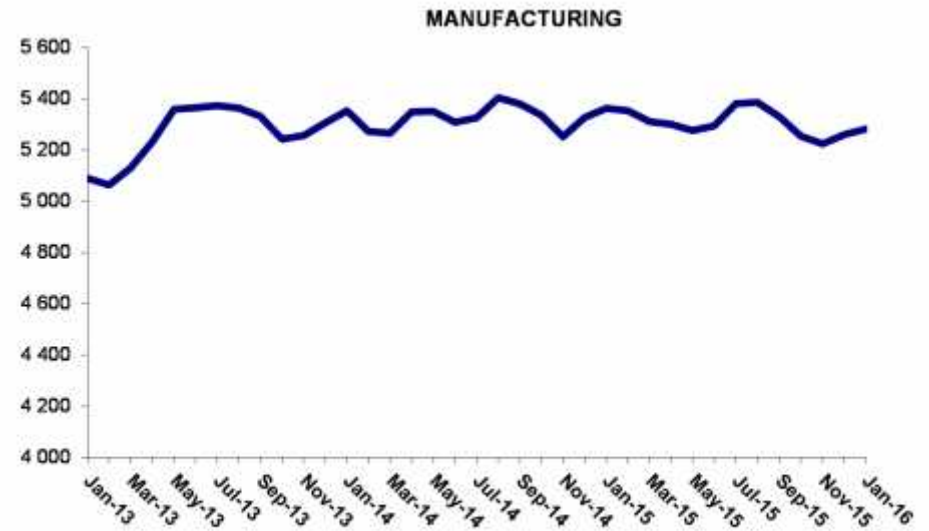
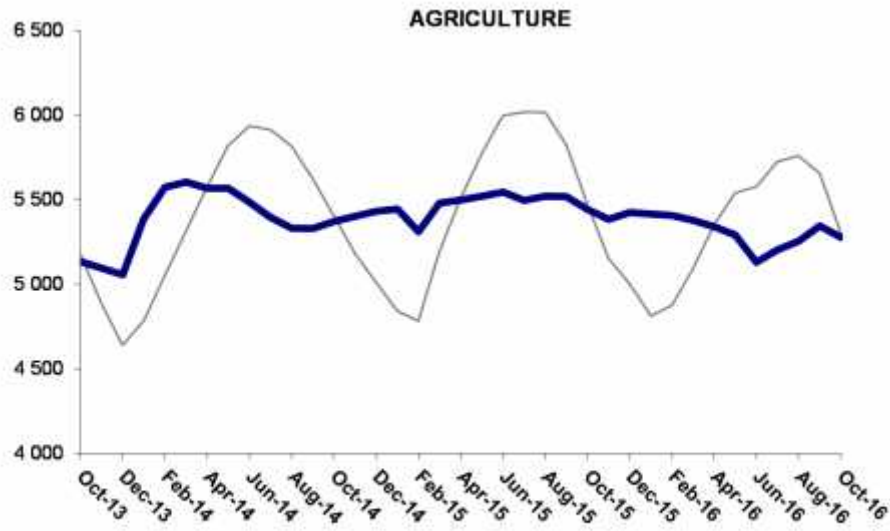
<http://betam.bahcesehir.edu.tr/tr/2014/06/kariyer-net-verisiyle-kisa-vadeli-tarim-disi-issizlik-tahmini/>

<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.

industry sector that occurred in last four periods stopped in October 2016. After having recorded a strong employment increase in the previous period, construction sector faced with employment losses in this period.

Figure 3 Employment by sectors (in thousands)

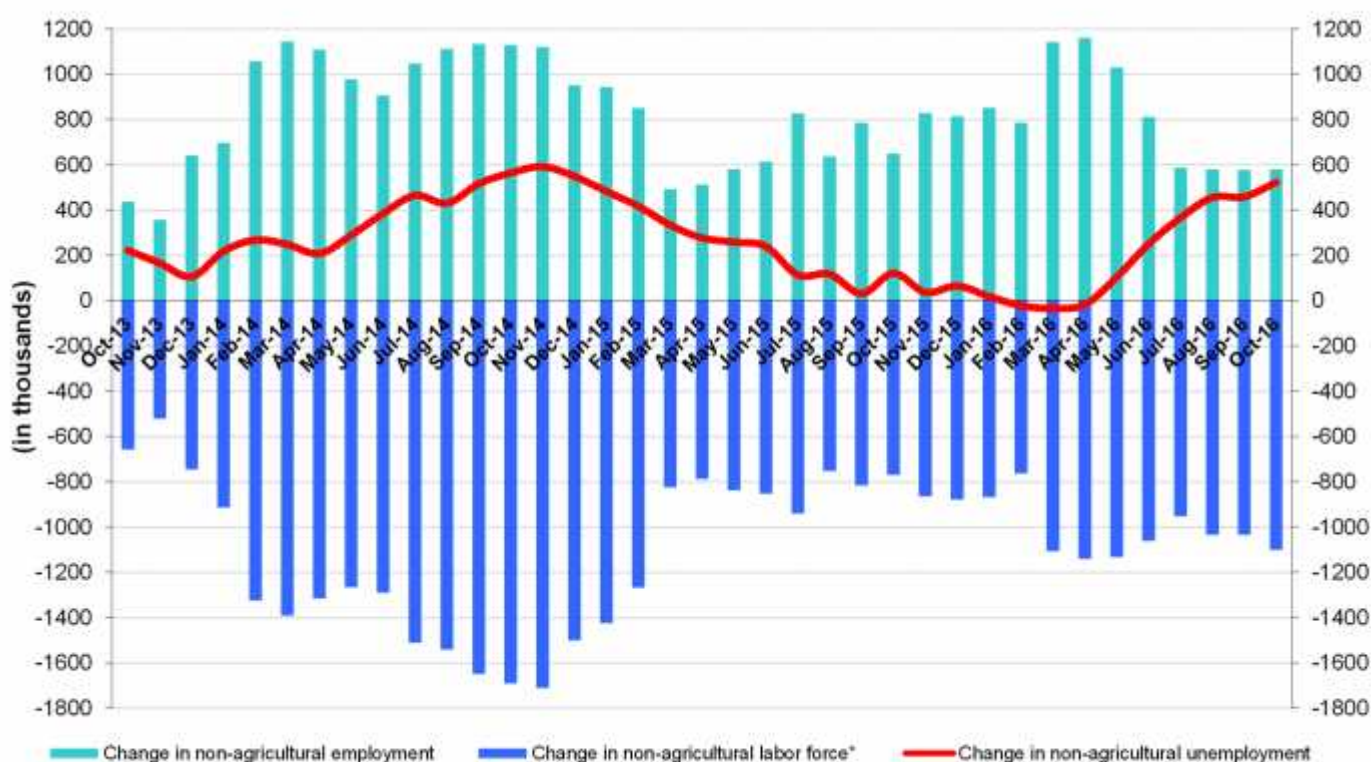


Source: Turkstat, Betam

## Strong increase in year-on-year unemployment persists

From October 2015 to October 2016 the nonagricultural labor force increased by 1 million 101 thousand (4.5 percent) and nonagricultural employment increased by 579 thousand (2.7 percent) (Figure 4). Thus, the number of non-agricultural unemployed increased by 522 thousand (15.2 percent) in the period of October 2016. As expected, the annual increase in non-agricultural employment has slowed down. Moreover, the annual increase in non-agricultural labor force is over 1 million. Parallel to these developments, the number of unemployed people in non-agricultural sectors increased from 3 million 83 thousand to 3 million 605 thousand in the period of October 2015-October 2016.

**Figure 4 Year-on-year changes in non-agricultural labor force, employment, and unemployment**



Source: Turkstat, Betam

## Strong increase in female labor force

Turkstat revised the labor market statistics drastically in February 2014. Within this framework, they back casted various labor market indicators and they also continued to announce seasonally adjusted series. However, Turkstat is not providing back-casted series by gender. Therefore, female and male labor market statistics are not sufficiently long for the seasonal adjustment procedures. Under these circumstances, we use the year-on-year changes in male and female labor market statistics to study the latest developments in the labor market. Figure 5 shows yearly non-agricultural employment (dark colors), non-agricultural labor force (light colors) for males (green) and for females (purple).

**Figure 5 Year-on-year changes in nonagricultural labor force and employment by gender**



Source: Turkstat, Betam

In October 2016, nonagricultural female labor force and nonagricultural male labor force increased by 661 thousand and 433 thousand respectively compared to October 2015. On the other hand, nonagricultural female employment increased by 318 thousand whereas the increase in nonagricultural male employment was limited to 261 thousand. The number of non-agricultural unemployed women and men increased by 343 thousand and 172 thousand, respectively. Compared to October 2015, the non-agricultural male unemployment rate grew from 10.5 percent to 11.2 percent and the non-agricultural female unemployment rate rose from 18.0 percent to 21.0 percent. We would like to note that, the yearly increase in female labor force in the period of October 2016 is the peak point of yearly increases occurred in the last year.



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

	Labor force	Employment	Unemployment	Unemployment rate	Monthly changes		
					Labor force	Employment	Unemployment
September-13	5843	5189	654	11.2%			
October-13	5848	5193	655	11.2%	5	4	1
November-13	5761	5133	628	10.9%	-87	-60	-27
December-13	5726	5096	630	11.0%	-35	-37	2
January-14	5675	5056	619	10.9%	-51	-40	-11
February-14	6068	5388	680	11.2%	393	332	61
March-14	6276	5573	703	11.2%	208	185	23
April-14	6319	5605	714	11.3%	43	32	11
May-14	6283	5567	716	11.4%	-36	-38	2
June-14	6299	5568	731	11.6%	15	1	14
July-14	6226	5485	741	11.9%	-73	-83	10
August-14	6160	5396	764	12.4%	-66	-89	23
September-14	6079	5331	748	12.3%	-81	-65	-16
October-14	6097	5329	768	12.6%	19	-2	21
November-14	6138	5371	767	12.5%	41	42	-1
December-14	6181	5402	779	12.6%	42	31	11
January-15	6207	5431	776	12.5%	26	29	-3
February-15	6216	5445	771	12.4%	9	14	-5
March-15	6063	5311	752	12.4%	-153	-134	-19
April-15	6256	5480	776	12.4%	193	169	24
May-15	6262	5498	764	12.2%	6	18	-12
June-15	6303	5521	782	12.4%	41	23	18
July-15	6337	5545	792	12.5%	35	24	11
August-15	6267	5496	771	12.3%	-70	-49	-21
September-15	6294	5520	774	12.3%	27	24	3
October-15	6293	5519	774	12.3%	-1	-1	0
November-15	6213	5443	770	12.4%	-80	-76	-4
December-15	6132	5384	748	12.2%	-81	-59	-22
January-16	6179	5425	754	12.2%	47	41	6
February-16	6160	5415	745	12.1%	-18	-10	-8
March-16	6143	5406	737	12.0%	-17	-9	-8
April-16	6099	5379	720	11.8%	-45	-27	-18
May-16	6056	5341	715	11.8%	-43	-38	-5
June-16	6034	5292	742	12.3%	-21	-49	28
July-16	5897	5130	767	13.0%	-138	-162	24
August-16	6001	5203	798	13.3%	105	73	32
September-16	6082	5255	827	13.6%	81	52	29
October-16	6180	5346	834	13.5%	98	91	7

Source: Turkstat, Betam

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

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
September-13	5193	5096	1781	12605				
October-13	5133	5090	1859	12643	-60	-6	78	38
November-13	5096	5064	1794	12727	-37	-26	-65	84
December-13	5056	5131	1893	12804	-40	67	99	77
January-14	5388	5232	1932	12839	332	101	39	35
February-14	5573	5359	2012	12883	185	127	80	44
March-14	5605	5365	1957	13038	32	6	-55	155
April-14	5567	5373	1895	13123	-38	8	-62	85
May-14	5568	5364	1871	13164	1	-9	-24	41
June-14	5485	5332	1828	13226	-83	-32	-43	62
July-14	5396	5243	1816	13295	-89	-89	-12	69
August-14	5331	5257	1858	13361	-65	14	42	66
September-14	5329	5306	1874	13385	-2	49	16	24
October-14	5371	5353	1905	13473	42	47	31	88
November-14	5402	5273	1939	13500	31	-80	34	27
December-14	5431	5266	1935	13565	29	-7	-4	65
January-15	5445	5349	1925	13600	14	83	-10	35
February-15	5311	5351	1876	13735	-134	2	-49	135
March-15	5480	5308	1919	13654	169	-43	43	-81
April-15	5498	5326	1898	13757	18	18	-21	103
May-15	5521	5404	1867	13820	23	78	-31	63
June-15	5545	5380	1856	13875	24	-24	-11	55
July-15	5496	5336	1911	13974	-49	-44	55	99
August-15	5520	5252	1920	14004	24	-84	9	30
September-15	5519	5327	1937	14110	-1	75	17	106
October-15	5443	5363	1954	14123	-76	36	17	13
November-15	5384	5353	1987	14226	-59	-10	33	103
December-15	5425	5311	1988	14282	41	-42	1	56
January-16	5415	5300	2002	14372	-10	-11	14	90
February-16	5406	5276	2018	14407	-9	-24	16	35
March-16	5379	5295	2055	14522	-27	19	37	115
April-16	5341	5381	2058	14563	-38	86	3	41
May-16	5292	5386	2042	14601	-49	5	-16	38
June-16	5130	5330	1936	14623	-162	-56	-106	22
July-16	5203	5254	1937	14646	73	-76	1	23
August-16	5255	5224	1926	14665	52	-30	-11	19
September-16	5346	5260	2023	14706	91	36	97	41
October-16	5277	5282	1981	14772	-69	22	-42	66

Source: Turkstat, Betam