

DROP IN EMPLOYMENT AND LABOR FORCE RESULTED IN LIMITED DECREASE IN UNEMPLOYMENT

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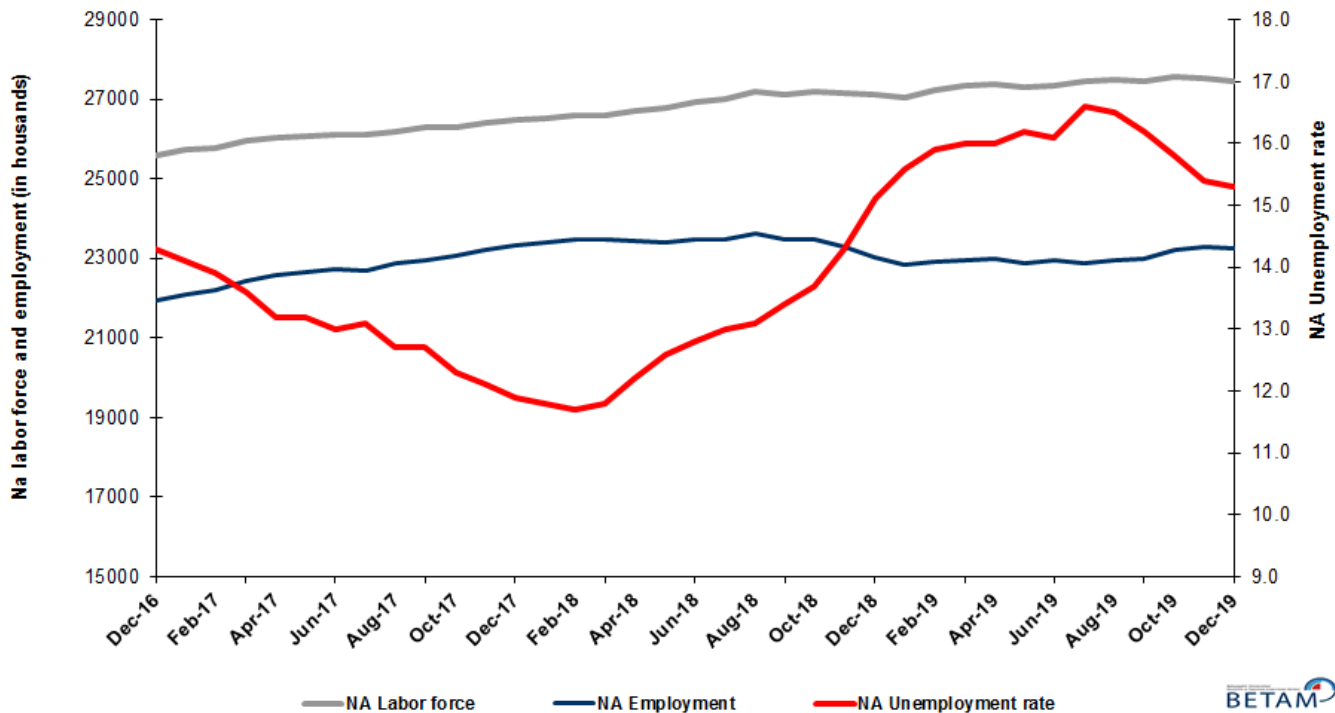
Executive Summary

Seasonally adjusted labor market data shows that in the period of December 2019, non-agricultural unemployment rate turned out to be 15.3 percent, with 0.1 percentage point decrease compared to November 2019. In this period, non-agricultural employment decreased by 40 thousand while non-agricultural labor force decreased by 80 thousand. According to sectorial data, employment losses occurred in all sectors except construction. While construction employment increased by 25 thousand, manufacturing employment and services employment decreased by 59 thousand and 6 thousand, respectively. Based on the seasonally adjusted data, while male non-agricultural unemployment rate continued to decrease, female non-agricultural unemployment rate remained unchanged.

Decreases in all non-agricultural labor market indicators

Seasonally adjusted data shows that, non-agricultural labor force reached 27 million 443 thousand after the decrease of 80 thousand in November 2019, while non-agricultural employment reached 23 million 244 thousand following an increase of 40 thousand (Figure 1, Table 1). Thus, labor force decreased for the tenth time over the last thirty six period (December 2016- December 2019), and employment decreased for the thirteenth time over the same period. As a result of the developments in labor force and employment, non-agricultural unemployment decreased by 40 thousand and reached 4 million 199 thousand, and non-agricultural unemployment rate dropped to 15.3 percent.

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



Source: Turkstat, Betam

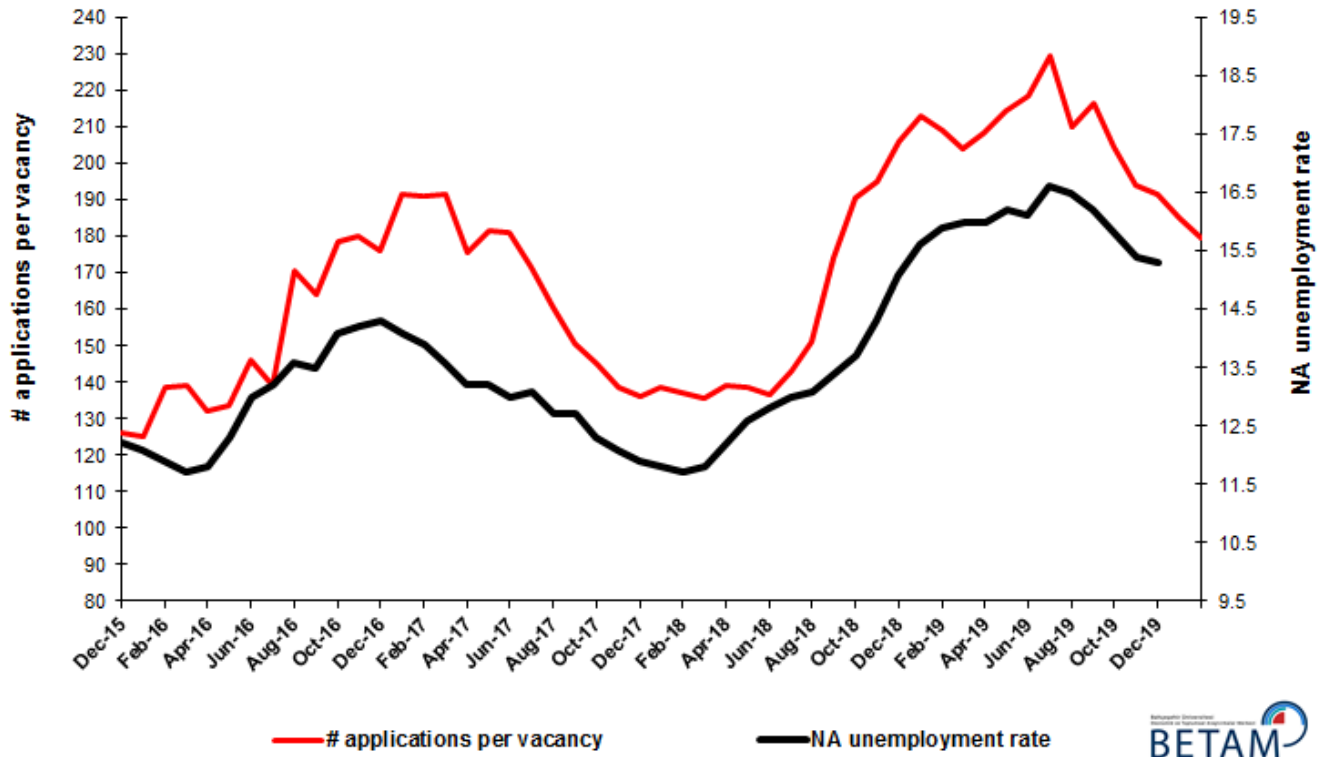
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Unemployment rate is expected to decrease in January 2020

Betam's forecasting model had predicted that non-agricultural unemployment rate would be 15.3 for December 2019, and non-agricultural unemployment rate occurred as 15.3 percent, in line with the forecast. Our forecasting model predicts a decrease of 0.3 percentage point in non-agricultural unemployment to 15.0 percent in January 2020. Forecasting model details are available on Betam's website.¹ Kariyer.net² application per vacancy series used in the Betam forecasting model is depicted in Figure 3. 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.

Figure 2 Seasonally adjusted non-agricultural unemployment rate and application per vacancy



Source: Kariyer.net, Turkstat, Betam

Employment losses in all sectors except construction

According to seasonally adjusted sectorial labor market data, in the period of December 2019 compared to November 2019, employment losses occurred in all sectors except construction (Figure 3, Table 2).³ After the increase of 41 thousand in November 2019, employment in agriculture sector decreased by 96 thousand. Following the decrease of 8 thousand in November 2019, the number of employed in services sector decreased by 6 thousand. Employment in construction sector increased by 25 thousand. It is worth to note that the employment increase reached 72 thousand in the last 4 months. This might signal that the sizable employment losses in this sector is over. On the other hand, the number of employed people in manufacturing sector decreased by 59 thousand in the period of December 2019 while the increase had reached 212 thousand in the previous two months.

¹ 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". For the innovations in the model please see Betam Research Brief 14 titled as "Mevsim Etkilerinden Arındırılmış İşsizlik Tahmini".

Soybilgen, B., "Kariyer.net Verisiyle Kısa Vadeli Tarım Dışı İşsizlik Tahmini", Betam Research Brief 168.

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

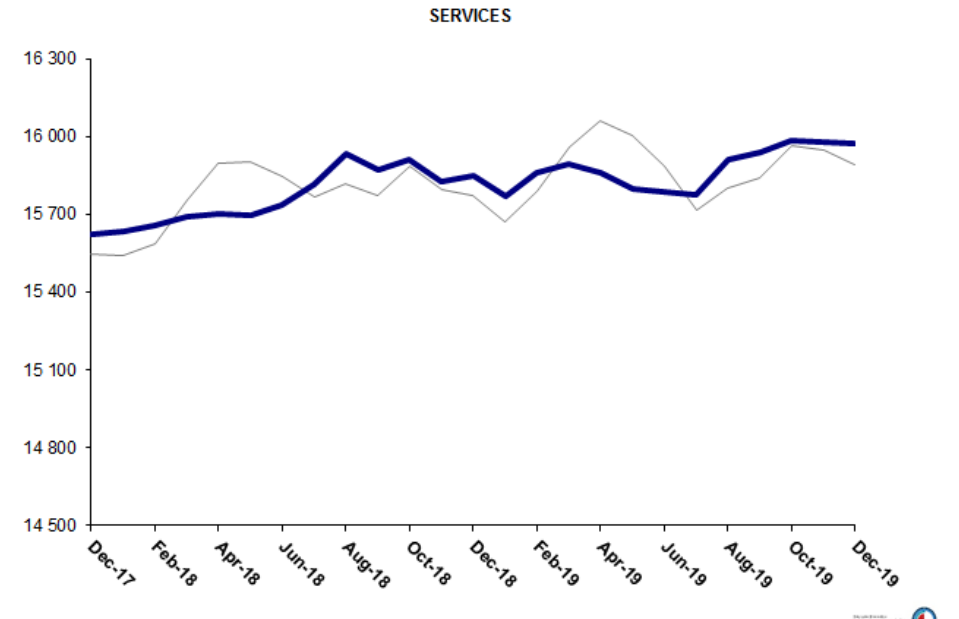
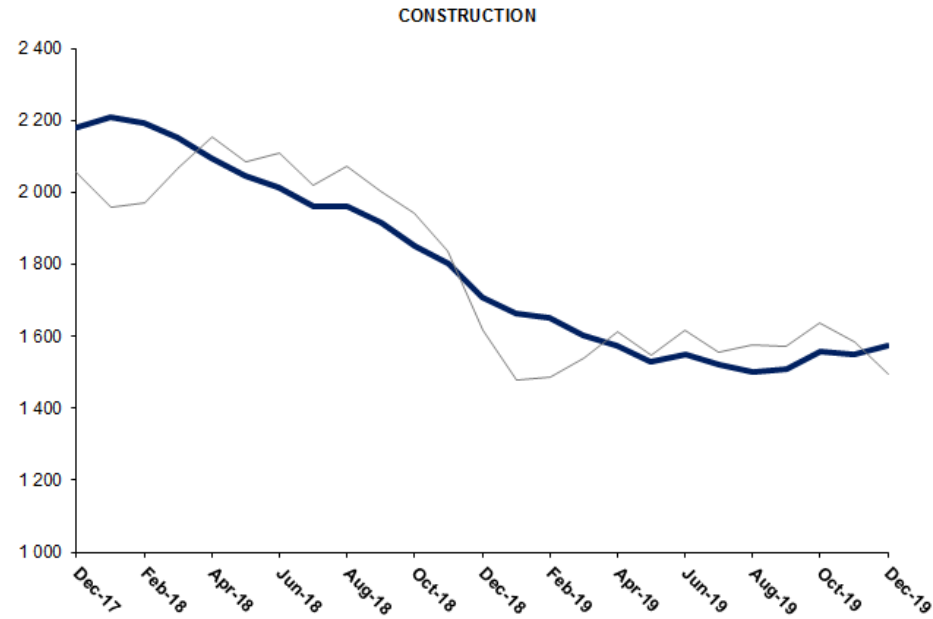
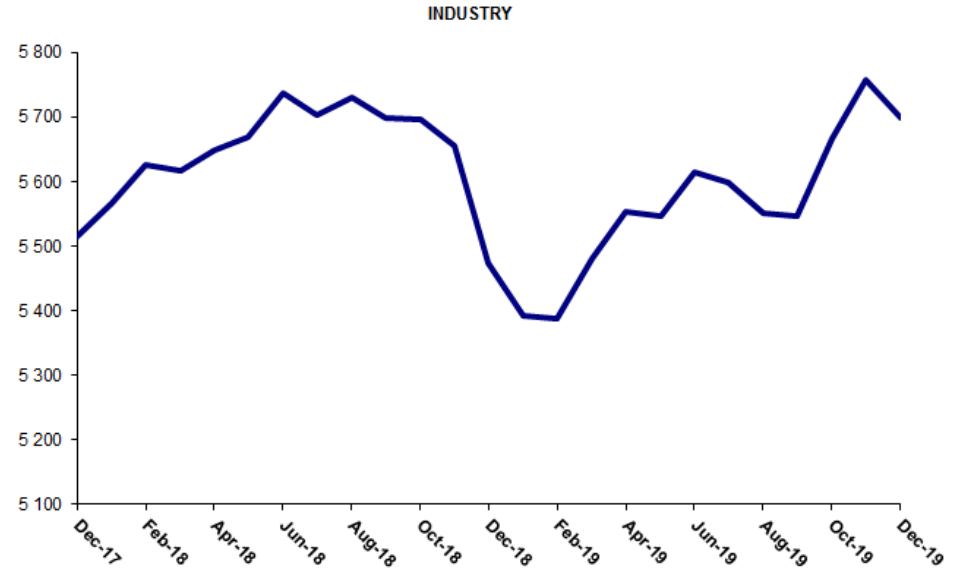
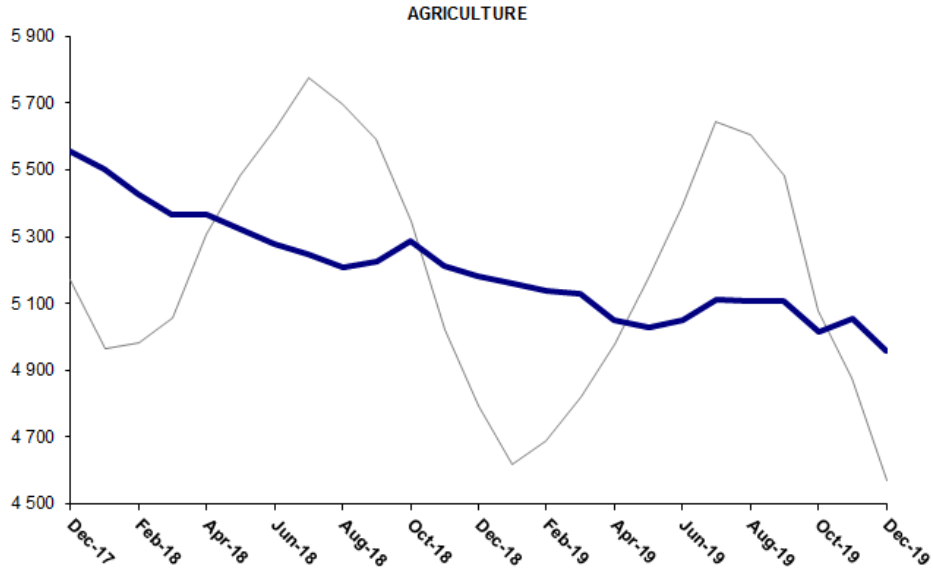
Soybilgen, B., "Mevsim Etkilerinden Arındırılmış İşsizlik Tahmini", Betam Research Brief 14

<http://betam.bahcesehir.edu.tr/2015/08/mevsim-etkilerinden-arindirilmis-tarim-disi-issizlik-tahmini/>

² 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.

³ 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 3: Employment by sectors (in thousand)

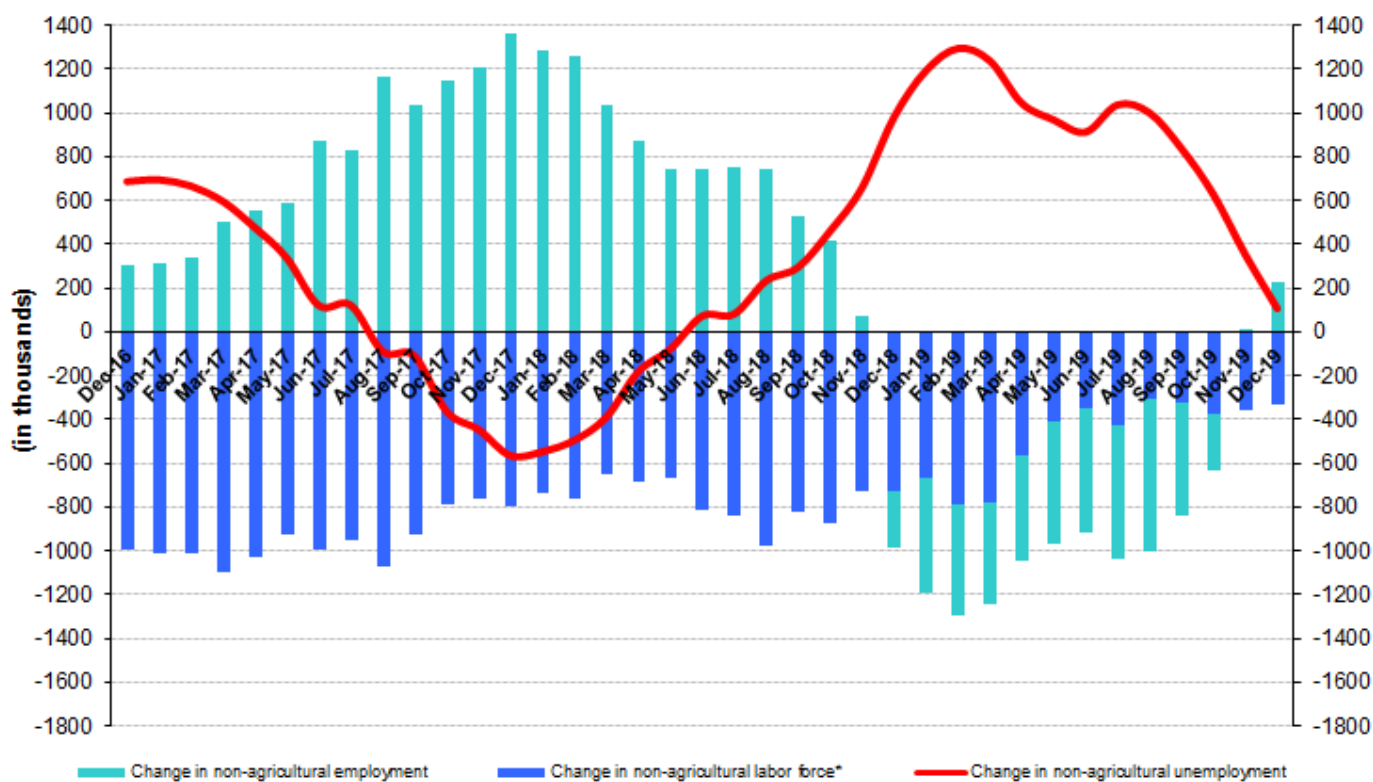


Source: TURKSTAT, Betam

Limited year-on-year increases in labor force and employment

Compared to December 2018, non-agricultural labor force increased by 335 thousand (1.2 percent) and non-agricultural employment increased by 228 thousand (1 percent) (Figure 4). The annual growth rate of labor force marked its third lowest level over the period of January 2006-December 2019. The two previous cases were observed in November 2007 (0.9 percent) and August 2019 (1.1 percent). Year-on-year non-agricultural employment increased (228 thousand) markedly for the first time since November 2018. As a result of that, the number of non-agricultural unemployed increased by 107 thousand.

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



Source: TURKSTAT, Betam

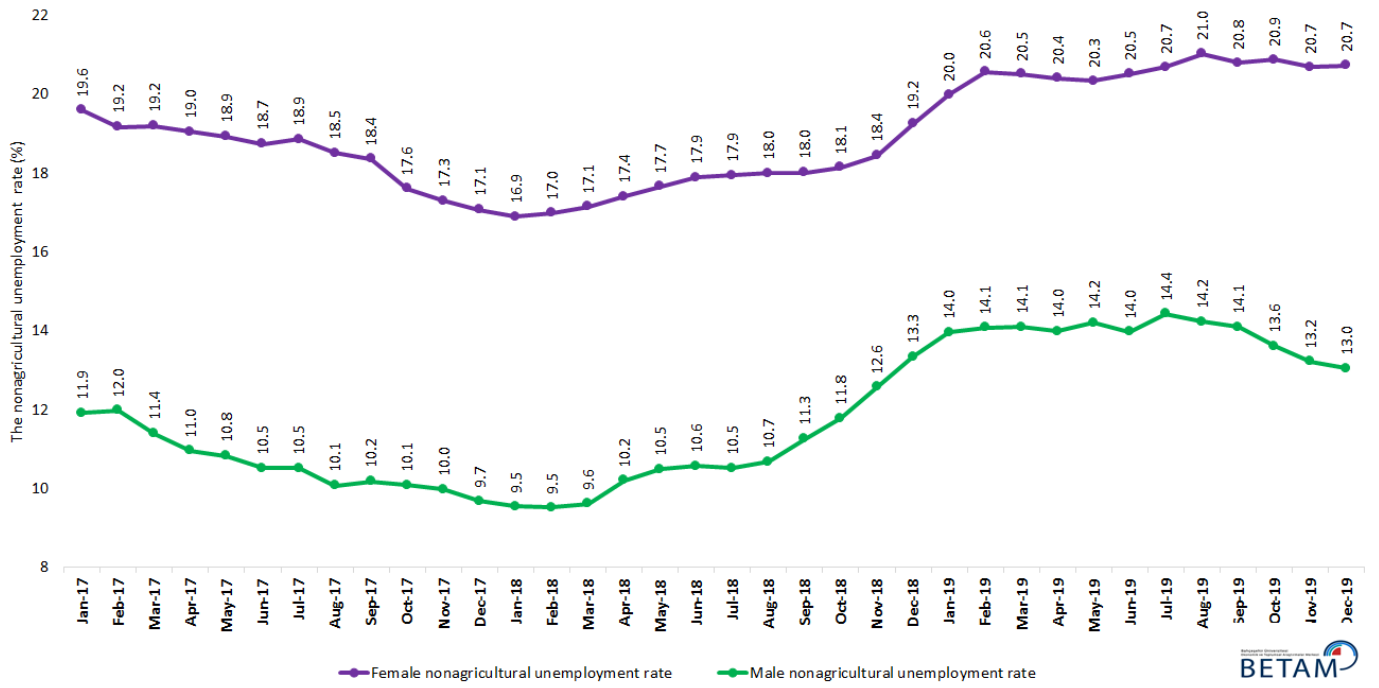
Unemployment decreased for males but remained unchanged for females

Figure 5 shows seasonally adjusted non-agricultural unemployment rate for males (green) and for females (purple)⁴. In the period of December 2019, compared to the previous month, female non-agricultural unemployment rate remained unchanged and stood at 20.7 percent, while male non-agricultural unemployment rate decreased by 0.2 percentage points to 13.0 percent. As a result, the gender gap in non-agricultural unemployment rates increased from 7.5 percent to 7.7 percent.

Along with the decrease of 16 thousand in female non-agricultural employment, female non-agricultural labor force decreased by 16 thousand. Male employment increased by 72 thousand and male labor force increased by 45 thousand (Table 3). Since December 2018, male labor force and female labor force increased by 259 thousand and 63 thousand respectively. It is noteworthy that growth rate of overall labor force is positive but below its structural trend and female labor force nearly stopped to grow.

⁴ 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 (There should be minimum 36 observations). With the announcement of the period of February 2017 data, the number of observations required for the seasonal decontamination process was provided. From this period Betam generated seasonal adjustment series in terms of gender. Nevertheless, it should not be forgotten that seasonal adjustment may cause extra volatility in the series for at least a while.

Figure 5: Seasonally adjusted non-agricultural unemployment rate by gender



Source: Turkstat, Betam



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

	Labor force	Employment	Unemployment	Unemployment rate	Monthly changes		
					Labor force	Employment	Unemployment
December-16	25606	21944	3662	14.3%			
January-17	25722	22095	3627	14.1%	116	151	-35
February-17	25790	22205	3585	13.9%	68	110	-42
March-17	25965	22434	3531	13.6%	175	229	-54
April-17	26020	22585	3435	13.2%	54	151	-97
May-17	26091	22647	3444	13.2%	71	62	9
June-17	26128	22731	3397	13.0%	37	84	-47
July-17	26121	22699	3422	13.1%	-7	-32	25
August-17	26194	22867	3327	12.7%	73	168	-95
September-17	26284	22946	3338	12.7%	90	79	11
October-17	26290	23056	3234	12.3%	6	110	-104
November-17	26410	23214	3196	12.1%	120	158	-38
December-17	26467	23317	3150	11.9%	57	103	-46
January-18	26540	23408	3132	11.8%	73	91	-18
February-18	26583	23473	3110	11.7%	44	65	-21
March-18	26600	23461	3139	11.8%	17	-12	29
April-18	26706	23448	3258	12.2%	106	-13	119
May-18	26786	23411	3375	12.6%	80	-37	117
June-18	26937	23489	3448	12.8%	151	78	73
July-18	26990	23481	3509	13.0%	53	-8	61
August-18	27186	23625	3561	13.1%	197	144	53
September-18	27121	23487	3634	13.4%	-65	-138	73
October-18	27185	23461	3724	13.7%	64	-26	90
November-18	27168	23283	3885	14.3%	-17	-178	161
December-18	27125	23029	4096	15.1%	-43	-254	211
January-19	27045	22826	4219	15.6%	-80	-203	123
February-19	27231	22901	4330	15.9%	186	75	111
March-19	27350	22974	4376	16.0%	119	73	46
April-19	27363	22985	4378	16.0%	13	11	2
May-19	27295	22873	4422	16.2%	-68	-112	44
June-19	27356	22952	4404	16.1%	62	79	-17
July-19	27448	22892	4556	16.6%	92	-60	152
August-19	27501	22963	4538	16.5%	52	71	-19
September-19	27439	22994	4445	16.2%	-61	31	-92
October-19	27564	23209	4355	15.8%	125	215	-90
November-19	27522	23284	4238	15.4%	-42	75	-117
December-19	27443	23244	4199	15.3%	-80	-40	-40

Source: Turkstat, Betam

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

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
December-16	5313	5265	1954	14724				
January-17	5440	5274	1963	14858	127	9	9	134
February-17	5481	5251	2014	14940	41	-23	51	82
March-17	5388	5346	2092	14996	-93	95	78	56
April-17	5368	5372	2126	15087	-20	26	34	91
May-17	5400	5386	2091	15170	32	14	-35	83
June-17	5395	5383	2067	15282	-5	-3	-24	112
July-17	5497	5363	2108	15228	102	-20	41	-54
August-17	5463	5437	2154	15276	-34	74	46	48
September-17	5503	5421	2126	15399	40	-16	-28	123
October-17	5484	5470	2095	15491	-19	49	-31	92
November-17	5497	5470	2133	15611	13	0	38	120
December-17	5556	5514	2181	15622	59	44	48	11
January-18	5502	5567	2207	15633	-54	53	26	11
February-18	5428	5627	2191	15655	-74	60	-16	22
March-18	5368	5618	2152	15692	-60	-9	-39	37
April-18	5368	5650	2096	15702	0	32	-56	10
May-18	5321	5669	2048	15694	-47	19	-48	-8
June-18	5276	5737	2014	15738	-45	68	-34	44
July-18	5248	5703	1962	15816	-28	-34	-52	78
August-18	5207	5730	1962	15934	-41	27	0	118
September-18	5227	5698	1915	15874	20	-32	-47	-60
October-18	5287	5696	1852	15913	60	-2	-63	39
November-18	5211	5656	1801	15826	-76	-40	-51	-87
December-18	5182	5474	1707	15848	-29	-182	-94	22
January-19	5160	5392	1664	15769	-22	-82	-43	-79
February-19	5136	5388	1651	15861	-24	-4	-13	92
March-19	5131	5482	1601	15891	-5	94	-50	30
April-19	5049	5553	1572	15860	-82	71	-29	-31
May-19	5026	5546	1530	15797	-23	-7	-42	-63
June-19	5050	5616	1548	15788	24	70	18	-9
July-19	5112	5600	1519	15773	62	-16	-29	-15
August-19	5105	5551	1501	15911	-7	-49	-18	138
September-19	5108	5546	1509	15940	3	-5	8	29
October-19	5014	5666	1557	15986	-94	120	48	46
November-19	5055	5758	1548	15978	41	92	-9	-8
December-19	4959	5699	1573	15972	-96	-59	25	-6

Source: Turkstat, Betam

Table 3: Seasonally adjusted non-agricultural labor force by gender (thousands)

	Female Labor Force	Female Employment	Female Unemployed	Male Labor Force	Male Employment	Male Unemployed
January-17	7452	5992	1460	18296	16116	2180
February-17	7498	6060	1438	18289	16098	2191
March-17	7598	6139	1459	18340	16251	2089
April-17	7603	6155	1448	18385	16371	2014
May-17	7667	6215	1451	18395	16404	1992
June-17	7677	6238	1439	18442	16503	1939
July-17	7695	6244	1451	18439	16499	1940
August-17	7715	6286	1428	18496	16633	1863
September-17	7777	6349	1428	18509	16625	1884
October-17	7774	6405	1369	18507	16641	1866
November-17	7842	6485	1357	18556	16704	1852
December-17	7888	6541	1347	18587	16789	1798
January-18	7924	6584	1339	18600	16825	1775
February-18	7937	6589	1348	18616	16845	1772
March-18	7928	6569	1359	18656	16862	1794
April-18	7990	6599	1391	18721	16811	1910
May-18	8043	6623	1420	18746	16780	1966
June-18	8085	6638	1447	18842	16850	1992
July-18	8105	6651	1454	18835	16854	1982
August-18	8188	6714	1474	18942	16918	2023
September-18	8178	6705	1473	18912	16782	2130
October-18	8249	6753	1496	18894	16668	2226
November-18	8261	6737	1524	18873	16500	2373
December-18	8342	6737	1606	18843	16330	2513
January-19	8366	6693	1672	18842	16213	2630
February-19	8427	6694	1733	18901	16240	2661
March-19	8470	6733	1738	18905	16240	2665
April-19	8421	6702	1719	18882	16241	2642
May-19	8379	6674	1705	18878	16196	2682
June-19	8405	6681	1725	18893	16254	2639
July-19	8426	6683	1743	18962	16226	2736
August-19	8477	6694	1782	18950	16254	2696
September-19	8443	6687	1756	18972	16299	2673
October-19	8491	6717	1773	19021	16431	2590
November-19	8421	6679	1742	19058	16539	2518
December-19	8405	6663	1743	19102	16611	2492

Source: Turkstat, Betam