



AS WE LEAVE BEHIND THE FIRST YEAR OF THE EARTHQUAKE...

Today is February 6, 2024. One year ago, two earthquakes of Mw 7.7 and 7.6 occurred in Pazarcık and Elbistan districts of Kahramanmaraş, caused great loss of life and destruction in 11 provinces. Weeks of search and rescue efforts were mobilized all over Turkey. But the magnitude of loss of life was devastating. According to official statements, 53,537 citizens died, and 107,213 citizens were injured². Because of the losses, the earthquake went down in history as the disaster of the century.

So, what has happened in the earthquake zone in the one-year period since the earthquake? What has been the impact on the Turkish economy?

➤ **First, let us remember the devastation caused by the earthquake and its cost.**

In March 2023, I prepared a detailed assessment of the devastation caused by the earthquake in the report "Impacts and Policy Recommendations of the Kahramanmaraş Centered Earthquake in 2023" at TEPAV.³ According to this report, I estimated that **650 thousand independent units** in the earthquake zone were demolished or needed to be demolished urgently, **170 thousand units** were moderately damaged, and **1.4 million units** were slightly damaged. 650 thousand independent units that were demolished or needed to be demolished due to the earthquake was approximately **7 times** the number of dwellings according to the certificate of occupancy issued in 2022 in all 11 provinces affected by the

¹ https://www.tepav.org.tr/en/ekibimiz/s/1452/Burcu+Aydin+Ozudogru_+PhD

² Taken from the statements made by the Minister of Interior Ali Yerlikaya at the "Kahramanmaraş Centered Earthquakes Evaluation Meeting" held at the Disaster and Emergency Management Presidency (AFAD) on February 4, 2023. <https://www.trthaber.com/haber/gundem/6-subat-depremlerinde-53-bin-537-canimizi-yitirdik-833953.html>

³ Aydın (2023) <https://www.tepav.org.tr/en/haberler/s/10566>

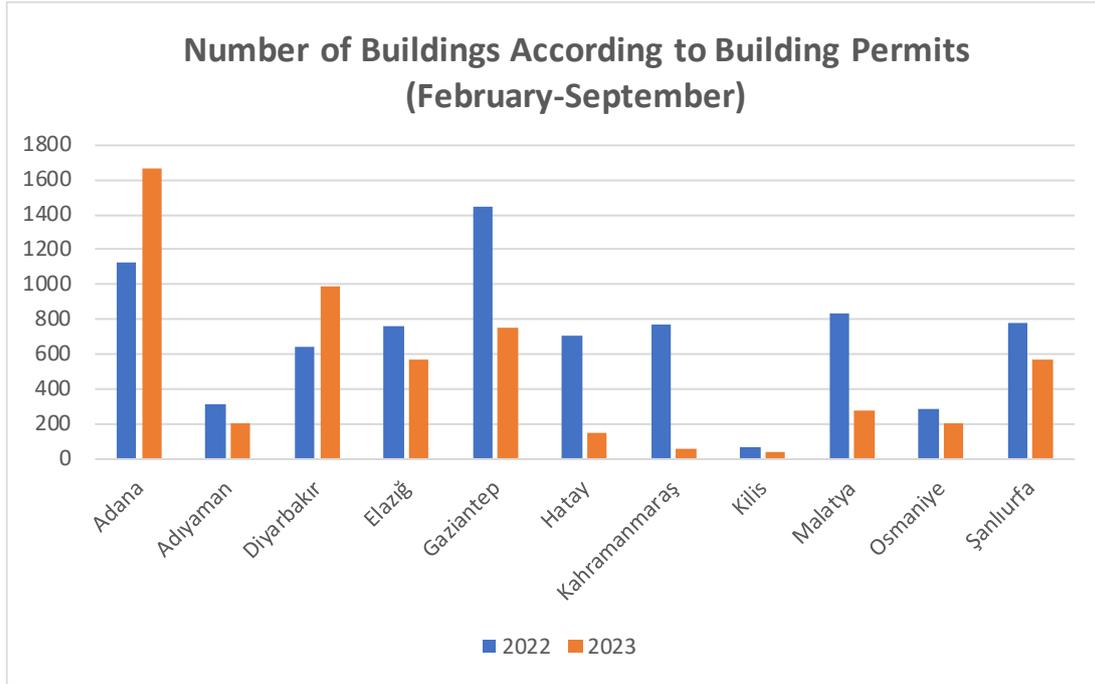
I would like to thank Ömer Faruk Can for his help in gathering the data for this study.

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earthquake in Turkey. It was also more than the number of occupancy permits issued in 2022 across Turkey. This shows the massive size of the destruction caused by the earthquake.

As expected, the impact of the rehabilitation and construction activities, throughout the first year of the earthquake, has been limited in order to make the region habitable again.

According to data released by TURKSTAT, the number of new building permits in heavily damaged provinces remained even below 2022, the year before the earthquake. In 2023, the total number of building permits obtained in Hatay from February, when the earthquake struck, through September—the month with the most recent data available—was 146. In Kahramanmaraş, the epicenter of the earthquake, the number of buildings with building permits was limited to 58 in the same period. During February-September of 2022, the number of building permits was 704 in Hatay and 766 in Kahramanmaraş.



Source: TURKSTAT

According to the official statements, construction activities in the region will continue intensively. Thus, the number of permits obtained in the provinces in the earthquake zone will continue to increase in the following months. However, this increase is still far from eliminating the devastation caused by the earthquake in a few years.

➤ **The cost of the massive destruction has also been enormous.**

According to the Kahramanmaraş and Hatay Earthquakes Report published by Presidency of Strategy and Budget (SBB) in March 2023, the cost of the earthquake is approximately \$104 billion. The most important part of the damage caused by the earthquake is housing damage, amounting to about \$57 billion. Other major items are public infrastructure and service buildings (\$13 billion) and private sector damage excluding housing (\$12 billion)⁴.

In my TEPAV Policy Note (Aydın, 2023) mentioned at the beginning of this article, I estimated the cost of the earthquake at \$150 billion. The largest part of this cost is due to the

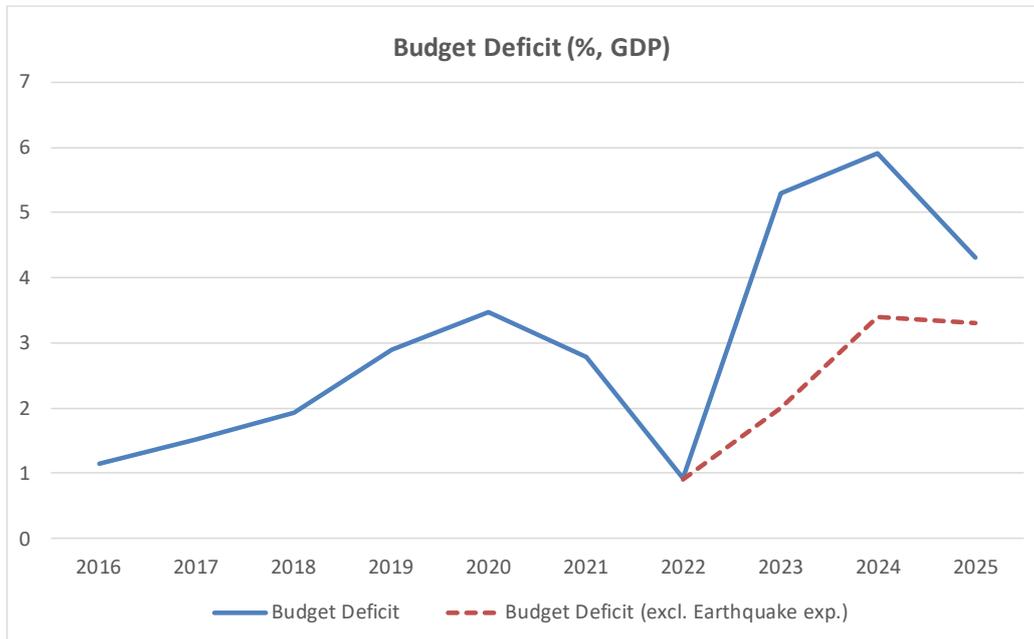
⁴ Republic of Turkey Presidency of Strategy and Budget 2023 Kahramanmaraş and Hatay Earthquakes Report <https://www.sbb.gov.tr/2023-kahramanmaras-ve-hatay-depremleri-raporu/>

reconstruction, retrofitting and repair costs of superstructure and infrastructure, and is at about \$88 billion. The second largest cost is the loss of vehicles, fixtures, inventories, and consumer goods, at about \$35 billion. I also estimated the amount of financing that would need to be allocated for the shelter and living expenses, and business and employment support to the habitants of the region at \$24 billion.

➤ **So, how much expense was incurred in 2023?**

The burden of earthquake spending on the 2023 budget was high. In a press statement made by the Minister of Treasury and Finance Mehmet Şimşek to the Anadolu Agency on January 15, 2024, the amount of earthquake-related spending was marked at 950 billion TL (around 3.7% of GDP) in 2023.⁵ If we look at the earthquake-related budget allocations in the Medium-Term Program (2024-26), we would see that the ratio of earthquake-related expenditures to GDP is marked at 2.5% in 2024, 0.9% in 2025 and 0.8% in 2026. Earthquake-related expenditures correspond to approximately 8 percentage points of GDP in a 4-year period.

In the short and medium term, the budget burden and financing needs of earthquake-related expenditures will be one of the most important agendas of the economic administration. In the Turkish Economic Outlook (Aydın, 2024) published by TEPAV in January 2023, we estimated that the central government budget deficit will increase due to earthquake-related expenditures and will be around 6% of GDP in 2024 and 4% in 2025. These ratios reveal a very high financing need for public finance.



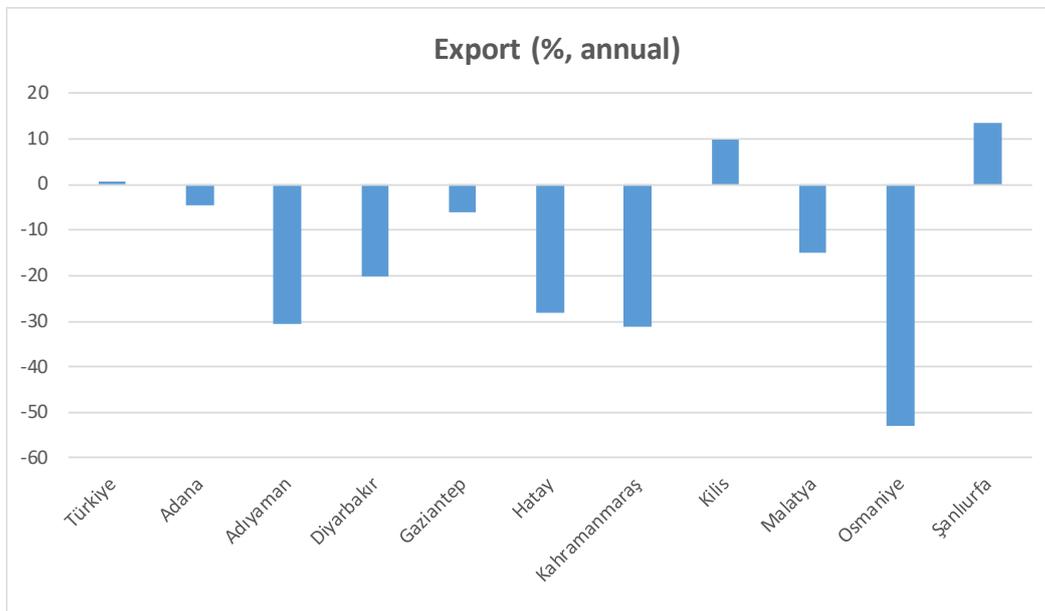
Source: Aydın (2024), "Economic Outlook", TEPAV

➤ **Growth**

⁵ <https://www.aa.com.tr/tr/ekonomi/mali-disiplinde-kararlilik-gecen-yila-iliskin-butce-sonuclarinda-etkisini-gosterdi/3109042#>

In 2023, the Turkish economy grew at a high rate due to the expansionary economic policies. Turkey was hit by the Kahramanmaraş earthquake at a time when economic growth and quality of growth declined, and macro-financial risks increased. Despite that, the Turkish economy grew at a high rate due to the expansionary policies implemented in 2023 and the high domestic demand coming from the non-earthquake regions. Moreover, construction activities in the earthquake zone also contributed positively to economic activity across Turkey. For 2023, growth forecasts for the Turkish economy are above 4%.

On the other hand, we see that the effects of the earthquake on the region are quite negative. If we look at the data on a provincial basis, total exports in the earthquake region decreased by 13% in 2023 compared to the previous year. The sharpest declines were in Osmaniye at 53%, Adıyaman and Kahramanmaraş at around 30%, and Hatay at 28%. The decline in regional exports contributed to the stagnation of total exports in Turkey, which increased only by 1% in 2023.



Source: TURKSTAT

Studies in the literature also present the adverse economic developments in the region. The Central Bank's Economic Note "The Recovery Trend in Regional Exports after the Kahramanmaraş Earthquakes" published in January 2024 (Can, 2024) also shows high losses in exports. In the study, the earthquake-induced loss of exports in the region between February and September 2023 was calculated as approximately USD 2.1 billion. The highest contraction was calculated at 43% in Adıyaman, 34% in Kahramanmaraş, 32% in Osmaniye and 30% in Hatay.

After the earthquake, there were significant losses in economic activity in the region. The number of private workplaces in operation, published by the Social Security Institution, decreased in the entire earthquake zone. In Hatay, Kahramanmaraş and Malatya, which were most affected by the earthquake, the number of private workplaces decreased by up to 60% compared to the previous year.

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Number of private workplaces, annual, %	February	March	April	May	June	July	August	September	October	November
ADANA	-1.5	-8.4	-3.5	-7.1	-0.1	1.3	1.3	1.0	0.9	0.7
ADIYAMAN	-38.4	-51.7	-22.5	-33.9	-26.2	-85.2	-31.5	-29.0	-29.9	-28.6
DIYARBAKIR	-2.0	-8.2	-4.6	-5.6	-2.7	-1.4	-1.6	-2.1	-1.8	-1.6
ELAZIĞ	-2.4	-7.1	-5.0	-7.0	-2.8	-0.9	-1.4	-1.1	-1.6	-0.2
GAZİANTEP	-5.0	-18.8	-6.9	-14.0	-1.0	-0.1	-0.9	-0.7	-0.9	-0.7
HATAY	-48.8	-59.8	-22.3	-44.6	-24.8	-41.1	-38.1	-34.2	-34.0	-38.8
MALATYA	-52.2	-63.9	-25.3	-46.9	-24.7	-41.3	-36.7	-31.3	-29.3	-33.8
K.MARAŞ	-45.6	-57.6	-22.0	-42.5	-22.8	-33.7	-28.7	-25.5	-22.2	-29.6
URFA	7.6	-7.1	2.8	-2.7	6.2	6.7	3.8	1.6	0.1	-1.1
KİLİS	-5.0	-17.9	-10.1	-13.9	-5.0	-3.2	-2.4	-1.2	0.1	0.9
OSMANIYE	-8.7	-21.7	-5.7	-10.3	-2.2	-0.6	-0.2	0.9	0.2	1.1

Source: Social Security Institution, TEPAV

➤ Employment, Income Equality and Poverty

The provinces struck by the earthquake have, on average, lower incomes and levels of socio-economic development compared to Turkey as a whole. The employment rate and the quality of the labor force is low, and informality is high. In addition, companies in the region are mainly composed of micro companies, with 9 or fewer employees.

The provinces most affected by the earthquake experienced high employment losses. According to the November employment data released by the Social Security Institution, the number of wage earners in Hatay, Kahramanmaraş and Malatya, the provinces most affected by the earthquake, decreased by high double digits, annually. Moreover, the share of employment in these provinces also decreased.

Wage earners, annual, %	February	March	April	May	June	July	August	September	October	November
ADANA	3.2	-4.5	-1.7	-3.6	-0.3	1.8	0.8	-0.3	-0.4	-1.7
ADIYAMAN	-10.7	-17.7	-2.9	-7.1	-1.4	-2.5	-0.6	0.2	2.9	1.5
DIYARBAKIR	4.4	2.0	2.0	1.0	3.0	5.4	4.3	3.5	1.9	2.0
ELAZIĞ	0.6	-3.0	-1.6	-3.6	-0.8	-0.2	-1.4	1.4	-0.4	-1.2
GAZİANTEP	1.0	-7.5	-2.1	-7.7	2.8	5.2	4.8	3.1	2.0	1.1
HATAY	-19.8	-28.0	-10.6	-20.3	-9.9	-16.4	-13.9	-13.3	-10.5	-13.3
MALATYA	-18.7	-25.0	-13.2	-18.4	-9.9	-13.2	-13.2	-11.9	-10.6	-11.9
K.MARAŞ	-21.7	-34.0	-14.3	-22.2	-11.9	-14.4	-10.5	-9.8	-3.4	-9.7
URFA	3.2	-0.8	3.0	-0.2	4.4	5.1	5.0	4.7	3.9	2.7
KİLİS	7.6	0.0	3.6	-1.4	8.0	5.7	8.8	10.6	11.5	11.4
OSMANIYE	0.5	6.8	-0.1	-2.5	1.3	5.4	5.1	4.2	3.6	4.3
TÜRKİYE	4.3	3.6	-0.3	-1.3	-1.3	-0.1	-1.5	2.2	-2.3	3.0

Source: SGK

The most important problem in the region is the loss of employment. The field study conducted in the region between March 21-25, 2023, under the leadership of TEPAV also revealed that employment loss is one of the most important problems.⁶

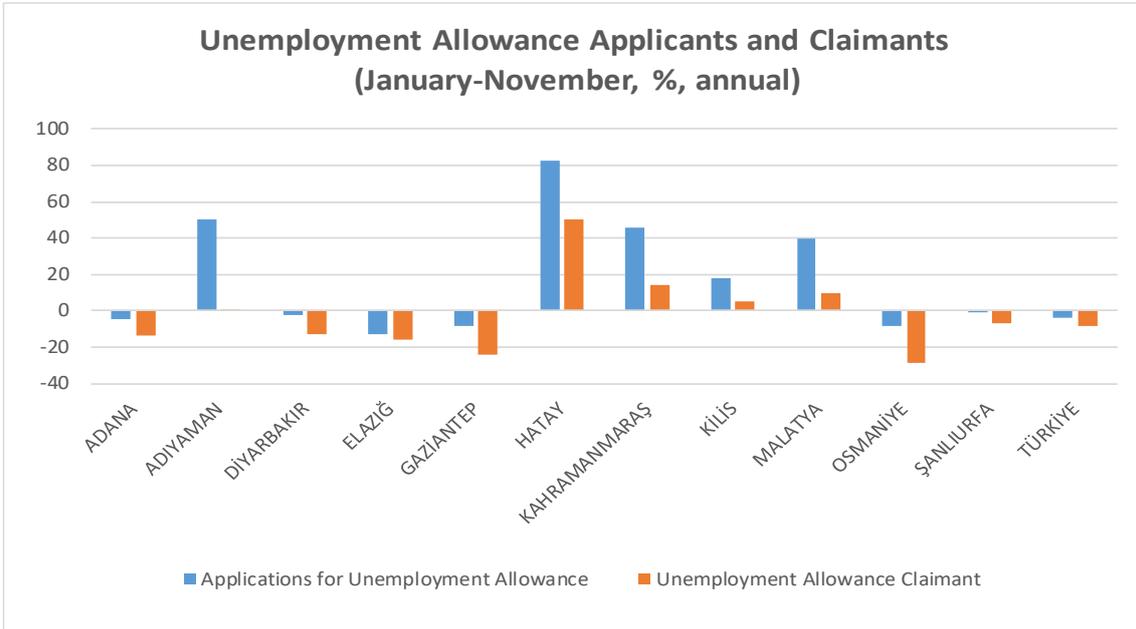
⁶ <https://www.tepav.org.tr/tr/haberler/s/10568>

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Source: Social Security Institution, TEPAV

Despite high migration out of the region due to the devastation after the earthquake, unemployment in the earthquake region has increased at record levels. According to İŞKUR data, during January-November 2023, applications for unemployment benefits increased by 83% in Hatay, 50% in Adiyaman, 46% in Kahramanmaraş and 40% in Malatya. In the same period, this rate decreased by 4% overall in Turkey.



Source: İŞKUR, TEPAV

While the number of applications for unemployment allowance increased by high double digits in the provinces of the earthquake region, the number of those entitled to unemployment allowance increased only marginally. In all provinces of the region, the

number of applicants for unemployment allowance increased by 12%, while the number of claimants decreased by 6%. This situation indicates that the living conditions of households in the region will worsen.

➤ **Where are we in a nutshell?**

The effects of the earthquake on the region were devastating. One year after the earthquake, despite the intensive construction activities, we foresee that the normalization of the earthquake zone will be a very long time.

In the meantime, the loss of jobs and labor will adversely affect the region's economy. For the region to normalize again, it would be beneficial to support economic activity and develop policies that will positively discriminate against employment. These policies will also contribute to the return of the population back to the region.

Income policies should be implemented to ensure minimum living standards. It is once again important to continue to provide housing, living, business and employment support to the region to compensate for the destruction caused by the earthquake to the habitants of the region, and to support the most socially vulnerable households.

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