

IMPACT OF CORONAVIRUS PANDEMIC SHOCK ON LABOR MARKET: INCREASES IN UNEMPLOYMENT ALONG WITH DROP IN EMPLOYMENT AND LABOR FORCE

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Executive Summary

Seasonally adjusted labor market data shows that in the period of March 2020, non-agricultural unemployment rate turned out to be 15.1 percent, with 0.5 percentage point increases compared to February 2020. In this period, non-agricultural employment decreased by 982 thousand while non-agricultural labor force decreased by 999 thousand. According to sectorial data, employment losses occurred in all sectors. The most significant decreases in employment occurred in services (by 694 thousand). While agriculture employment decreased by 21 thousand, manufacturing employment decreased by 85 thousand and construction employment decreased by 202 thousand. Based on the seasonally adjusted data, while female non-agricultural employment decreased by 245 thousand, non-agricultural labor force decreased by 361 thousand. As the decrease in female labor force was higher than that in employment, female non-agricultural unemployment rate decreased by 0.6 percentage points to 17.9 percent. Male labor force and employment decreased by 657 thousand and 722 thousand respectively. Since the decline in male employment was higher than the labor force, male non-agricultural unemployment rate increased by 0.8 percentage points to 13.7 percent.

Decreases in all non-agricultural labor market indicators

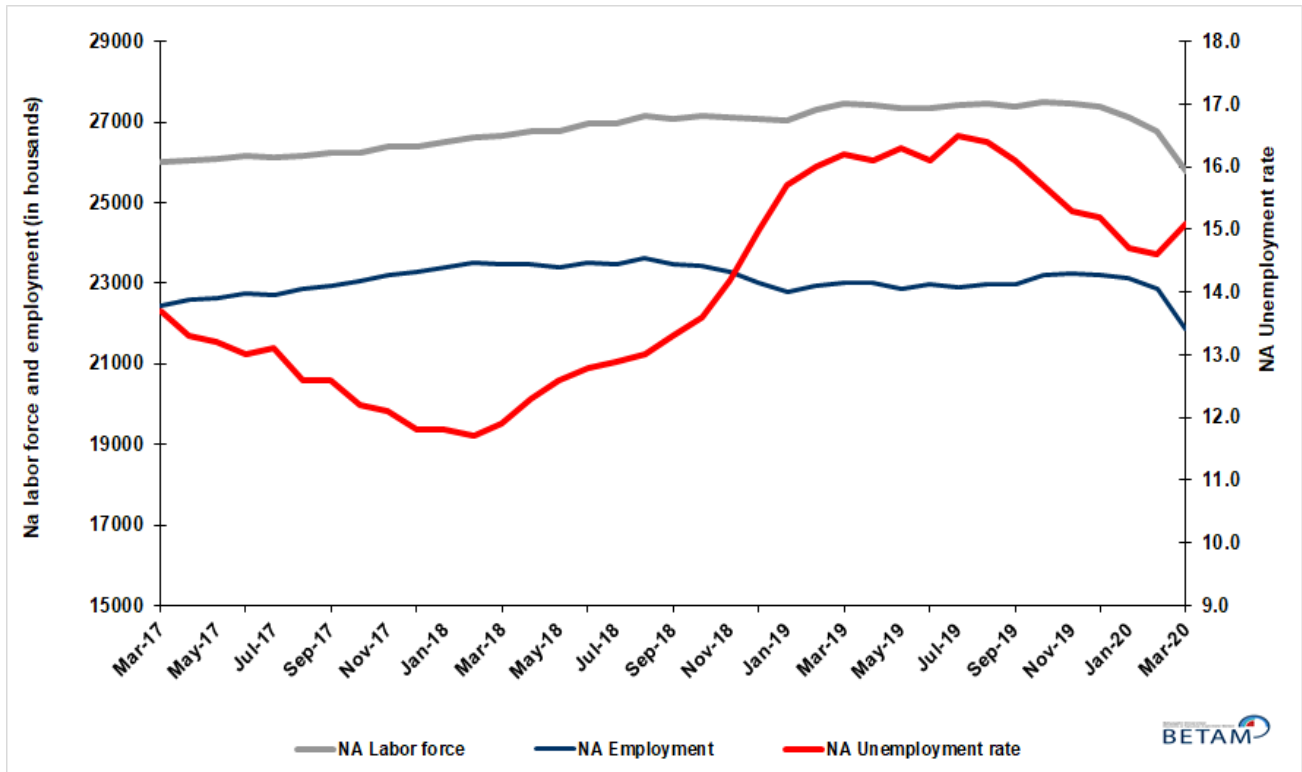
Seasonally adjusted data shows that, non-agricultural labor force reached 25 million 766 thousand after the decrease of 999 thousand in March 2020 period (February-March-April) compared to February 2020 period (January-February-March). Year-over-year decrease in labor force occurred for the first time. As a result of this striking decline in employment and labor force, the number of non-agricultural unemployed decreased by 17 thousand to 3 million 891 thousand, and the non-agricultural unemployment rate rose to 15.1 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. Decreases in both the labor force and the employment rate continued in March as well. While non-institutional population over 15-year-old keeps increasing, LFPR decreased by 4.4 percent in March 2020 compared to the same month of the previous year and reached 49.0 percent. Employment rate decreased by 3.4 percentage point in February 2020 compared to the same month of the previous year and reached 46.6 percent.

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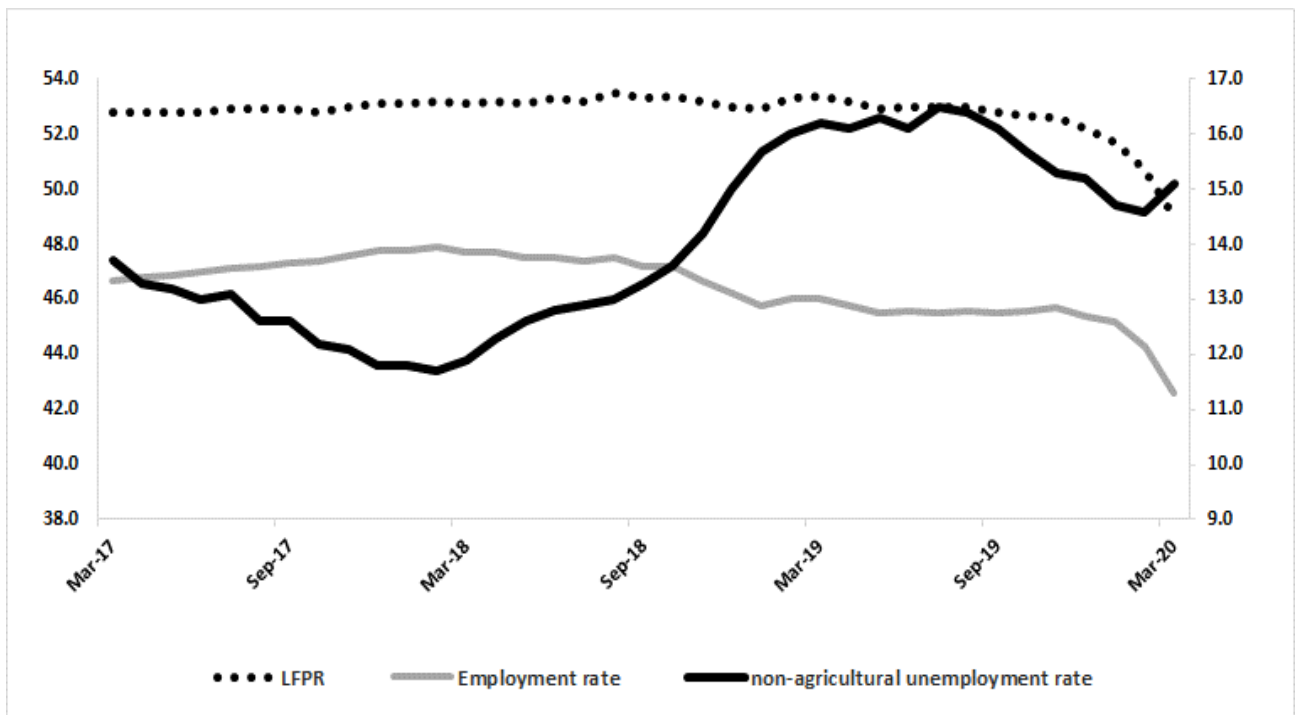
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Figure 1. Seasonally adjusted non-agricultural labor force, employment, and unemployment



Source: Turkstat, Betam

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

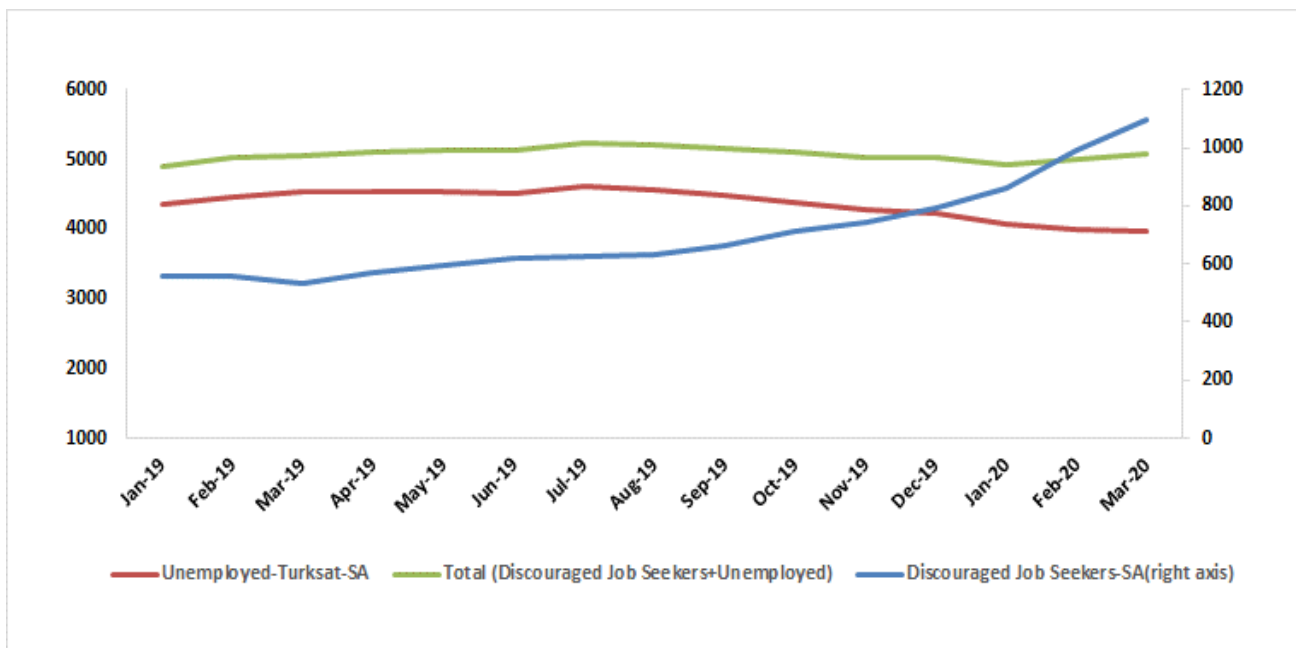


Source: Turkstat, Betam

Significant increase in discouraged workers

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 workers' by TurkStat. As can be seen from another new Figure 3 that features discouraged workers, unemployed people and summation of both, the number of discouraged workers nearly doubles from the period of January 2019 and reached 1 million 100 thousand within a year.

Figure 3. The number of unemployed people, discouraged workers and summation of both, SA



Source: Turkstat, Betam

Warning regarding the forecast of unemployment rate

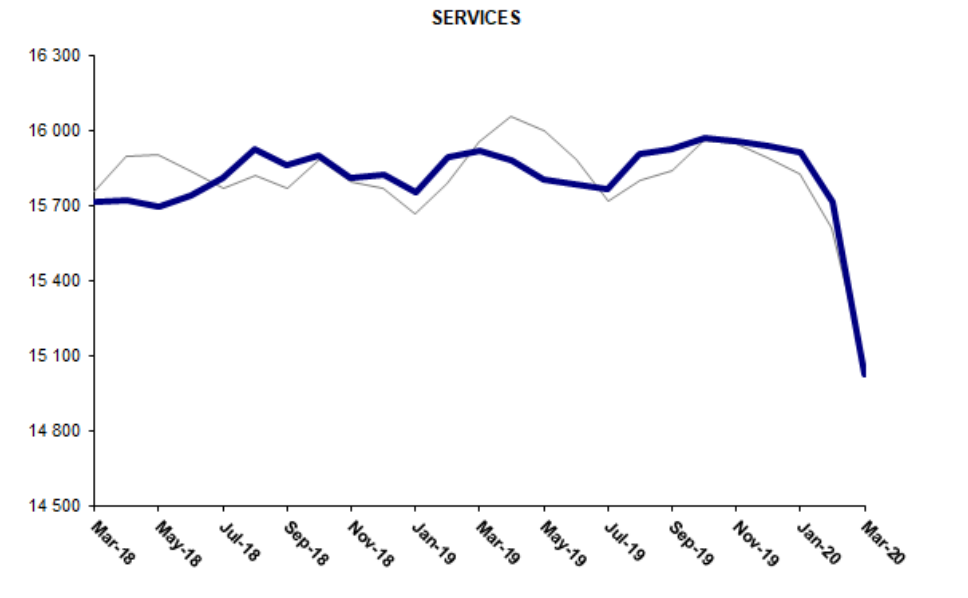
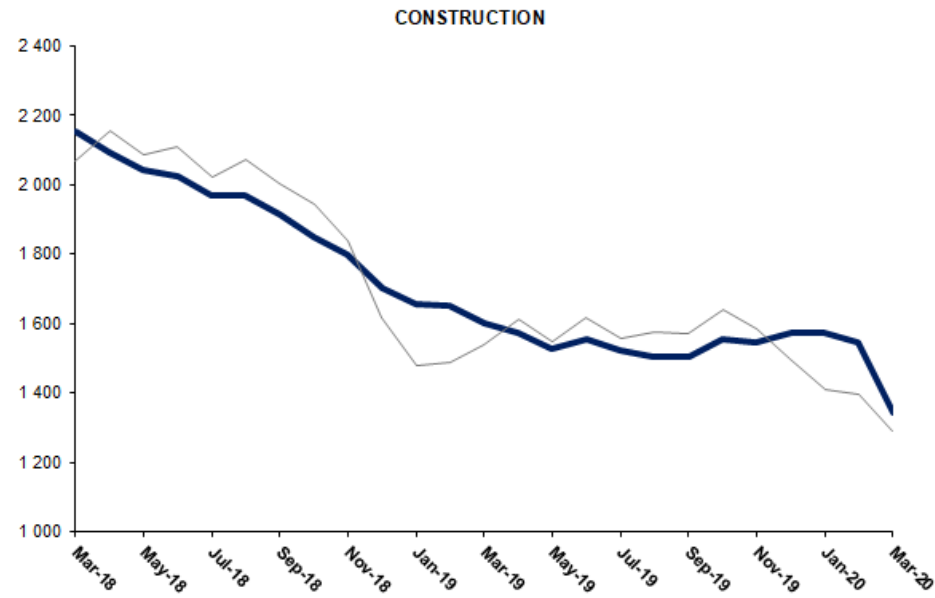
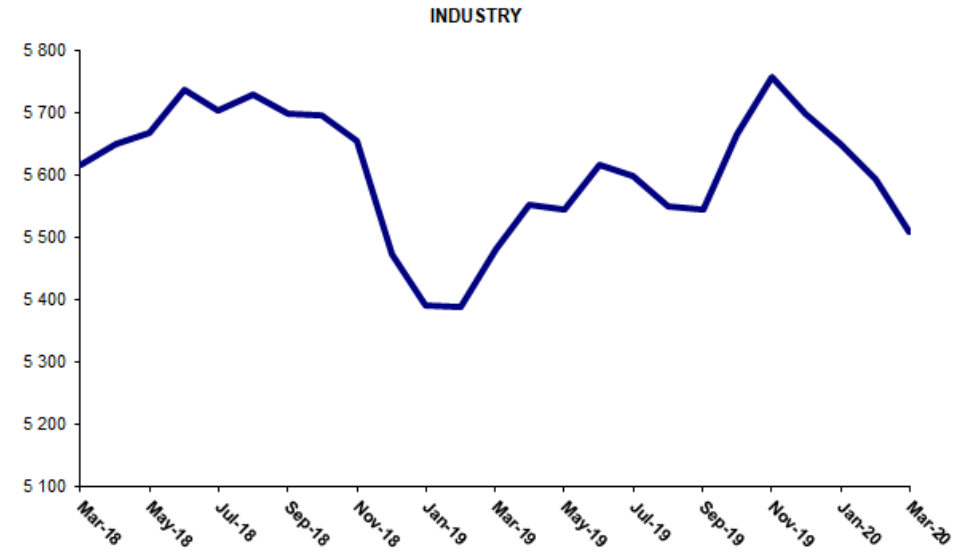
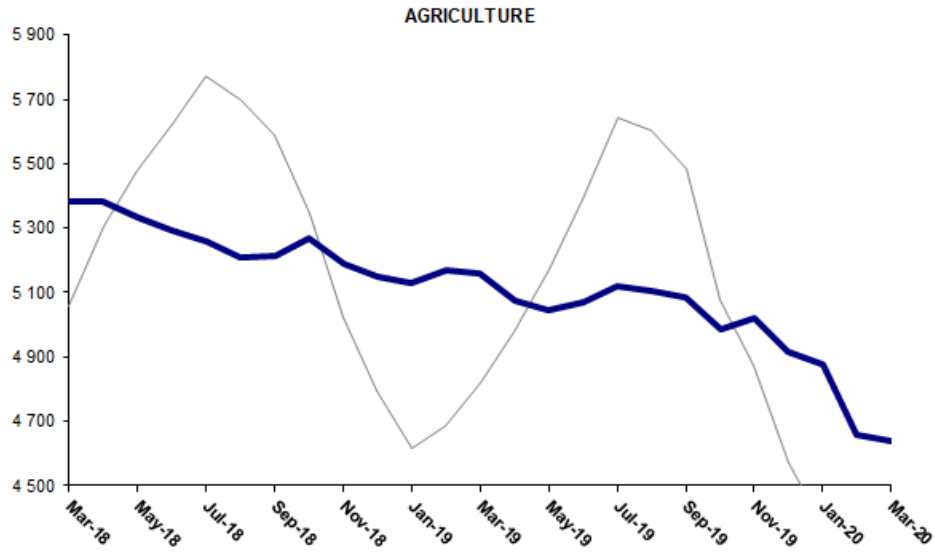
In order to restrict the adverse impact of the corona pandemic on employment, instead of short-time working allowance and layoff measures, furloughs considerably invalidate the relationship between the economic activity level and employment. Additionally, the relatively high correlation between the employment losses and the number of unemployed also lost its function. We believe that these developments significantly increased the standard error interval of the Betam unemployment forecast model. As in the case of previous research brief, we prefer not to publish our April 2020 forecast in our Labor Market Outlook report for the period of March 2020. However, we would like to share with our readers that Betam's forecasting model predicted that non-agricultural unemployment rate would remain unchanged at 15.1 percent in April 2020.

Sharp decreases in services sector

According to seasonally adjusted sectorial labor market data, in the period of March 2020 compared to February 2020, employment losses occurred in all sectors (Figure 4, Table 2).¹ After the decrease of 218 thousand in February 2020, employment in agriculture sector decreased by 21 thousand. Following the decrease of 194 thousand in February 2020, the number of employed in services sector decreased dramatically (694 thousand) in March 2020. As expected, the services is the most affected by the measures taken against the spread of the Coronavirus pandemic. Employment in manufacturing and construction sectors decreased by 85 and 202 thousand respectively in the period of March 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)

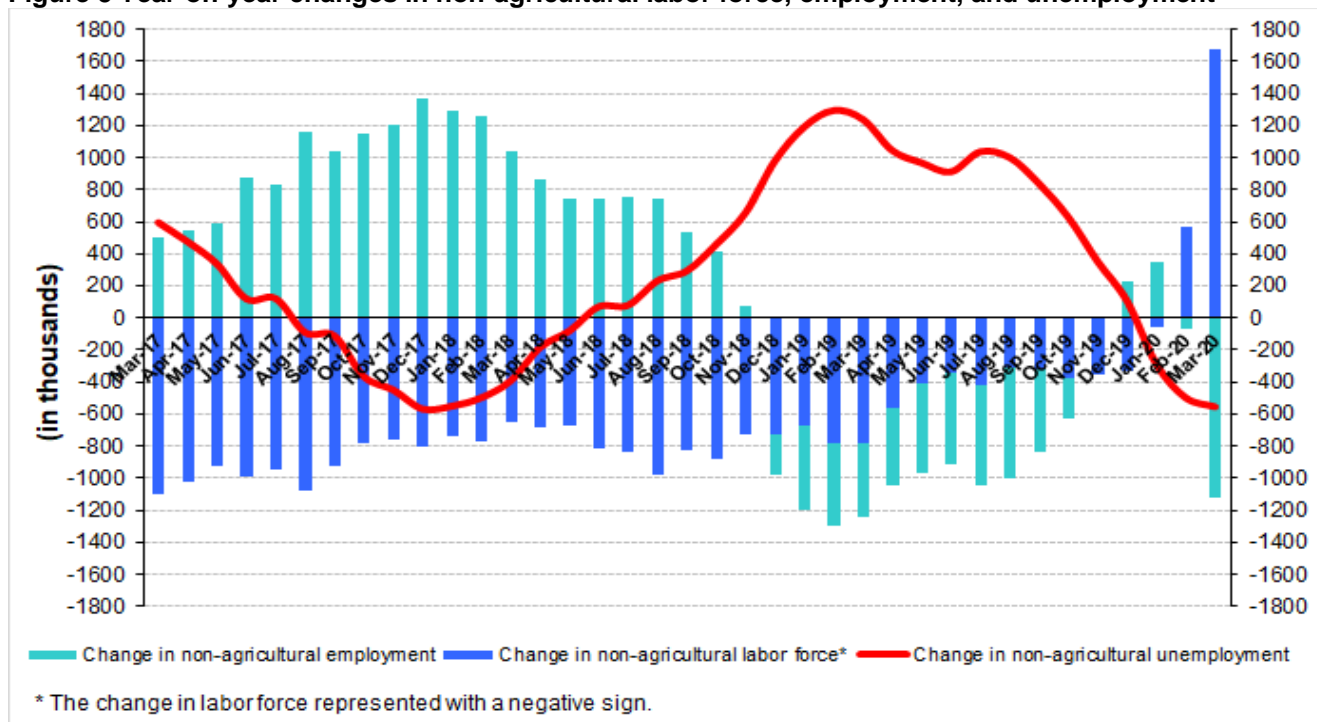


Source: TURKSTAT, Betam

Yearly strong decreases in non-agricultural labor force participation and employment

Compared to March 2019, non-agricultural employment decreased by 1 million 124 thousand in March 2020. Compared to the same period of the previous year, the decrease in the number of non-agricultural unemployed was limited to 553 thousand. We think that a significant part of this big difference resulted from the increase in the number of discouraged workers. As a result, the number of non-agricultural labor force decreased by 1 million 677 thousand (1 million + 533 thousand) in March 2020 (Figure 5).

Figure 5 Year-on-year changes in non-agricultural labor force, employment, and unemployment



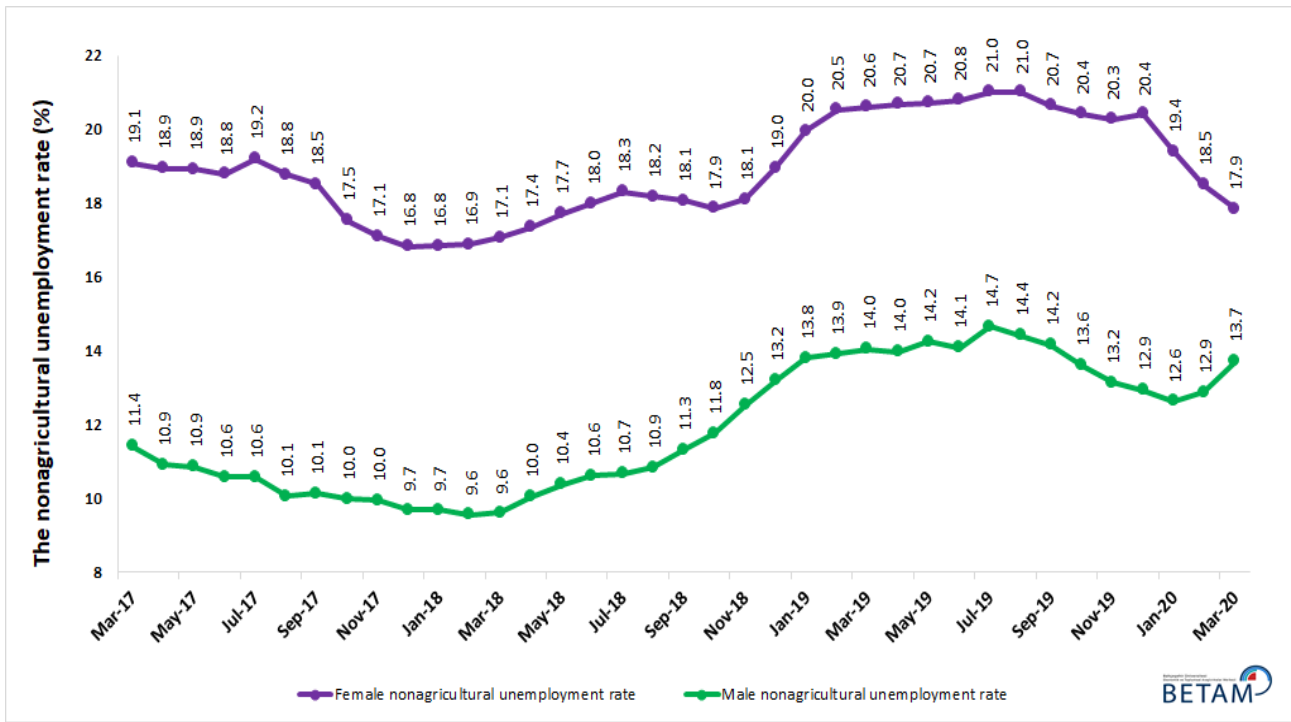
Source: TURKSTAT, Betam

Decrease in male employment along with increase in male unemployment rate

Figure 6 shows seasonally adjusted non-agricultural unemployment rate for males (green) and for females (purple)². In the period of March 2020 compared to the previous period, female non-agricultural unemployment rate decreased by 0.6 percentage point to 17.9 percent. This significant decrease in female unemployment rate resulted from the decrease (361 thousand) in the female labor force while the decrease in employment has been limited to 245 thousand. Male unemployment rate turned out to be 13.7 with 0.8 percentage point increase. Even though male employment decreased by 722 thousand, male labor force decreased by 657 thousand. As a result, the gender gap in non-agricultural unemployment rates decreased from 5.6 percent to 4.1 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
Mar-17	26015	22451	3564	13.7%			
Apr-17	26065	22598	3467	13.3%	50	147	-97
May-17	26091	22647	3444	13.2%	26	49	-23
Jun-17	26145	22746	3399	13.0%	54	99	-45
Jul-17	26132	22709	3423	13.1%	-12	-37	25
Aug-17	26173	22875	3298	12.6%	40	166	-126
Sep-17	26237	22931	3306	12.6%	64	56	8
Oct-17	26241	23040	3201	12.2%	5	109	-104
Nov-17	26390	23197	3193	12.1%	149	157	-8
Dec-17	26410	23294	3116	11.8%	20	97	-77
Jan-18	26517	23388	3129	11.8%	107	94	13
Feb-18	26617	23503	3114	11.7%	100	115	-15
Mar-18	26658	23486	3172	11.9%	41	-17	58
Apr-18	26757	23466	3291	12.3%	99	-20	119
May-18	26789	23414	3375	12.6%	32	-52	84
Jun-18	26948	23499	3449	12.8%	159	85	74
Jul-18	26963	23485	3478	12.9%	15	-14	29
Aug-18	27160	23629	3531	13.0%	197	144	53
Sep-18	27074	23473	3601	13.3%	-86	-156	70
Oct-18	27137	23446	3691	13.6%	63	-27	90
Nov-18	27114	23264	3850	14.2%	-22	-182	160
Dec-18	27064	23004	4060	15.0%	-51	-260	209
Jan-19	27049	22802	4247	15.7%	-15	-202	187
Feb-19	27308	22939	4369	16.0%	260	137	123
Mar-19	27452	23005	4447	16.2%	144	66	78
Apr-19	27422	23007	4415	16.1%	-30	2	-32
May-19	27333	22878	4455	16.3%	-89	-129	40
Jun-19	27364	22958	4406	16.1%	30	80	-50
Jul-19	27414	22891	4523	16.5%	51	-67	118
Aug-19	27467	22962	4505	16.4%	52	71	-19
Sep-19	27390	22980	4410	16.1%	-77	18	-95
Oct-19	27511	23192	4319	15.7%	122	212	-90
Nov-19	27463	23261	4202	15.3%	-48	69	-117
Dec-19	27371	23211	4160	15.2%	-91	-50	-41
Jan-20	27121	23134	3987	14.7%	-251	-77	-174
Feb-20	26765	22857	3908	14.6%	-356	-277	-79
Mar-20	25766	21875	3891	15.1%	-999	-982	-17

Source: Turkstat, Betam

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

	Agriculture	Manufacturing	Construction	Service	Monthly changes			
					Agriculture	Manufacturing	Construction	Service
Mar-17	5396	5346	2089	15016				
Apr-17	5374	5372	2123	15103	-22	26	34	87
May-17	5404	5386	2086	15175	30	14	-37	72
Jun-17	5413	5383	2080	15283	9	-3	-6	108
Jul-17	5509	5363	2121	15225	96	-20	41	-58
Aug-17	5471	5437	2169	15269	-38	74	48	44
Sep-17	5491	5421	2121	15389	20	-16	-48	120
Oct-17	5471	5470	2090	15480	-20	49	-31	91
Nov-17	5481	5470	2128	15599	10	0	38	119
Dec-17	5535	5514	2176	15605	54	44	48	6
Jan-18	5478	5567	2199	15622	-57	53	23	17
Feb-18	5447	5627	2190	15686	-31	60	-9	64
Mar-18	5385	5618	2151	15717	-62	-9	-39	31
Apr-18	5382	5650	2095	15721	-3	32	-56	4
May-18	5331	5669	2045	15700	-51	19	-50	-21
Jun-18	5294	5737	2023	15739	-37	68	-22	39
Jul-18	5257	5703	1970	15812	-37	-34	-53	73
Aug-18	5211	5730	1971	15928	-46	27	1	116
Sep-18	5212	5698	1912	15864	1	-32	-59	-64
Oct-18	5268	5696	1849	15901	56	-2	-63	37
Nov-18	5187	5656	1798	15810	-81	-40	-51	-91
Dec-18	5152	5474	1704	15825	-35	-182	-94	15
Jan-19	5128	5392	1657	15754	-24	-82	-47	-71
Feb-19	5170	5388	1652	15898	42	-4	-5	144
Mar-19	5160	5482	1602	15922	-10	94	-50	24
Apr-19	5074	5553	1572	15882	-86	71	-30	-40
May-19	5044	5546	1528	15804	-30	-7	-44	-78
Jun-19	5070	5616	1553	15789	26	70	25	-15
Jul-19	5119	5600	1524	15767	49	-16	-29	-22
Aug-19	5104	5551	1506	15905	-15	-49	-18	138
Sep-19	5087	5546	1506	15928	-17	-5	0	23
Oct-19	4987	5666	1555	15972	-100	120	49	44
Nov-19	5019	5758	1546	15957	32	92	-9	-15
Dec-19	4916	5699	1571	15942	-103	-59	25	-15
Jan-20	4876	5649	1572	15913	-40	-50	1	-29
Feb-20	4658	5593	1544	15719	-218	-56	-28	-194
Mar-20	4637	5508	1342	15025	-21	-85	-202	-694

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
Mar-17	7635	6177	1458	18369	16272	2098
Apr-17	7628	6183	1445	18424	16412	2012
May-17	7673	6220	1453	18421	16418	2002
Jun-17	7681	6238	1443	18469	16515	1955
Jul-17	7676	6201	1475	18480	16523	1956
Aug-17	7670	6230	1441	18511	16647	1864
Sep-17	7742	6309	1433	18504	16627	1876
Oct-17	7764	6403	1361	18480	16634	1846
Nov-17	7831	6491	1340	18537	16692	1845
Dec-17	7864	6540	1324	18539	16742	1797
Jan-18	7951	6612	1339	18599	16794	1805
Feb-18	7965	6619	1345	18652	16868	1784
Mar-18	7965	6606	1359	18674	16878	1796
Apr-18	8006	6617	1389	18728	16847	1882
May-18	8043	6618	1425	18730	16785	1945
Jun-18	8093	6636	1457	18873	16867	2006
Jul-18	8098	6615	1483	18903	16885	2018
Aug-18	8163	6679	1484	19030	16965	2065
Sep-18	8145	6674	1471	18961	16813	2148
Oct-18	8228	6759	1470	18907	16683	2224
Nov-18	8237	6745	1492	18872	16506	2366
Dec-18	8309	6733	1576	18728	16255	2473
Jan-19	8388	6714	1674	18678	16098	2580
Feb-19	8466	6728	1739	18813	16193	2620
Mar-19	8531	6773	1758	18880	16228	2652
Apr-19	8478	6725	1753	18930	16285	2645
May-19	8412	6669	1743	18890	16199	2691
Jun-19	8430	6676	1753	18957	16287	2670
Jul-19	8418	6648	1770	19055	16260	2795
Aug-19	8437	6664	1773	19072	16320	2751
Sep-19	8383	6652	1731	19039	16341	2698
Oct-19	8449	6723	1726	19063	16468	2595
Nov-19	8379	6679	1700	19076	16567	2509
Dec-19	8360	6653	1707	19008	16548	2460
Jan-20	8299	6688	1611	18841	16460	2380
Feb-20	8134	6629	1505	18603	16207	2397
Mar-20	7773	6385	1388	17946	15484	2462

Source: Turkstat, Betam

Table 4: Seasonally adjusted LFPR, employment rate and non-agricultural unemployment rate (%)

	LFPR	Employment rate	non-agricultural unemployment rate
Mar-17	52.8	46.7	13.7
Apr-17	52.8	46.8	13.3
May-17	52.8	46.9	13.2
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	47.7	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	53.4	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	16.1
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
Mar-20	49.0	42.6	15.1

Source: Turkstat

Table 5: Seasonally adjusted discouraged workers, unemployed and sum of both

	Discouraged Workers-SA	Unemployed- TurkStat-SA	Total (Discouraged Workers + Unemployed)
Jan-19	559	4343	4902
Feb-19	557	4469	5026
Mar-19	532	4533	5065
Apr-19	569	4530	5099
May-19	596	4532	5128
Jun-19	617	4517	5134
Jul-19	623	4602	5225
Aug-19	629	4571	5200
Sep-19	665	4484	5149
Oct-19	711	4383	5094
Nov-19	743	4278	5021
Dec-19	795	4223	5018
Jan-20	861	4069	4930
Feb-20	988	4005	4993
Mar-20	1095	3972	5067

Source: Turkstat, Betam