LABOR MARKET OUTLOOK BEFORE THE CORONA PANDEMIC:
DECREASE IN UNEMPLOYMENT
ALONG WITH DROP IN EMPLOYMENT AND LABOR FORCE

Seyfettin Gürsel[*], Mehmet Cem Şahin [**]

Executive Summary

Seasonally adjusted labor market data shows that in the period of February 2020, non-agricultural unemployment rate turned out to be 14.6 percent, with 0.1 percentage point decrease compared to January 2020. In this period, non-agricultural employment decreased by 277 thousand while non-agricultural labor force decreased by 356 thousand. Consequently, the number of unemployed in non-agricultural sector decreased by 79 thousand. As a result of the extraordinary decrease in labor force and employment, seasonally adjusted LFPR and employment rate decreased by 1 percent and 0.9 percent, respectively, compared to the period of January 2020. The decrease in LFPR and employment rate has been the biggest in magnitude since the period of January 2005. According to sectorial data, employment losses occurred in all sectors. The most significant decreases in employment occurred in agriculture (by 218 thousand) and services (by 194 thousand). While construction employment decreased by 28 thousand, manufacturing employment decreased by 56 thousand. Seasonally adjusted data shows that the level of labor force and employed people decreased especially among men, which resulted by an increase in non-agricultural male unemployment rate, whereas female non-agricultural unemployment rate decreased. The decrease in female unemployment was the result of the limited decrease in female employment (by 42 thousand), along with relatively significant decrease in female labor force (by 132 thousand)

## Decreases in all non-agricultural labor market indicators

Seasonally adjusted data shows that, non-agricultural labor force reached 26 million 763 thousand after the decrease of 356 thousand in February 2020 period (January-February-March) compared to January 2020 period (December-January-February). In the period of February 2020, the level of non-agricultural labor force decreased (by 2.6 percentage points) compared to the same month of the previous year. Year-over-year decrease in labor force occurred for the first time since January 2005, the beginning of the seasonally adjusted non-agricultural labor force series. Slow growth rate in labor force before the outbreak of COVID19 evolved into year-over-year decrease in labor force. Non-agricultural employment reached 22 million 856 thousand following a decrease of 277 thousand (Figure 1, Table 1). Despite declining employment, the number of non-agricultural unemployed decreased by 79 thousand and reached 3 million 907 thousand. Thus, non-agricultural unemployment rate dropped to 14.6 percent.

To better capture the extraordinary decrease in non-agricultural labor force, we added a new figure that features seasonally adjusted LFPR, employment rate and non-agricultural unemployment rate into our Labor Market Outlook reports. As can be seen from the figure, unemployment shock that occurred in the years of 2008-2009 resulted in the decrease in the employment rate and growth rate in the labor force participation rate (LFPR) along the trend line. This time, LFPR has been decreasing and the pace of the decrease is higher than that occurring in employment rate. While non-institutional population over 15-year-old keeps increasing, LFPR decreased by 2.6 percent in February 2020 compared to the same month of the previous year and reached 50.7 percent. Employment rate decreased by 1.7 percent in February 2020 compared to the same month of the previous year and reached 44.3 percent

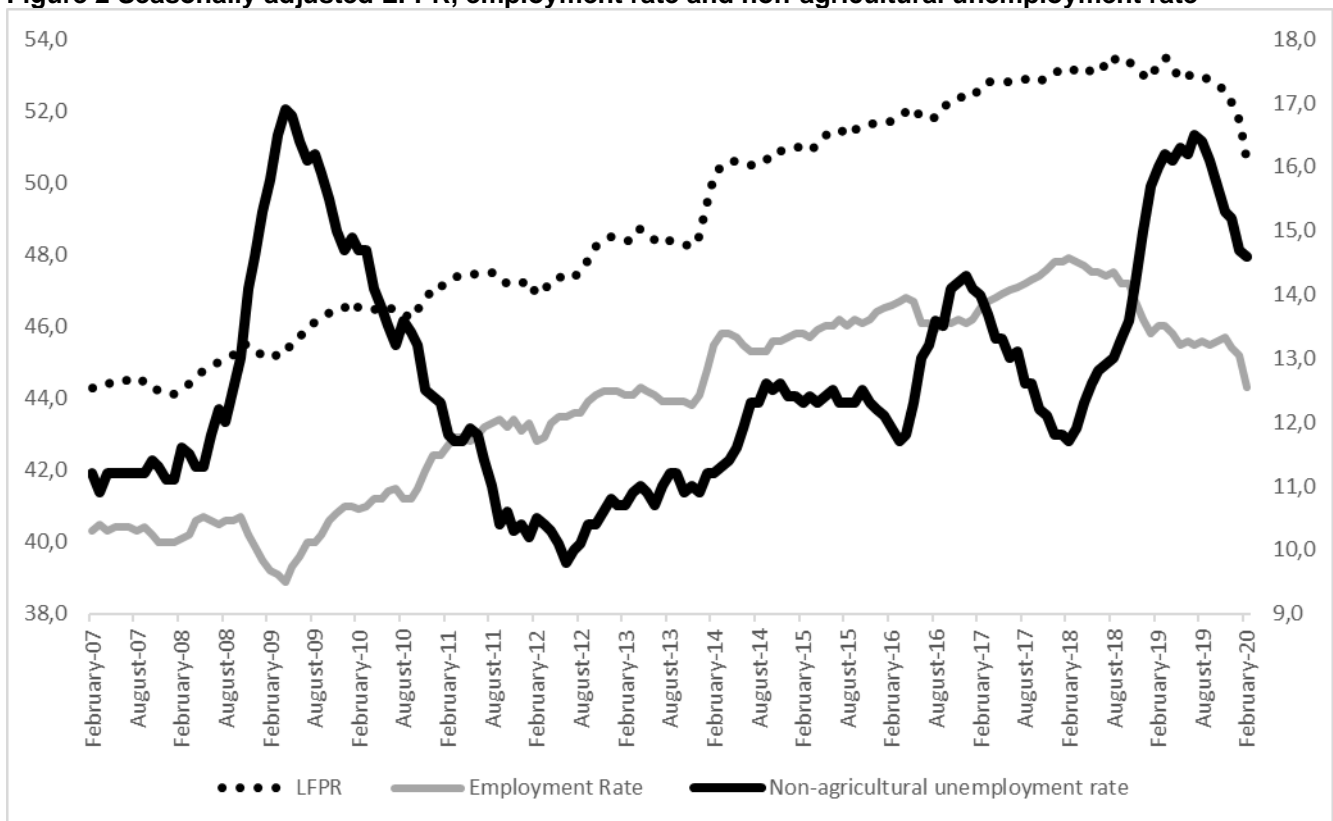[*]Prof. Dr. Seyfettin Gürsel, Betam, Director, seyfettin.gursel@eas.bau.edu.tr
[**]Mehmet Cem Şahin, Betam, Research Assistant, mehmetcem.sahin@eas.bau.edu.tr

Figure 1. Seasonally adjusted non-agricultural labor force, employment, and unemployment
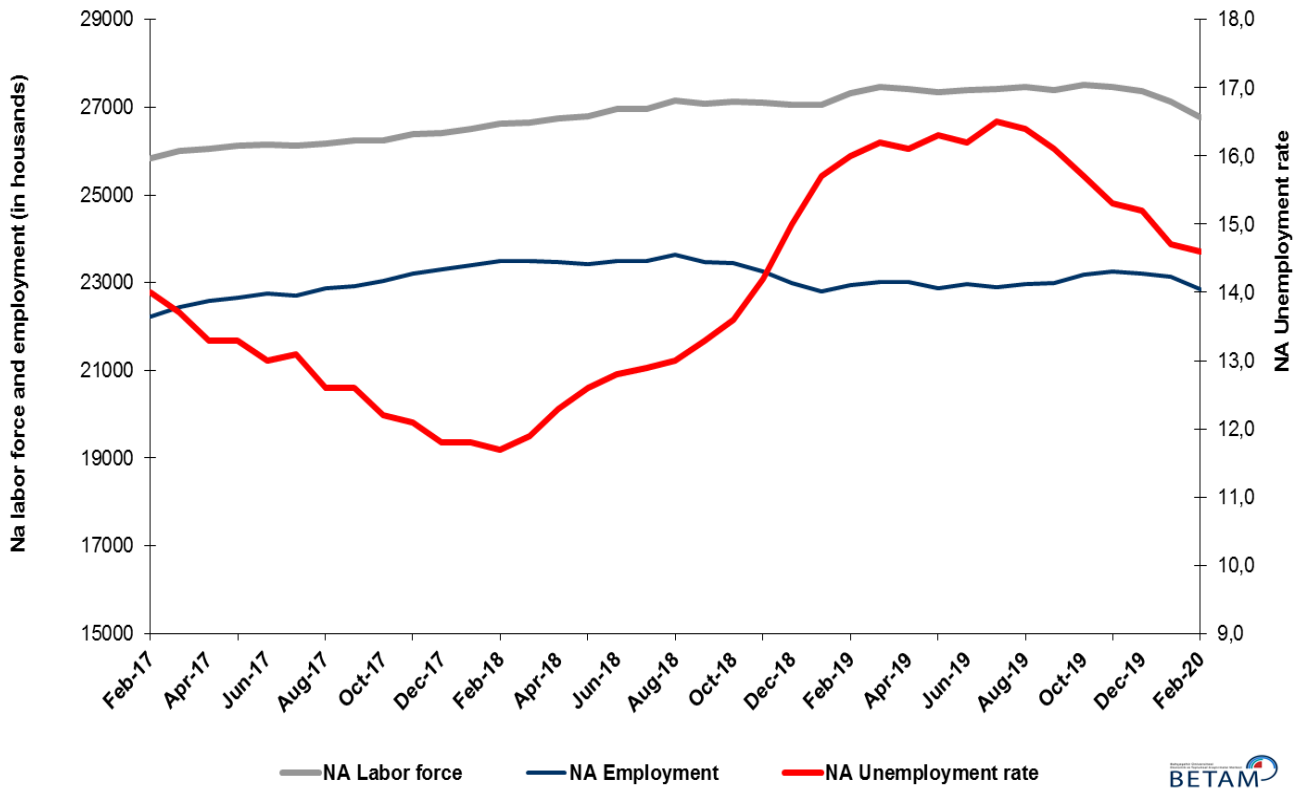
Source: Turkstat, Betam

Figure 2 Seasonally adjusted LFPR, employment rate and non-agricultural unemployment rate
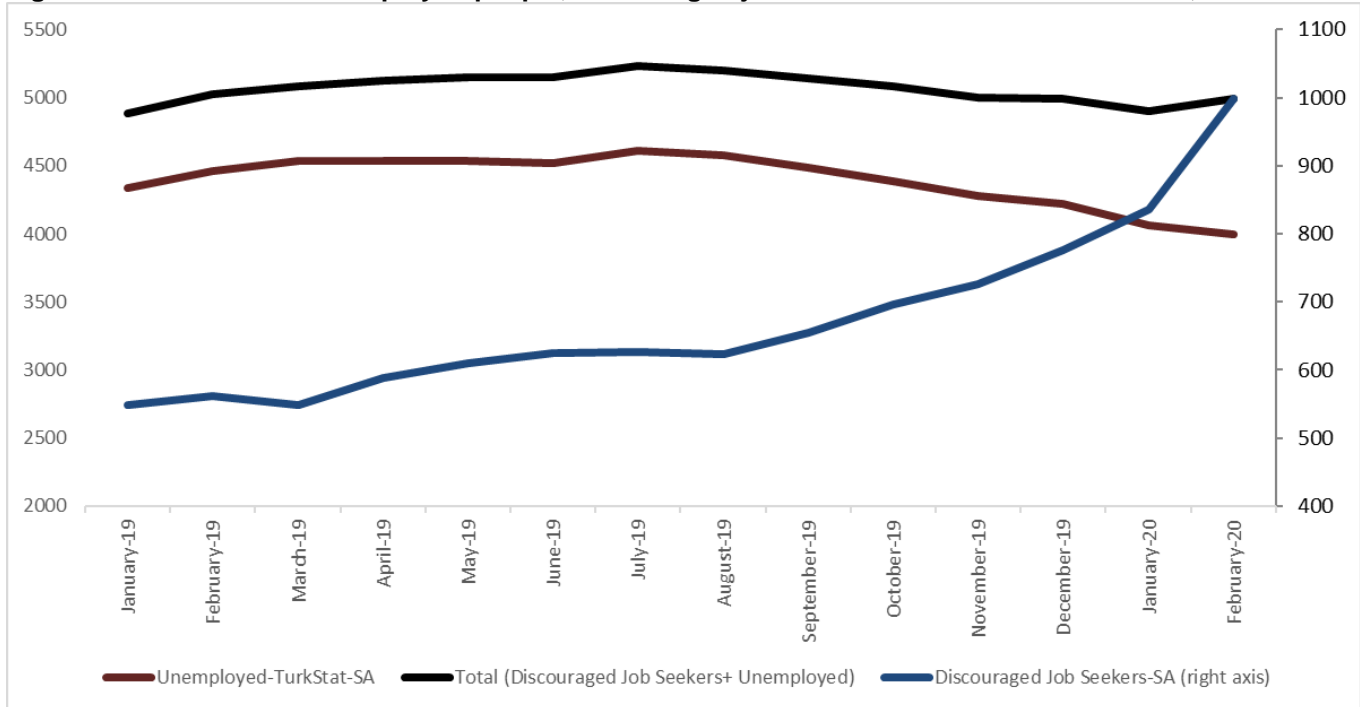

Source: Turkstat, Betam

Significant increase in discouraged job seekers

The level of labor force, by definition, is the summation of the level of employed people and the level of job seekers (unemployed). The unusual developments in the labor market, cause loss of confidence among individuals who desire to work but they are not actively seeking a job as they think that they could not find any job. Those individuals that quit seeking for jobs and labor force due to loss of confidence are referred as 'Discouraged Job Seekers' by TurkStat. As can be seen from another new Figure 3 that features discouraged job seekers, unemployed people and summation of both, the number of discouraged job seekers nearly doubles from the period of January 2019 while number of unemployed people has been decreasing for a while.

Figure 3 The number of unemployed people, discouraged job seekers and summation of both, SA

Source: Turkstat, Betam

## Warning regarding the forecast of unemployment rate

Betam's forecasting model predicted that non-agricultural unemployment rate would be 14.4 for March 2020 if ever were COVID19 outbreak were non-existent. As the effects of the pandemic in April 2020 weren't reflected in the variables that are used in the forecast model, we prefer not to publish our March 2020 forecast in our Labor Market Outlook report for the period of February 2020.

Employment losses in all sectors

According to seasonally adjusted sectorial labor market data, in the period of February 2020 compared to January 2020, employment losses occurred in all sectors (Figure 3, Table 2).[1] After the decrease of 40 thousand in January 2020, employment in agriculture sector decreased by 218 thousand in February 2020. Following the decrease of 29 thousand in December 2019, the number of employed in services sector decreased by 194 thousand. Employment in manufacturing and construction sectors decreased by 56 and 28 thousand respectively in the period of February 2020.
.

---

[1] 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 thousand)
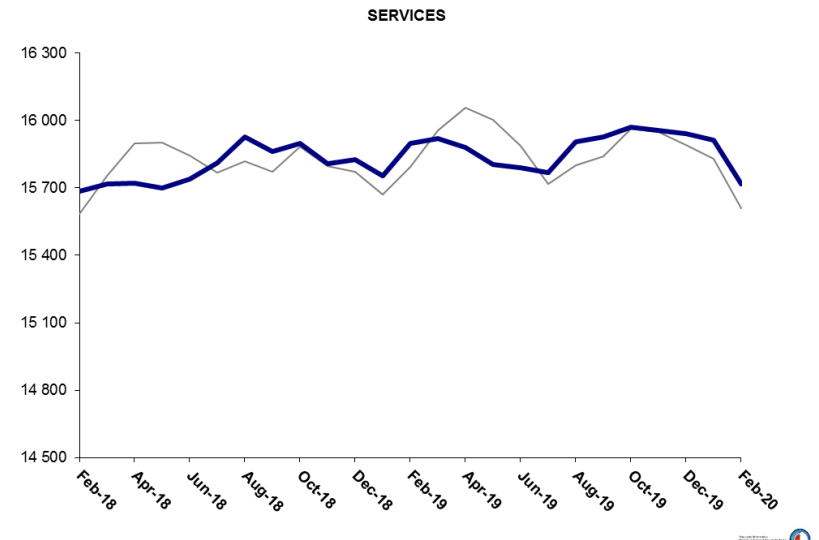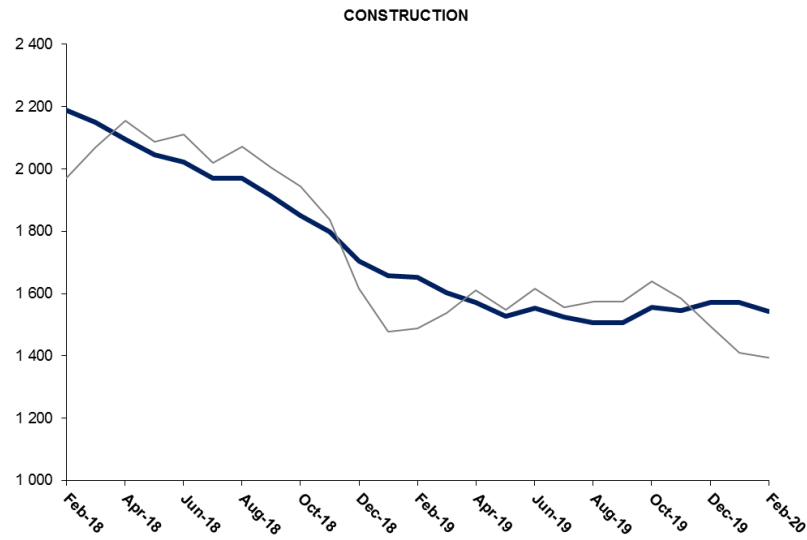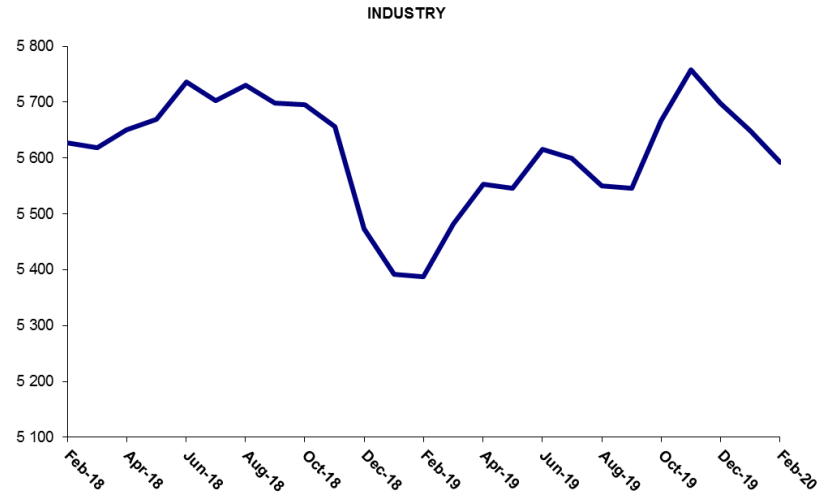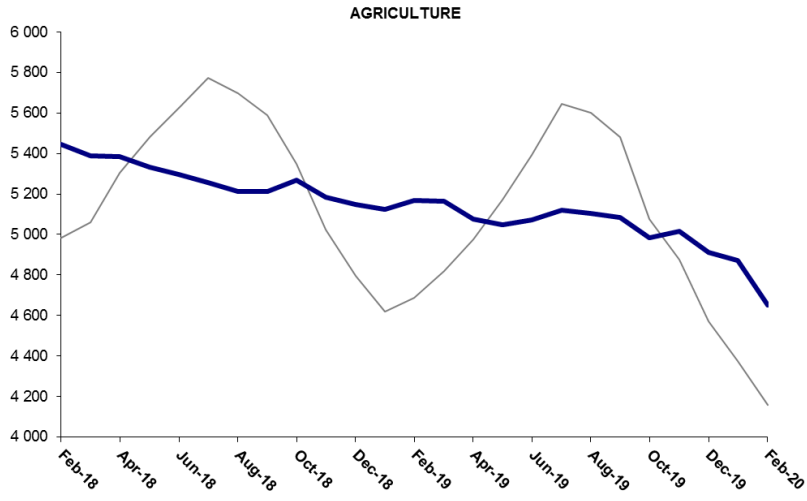
Source: TURKSTAT, Betam

Slowdown in non-agricultural labor force participation, limited increase in employment

Compared to February 2019, non-agricultural labor force decreased by 568 thousand (2.1 percent) in February 2020 (Figure 5, Table 3). Year-on-year level of change in non-agricultural labor force turned negative for the first time in February 2020, since January 2006. The decrease in year-on-year non-agricultural employment level was 71 thousand (0.3 percent). As a result, in the period of February 2020 compared to February 2019, the number of non-agricultural unemployed decreased by 497 thousand.

Figure 5 Year-on-year changes in non-agricultural labor force, employment, and unemployment
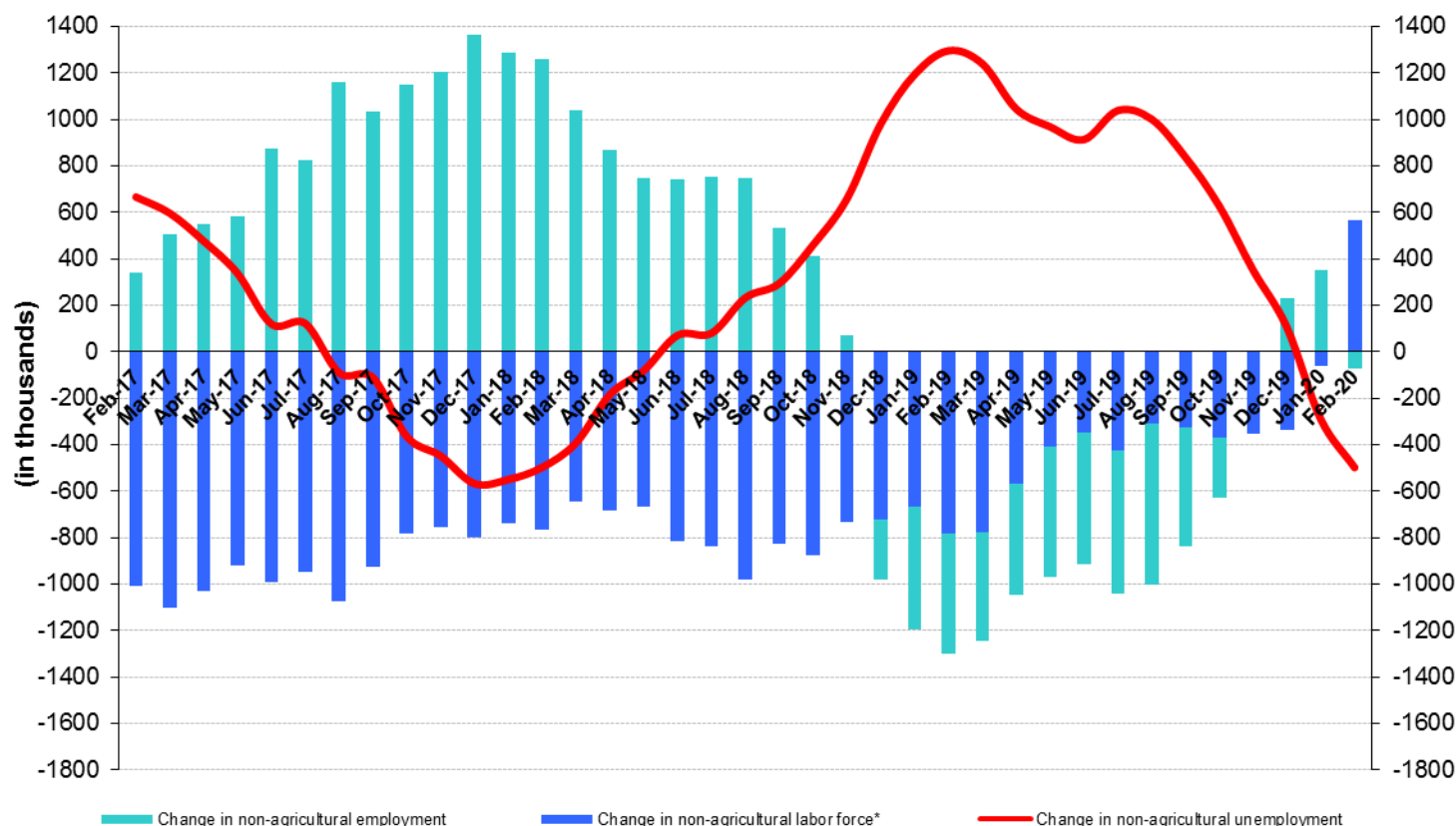
* The change in labor force represented with a negative sign.

Source: TURKSTAT, Betam

Decrease in female unemployment along with increase in male unemployment

Figure 6 shows seasonally adjusted non-agricultural unemployment rate for males (green) and for females (purple)[2]. In the period of February 2020 compared to the previous period, female non-agricultural unemployment rate decreased by 0.8 percentage point to 18.7 percent. This significant decrease in female unemployment rate resulted from the decrease (132 thousand) in the female labor force while the decrease in employment has been limited to 42 thousand. Male unemployment rate turned out to be 12.9 with 0.4 percentage point increase. Even though male employment decreased by 312 thousand, male labor force decreased by 290 thousand. As a result, the gender gap in non-agricultural unemployment rates decreased from 7.0 percent to 5.9 percent points.

---

2 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 6: Seasonally adjusted non-agricultural unemployment rate by gender
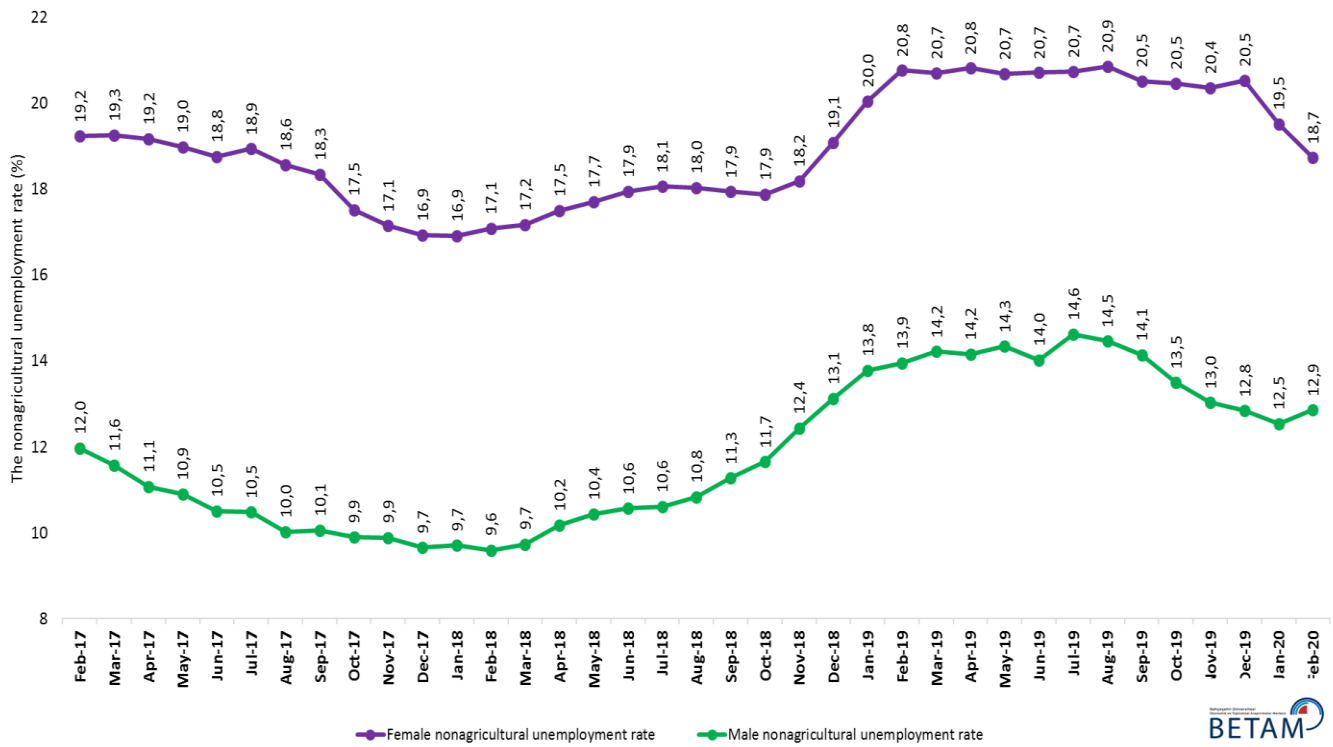
Source: Turkstat, Betam

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

	Labor force	Employment	Unemployment	Unemployment rate	Monthly changes		
					Labor force	Employment	Unemployment
February-17	25844	22226	3618	14,0%			
March-17	26015	22451	3564	13,7%	171	225	-54
April-17	26063	22597	3466	13,3%	48	146	-98
May-17	26121	22647	3474	13,3%	58	50	8
June-17	26145	22746	3399	13,0%	24	99	-75
July-17	26133	22710	3423	13,1%	-11	-36	25
August-17	26172	22874	3298	12,6%	38	164	-126
September-17	26237	22931	3306	12,6%	65	57	8
October-17	26241	23040	3201	12,2%	5	109	-104
November-17	26390	23197	3193	12,1%	149	157	-8
December-17	26412	23295	3117	11,8%	21	98	-77
January-18	26517	23388	3129	11,8%	105	93	12
February-18	26616	23502	3114	11,7%	99	114	-15
March-18	26658	23486	3172	11,9%	42	-16	58
April-18	26756	23465	3291	12,3%	98	-21	119
May-18	26788	23413	3375	12,6%	32	-52	84
June-18	26948	23499	3449	12,8%	160	86	74
July-18	26963	23485	3478	12,9%	15	-14	29
August-18	27160	23629	3531	13,0%	197	144	53
September-18	27074	23473	3601	13,3%	-86	-156	70
October-18	27137	23446	3691	13,6%	63	-27	90
November-18	27114	23264	3850	14,2%	-22	-182	160
December-18	27062	23003	4059	15,0%	-52	-261	209
January-19	27049	22802	4247	15,7%	-14	-201	187
February-19	27307	22938	4369	16,0%	259	136	123
March-19	27452	23005	4447	16,2%	145	67	78
April-19	27422	23007	4415	16,1%	-30	2	-32
May-19	27333	22878	4455	16,3%	-89	-129	40
June-19	27396	22958	4438	16,2%	63	80	-17
July-19	27414	22891	4523	16,5%	18	-67	85
August-19	27467	22962	4505	16,4%	52	71	-19
September-19	27390	22980	4410	16,1%	-77	18	-95
October-19	27511	23192	4319	15,7%	122	212	-90
November-19	27462	23260	4202	15,3%	-50	68	-118
December-19	27373	23212	4161	15,2%	-89	-48	-41
January-20	27120	23133	3987	14,7%	-253	-79	-174
February-20	26763	22856	3907	14,6%	-356	-277	-79

Source: Turkstat, Betam

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

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
February-17	5488	5251	2010	14965				
March-17	5397	5346	2089	15016	-91	95	79	51
April-17	5376	5372	2123	15102	-21	26	34	86
May-17	5405	5386	2086	15175	29	14	-37	73
June-17	5414	5383	2080	15284	9	-3	-6	109
July-17	5509	5363	2121	15225	95	-20	41	-59
August-17	5472	5437	2169	15269	-37	74	48	44
September-17	5491	5421	2121	15389	19	-16	-48	120
October-17	5470	5470	2090	15480	-21	49	-31	91
November-17	5480	5470	2128	15598	10	0	38	118
December-17	5533	5514	2176	15605	53	44	48	7
January-18	5476	5567	2199	15622	-57	53	23	17
February-18	5445	5627	2190	15685	-31	60	-9	63
March-18	5387	5618	2151	15717	-58	-9	-39	32
April-18	5385	5650	2095	15721	-2	32	-56	4
May-18	5334	5669	2045	15700	-51	19	-50	-21
June-18	5296	5737	2023	15739	-38	68	-22	39
July-18	5258	5703	1970	15812	-38	-34	-53	73
August-18	5211	5730	1971	15928	-47	27	1	116
September-18	5212	5698	1912	15864	1	-32	-59	-64
October-18	5267	5696	1849	15900	55	-2	-63	36
November-18	5185	5656	1798	15810	-82	-40	-51	-90
December-18	5150	5474	1704	15825	-35	-182	-94	15
January-19	5124	5392	1657	15754	-26	-82	-47	-71
February-19	5167	5388	1652	15898	43	-4	-5	144
March-19	5164	5482	1602	15922	-3	94	-50	24
April-19	5078	5553	1572	15882	-86	71	-30	-40
May-19	5048	5546	1528	15804	-30	-7	-44	-78
June-19	5073	5616	1553	15789	25	70	25	-15
July-19	5120	5600	1524	15767	47	-16	-29	-22
August-19	5104	5551	1506	15905	-16	-49	-18	138
September-19	5086	5546	1506	15928	-18	-5	0	23
October-19	4985	5666	1555	15971	-101	120	49	43
November-19	5016	5758	1546	15956	31	92	-9	-15
December-19	4911	5699	1571	15942	-105	-59	25	-14
January-20	4871	5649	1572	15913	-40	-50	1	-29
February-20	4653	5593	1544	15719	-218	-56	-28	-194

Source: Turkstat, Betam

Table 3 Seasonally unadjusted non-agricultural labor market indicators (in thousands) *

	Non-Agricultural Labor Force	Non-Agricultural Employment	Non-Agricultural Unemployed
Feb-17	25728	21920	3808
Mar-17	25959	22403	3556
Apr-17	26068	22836	3232
May-17	26095	22911	3184
Jun-17	26134	22946	3188
Jul-17	26133	22736	3397
Aug-17	26234	22876	3358
Sep-17	26311	22943	3368
Oct-17	26351	23110	3241
Nov-17	26444	23218	3226
Dec-17	26360	23118	3242
Jan-18	26422	23066	3356
Feb-18	26494	23182	3312
Mar-18	26607	23441	3166
Apr-18	26754	23704	3050
May-18	26762	23658	3104
Jun-18	26951	23690	3261
Jul-18	26970	23491	3479
Aug-18	27213	23621	3592
Sep-18	27138	23474	3664
Oct-18	27227	23524	3703
Nov-18	27176	23290	3886
Dec-18	27085	22860	4225
Jan-19	27091	22540	4551
Feb-19	27278	22668	4610
Mar-19	27386	22977	4409
Apr-19	27321	23223	4098
May-19	27172	23096	4076
Jun-19	27298	23121	4177
Jul-19	27393	22873	4520
Aug-19	27522	22926	4596
Sep-19	27462	22958	4504
Oct-19	27599	23266	4333
Nov-19	27532	23292	4240
Dec-19	27420	23088	4332
Jan-20	27153	22890	4263
Feb-20	26710	22597	4113

Table 4: Seasonally adjusted non-agricultural labor force by gender (thousands)

	Female Labor Force	Female Employment	Female Unemployed	Male Labor Force	Male Employment	Male Unemployed
February-17	7535	6086	1449	18252	16068	2184
March-17	7645	6173	1472	18351	16227	2124
April-17	7644	6179	1465	18423	16383	2039
May-17	7691	6231	1460	18434	16425	2009
June-17	7691	6249	1443	18456	16516	1940
July-17	7665	6214	1452	18447	16514	1934
August-17	7671	6246	1425	18505	16651	1855
September-17	7716	6300	1415	18508	16646	1862
October-17	7742	6386	1356	18488	16658	1831
November-17	7818	6477	1341	18542	16709	1833
December-17	7861	6530	1331	18558	16767	1791
January-18	7944	6600	1344	18605	16799	1806
February-18	7983	6619	1364	18624	16836	1787
March-18	7989	6617	1372	18642	16827	1815
April-18	8042	6635	1407	18716	16811	1905
May-18	8080	6648	1431	18739	16783	1956
June-18	8111	6655	1456	18869	16875	1994
July-18	8083	6623	1460	18887	16884	2003
August-18	8139	6671	1467	19003	16944	2058
September-18	8110	6655	1455	18944	16809	2135
October-18	8193	6727	1465	18906	16703	2203
November-18	8214	6720	1494	18886	16537	2348
December-18	8300	6716	1584	18757	16294	2463
January-19	8382	6702	1681	18708	16131	2577
February-19	8491	6728	1763	18792	16170	2621
March-19	8563	6789	1773	18852	16171	2681
April-19	8520	6747	1774	18920	16240	2680
May-19	8458	6708	1750	18902	16192	2710
June-19	8452	6702	1751	18959	16301	2657
July-19	8400	6658	1742	19057	16271	2787
August-19	8403	6650	1752	19043	16289	2753
September-19	8345	6633	1712	19015	16326	2689
October-19	8409	6688	1721	19048	16477	2570
November-19	8360	6658	1702	19079	16593	2486
December-19	8353	6638	1715	19024	16582	2443
January-20	8292	6674	1618	18868	16501	2367
February-20	8160	6632	1529	18578	16189	2389

Source: Turkstat, Betam

Table 5: Seasonally adjusted LFPR, employment rate and non-agricultural unemployment rate (%)

	LFPR	Employment Rate	Non-agricultural unemployment rate
Feb-17	52,7	46,5	14,0
Mar-17	52,8	46,7	13,7
Apr-17	52,8	46,8	13,3
May-17	52,8	46,9	13,3
Jun-17	52,8	47,0	13,0
Jul-17	52,9	47,1	13,1
Aug-17	52,9	47,2	12,6
Sep-17	52,9	47,3	12,6
Oct-17	52,8	47,4	12,2
Nov-17	53,0	47,6	12,1
Dec-17	53,1	47,8	11,8
Jan-18	53,1	47,8	11,8
Feb-18	53,2	47,9	11,7
Mar-18	53,1	47,8	11,9
Apr-18	53,2	47,7	12,3
May-18	53,1	47,5	12,6
Jun-18	53,3	47,5	12,8
Jul-18	53,2	47,4	12,9
Aug-18	53,5	47,5	13,0
Sep-18	53,3	47,2	13,3
Oct-18	53,4	47,2	13,6
Nov-18	53,2	46,7	14,2
Dec-18	53,0	46,2	15,0
Jan-19	52,9	45,8	15,7
Feb-19	53,3	46,0	16,0
Mar-19	53,5	46,0	16,2
Apr-19	53,2	45,8	16,1
May-19	52,9	45,5	16,3
Jun-19	53,0	45,6	16,2
Jul-19	53,0	45,5	16,5
Aug-19	53,0	45,6	16,4
Sep-19	52,8	45,5	16,1
Oct-19	52,7	45,6	15,7
Nov-19	52,6	45,7	15,3
Dec-19	52,2	45,4	15,2
Jan-20	51,7	45,2	14,7
Feb-20	50,7	44,3	14,6

Source: Turkstat

Table 6: Seasonally adjusted discouraged job-seekers, unemployed and sum of both

	Discouraged Job Seekers-SA	Unemployed-TurkStat-SA	Total (Discouraged Job Seekers + Unemployed)
Jan-19	548	4338	4886
Feb-19	562	4462	5024
Mar-19	548	4534	5082
Apr-19	588	4534	5122
May-19	610	4536	5146
Jun-19	624	4522	5146
Jul-19	626	4606	5232
Aug-19	623	4574	5197
Sep-19	654	4485	5139
Oct-19	696	4383	5079
Nov-19	726	4275	5001
Dec-19	776	4218	4994
Jan-20	836	4063	4899
Feb-20	998	3996	4994

Source: Turkstat, Betam