Sectoral Indicators and **Developments**

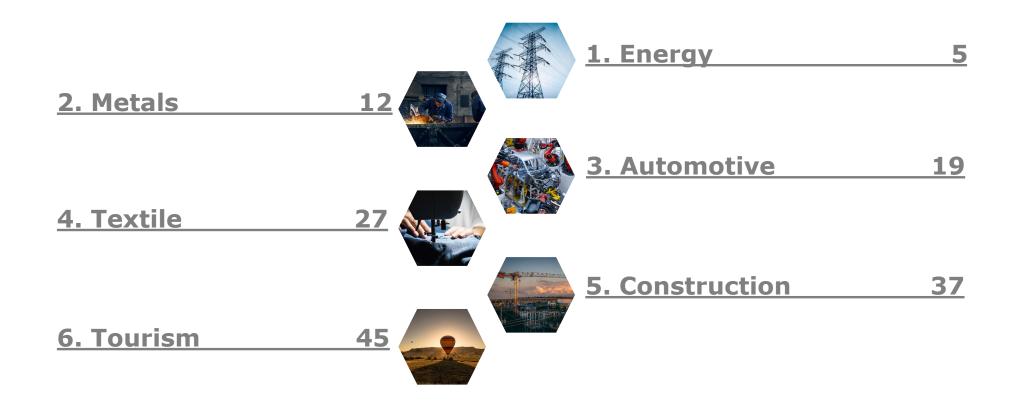
March 2023

JCR Eurasia Rating

Economic and Analytical Research



CONTENTS







ENERGY | Electricity

In February 2023, the effects of earthquake were seen in electricity production.

Electricity production decreased by 4.6% in January 2023 compared to the same month of the previous year. Due to the extreme weather, the electricity produced especially from hydropower decreased by 37.4%. In addition to extreme weather, owing to the earthquake, while electricity production fell by 5.8% in February, the rate of electricity produced from hydropower diminished by 52.4%.

In February 2023 compared to the same month of previous year

Electricity Generation

Electricity Generation from Renewable Sources

down by 24.8%



Türkiye's Total Installed Capacity in December 2022 realized as

103,809 мw





MW



Monthly Average PTF

Previous Month | February 2023 2,803 3,431

Maximum Settlement Price (TRY/MWh)

Previous Month | February 2023

Domestic Coal

2,092

2,106

Imported Coal

1,891

1,621

Natural Gas

3,989

Other

1,577

3,401

ENERGY | Electricity | Production

There was a drastic decrease in electricity production in the first month of 2023.

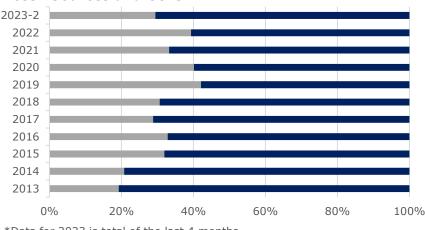
Fossil fuels created 70.1% of the total electricity production in February 2023, which was 62.5% in the same period of the previous year. Renewable sources constituted 29.9% of the total electricity production in February 2023, which was 37.5% in February 2022.

By source, coal had the largest share of electricity production in February 2023 with a share of 39.7%, followed by natural gas with a share of 28.9%.

Türkiye's Electricity Production (TWh)									
Year/Period	Renewable	Fossil & Other	Total						
2013	23.50	98.44	121.94						
2014	51.55	196.48	248.03						
2015	82.60	176.15	258.74						
2016	88.65	181.26	269.91						
2017	83.71	206.83	290.54						
2018	89.43	202.43	291.86						
2019	122.34	168.13	290.47						
2020	116.82	174.10	290.92						
2021	104.75	210.02	314.77						
2022	122.42	188.75	311.17						
2022 JanFeb.	18.77	33.79	52.56						
2023 JanFeb.	16.61	39.77	56.38						

Electricity Production by Source

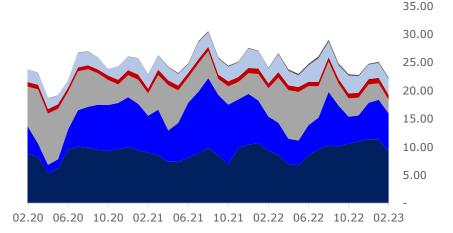
Renewable Sources Fossil Sources and Other



*Data for 2023 is total of the last 4 months.

Electricity Production by Source (TWh)

Coal Natural Gas Hydropower





ENERGY | Electricity | Consumption

Electricity consumption fell by 3.6% on an annual basis and rose by 2.5% on a monthly basis, amounting to 27,317 GWh in February 2023.

The consumption with a reduction of 3.9% on an annual basis in February, decreased by 10.5% on a monthly basis due to the earthquake and extreme weather.

The earthquake in February played an important role in drop in electricity consumption.

Mo	athly	Enor			ntion	(C)								2021		202	2	
MO	itiliy	Eller	Jy Col	isuiii	ption	(GWh)								Decemb	per	Decem	ber	
Year	1	2	3	4	5	6	7	8	9	10	11	12	Type of Consumer	Amount		Amount	Share	Change (%)
2016	23,731	21,153	22,161	21,302	21,900	23,051	24,370	26,269	21,233	21,850	22,683	25,161	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(MWh)	(%)	(MWh)	(%)	je (++)
2017	25,103	22,452	23,586	21,953	22,854	22,304	27,776	27,522	23,808	23,162	23,861	25,594	Lighting	555	2.6	599	3.0	7.9
2018	25,929	22,844	24,145	22,786	23,195	23,005	28,266	26,668	24,212	22,667	23,336	25,148	Public and Private Services	5,496	25.3	5,095	25.2	-7.3
2019	25,369	22,630	23,794	22,611	23,587	23,035	28,003	26,422	24,126	22,890	23,085	25,518	& Other	-,		-,		
2020	26,174	24,225	23,740	19,131	19,642	22,526	27,241	27,356	26,225	24,029	24,405	26,325	Household	5,361	24.7	5,023	24.8	-6.3
2021	26,895	24,194	27,605	25,618	24,779	26,438	30,243	32,128	27,328	26,109	26,536	28,922	Industry	9,806	45.1	9,130	45.1	-6.9
2022	28,323	25,441	28,257	25,729	25,189	27,088	28,612	31,475	27,187	25,111	24,743	26,653	Agricultural Activities	521	2.4	416	2.1	-20.1
2023	27,317	24,462											Total	21,739	100.0	20,264	100.0	-6.8



ENERGY | Electricity | Prices

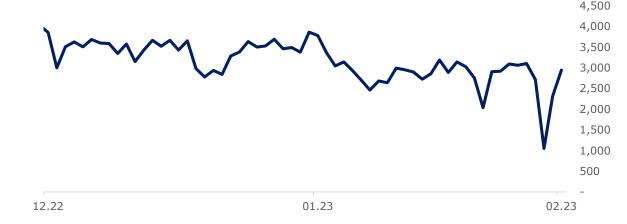
The maximum price limit and MCP ceiling price have been reduced.

The Maximum Price Limit in the day-ahead market and balancing power market has been determined as 3,050 TRY/MWh as of 1 March. In addition, the MCP ceiling price, which has been 4,800 TRY/MWh since September 2022, has been determined as 4,200 TRY/MWh as of January 2023.

Maximum Settl	ement Price (TRY/MWh)	Maximum Settlement Price (TRY/MWh)				
Period	Imported Coal	Period	Other			
Q2-2022	2,236	Q2-2022	1,190			
Q3-2022	2,830	Q3-2022	1,430			
Q4-2022	2,312	Q4-2022	1,495			
QT 2022	2,512	Q7 2022	4			

Maximum Settl	ement Price (TRY/MWh)	Maximum Settlement Price (TRY/MWh)				
Period	Domestic Coal	Period	Natural Gas			
Q2-2022	1,190	Q2-2022	2,177			
Q3-2022	1,430	Q3-2022	2,979			
Q4-2022	1,954	Q4-2022	3,479			

Daily MCP (TRY/MWh)



Period	Month	Imported Coal	Domestic Coal	Natural Gas	Other
2022-4	April	2,500.00	1,200.00	2,500.00	1,200.00
2022-5	Мау	2,731.99	1,290.77	2,513.00	1,290.77
2022-6	June	3,062.26	1,369.98	2,896.08	1,369.98
2022-7	July	3,556.52	1,412.12	2,902.62	1,412.12
2022-8	August	3,426.83	1,452.52	3,172.01	1,452.52
2022-9	September	3,372.67	1,488.21	4,619.41	1,488.21
2022-10	October	2,750.00	2,050.00	4,500.00	1,540.00
2022-11	November	2,178.53	2,057.11	4,500.82	1,545.34
2022-12	December	2,494.00	2,059.00	4,501.00	1,547.00
2023-1	January	1,890.87	2,091.54	3,989.48	1,576.97
2023-2	February	1,621.17	2,105.95	3,401.18	1,589.80

Maximum Settlement Drice (TRY/MWh)



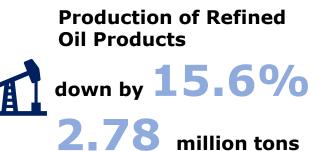
5,000

ENERGY | Oil

In December 2022, crude oil imports dropped by 23.93%. Diesel imports rose by 25.40% and reached 1.09 million tons. Thus, Türkiye as of 2022;

• produced a total of 38.03 million tons • imported a total of 13.93 million tons

In December 2022 compared to the same month of previous year



Crude Oil Import







Monthly Average Dealer Sales Price - Janua	ary 2023
Fuel Type	Price
Unleaded Gasoline 95 Octane (It)	20.10558
Unleaded Gasoline 95 Octane (Other, lt)	20.16957
Diesel (It)	22.61383
Diesel (Other, lt)	22.66238
Heating Oil (Sulfur content between 0.1% - 1.0% kg)	17.40755
Fuel Oil (Sulfur content between 0.1% - 1.0%, kg)	14.23852
High Sulfur Fuel Oil (Sulfur content >1%, kg)	10.24594
Kerosene (lt)	22.73029





ENERGY | Natural Gas

As of March 1, 2023; the wholesale price of natural gas for

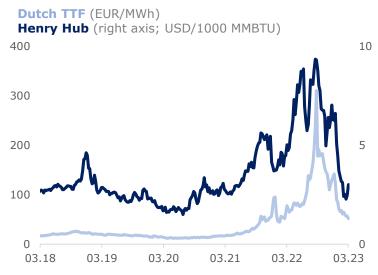
• large industrial enterprises has been reduced by 20.95% to 26.12%,

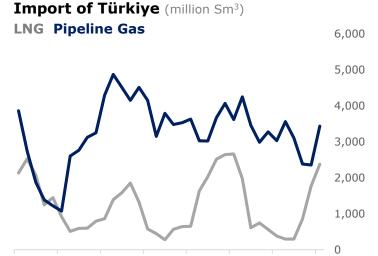
• electricity production has been reduced by 20%.

In December 2022 compared to the same month of previous year LNG Import Pipeline Gas Import down by 5.5% down by 6.4% 2,376 million Sm³ 3,433 million Sm³ Stock up by 178.7% 5,334 million Sm³



Natural Gas Prices





 $01.20 \quad 06.20 \quad 11.20 \quad 04.21 \quad 09.21 \quad 02.22 \quad 07.22 \quad 12.22$



METALS | Production

Turkish steel industry took a hard hit due to the global developments in 2022.

In December 2022, Türkiye's crude steel production was **2.7 million tons** with a 20.0% fall compared to the same month of the previous year, while total crude steel production in 2022 decreased by 12.9% and realized as **35.1 million tons**. Thus, Türkiye dropped from 7th place to the 8th place in the world ranking in 2022 in crude steel production. In December, exports of steel products amounted to 864 thousand tons with a decline of 51.6% on an annual basis in terms of quantity, while it was **USD 745 million** with a decrease of 55.1% in terms of value.



In terms of quantity **Crude Steel Production** in **December** down by

20.0%



Finished Steel Product Export

in **December** down by 51.6%



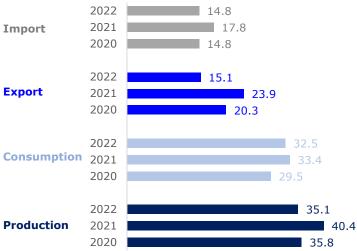
Base Metal Industrial Production Index in **December** down by

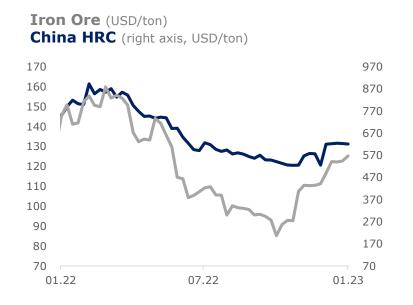
17.4%



Base Metal Capacity Utilization Rate in **January** realized as 74.53%

Turkish Steel Industry (million tons)



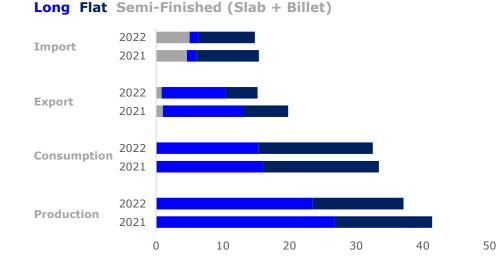


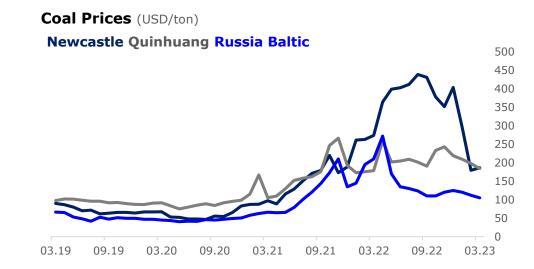


METALS | Production

Flat steel production in Türkiye decreased by 6.85% in 2022 to **13.6 million tons**, while long steel production amounted to **23.5 million tons**. In 2022, Türkiye exported **4.8 million tons** of flat steel and imported **9.6 million tons** of long steel. Semi-finished product import was **5 million tons** and flat product import was **8.4 million tons**. According to the decision of the Official Gazette dated 28.01.2023, some flat steel product import duties were revised, which enabled flat steel product imports to be replaced by domestic production to a certain extent.

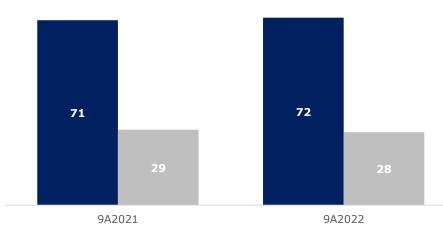
Turkish Steel Industry (million tons)





Distribution of Production by Facility (%)

Electric Arc Furnace Integrated Blast Furnace



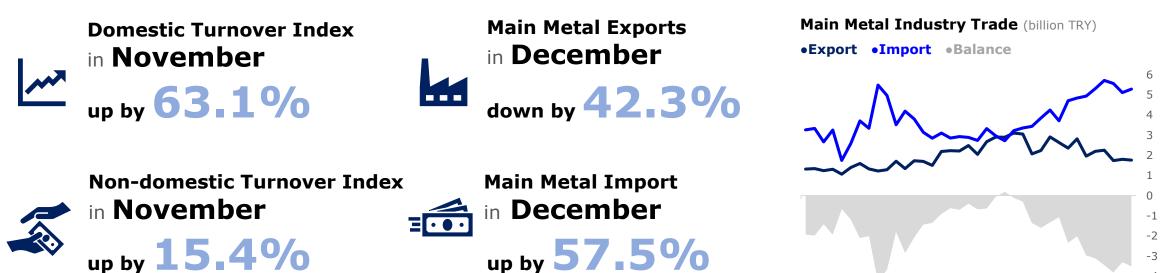
JCR-ER JCR Eurasia Rating

Source: TSPA, Ereğli Investor Presentation, Kardemir Investor Presentation, Refinitiv, JCR-ER

METALS | Sales

Geopolitical developments continue to be influential in the global steel trade.

In addition to the reduction in demand in the EU after the Russia-Ukraine war, the protectionist policies of the EU and the USA caused a decline in the global steel trade. Besides, the increase in base metal prices caused the foreign trade deficit to be adversely affected in the first half of 2022. On the other hand, the attempts of the EU and the USA to hinder free trade by preventing scrap exports exacerbated the existing problems within the industry. However, in 2023, along with the pullback in energy and raw material prices, favorable international demand conditions support the positive outlook.



Main Metal Industry Turnover Index

(Annual % Change, 2015=100) • Domestic • Non-domestic

11.20

05.21

11.21

05.22

11.19

12.19

06.20

12.20

06.21

05.20

200

150

100

50

0

11.22

-50

-4

12.22

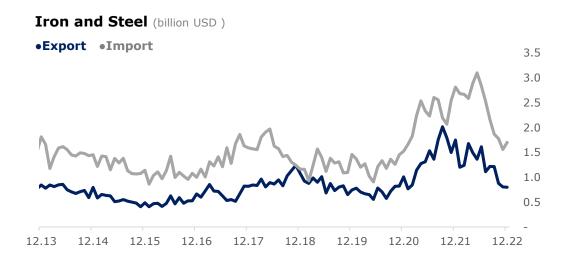


06.22

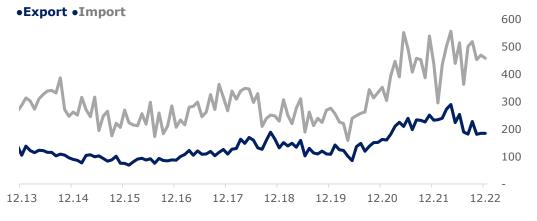
12.21

METALS | Foreign Trade

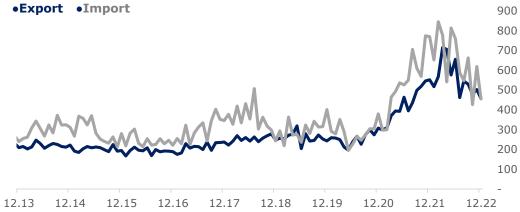
Türkiye's Foreign Trade by Chapters

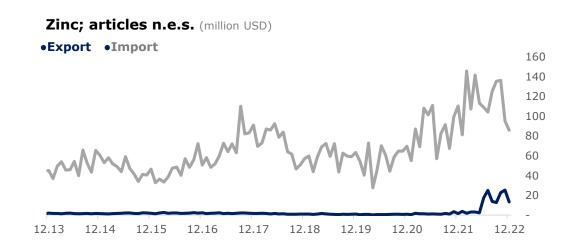


Copper and Articles thereof (million USD)



Aluminum Articles thereof (million USD)







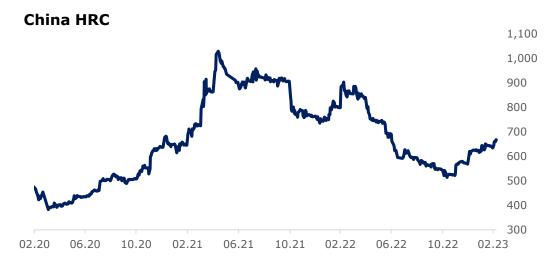
METALS | Prices

Changes in supply and demand conditions determine metal prices.

The base metal prices, in which geopolitical developments play an important role, have recently started again with the expectation of increase in global demand as a result of reopening of China.

JCR Eurasia Rating

Group of Japan Credit Rating Agency, Ltd."



Iron Ore Prices





Türkiye Scrap Steel Prices



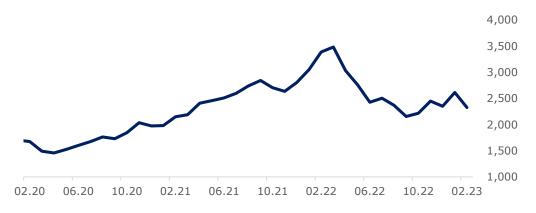


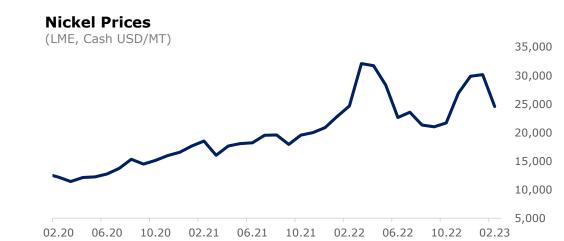
Source: Refinitiv, Financial Times, JCR-ER

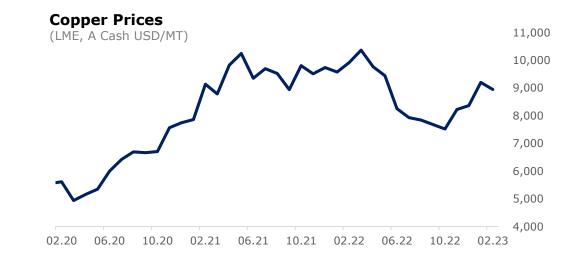
METALS | Prices



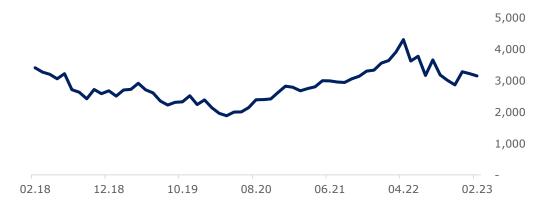
(LME, 99.7% Cash USD/MT)







Zinc Prices (LME, SHG 99.995% Cash USD/MT)





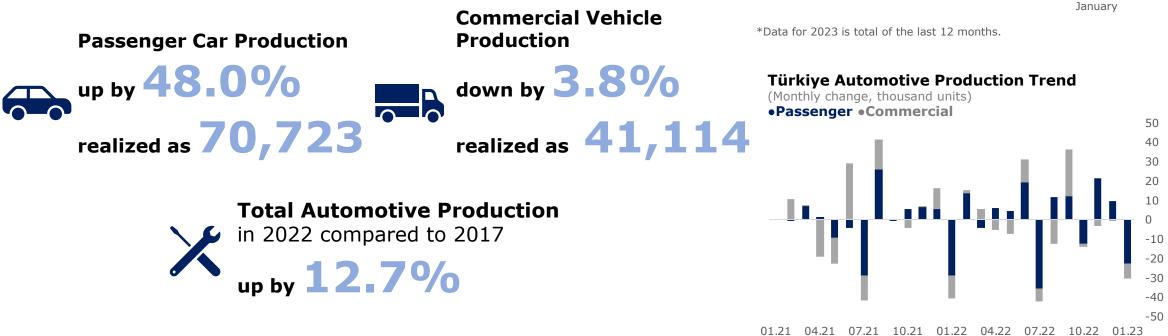


AUTOMOTIVE | Production

As of the first month of 2023, total automotive production increased by 24% and exports by 17%.

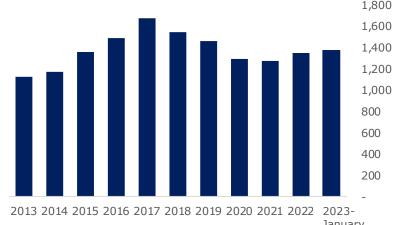
In the January 2023, total automotive production rose by 24% and automobile production by 48% compared to the same month of the previous year. In January, total production was **111 thousand 837** units and automobile production was at the level of **70 thousand 723** units.

In January 2023 compared to the same month of previous year



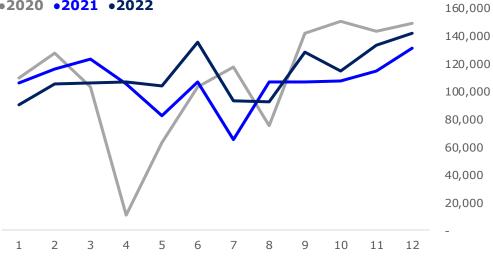


Total Automotive Production (thousand)



AUTOMOTIVE | Production

Passenger & Light Commercial Vehicle Production •2020 •2021 •2022



Passenger •Commercial
 1,200
 1,000
 800
 600
 400
 200

2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023-

*Data for 2023 is total of the last 12 months.

Total Automo	tive Produc	tion											
Year/Month	January	February	March	April	Мау	June	July	August	September	October	November	December	Total
2013	83,808	93,519	99,819	93,308	96,918	101,975	111,992	47,288	111,516	88,579	113,646	83,166	1,125,534
2014	75,042	83,140	97,308	98,991	101,495	108,101	98,146	57,278	116,281	100,977	113,093	120,593	1,170,445
2015	102,574	109,012	123,119	120,388	88,048	124,451	112,728	76,977	116,534	132,977	126,236	125,752	1,358,796
2016	97,644	120,691	127,791	123,205	125,342	131,268	110,851	78,087	118,341	145,866	150,681	156,115	1,485,882
2017	128,121	138,369	157,729	149,020	154,758	141,161	148,974	71,463	134,247	156,303	163,460	130,079	1,673,684
2018	124,347	141,372	159,464	138,504	148,304	131,194	143,729	47,175	132,931	131,231	128,875	122,993	1,550,119
2019	109,871	119,473	132,189	127,913	136,517	109,116	133,883	52,242	136,236	132,155	135,951	135,775	1,461,321
2020	109,783	127,882	103,350	11,164	63,145	103,173	118,030	75,341	142,129	150,746	143,264	149,614	1,297,621
2021	106,176	116,088	123,427	105,496	82,860	107,219	65,418	106,748	107,029	108,078	115,078	131,557	1,275,174
2022	90,520	105,644	106,575	107,167	103,984	135,424	93,659	92,625	128,872	114,835	133,469	142,314	1,355,088
2023	111,837	-	-	-	-	-	-	-	-	-	-	-	



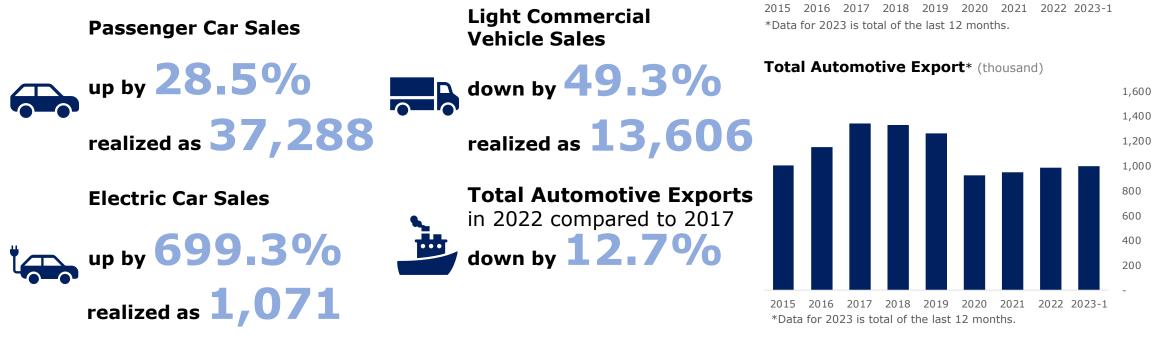
January

AUTOMOTIVE | Sales

Automotive sales increased in January 2023 compared to the previous year.

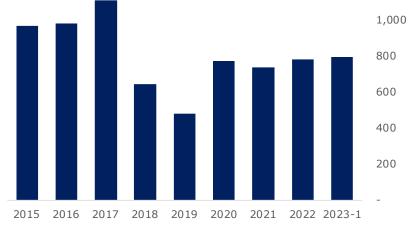
In January 2023, the Turkish automobile and light commercial vehicle total market went up by 33.5% compared to the same month of the previous year, amounting to **50,894**. It also increased by 54.5% compared to average of sales in January for the last 10 years.

In January 2023 compared to the same month of previous year



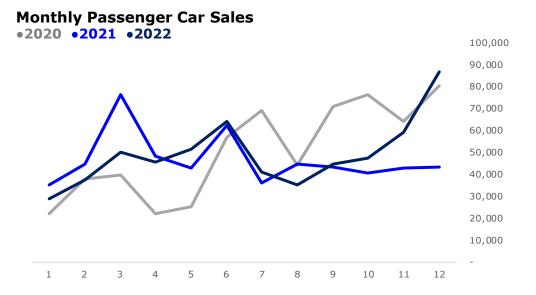


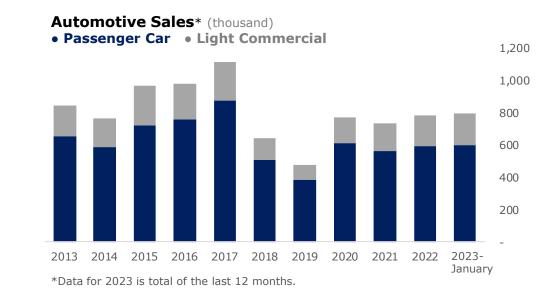
Total Automotive Sales* (thousand)



1,200

AUTOMOTIVE | Sales

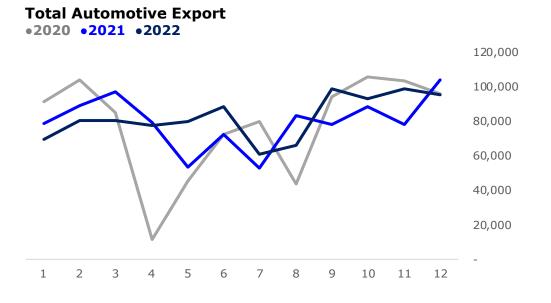




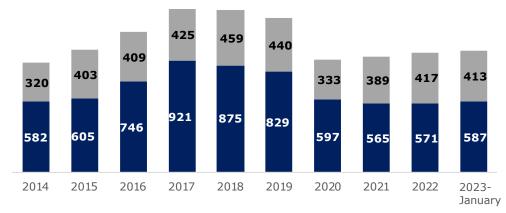
Total Automo	Fotal Automotive Sales												
Year/Month	January	February	March	April	Мау	June	July	August	September	October	November	December	Total
2013	35,523	48,307	68,774	73,575	81,468	74,096	62,486	65,043	67,963	58,014	79,301	129,718	844,268
2014	32,800	35,021	47,581	53,305	58,121	60,163	59,907	60,199	66,531	66,573	80,621	146,989	767,811
2015	34,615	55,331	83,302	91,602	81,542	86,158	83,836	82,577	64,025	64,255	84,601	156,173	968,017
2016	32,713	52,825	82,948	84,887	93,904	91,540	58,533	71,556	67,593	83,000	122,309	141,912	983,720
2017	35,323	46,965	73,802	75,988	85,422	83,658	104,640	92,464	91,975	115,703	128,675	178,053	1,112,668
2018	44,990	59,876	76,345	71,126	72,755	51,037	52,734	34,346	23,028	21,571	58,204	77,706	643,718
2019	14,373	24,875	49,221	30,971	33,016	42,688	17,927	26,246	41,992	49,075	58,176	90,500	479,060
2020	27,273	47,122	50,008	26,457	32,235	70,973	87,401	61,533	90,619	94,733	80,141	104,293	772,788
2021	43,728	58,504	96,428	61,488	54,734	79,819	47,849	58,454	57,141	56,746	60,216	62,243	737,350
2022	38,131	49,652	64,267	60,035	65,167	80,652	52,206	48,336	62,084	65,222	82,311	115,220	783,283
2023	50,894	-	-	-	-	-	-	-	-	-	-	-	50,894



AUTOMOTIVE | Export



Automotive Export* (thousand units) •Passenger •Commercial & Tractor



*Data for 2023 is total of the last 12 months.

Total Export (Total Export (including tractor)												
Year/Month	January	February	March	April	May	June	July	August	September	October	November	Decmber	Total
2020	91,430	103,796	84,765	10,997	45,086	72,230	79,564	43,801	93,976	105,523	103,142	95,723	930,033
2021	78,793	88,977	96,945	79,469	53,078	72,147	52,558	83,488	78,174	88,591	77,823	104,010	954,053
2022	69,261	80,488	80,497	77,535	79,884	88,239	60,803	65,945	98,598	93,194	98,711	95,080	988,235
2023	81,099	-	-	-	-	-	-	-	-	-	-	-	81,099



AUTOMOTIVE | Recent Developments

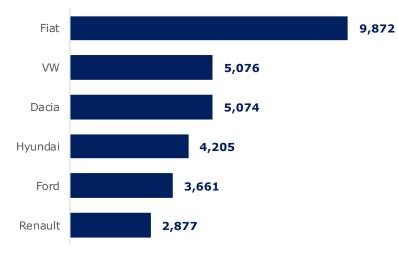
On November 24, 2022, the SCT basis in automotive were revised.

For instance, for cars whose price before tax does not exceed TRY 120 thousand, as a result of a 45% SCT being charged, resulting in an addition of TRY 54 thousand, the price rises to TRY 174 thousand. Then, a VAT rate of 18% is applied. Details are given below.

Revised SCT Bases	SCT Bracket	Tax Base	e Bracket
Reviseu SCI Dases	Current (%)	Former	Current
	45	TRY 0- 120	TRY 0-184
	45	Thousand	Thousand
	50	TRY 120-150	TRY 184-220
	50	Thousand	Thousand
	60	TRY 150-175	TRY 220-250
<1600cc	00	Thousand	Thousand
	70	TRY 175-200	TRY 250-280
	70	Thousand	Thousand
		TRY 200	TRY 280
	80	Thousand and	Thousand and
		Above	Above
	45	TRY 0-130	TRY 0-228
	тЈ	Thousand	Thousand
	50	TRY 130-210	TRY 228-350
1600cc-2000cc	50	Thousand	Thousand
		TRY 210	TRY 350
	80	Thousand and	Thousand and
		Above	Above

Automobile market by engine type;

- Gasoline automobile sales with 25,562 units, 68.6% share,
- Diesel automobile sales with 5,017 units 13.5% share,
- Hybrid automobile sales with 4,335 units, 11.6% share,
- LPG automobile sales with 1.303 units, 3.5% share,
- Electric automobile sales with 1,071 units

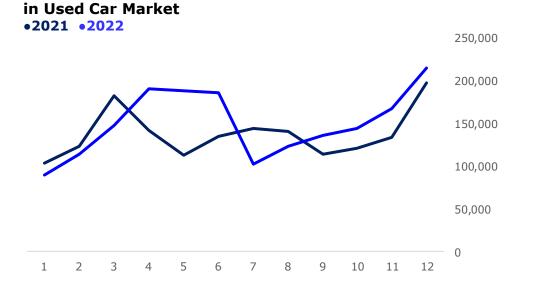


Top Selling Brands (January 2023)



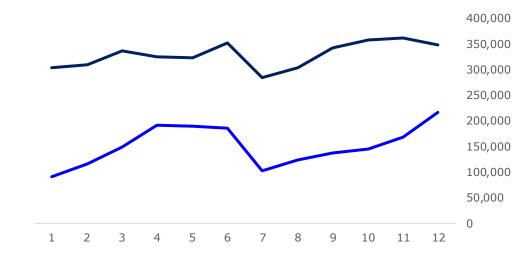
AUTOMOTIVE | Used Car Market

According to data from INDICATA, in January 2023, a total of **388,097** vehicles were advertised in online used passenger and commercial vehicle market in Türkiye. Thus, it is observed that the number of advertisements increased by 28% compared to January of the previous year and 42% of those vehicles were sold. **163,403** sales were realized in January 2023, up by 81% compared to the same period of the previous year.



Online Passenger and Commercial Vehicle Sales

Sales in Online Used Car Market, 2022 •Online Ads •Online Sales







TEXTILE | Manufacturing, Employment and Costs

While the textile products manufacturing PMI data, which have remained below 50-point level since May 2022, indicated a contraction, weak manufacturing CUR revealed distress in the sector.

On the other hand, the re-opening of China is another fact that will negatively affect the industry in terms of competition.



Manufacturing PMI | 02/23 Textiles: 47.2 **Clothing and Leather Products:** 46.2



Industrial Production Index | 12/22

Textiles: - 15.6% Wearing Apparel: 11.6% Leather Products: 38.7%



Employment | 12/22 Number of Workers Insured 1,304,927

*Covers the manufacture of textiles, wearing apparel and leather products



Manufacturing CUR | 02/23 Textiles: 70.15% Wearing Apparel: 78.68% Leather Products: 71.95%



Industrial Turnover Index | 12/22 Textiles: - 31.1%

Wearing Apparel: - 58.4%

Leather Products: - 141.9% * Seasonal and Calendar Adjusted

* Closing price on 01/02/23

Cotton Price | 02/23

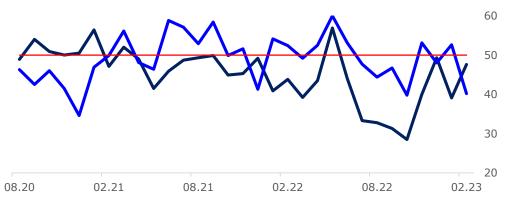




TEXTILE | Manufacturing

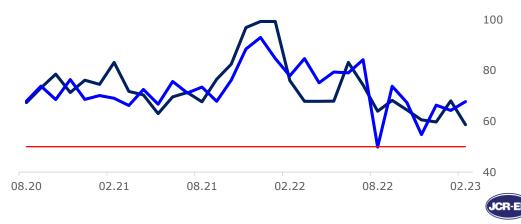
While the manufacturing CUR of textiles and wearing apparel could not reach the pre-pandemic level, leather products managed to rise above the pre-pandemic level. As of October 2022, textiles manufacturing PMI data, which were down 5 months in a row to 36.4, bounced back in November and December, but still, along with wearing apparel, remained below the 50-point level. While there have been fluctuations seen in the industrial production index for textiles, wearing apparel and leather products surpassed the pre-pandemic level.



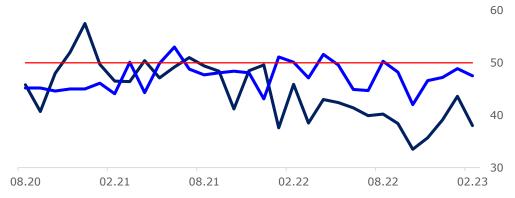


Input Prices

Textiles Clothing and Leather Products



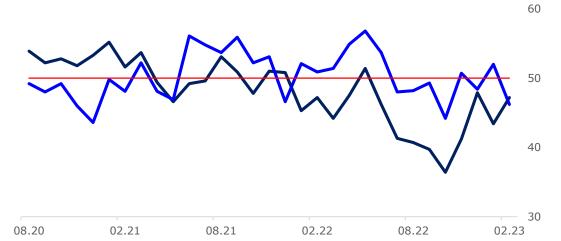


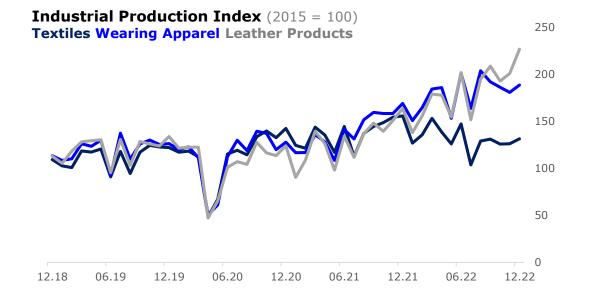




TEXTILE | Manufacturing Indicators

Türkiye PMI Textiles Clothing and Leather Products

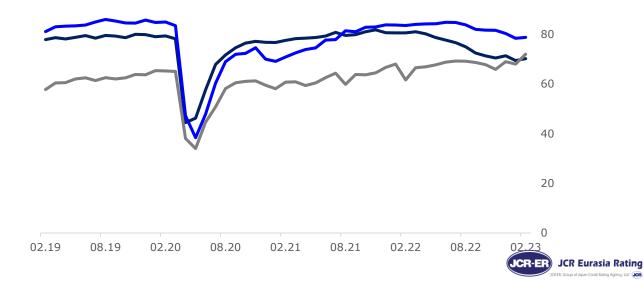




Manufacturing CUR (%)

Textiles Wearing Apparel Leather Products

100

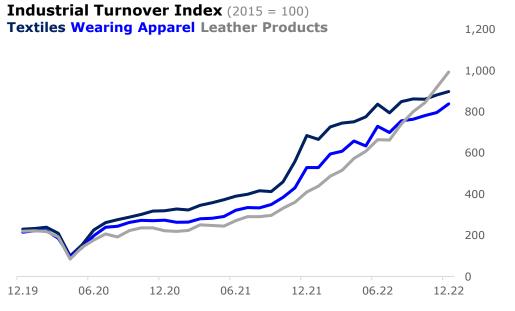


Source: TURKSTAT, ICI, CBRT EDDS, JCR-ER

TEXTILE | Turnover Indices

The growth in the retail turnover index for textiles, wearing apparel and leather products is mainly owing to the rise in inflation, along with the tourism effect.

In parallel with the manufacturing side, particularly leather products posted an even stronger rise in the industrial turnover index compared to the textiles and wearing apparel segments.



* Seasonal and Calendar Adjusted



* Seasonal and Calendar Adjusted

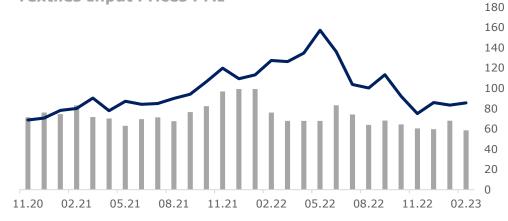


TEXTILE | Costs

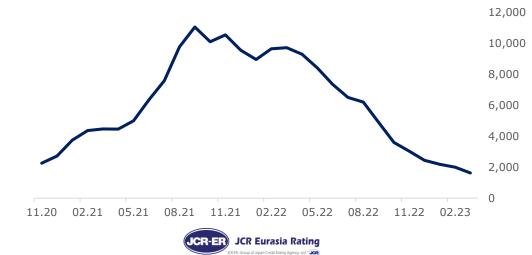
After climbing up to 1.6 USD/pound level in August 2022, cotton prices have pulled back to 0.7 USD/pound level as of October 2022 on the ground of risk of global recession and have varied, ranging from 0.8 to 0.9 USD/pound since November. In addition, the effect of weakness in global growth expectations is observed in the global container index.

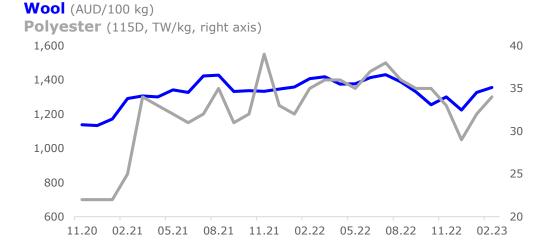
Cotton (USD/pound)

Textiles Input Prices PMI



FBX Global Container Index (USD)





TEXTILE | Employment

Turkish textile industry began to struggle in competition with its rival countries due to high energy costs and increased minimum wages.

While the number of workers insured in the manufacture of textiles were 484,183 in December, the lowest level of the year, it diminished by 0.19% compared to annual average of 2021.

The share of employment in the manufacturing of textiles, wearing apparel and leather products in total, which was 7.90% in the first months of 2022, decreased to 7.53% by year-end, while the average for 2022 was 7.70%.

8.40

8.00

7.60

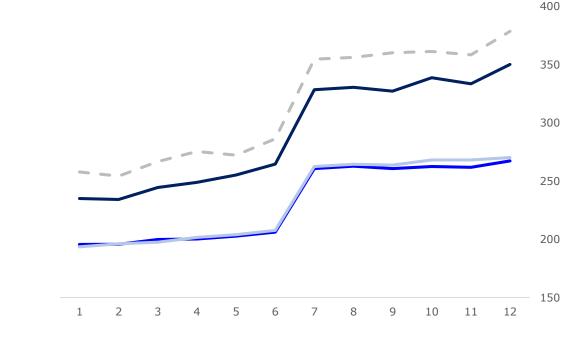
7.20

Employment Figures* (thousand) Textiles Wearing Apparel Leather Products Share (%, right axis) 1,400 1,200 1,000 800 600 400



* 2022 data is calculated as annual average

Average Daily Earning in the Last 12 Months (TRY) Textiles Wearing Apparel Leather Products Average





TEXTILE | Foreign Trade

In 2021, Türkiye stood out as the world's 4th largest supplier of textiles in Europe, while it is the 6th in the world and 3rd in Europe in terms of wearing apparel. Export of wearing apparel, which grew by 15.7% in the first half of 2022, shrunk by 3% as of the second half of 2022 as a result of the decline in demand from Europe. Thus, wearing apparel export finished 2022 with a growth of 5.7%.



2023 January Export of Textiles, Wearing Apparel and Leather Products USD 36.6 billion



2023 January Export of Wearing Apparel USD 18.8 billion 4.9 billion pieces 1.1 billion KG



2022 Share of Textile and Raw Materials Export in 11 Provinces Affected by Earthquake



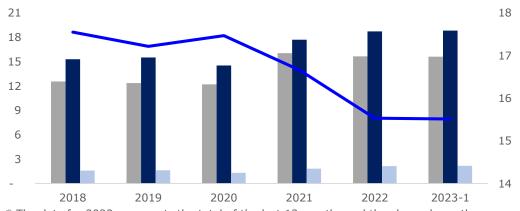






TEXTILE | Export

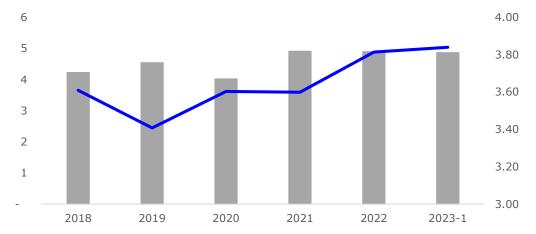




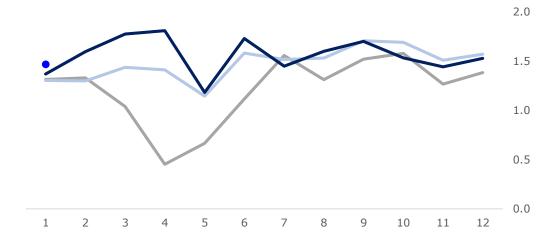
* The data for 2023 represents the total of the last 12 months and the share shows the share of exports of textiles, wearing apparel and leather products in total exports.

Export of Wearing Apparel* (billion)

Piece Per Piece (right axis)

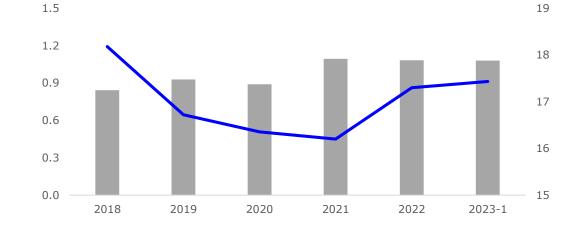


Monthly Export of Wearing Apparel (billion USD) 2020 2021 2022 2023



Export of Wearing Apparel* (billion)

KG Per KG (right axis)





TEXTILE | Export

Export of Wearing Apparel* (billion USD)

	2021	2022	2023-1	Share (%)
Germany	2.91	3.18	3.17	16.83
Spain	2.63	2.49	2.49	13.21
United Kingdom	1.96	1.92	1.90	10.09
Netherlands	1.38	1.58	1.58	8.39
France	0.86	0.98	1.04	5.53
USA	0.66	0.77	0.79	4.18
Italy	0.55	0.67	0.67	3.58
Iraq	0.50	0.47	0.47	2.47
Israel	0.46	0.46	0.46	2.46
Denmark	0.42	0.45	0.44	2.36
Other	5.37	5.74	5.82	30.91
Total	17.71	18.72	18.82	100.00

	2021	Share (%)	2022	Share (%)
Istanbul	4.04	39.80	4.32	41.73
Gaziantep	1.85	18.23	1.71	16.52
Bursa	1.20	11.81	1.27	12.21
Kahramanmaraş	0.87	8.55	0.87	8.39
Adana	0.50	4.94	0.60	5.84
Other	1.69	16.67	1.59	15.31
Total	10.14	100.00	10.36	100.00

Export of Textile and Raw Materials by Province (billion USD)

Nearly one-third of textile and raw materials export and 3 out of the top 5 provinces with the highest textile and raw materials export are the ones affected by the earthquake.





CONSTRUCTION Housing

The slowdown in the house sales continues...

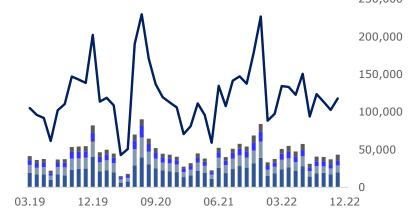
While the fall in house sales persisted in November 2022, house sales to foreigners maintained to support the sector. After the earthquake occurred in Türkiye that affected 11 provinces, the reconstruction of the earthquake zone is expected to provide a positive contribution to the sector's performance in 2023.

House prices continue to rise due to cost pressures and search for alternative returns. **Residential Property Price Index**



House sales continue to decline in parallel with the increase in the residential property price index.

Türkiye Istanbul Ankara Izmir Antalya (units) 250,000



House Sales Construction Permits in November 2022 in Q42022 realized as down by 117,806 11.0% **Residential Property Price Occupancy Permits** Index iii in December 2022 up by

168.0%



3.9%



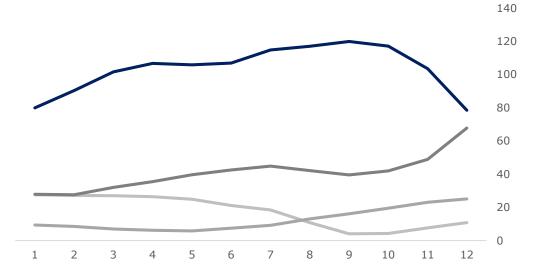
CONSTRUCTION | Housing

The rate of increase in construction costs continues to lose momentum...

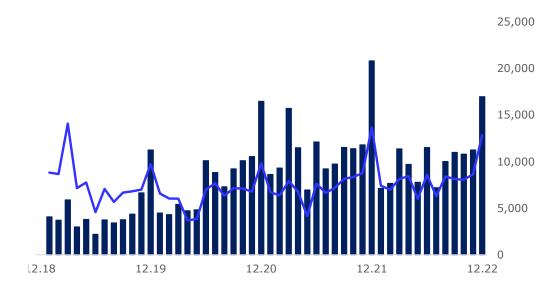
While the slowdown in the rate of increase in the construction costs was notable in the last quarter of the year 2022, minimum wage hike in 2023 in the labor-intensive construction sector had a negative impact on labor costs. New construction permit applications exceeded **122 thousand in 2022**. The building stock with an utilization permit was recorded as **97 thousand in 2022**. It is expected that the reconstruction in 11 provinces will give a boost to the construction permits in 2023. In addition, the increase in urban transformation projects with the panic created by the earthquake in provinces such as Istanbul in the earthquake zone will push up the new construction activities.

The rate of increase in the construction cost index slowed down in the last quarter of 2022.

2022 2021 2020 2019



The fact that the occupancy permit is below the construction permit increases the housing stock. Construction Permits Occupancy Permits



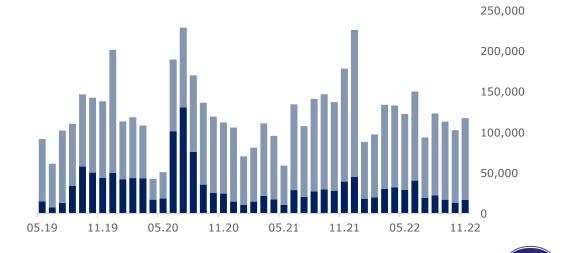


CONSTRUCTION | Housing

While the sales with mortgage continue to decline, the share of sales to foreigners is close to 5%.

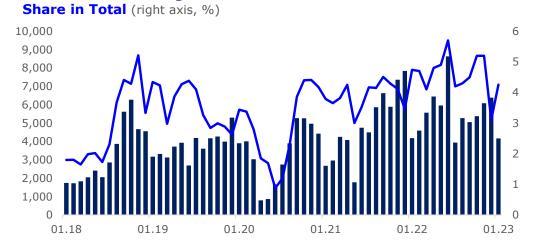
Despite the expansionary monetary policies of the CBRT, as a result of the selective loan strategy, housing loan rates are higher than commercial interest rates. The fact that the fair market values do not catch up with the current prices limits the share of sales with mortgage in total sales. House sales to foreigners, on the other hand, support demand in line with the exchange rate level and global geopolitical conditions.

The share of sales with mortgage in total sales is low. Sales with Mortgage Other Sales

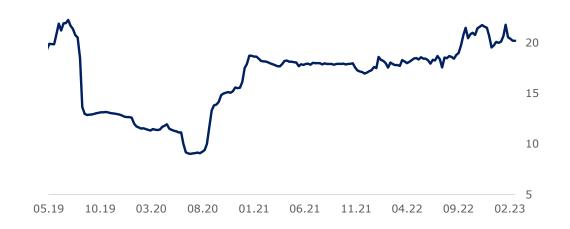


JCR Eurasia Rating

In parallel with the exchange rates, geopolitical factors are the determinant of the foreign demand for house. House Sales to Foreigners



While interest rates of housing loan are high, support packages for housing may support sales with mortgage. Mortgage Interest Rates (%)



25

CONSTRUCTION | Housing

BRSA took a step within the scope of "My New Home" campaign.

Within the scope of "My New Home" campaign, which was announced to raise the home ownership of the Turkish citizens, the BRSA updated the maximum amount of loan that can be used in home purchases.

FORMER REGULATION (23.06.2022)

CURRENT REGULATION (24.02.2023)

The Maximum Amount of Loan Th	at Can Be Used f	or Buying a Nev	The Maximum Amount of Loan That Can Be Used for Buying a New Home							
	E	Energy Class		Energy Class						
Value of Home	Α	В	Other	Value of Home	Α	В	Other			
Value <= TRY 2 million	90%	85%	80%	Value <= TRY 5 million	90%	85%	80%			
TRY 2 million < Value <= TRY 5 million	70%	65%	60%	TRY 5 million < Value <= TRY 10 million	80%	75%	70%			
TRY 5 million < Value <= TRY 10 million	Maximum TRY 3.5 million	Maximum TRY 3.25 million	Maximum TRY 3 million	TRY 10 million < Value <= TRY 20 million	70%	65%	60%			
TRY 10 million < Value	0%	0%	0%	TRY 20 million < Value	60%	55%	50%			

The Maximum Amount of Loan that Can Be Used for Existing (Second Hand) Home and Secured Loans

The Maximum Amount of Loan that Can Be Used for Existing (Second Hand) Home and Secured Loans

	E	Energy Class			Energy Class			
Value of Home	Α	В	Other	Value of Home	Α	В	Other	
Value <= TRY 500 thousand	90%	90% 85% 80% Value <= TRY		Value <= TRY 500 thousand	90%	90%	90%	
TRY 500 thousand < Value <= TRY 2 million	70%	65%	60%	TRY 500 thousand < Value <= TRY 2 million	70%	65%	60%	
TRY 2 million < Value <= TRY 5 million	50%	45%	40%	TRY 2 million < Value <= TRY 5 million	60%	55%	50%	
TRY 5 million < Value <= TRY 10 million	Maximum TRY 2.5 million	Maximum TRY 2.25 million	Maximum TRY 2 million	TRY 5 million < Value <= TRY 10 million	Maximum TRY 3 million	Maximum TRY 2,75 million	Maximum TRY 2,5 million	
TRY 10 million < Value	0%	0%	0%	10 Milyon TL < Değer	0%	0%	0%	

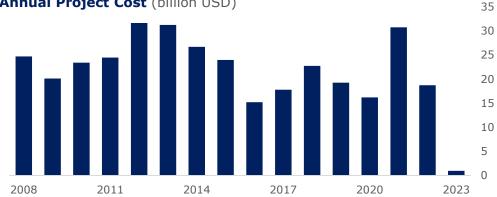


CONSTRUCTION | Contract

International contracting are impacted by geopolitical tensions.

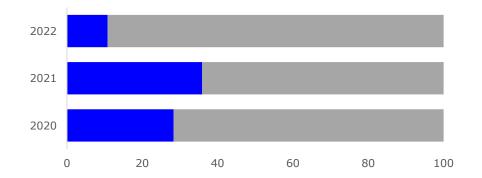
International contracting ended 2022 with a low transaction volume in the shadow of the Russia – Ukraine war. In Ukraine, one of the most important markets for Turkish contractors, contracting industry has come to a standstill.





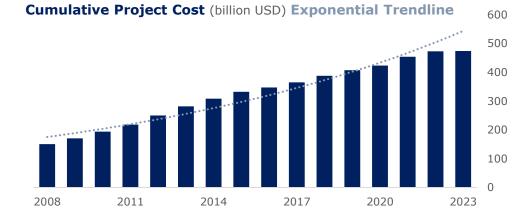
Russia's share in total contract work declined with the beginning of war.

Russia Other (%)





The total cost of the projects undertaken in international contracting transactions between 1972 and 2023 reached USD 477 billion..



Source: Ministry of Trade, JCR-ER

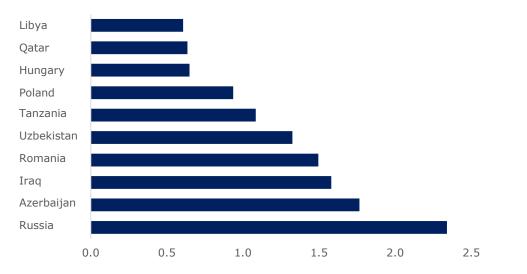
CONSTRUCTION | Contract

The average project cost was USD 39 million in 2022.

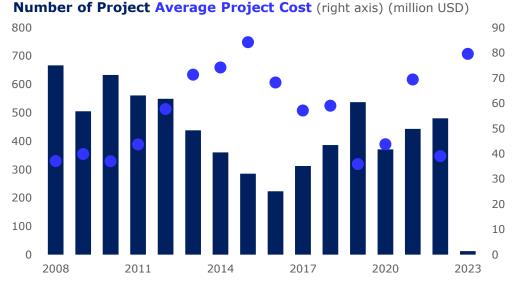
In 2022, the number of projects undertaken by Turkish contractors in the world increased by 37 on an annual basis to 480, while the total project cost went down by 39.12% to USD 18.71 billion as a result of geopolitical developments, since the amount of projects undertaken in Russia, which was USD 11.02 billion in 2021, decreased to USD 2.34 billion in 2022. In Ukraine, where a project worth of USD 1.66 billion was undertaken in 2021, business had ground to a halt. As of 2022, Russia was the largest market for Turkish contractors, followed by Azerbaijan with USD 1.77 billion and Iraq with USD 1.58 billion.

Despite the ongoing war, Russia remained the most important market for Turkish contractors, while Ukraine was not among the top 10 countries.











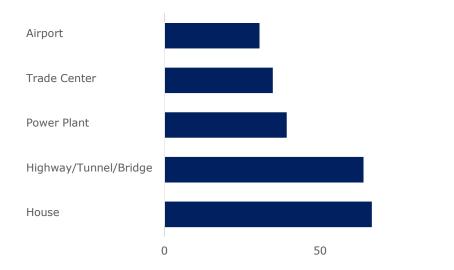
CONSTRUCTION | Contract

Housing and infrastructure projects come to the fore...

According to the note published by the Ministry of Trade, housing and infrastructure projects come to the fore in the sectoral distribution of the projects undertaken. The Turkish contracting industry undertaking housing projects worth of USD 4.36 billion in 2022 undertook road/tunnel/bridge projects worth of USD 4.34 billion.

In the period between 1972-2023, housing and infrastructure projects came to the fore.

Cost of Project (billion USD)



Housing projects had the highest share, followed by infrastructure projects in 2022. Cost of Project (billion USD)

Factory

Petrochemical Plant

Railway

Highway/Tunnel/Bridge

House

0
2

While there were no difference observed in the top two ranks in the distribution of international contracting transactions by building type in period of 1973 - 2023 January, the cost of power plant and airport projects undertaken in the recent period drew attention.



100

6



TOURISM | Introduction

In 2022, the increase in tourism revenue and number of visitors on an annual basis was at a record level.

According to tourism statistics for 2022 and first month of this year, while tourism revenues reached USD 46.3 billion, the number of visitors rose by 80.3% on an annual basis and was recorded as 44 million 564 thousand people. Thus, the fact that the number of visitors increased by 57% in January compared to the same month of previous year was a positive sign for the sector.



in 2022

up by 80.3%





Tourism Revenue



Number of Tourists by Nationality



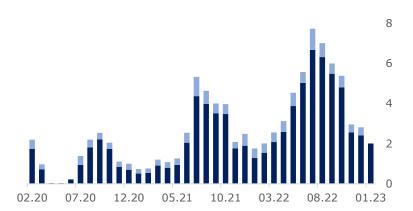
German tourists hosted



There was a boom in the number of tourists entering Türkiye resulting from geopolitical tensions.

10

Foreigners Citizens (million)

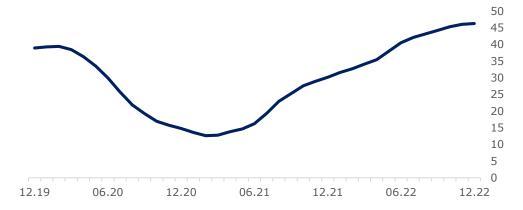


While there was a monthly record in tourism revenue in August, 2022 tourism revenue was USD 46.3 billion. Tourism Revenue (billion USD)

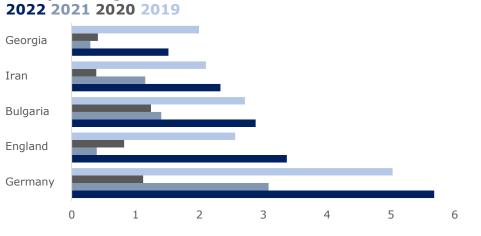


TOURISM | Number of Visitors

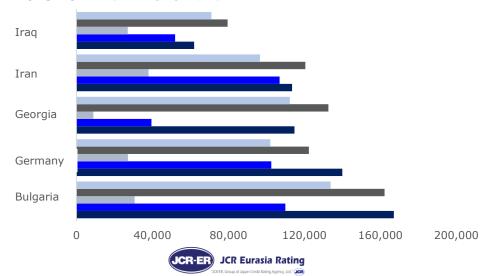
The pre-pandemic level was exceeded in 12-month tourism revenues. Provided there is no negativity in 2023, the upward trend is expected to continue. 12-Month Tourism Revenues (billion USD)



While the number of tourists in 2022 exceeded the level of 2019, the interest of German and British citizens in visiting Türkiye have grown.



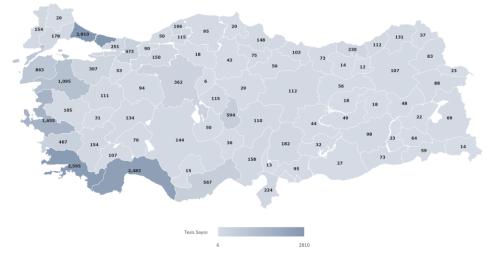
Visitor comparison for January in the Last 5 Years



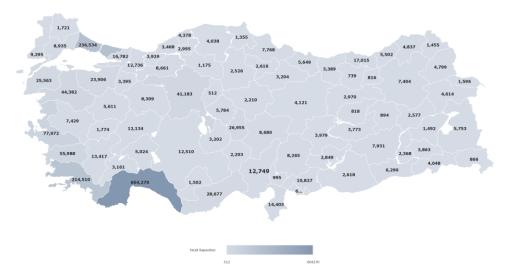
2023 2022 2021 2020 2019

TOURISM | Tourist Facilities

The number of tourist facilities approved by the Ministry reached 19,980 by the end of 2022.



The total bed capacity in the tourist facilities was 1.74 million.



In 2022, occupancy permits were given to 815 tourist facilities, while construction permits were given to 1,723 tourist facilities. Construction Permit Occupancy Permit 450 400 350 300 250



01.19 06.19 11.19 04.20 09.20 02.21 07.21 12.21 05.22 10.22

Hospitality (ospitality (Hotel) Statistics for January-December (12-Month)														
		Occupancy	(%)			ADR* (EU	R)		REVPAR** (EUR)						
	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022			
Istanbul	74	37	55	75	89	78	92	144	65	29	50	102			
Ankara	63	30	43	53	56	56	53	67	35	17	22	35			
Antalya	65	40	51	62	87	95	120	144	57	38	61	90			
Anatolia	56	34	48	54	40	33	35	47	23	11	22	25			
Türkiye	67	36	52	67	77	70	82	118	52	25	43	78			
Europe	72	33	43	65	113	91	104	132	81	30	45	85			

* Daily Average Price

**Revenue per Room

Hospitality (Hotel) Statistics for January in the Last 5 Years

	Occupancy (%)					ADR* (EUR)					REVPAR** (EUR)				
	2019	2020	2021	2022	2023	2019	2020	2021	2022	2023	2019	2020	2021	2022	2023
İstanbul	63	69	27	56	61	77	83	72	92	136	48	57	19	52	82
Ankara	56	57	23	42	45	56	57	55	56	83	31	30	13	24	37
Antalya	55	32	50	45	42	44	47	43	48	17	25	26	14	22	32
Anatolia	50	51	32	42	45	40	42	34	37	62	20	21	11	16	28
Türkiye	58	62	29	51	53	62	68	55	73	110	36	42	16	27	59
Europe	58	59	20	35	54	99	101	69	94	114	57	59	14	33	61

* Daily Average Price

**Revenue per Room





Economic and Analytical Research

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