

February 2022

# Spatial Revisit

Emerging Areas of Real Estate

Investment in Turkey







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## Introduction

PwC Turkey is pleased to present the Report “Spatial Revisit: Emerging Areas of Real Estate Investment in Turkey”. In our report you will find a snapshot of the Turkish Real Estate Market with core metrics, alongside a high-level benchmarking. On the other hand, the objective of this report is not to present a detailed market study but to capture major trends that will affect the real estate market in Turkey and to pinpoint the respective opportunities for investors.

Despite macroeconomic challenges, strong demand from growing urbanization, with low supply underlines the wider property market in Turkey. More specifically, there are ample opportunities for investors in Turkey fueled by;

- Sustainability and ESG coming to forefront in national policy agenda,
- Booming in E-Commerce,
- Restrengthening of Tourism,
- Higher Exports,
- Regional Development Investments,
- New Ways of Working and
- Investor Friendly Incentives and Investments

You will find each of these major forces covered in the report, with their implications on the Turkish real estate market.



## 1 EMEA Real Estate Market Overview

Global Capital Markets Survey results by Colliers reveal that investor expectations of capital value change in 2022 is very positive overall for EMEA. **The vast majority of investors expect values to increase by up to 10%, or at worst do not change at all, particularly when it comes to core assets<sup>1</sup>.**

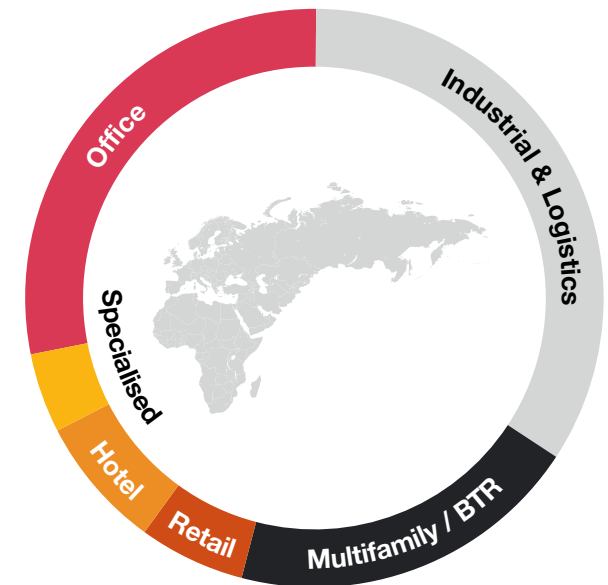
The number of investors anticipating significant price falls in retail and hotel assets has diminished compared to last year, as realism over pricing has fed through into markets during 2021. In fact, there are now more investors anticipating price increases for core retail and hotel assets in 2022 as the market recovers.

The highest value growth is anticipated in the industrial and logistics (I&L) sector - some 30% of investors expect core I&L assets to appreciate by 10-20%, and a further 5% by over 20%. This mirrors the very low availability of space across the European market, with vacancy dropping to below 5% on average driving a steady shift to landlord conditions.

PwC's Emerging Trends in Real Estate: Europe 2022 report foresees that real estate business profitability, headcount, and confidence will rise up to 60% in Europe. Offices, data centers, energy infrastructures and life sciences are the winners of the pandemic, in which investors have a significant appetite for. Whereas, retail and hotels could not achieve their post pandemic performance and were regarded as less desirable investment options<sup>2</sup>.

**The Industrial and Logistics sector is now the number one favored asset type in Europe for 2022 - a trend in place across all global regions.** Limited availability, defensive strengths and burgeoning e-commerce are all driving investor demand, but the onus is clearly shifting to develop new products, as much as seeking out core and core-plus assets.

For offices, investors are clearly focused on core and core-plus strategies - a strategy that will need to encompass asset energy and social considerations, which may push more capital into value-add products in the year-ahead as **core offices are redefined for modern occupation.** Those seeking out specialized assets remain more risk averse, with core and core-plus approaches the most popular.



<sup>1</sup> Colliers Global Capital Markets 2022 Investor Outlook

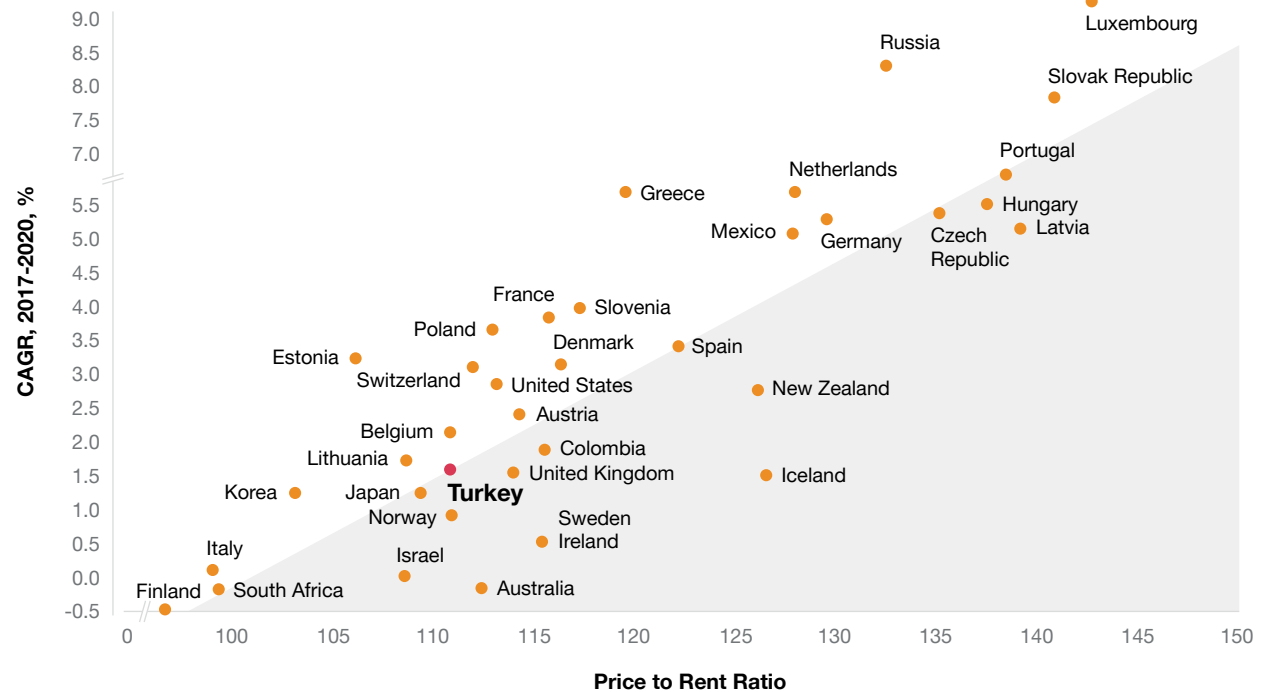
<sup>2</sup> PwC - Emerging Trends in Real Estate: Europe 2022

## 2 Turkish Real Estate Market Benchmarking

House prices differ significantly across OECD countries, both with respect to recent changes and to valuation levels. For valuation, if the price-to-rent ratio (a measure of the profitability of owning a house) are above their long-term averages, house prices are said to be overvalued, and vice-versa. In Turkey's case, both prices to rent index value and the CAGR of the metric between years 2017-2020 show a modest yet realistic increase.

According to the Emerging Trends in Real Estate: Europe 2022 report by PwC, many investors believe that residentials will perform well in the upcoming 5 years. Due to constantly growing rents caused by house shortage, residentials became favorable for investors. Although residentials are very profitable in these terms, they also create a pitfall. Housing shortages across Europe are leading to institutional investors, which had previously shunned the sector, increasing their exposure. There is a sense that the sector proved its resilience during the pandemic: tenants kept paying their rent and the investment market grew rather than shrank. However for how long rents keep growing until the government steps in and says it is becoming unaffordable is a question<sup>3</sup>.

Residential House Price to Rent Ratio of OECD Countries in 2020 and CAGR between 2017 and 2020



Source: OECD \* 2015=100

<sup>3</sup> PwC - Emerging Trends in Real Estate: Europe 2022



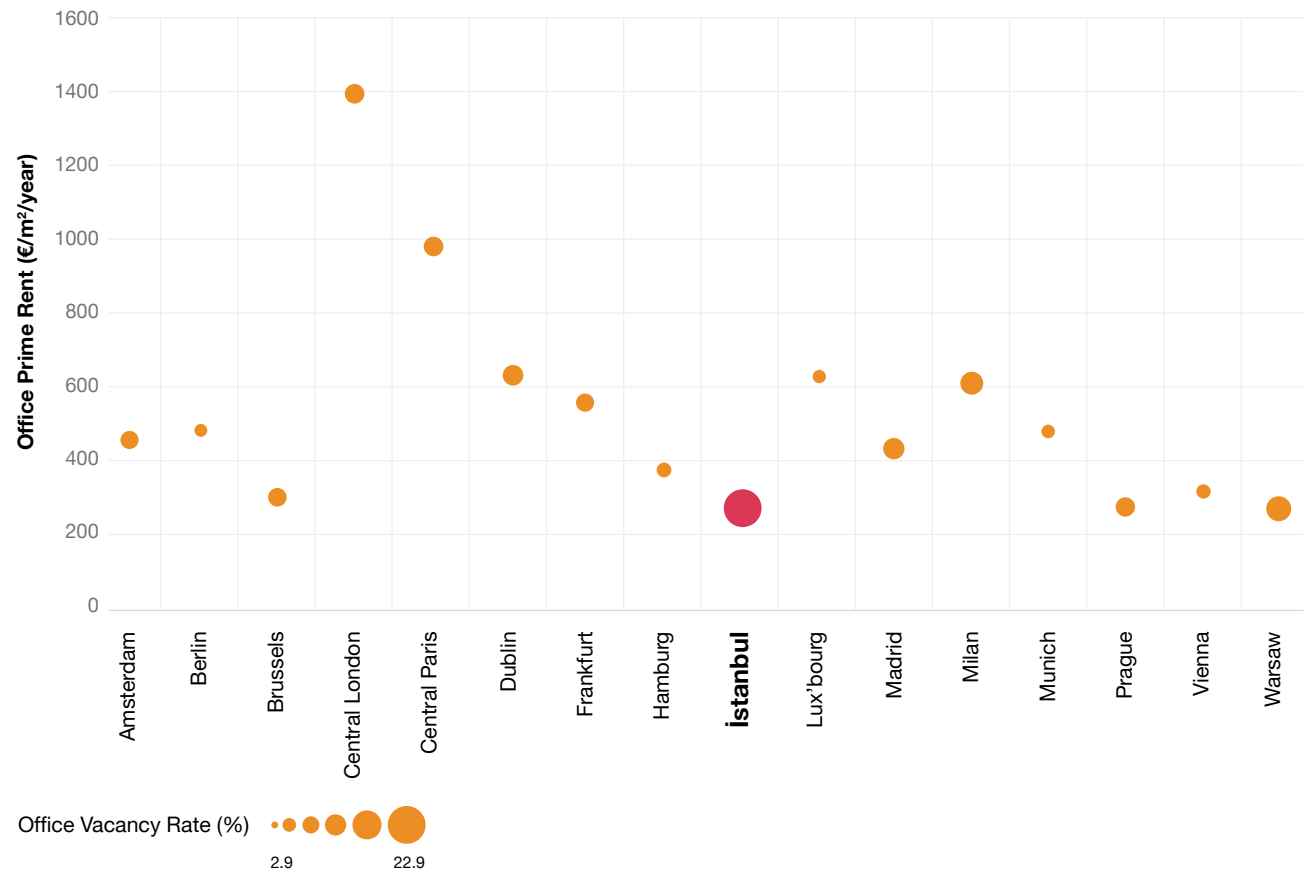


In the aftermath of the pandemic, office vacancy increased in all main European markets. This is due to the slowdown in take-up but also the decrease in the average size of deals. Companies seem to be focusing on smaller but better assets, and to be massively implementing remote working and flexible desk solutions. As such, it is noticeable that vacancy seems to be experiencing a dichotomy across Europe driven by building condition and location. Prime and new buildings are consistently more appealing than secondhand assets, and central business districts still display very low vacancy rates compared to peripheries.

On this backdrop, Istanbul's prime office rent was around 254 EUR/sqm/year for the year 2021, one of the lowest among prime European cities. Even though Istanbul's office vacancy rate was 22.9%, the highest among the sample, there are ample opportunities for investors as will be explained in later sections.



**Office Prime Rent and Vacancy Rate for Prime European Cities (2021 Q2)**



**Source:** Cushman and Wakefield, BNP Paribas Real Estate, PwC Analysis

### 3 A Quick Snapshot of Turkish Real Estate Sector

#### Turkey's Macroeconomic Indicators in a Nutshell

**84,7** mn

Population  
CAGR (2016-2021) 1.2%

**803** bn USD

GDP

**11<sup>th</sup>**

GDP Ranking  
in PPP terms

**21<sup>th</sup>**

GDP Ranking  
in nominal terms

#### Credit Rating

Standart  
& Poor's  
B+

Moody's  
Investors  
B2

Fitch  
Rating  
B+

**33**

Median Age

**9,539** USD

GDP Per Capita

**36%**

Inflation

**14%**

Policy Rate

**12%**

Unemployment  
Non-farm unemployment: 13.9%

**225** bn USD

Exports  
Top 3: Germany, USA, UK

**-2%**

Current Account  
Balance / GDP

**-3%**

Central Government  
balance / GDP

**51%**

Labor Force  
Participation  
Women: 33%

**271** bn USD

Imports  
Top 3: China, Russia, Germany

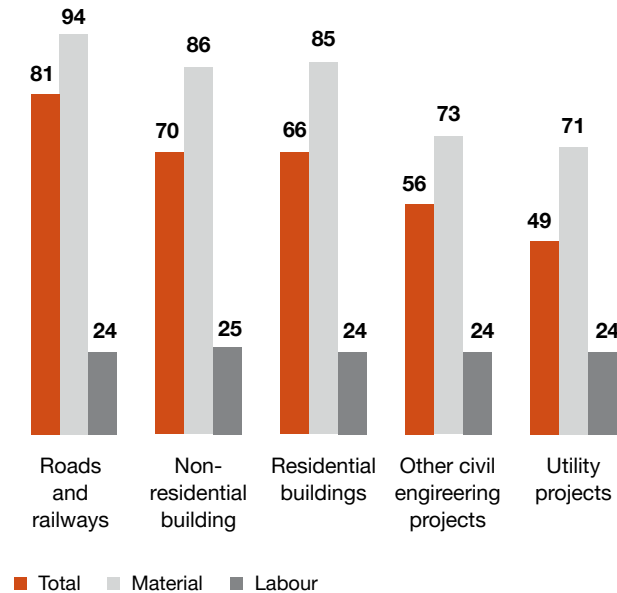


## Turkish Real Estate Sector Overview

Turkey's construction sector has been a key engine in the country's growth over the past decade. The sector has transformed the skyline of many cities in Turkey and completed mega infrastructure projects. Among the most significant projects are urban redevelopment and the construction of city hospitals, which have helped significantly in the management of Turkey's COVID-19 crisis.

After the strong 7.5% expansion in 2017, Turkey's economy has seen its growth slowing sharply amid the 2018 currency and debt crisis and more recently having to weather COVID-19. Turkey's construction sector generated a gross value added (GVA) of 264.9 billion TRY in 2020, equaling 5.4% of the country's GDP, the same as in 2019. In spite of a slow start to the year, construction's sectoral value-add in 2021 Q2 and Q3 have seen 35% and 42% increase respectively from the same quarters in 2020.

**Construction cost index, yearly change, December 2021-2020, %**



Source: TURKSTAT

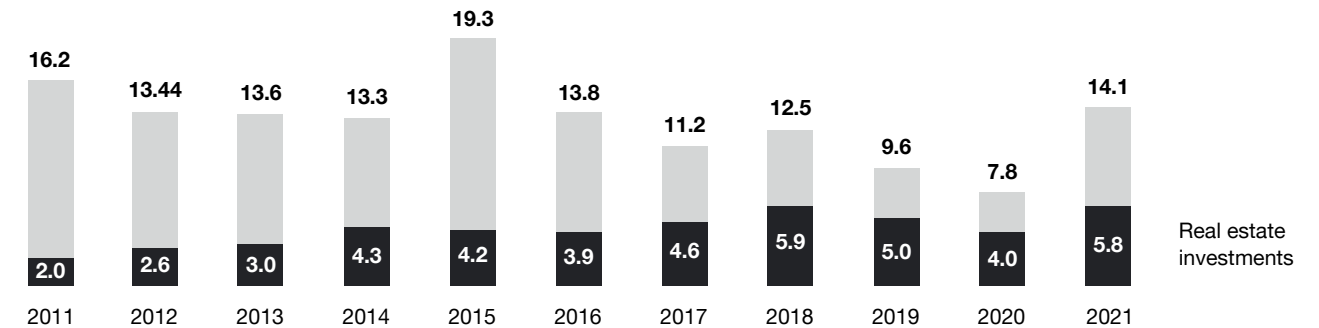
Even though the construction costs in terms of labor and material have increased significantly in the last year, it did not lead to any significant decrease in the number of ongoing projects. Furthermore, due to sustained increase in the sale prices, the new projects remain profitable.



The real-estate sector did not suffer as badly as the construction sector. In 2020, the sector's growth rate accelerated to 2.6% y/y, mostly due to a boost in home sales supported by government incentives to lower interest rates on housing loans.

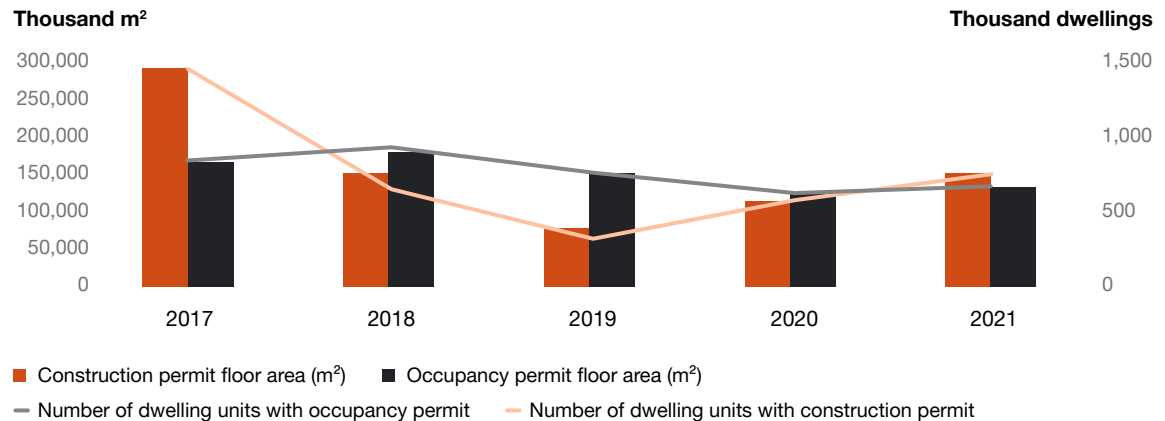
The share of real-estate investment in Foreign Direct Investment to Turkey comprised of 5.8 billion USD in the year 2021, equaling to 41% of overall FDI. The Turkish real estate industry, like every other real estate industry, is highly fragmented, with a large number of individual landlords that invest in property, small companies, and large multinational real estate developers and property investors that operate at scale. There are two types of industry players: real estate developers that also rent or lease their developments (build-to-rent model), and investors, usually large real estate investment firms, that buy developments from real estate developers.

**Total FDI and FDI for Real Estate Investments in Turkey, bn USD, 2011-2021**



Source: CBRT

**Construction and Occupancy Permits by Floor Area and Number of Dwelling Units, 2017-2021**

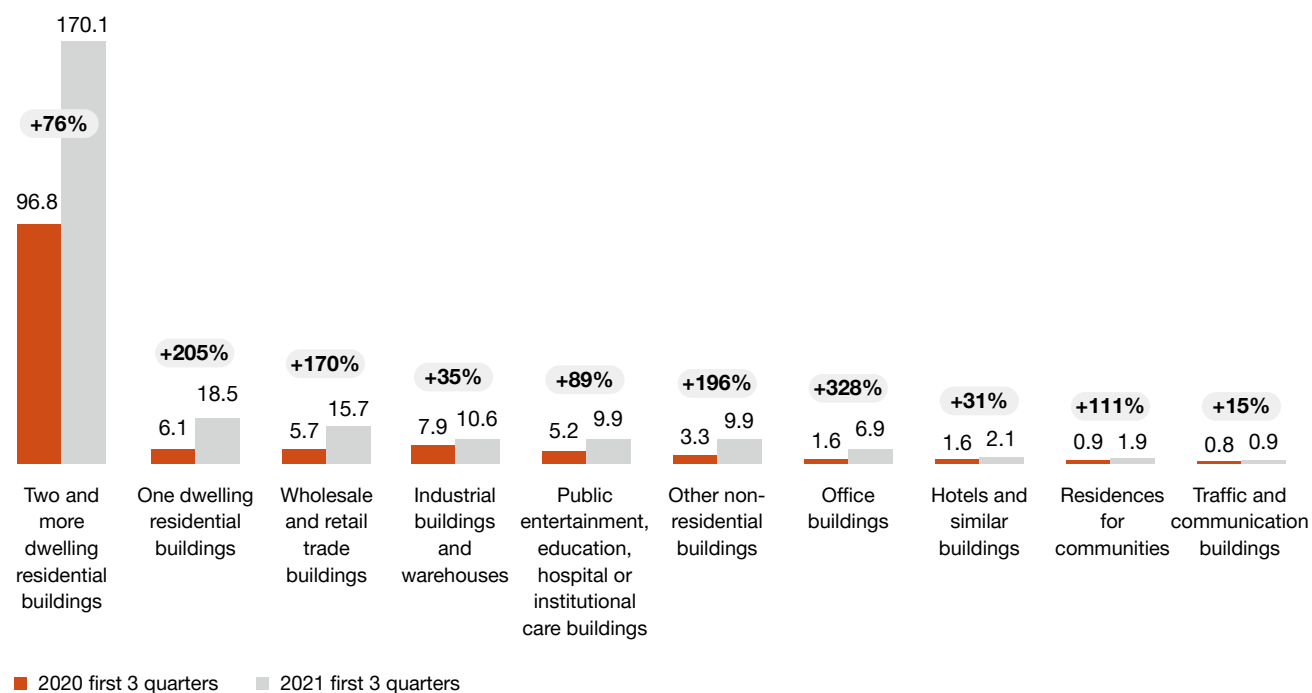


Source: TURKSTAT



A total of 136,474 construction permits were awarded in 2021, a rise from 96,001 the year before. In the 2021, compared to 2020, the number of buildings, floor area of buildings, and number of dwelling units increased by 42.2%, 32.3%, and 27.8% respectively. Most of the construction permits were handed out to the private sector, while permits for public sector buildings have slightly declined between 2015 and 2021.

### 2021 December Building Permit Value (Billion TRY) by Building Type



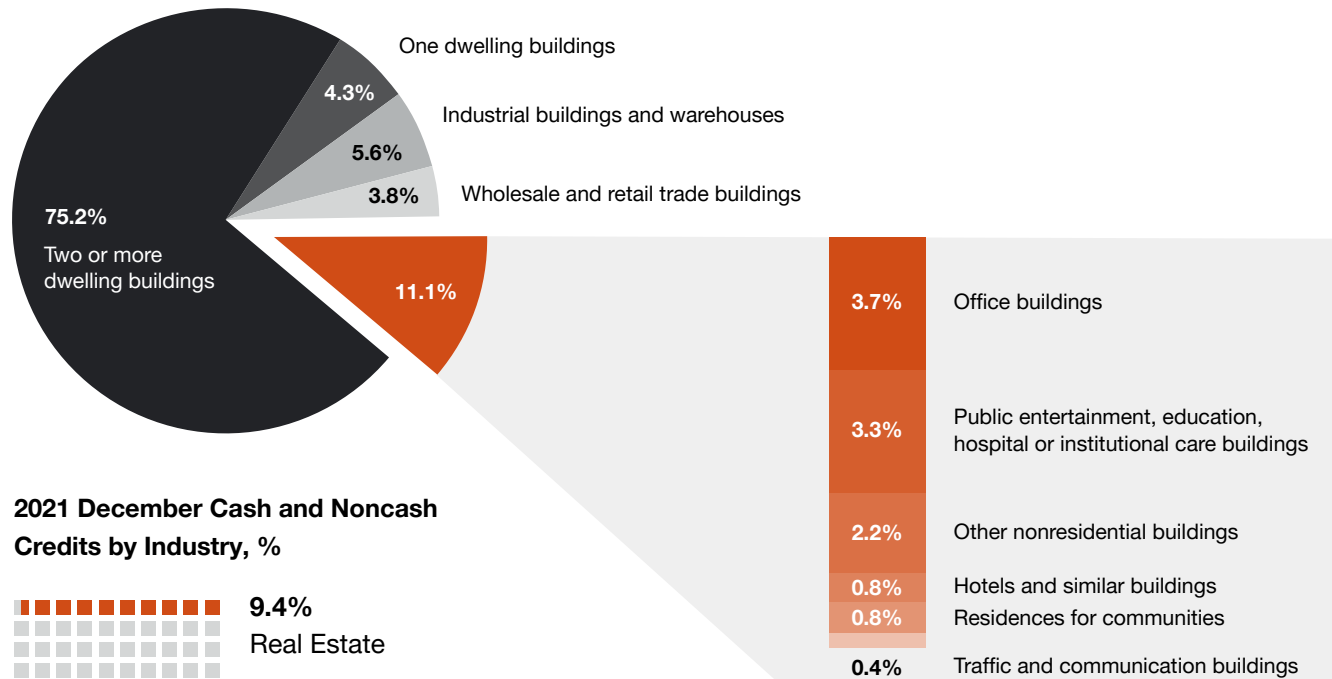
Source: TURKSTAT

The value of the building permits issued building type reveals that the largest increase occurred in office buildings with %328 increase from the year 2020, followed by one dwelling residential building (205% increase), other non-residential buildings (196% increase) and wholesale and retail trade buildings (170% increase).

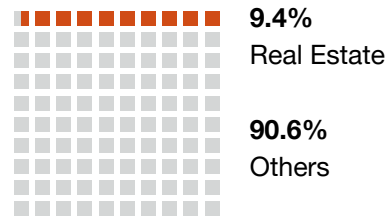
After the government allowed easy and accessible housing credits with lower interest rates, the share of the real estate industry in total credits increased to 9.4%.

The rest of this section will delve deeper into the Turkish real estate market under two segments: residential and non-residential. Further opportunities signaled by the as-is statistics will be discussed in Section 4- Attracting Opportunities for Investors.

**Occupancy Permits Use of Building Shares, Quarter IV, 2021**



**2021 December Cash and Noncash Credits by Industry, %**



Source: BRSA

Source: TURKSTAT



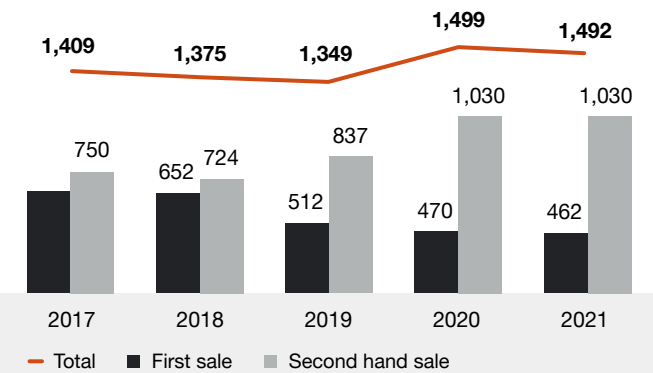
## Residential Segment Overview

As part of measures to revive the economy from the grip of COVID-19, the government has mandated reductions in local interest rates and state-owned banks started offering loans at below-inflation interest rates. As a result, a record-high of nearly 1.499 million homes were sold in 2020 in Turkey.

This number has decreased slightly by 0.5% to 1.492 million in 2021. Most purchases were of second-hand houses.

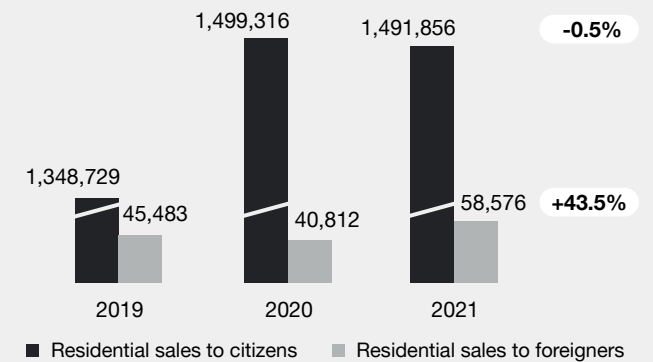
While the number of homes sold to foreigners was 40.812 in 2020, it increased to 58.576 in 2021 despite the slight decrease in total sales.

House Sales (Thousand Units), 2017 - 2021



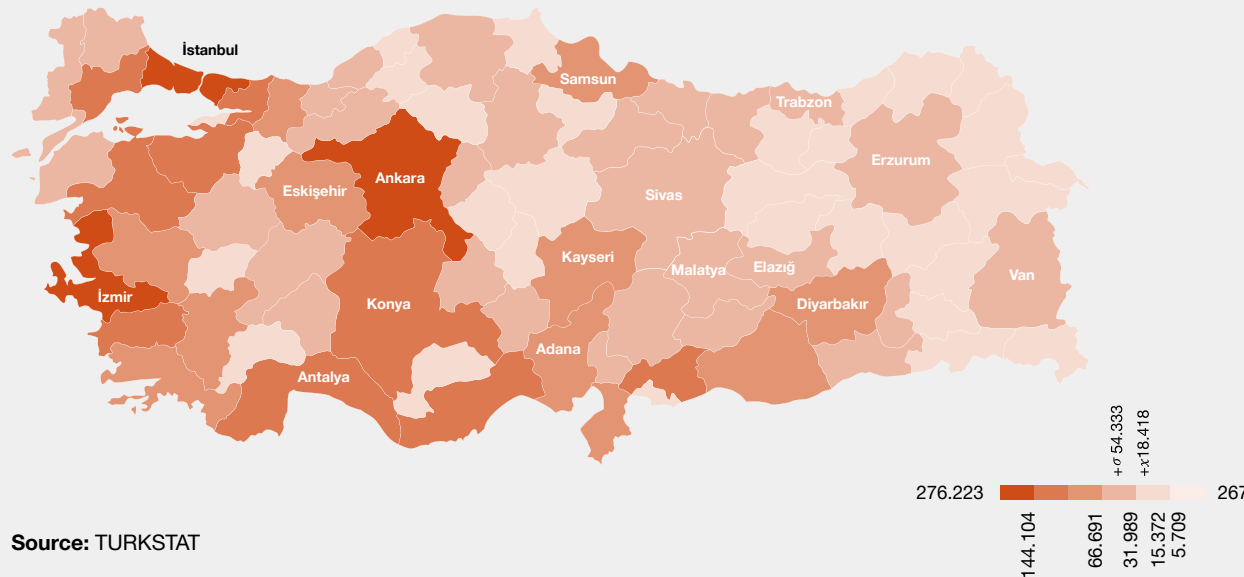
Source: TURKSTAT

House Sales by Buyers, 2019-2021



Source: TURKSTAT

Number of Houses Sold, by Province, 2021 (Turkey)



Source: TURKSTAT

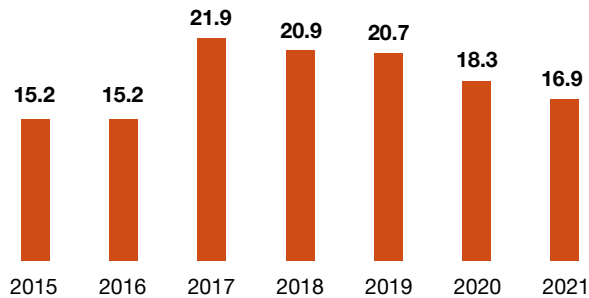
## Non-Residential Segment Overview

### Office Market

#### Istanbul Office Market Snapshot

COVID-19 has inevitably affected the office market in an unprecedented manner, as millions in Turkey were ordered to work remotely from home. Creating a balance between agile workspace solutions, which will be the driving force of the office market, and remote working, is likely to boost the demand within the total workplace ecosystems.

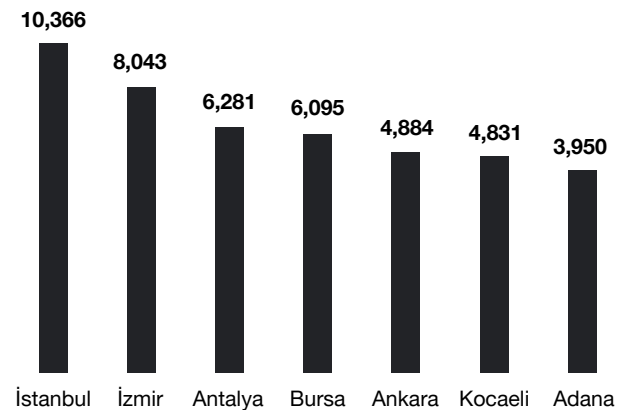
#### Istanbul Office Vacancy Rate (%) per Year



Source: GYODER

A fall in vacancy rates in all regions of Istanbul was observed in 2021 compared to 2020<sup>4</sup>. During the COVID-19 pandemic, while most firms allowed their employees to work from home, they also expanded their office areas due to social distance rules. This fall in vacancy rates arises from the need for more spacious offices to ensure social distancing between employees, with companies opening slightly more space for their offices.

#### 2021 December Average Office Selling Price (TRY/sqm) by Province



Source: GYODER

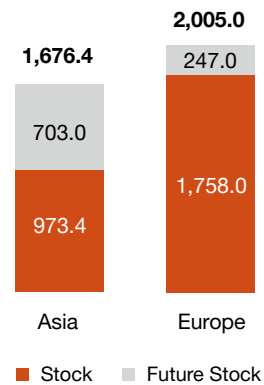
As of December 2021, Istanbul ranks first in average office selling price with 10,366 TRY/sqm among the prominent provinces in commercial real estate.

As of December 2021, there are currently 254 office buildings in Istanbul. In addition, 18 office buildings are under construction. This reflects that the office market was not affected significantly from the COVID-19 pandemic. With the newly constructed offices, total leasable area in Istanbul increased to 7.436 million sqm.

<sup>4</sup> Colliers Turkey study



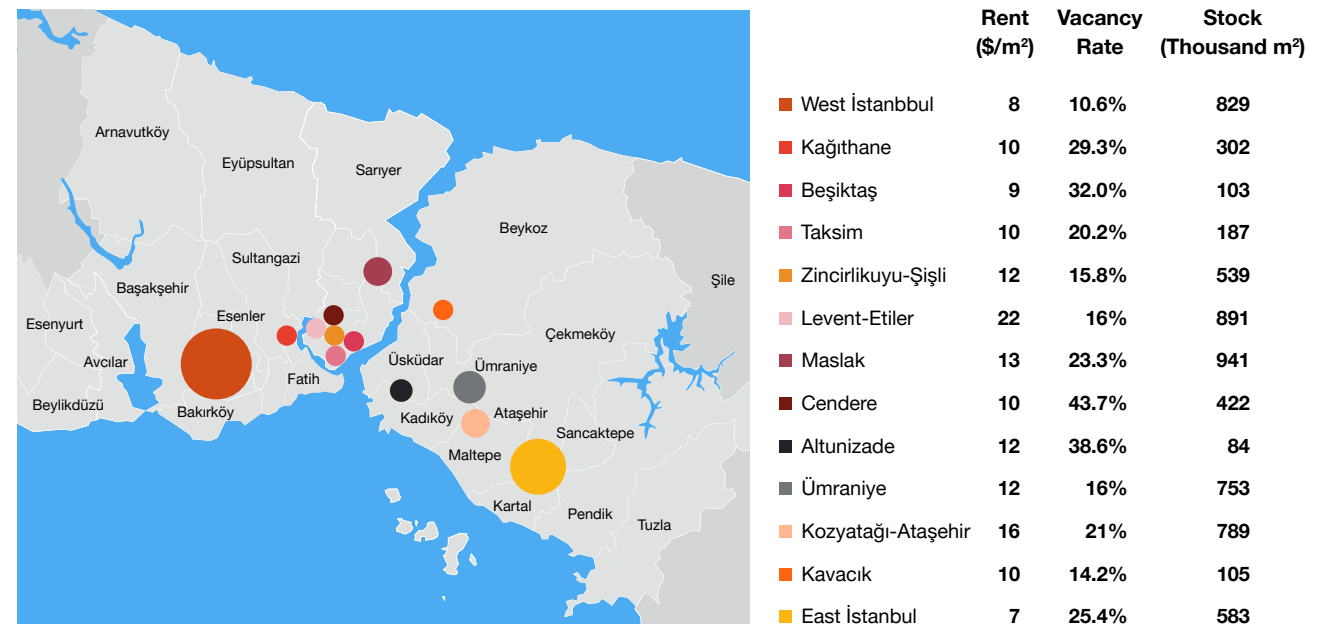
### 2021 December Istanbul A Class Office Stock (Thousand)



Source: Colliers

In terms of the class of the office buildings in Istanbul, there are currently 2.732 million sqm of Class A office buildings as of December 2021 (Class A office is an office which is newly built and has top of the line technologies, a central location, and significant sizes and height). In addition, 949,995 sqm of Class A office buildings are under construction. With the newly constructed offices, the total leasable area of Class A offices in Istanbul will increase to 3.681 million sqm in the next 4 years.

### Istanbul Office Rent (\$/sqm), Vacancy Rate (Percent), and Stock (Thousand sqm) by District



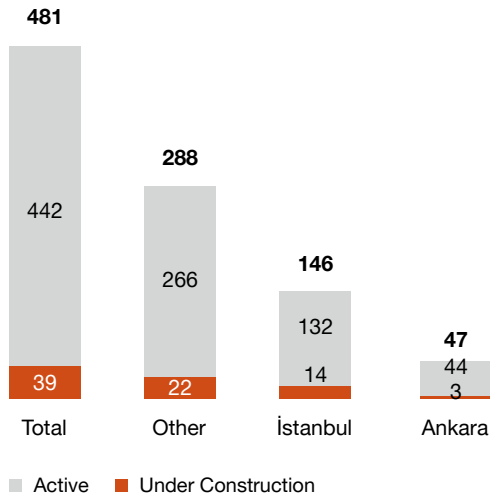
Source: GYODER

In 2021, the accessibility of the offices increased with the new transportation option and more peripheral areas became an alternative to the central ones. The price index of the offices increased approximately 35% especially in Beşiktaş, Taksim, and West İstanbul. As of the end of the 2021, the most expensive region in İstanbul is the Levent-Etiler district with a rent of 22 USD per sqm.

## Retail Market

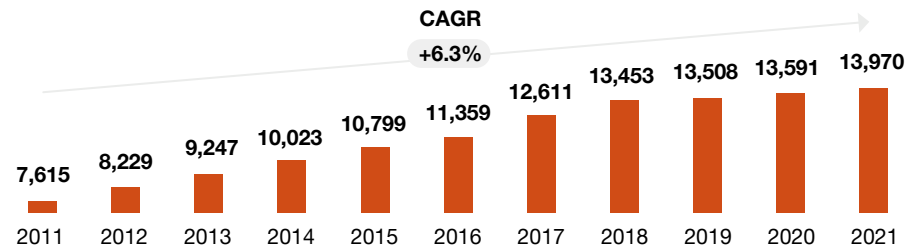
As of June 2021, there are currently 442 shopping malls in Turkey. Moreover, 39 shopping malls are under construction and most of them will be finished in 3 years. In terms of distribution, the largest number of shopping malls are located in Istanbul, which is Turkey's most crowded city and there are 132 active shopping malls in Istanbul.

### June 2021 Number of Shopping Malls



Source: AYD

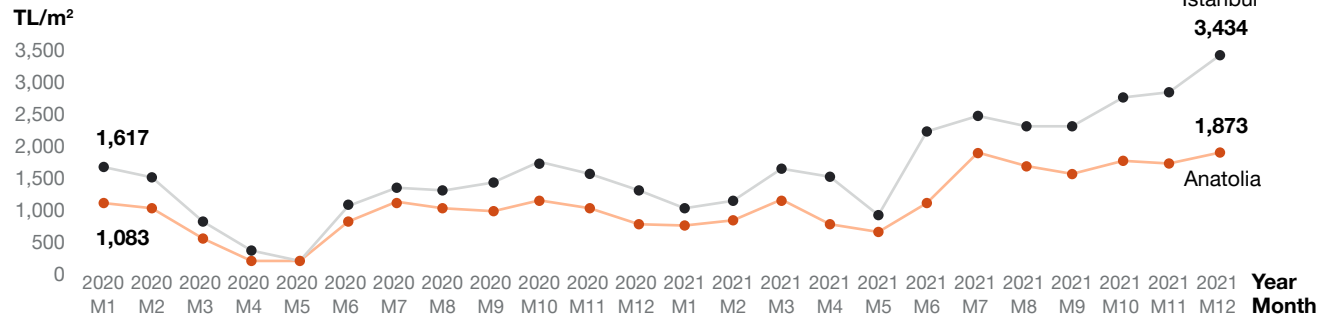
### January 2022 Shopping Mall Total Leasable Area (Thousand sqm) per Year



Source: AYD

The total leasable area in the shopping malls showed a rising trend in the last 10 years and increased 6.3% on average from 2011 to 2021.

### Shopping Mall Monthly Revenue (TRY) per sqm



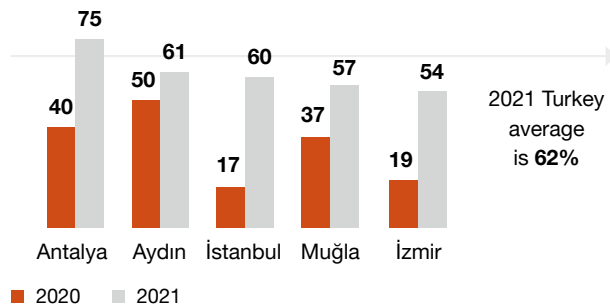
Source: AYD

With the COVID-19 pandemic lockdowns have become common in the world in order to prevent the disease from spreading. Turkey also practiced lockdowns and shutdowns with the same goal. Shopping malls suffered significantly from these regulations. However, after the end of strict regulations, they entered a rapid recovery process. As of December 2021, shopping mall revenues returned to pre-pandemic levels and monthly revenue of shopping malls in Istanbul reached 3,484 TRY per sqm and in Anatolia 1,873 TRY per sqm.

## Hotel Market

Tourism sector is one of the most important sectors for the Turkish economy which took a major blow from the pandemic. The restrictions that were implied by the governments to prevent the spread of the COVID-19 have damaged tourism. Inevitably, the hotel occupancy rate in Turkey decreased from 60% to 31% in 2020. Although the tourism industry recessed significantly in 2020, it recovered by increasing to 62% in 2021. In 2021, the city with the highest hotel occupancy rate was Antalya with 75%, followed by Aydın and İstanbul with 61% and 60%. The hotel occupancy rates of Muğla and İzmir were approximately 57% and 54%, respectively.

### Hotel Occupancy Rate by Provinces (%)

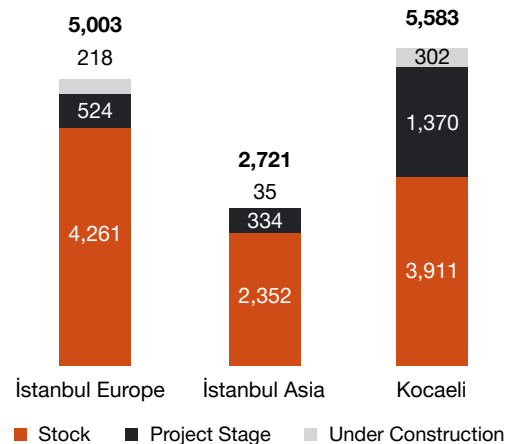


Source: TURKSTAT

## Industrial and Logistics Market

The vacancy rate of the logistics market decreased with the help of the skyrocketing e-commerce industry. As of December 2021, the existing logistics stock in İstanbul and Kocaeli increased to 10,524 million sqm. Moreover, the expanding logistics market gave birth to new stocks under construction totaling 558,488 sqm and in the project stage totaling 2,227 million sqm in the İstanbul-Kocaeli province.

### 2021 December Logistics Total Stock (Thousand sqm)

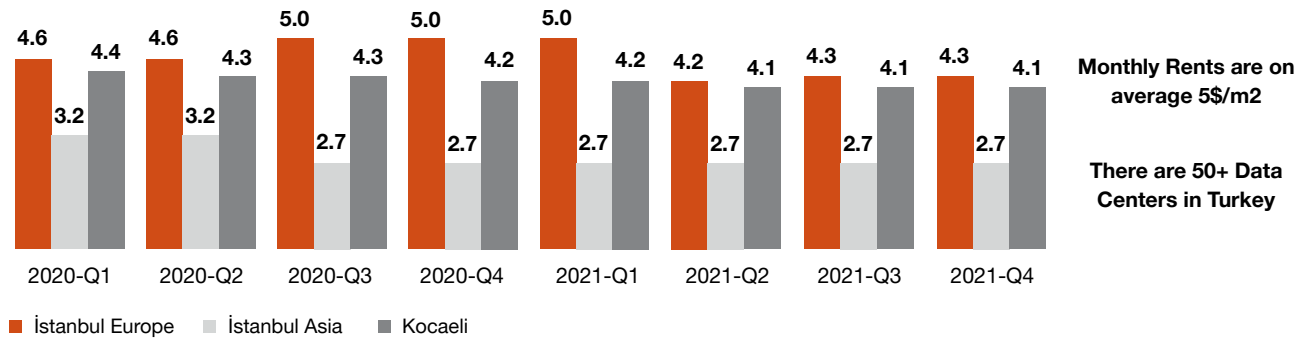


Source: GYODER





**Warehouse and Logistics Center Vacancy Rates by Quarters (%)**



Source: JLL

Data centers became the rising star of Turkey with 45+ operating companies and 50+ data centers. With the skyrocketing e-commerce industry, the demand for warehouses and logistics centers boomed.

**Sector Prospects in 2021**

Overall Prospects	Rank	Investment	Rank	Development	Rank	Income
Data Centres	1	4.55	1	4.45	1	4.30
Logistics Facilities	2	4.51	2	4.39	3	4.21
Life Sciences	3	4.43	3	4.32	4	4.09
New Energy Infrastructure	5	4.29	4	4.26	2	4.23
Industrial/ Warehouse	6	4.24	5	4.12	5	3.92

\* Scores between 1-5: 1 generally bad, 5 generally good

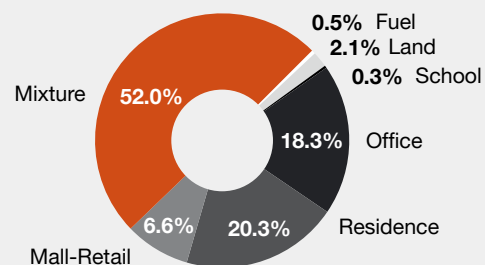
Source: Emerging Trends in Real Estate: Europe 2022 by PwC



## Real Estate Investment Funds

More than 50% of the projects were mix projects where funds that were spent on residence buildings followed mixed projects with 20% of the total investment.

### 2021 Real Estate Investment Funds Spent Distribution by Building Type

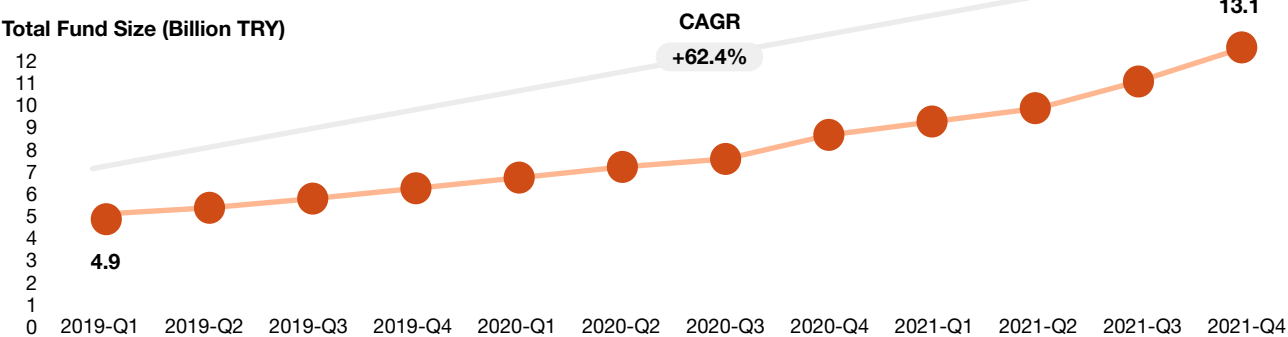


Source: PortfolioBase

The real estate investment fund increased to 13 billion TRY in the fourth quarter of 2021. This increase allows the real estate sector to grow and expand.

### Real Estate Investment Funds Change (Billion TRY)

#### Total Fund Size (Billion TRY)



Source: PortfolioBase

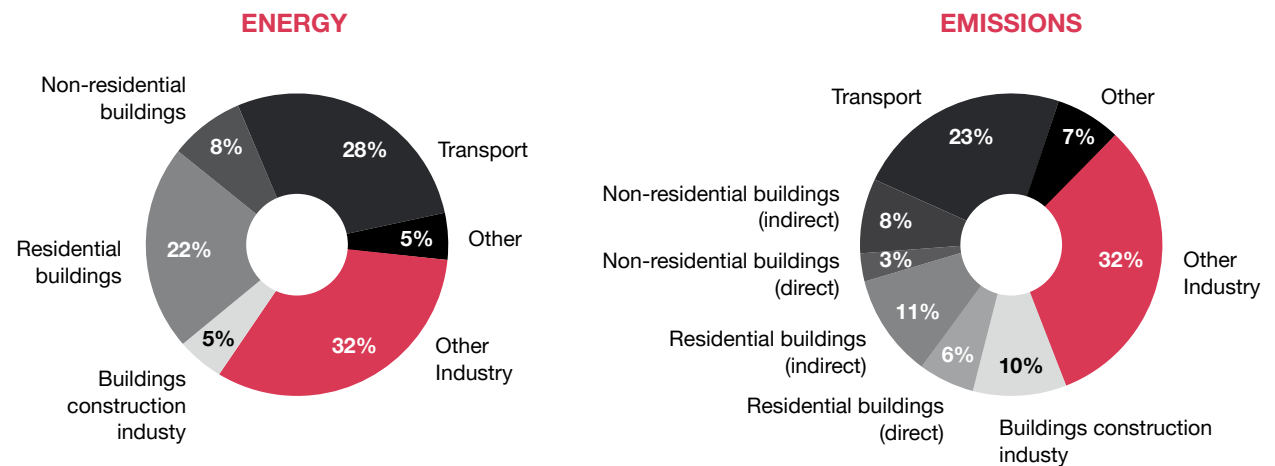
## 4 Attracting Opportunities for Investors

### 1. Sustainability and ESG as a Cross Cutting Theme

Climate change, which was previously perceived as a relatively peripheral concern for the real estate sector, has moved to the top of the agenda and is raising the alarm for greater action with the increasing frequency of human-induced natural calamities.

Despite concerted efforts to reduce impacts going back at least 30 years, the property sector is still on the forefront within the context of greenhouse gasses. Buildings account for nearly 40% of global energy use, and carbon and CO<sup>2</sup> emissions from the building sector are the highest ever recorded; CO<sup>2</sup> emissions from the operation of buildings have increased to their highest level; 28% of total global energy-related CO<sup>2</sup> emissions. With the inclusion of emissions from the buildings construction industry, this share increases to 38% of total global energy-related CO<sup>2</sup> emissions. Furthermore, electricity consumption in building operations represents nearly 55% of global electricity consumption<sup>5</sup>.

**Global Share of Buildings and Construction Final Energy and Emissions in 2019**



**Source:** 2020 Global Status Report for Buildings and Construction – UN Environment Programme

The International Energy Agency (IEA) estimates that in order to achieve a net zero carbon building stock by 2050, direct building CO<sup>2</sup> emissions must be reduced by 50% and indirect construction sector emissions must decline through a 60% reduction in power generation emissions by 2030.

These efforts will need to see building sector emissions fall by about 6% per year from 2020 to 2030. For comparison, global energy sector CO<sup>2</sup> emissions decreased by 7% during the pandemic<sup>6</sup>.

<sup>5</sup> 2020 Global Status Report For Buildings And Construction - UN Environment Programme

<sup>6</sup> Net Zero by 2050 - IEA



Furthermore, most countries did not submit their second Nationally Determined Contributions (NDCs), where countries set targets for mitigating the greenhouse gas emissions that cause climate change and for adapting to climate impacts, and buildings remain a crucial area that lacks specific mitigation policies. Of those who have submitted an NDC, 136 countries mention buildings, 53 countries mention building energy efficiency, and 38 specifically call out building energy codes, indicating the importance of building energy efficiency to our climate future<sup>7</sup>. Although more buildings than ever are being built using building codes and sustainable certification standards, they need to be strengthened and expanded to increase action towards a zero-carbon building stock.

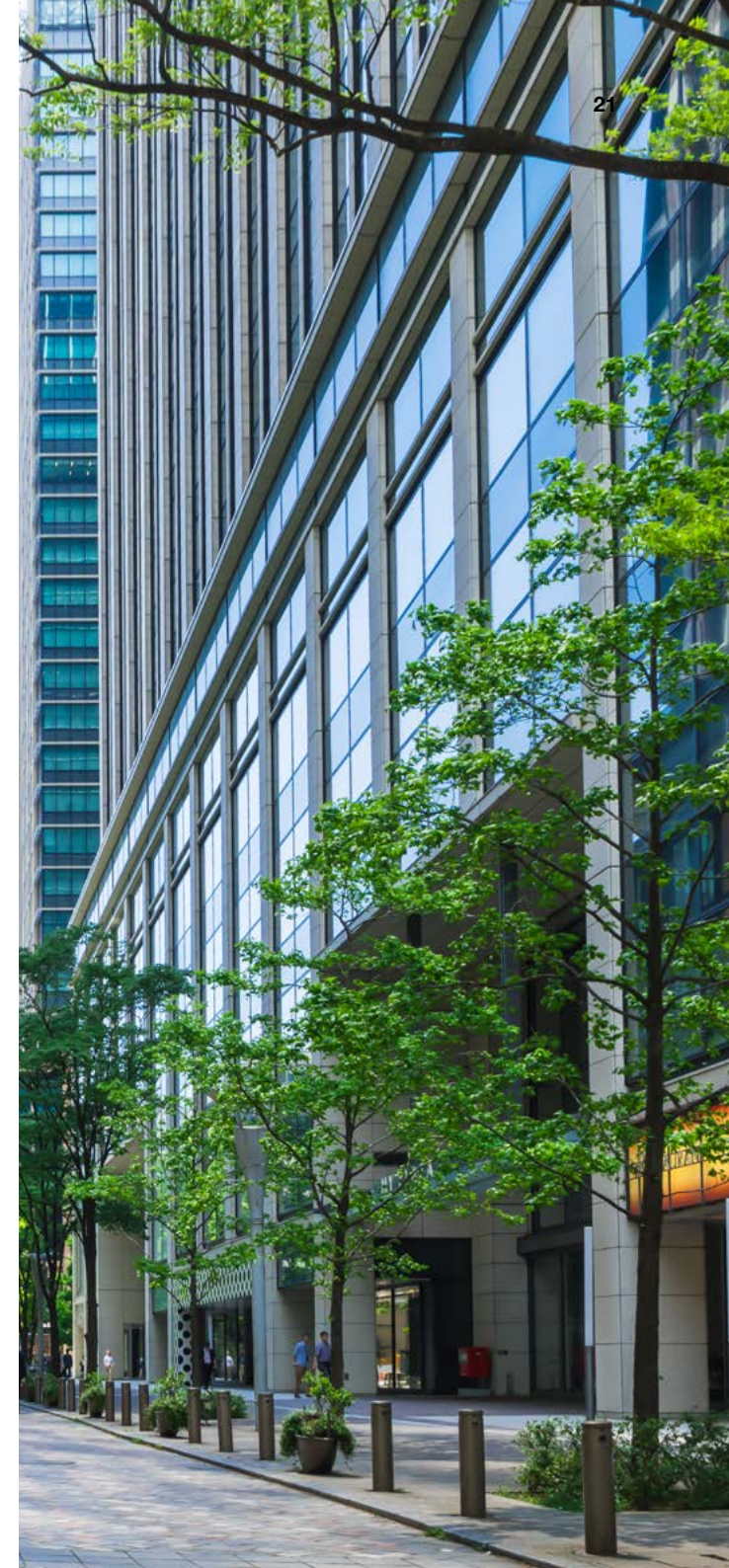
Despite broad industry participation in environmental accreditation programs and broader climate mitigation initiatives, evidence of investors incorporating future climate risks into underwriting has been difficult to quantify.

<sup>7</sup> 2020 Global Status Report For Buildings And Construction - UN Environment Programme

<sup>8</sup> PwC - Emerging Trends in Real Estate: Europe 2022

However, the growing risks of climate-related property damage may induce more investors to follow the example of leading institutional investors in factoring market-level climate risk into their decision-making. Some players in the real estate industry are starting to consolidate around climate and ESG reporting frameworks. The biggest publicly listed real estate firms report on their environmental performance to GRESB (formerly known as the Global Real Estate Sustainability Benchmark), and many of the largest companies are also aligning their ESG reporting with the United Nations Sustainable Development Goals (UNSDGs) and their climate reporting with the Task Force on Climate-related Financial Disclosures (TCFD)<sup>8</sup>.

Perhaps the biggest challenge lies in the vast stock of existing buildings, which must continue to be used, but with enhanced operational efficiency. Retrofitting and repurposing occupied buildings presents the more ambiguous issue of cost allocation and financial viability, as well as the practical challenges of upgrading facilities without disrupting business operations. It is inevitable for exporters and manufacturers to make significant improvements and alterations in their facilities in order to comply with international agreements such as the Green Deal.



## New Solutions

There is significant and largely untapped potential to use digital solutions for the entire lifecycle of buildings such as design, construction, operation and renovation or demolition to improve energy efficiency. Digital tools can support energy efficiency over the lifetime of a building. There exists a variety of tools on the market, from the very sophisticated to the very simple, and they cater to projects of varying size, budget, complexity, and digital readiness.

New developments such as advances in design, innovative materials, new construction techniques and increased use of technology are helping to minimize the ‘whole life carbon’ impact of buildings. The use of digital twins to regulate energy use in buildings holds enormous promise, given that typical buildings exceed their designed energy use by 3.8 times. The power of digital twins to diagnose and correct such inefficiencies makes a significant contribution to reducing emissions<sup>9</sup>.

These innovative solutions have been used effectively in newly constructed major buildings in Turkey. To exemplify, Istanbul Airport received LEED Gold certification. As a result of using rainwater, recycled water, and gray water for the building’s own needs, it is aimed to save 1.5 million cbm of water per year (annual water consumption of 5,500 households). In addition, the energy efficiency of the airport will save energy equivalent to the annual consumption of 19,000 households and 30,700 tons of CO<sup>2</sup> per year. In addition to new buildings, there are many good practice examples of renovating existing buildings aiming for higher energy efficiency. By renewing the Adnan Menderes University Hospital in western Turkey with solar-tracking parabolic solar collectors, the hospital’s energy consumption was reduced by 50% and a new trigeneration system was introduced, which is a first for the country, including electricity, heating, and cooling. Furthermore, urban transformation projects, which kickstarted in 2012 to renew the housing stock at risk in Turkey, constitute major opportunities for the adoption of innovative solutions in new constructions.

## Investment Activities

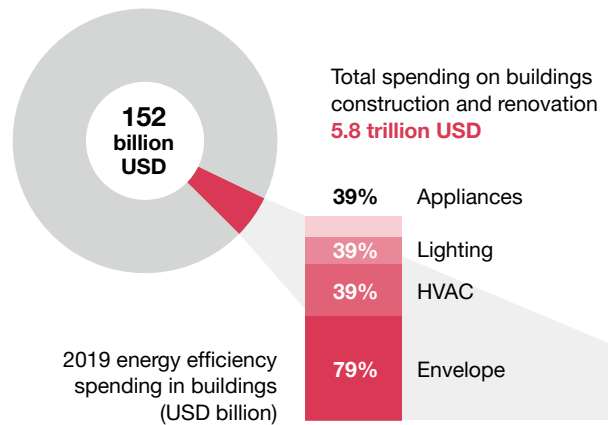
The property sector is uniquely positioned to institute improvements to both mitigate impacts and increase resilience to environmental risks. Although climate change forces sector players to have new responsibilities regarding both revaluation and future-proofing portfolios, it also brings opportunities for new investment areas such as green buildings and urban transformation.

While spending on energy efficient buildings increased for the first time in three years in 2019, with investment in building energy efficiency in global markets rising to 152 billion USD, it still represents a small fraction of the 5.8 trillion USD spent on the building and construction industry. Indeed, in the building industry, for every 1 USD spent on energy efficiency, 37 USD is spent on traditional construction approaches<sup>10</sup>.

<sup>9</sup> A Guide to Decarbonizing the Built Environment-WEF

<sup>10</sup> 2020 Global Status Report For Buildings And Construction - UN Environment Programme

### Building Construction and Energy Efficiency Investment and Breakdown



Source: IEA

According to IFC, during the next decade, green buildings represent a significant low-carbon investment opportunity in emerging markets -24.7 trillion USD by 2030, and most of this investment potential (17.8 trillion USD) lies in emerging market cities.

Green buildings constitute higher value and lower risk assets than standard buildings, providing a more sustained revenue stream, typically by providing higher sales premiums and attracting/retaining more tenants, as well as lowering energy consumption and thus operating costs. Additionally, green buildings can help investors and owners manage the risks associated with the transition to a lower carbon economy, which will bring regulatory, economic and resource changes and some energy inefficient assets will no longer be profitable<sup>11</sup>. Thus, it is now more widely accepted that maximizing returns goes hand in hand with minimizing environmental impact.

Although building decarbonization commitments and investments in Turkey are growing, swift increase in scale and pace to achieve the Paris Agreement Goals is highly needed. The green building sector has solid foundations in Turkey, with projects and government incentives, but there is still ample room for growth.

Green building implementations, which are encouraged by development plans and top policy documents, have also been empowered with the domestic National Green Certificate System (YeS-TR), developed to disseminate energy efficient, environmentally friendly building and settlement practices at the national and local level in Turkey. YeS-TR, a sustainable green building certification system was established to propagate energy efficient and environmentally friendly building practices at national and local level, promoting renewable energy technologies and reducing carbon dioxide emissions. With both climate change mitigation and zoning legislation, Turkey is leaning more towards performance-based standards. All these approaches and a strong drive for action reveal investment areas in the country.

<sup>11</sup> Green Buildings: A Financial and Policy Blueprint for Emerging Markets - IFC





## 2. Escalation in E-Commerce

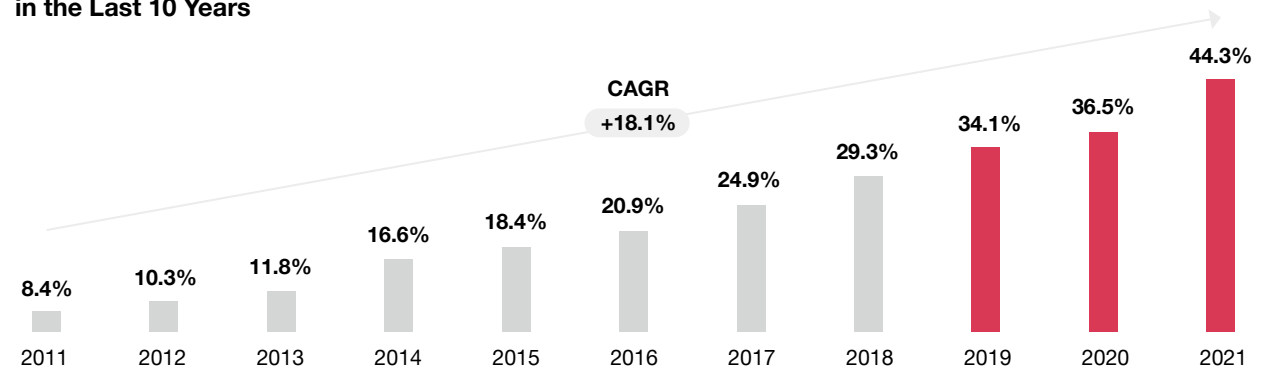
The rapid growth of e-commerce, accompanied by technological advancements such as predictive analytics, has forged a mind-set shift among consumers and businesses for unprecedented levels of service. The gold standard is the trifecta of faster delivery, greater product variety, and consistently in-stock inventory. The result of this shift is a spike in demand for logistics space, especially at the consumption end of the supply chain.

E-commerce, which has penetrated many aspects of daily life with its varied business models, is amongst the most dynamic sectors in Turkey. Before the COVID-19 pandemic, consumers were already shifting their attention away from conventional physical retail towards a more-customer centric experience and this trend is accelerated by the pandemic. Although manufacturing and service sectors demonstrated a deceleration at the beginning of the COVID-19 the demand for e-commerce exhibited a steady upsurge by its nature associated with the pandemic conditions.

Facilitating technologies and enabling intermediary services, such as enhancement of logistics and internet infrastructure, penetration of mobile device and social media usage, emergence of differentiated business models and payment services, dramatically increased the demand for e-commerce in Turkey. Between 2011 and 2021, online shopping in Turkey increased by more than 18% every year, and the positive impact of the pandemic on e-commerce can clearly be observed especially since 2019 with an increase of 10.2%.

Therefore, the size of the e-commerce market has also been booming in Turkey; in 2020, the market size has reached 226.2 billion TRY and as of the first six months of 2021, it has increased by 75.6% compared to the same period of the previous year and reached 161 billion TRY. Furthermore, in the first half of 2021, the number of orders increased by 94.4% from 850.7 million to 1.654 billion<sup>12</sup>.

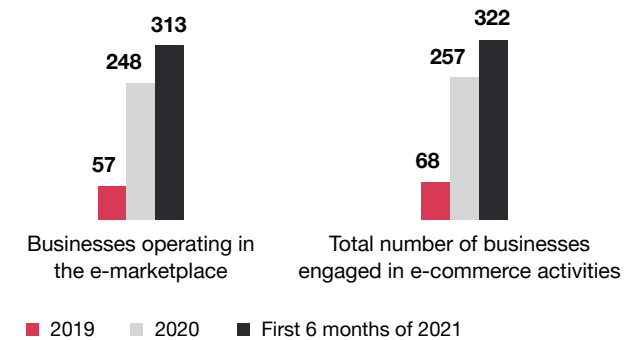
### Rate of Individuals Ordering or Purchasing Goods or Services over the Internet for Private Use in Turkey in the Last 10 Years



Source: TURKSTAT

The demand in question also raised the number of businesses; in addition to e-commerce companies operating exclusively online, companies in the service and manufacturing sectors have increasingly started to engage in e-commerce activities. The effects of the pandemic can clearly be seen in this aspect as well; the number of enterprises engaged in e-commerce activities in Turkey more than quadrupled in less than two years as of 2021.

### Number of Businesses Engaged in E-Commerce Activities in Turkey (Thousand)



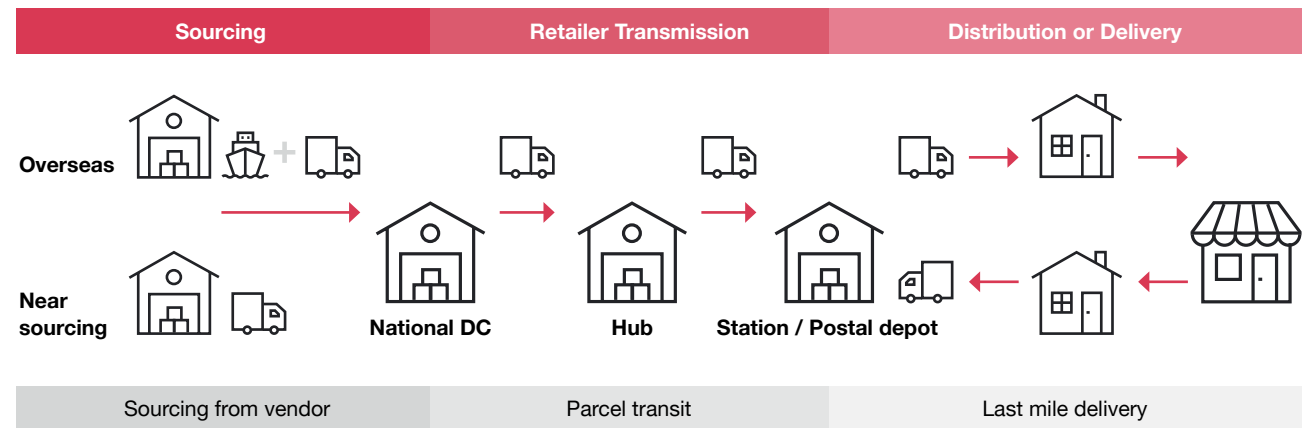
Source: IEA

<sup>12</sup> Turkish Electronic Commerce Information System (ETBIS)

Supply chain management is an integral element to the success of the booming e-commerce market. The rise in e-commerce demand has led to the increase in the number and volume of specialized, spatial nodes in the value chain, including logistics and distribution centers, warehouses, and relatively niche spatial asset classes such as self-storage areas and cloud kitchens. As demonstrated below, at each stage in the e-commerce supply chain, there exists an industrial space of high potential.

Based on the available data, there is 4.13 million sqm of owner-occupied space and 5.15 million sqm of total leasable stock with a vacancy rate of 9.3% in the industrial market in İstanbul and its environs, where Turkey’s primary logistics hubs are mainly located. Furthermore, the volume of projects under construction has been recorded as approximately 72.500 sqm, and 185.390 sqm of industrial projects are planned<sup>13</sup>.

### E-Commerce Supply Chain



Source: PwC analysis

### Industrial Space Opportunities

In İstanbul, with customers shifting to online shopping due to stay-at-home orders, the transaction volume in logistics surpassed a GLA of 300,000 sqm by the end of 2020 following the boom in e-commerce and this has led to a leap in the leasing and sale of such industrial spaces. Number of leasing contracts, which was 4,000 sqm in the same quarter of the previous year, skyrocketed to 205,000 sqm in the second quarter of 2020<sup>14</sup>. Industrial buildings and warehouses are in the third place after residences in terms of the highest surface area according to the purpose of use, in buildings for which occupancy permits were granted in the January-September 2021 period.

<sup>13</sup> Colliers Turkey study

<sup>14</sup> EMIS Insights - Turkey Real Estate and Construction 2021-2022

In industrial sub-regions in Istanbul and its near vicinity, vacancy rates have fallen and TRY-based average rents due to demand hikes in logistic facilities have risen. As of the third quarter of 2021, prime headline rents in Istanbul are approximately 5 USD/sqm/month and prime industrial yields are approximately %8.5<sup>15</sup>.

In the upcoming 12-month period, it is anticipated that the change in TRY basis in logistics and industrial rents will continue to depend on the course of the exchange rate and rents for high-quality industrial facilities will increase.

Warehouse area rental activities increased by 12% in the last quarter of 2021 compared to the previous year and amounted to approximately 54,156 sqm. As a result of the pressure in the supply chain with the effect of the pandemic, the increase in demand for qualified warehouses and the limited supply, a significant increase was recorded in primary rents by 16% compared to the previous year and by 10% compared to the previous half, and this trend is expected to continue increasingly<sup>16</sup>.

Furthermore, as a result of the increasing e-commerce demand, it is anticipated that there will be higher need for storage areas in the vicinity around the harbors and city periphery in the near future.

The shift to e-commerce is also starting to alter industrial building designs and increasing demand for novel design specifications such as efficient logistics space that facilitates quick movement of goods or new warehouses that are larger in size and height. In addition to new constructions, growth in existing distribution spaces and warehouses constitute another opportunity area. Although development activities on the supply side are limited at the moment, it is expected to gain momentum in line with increasing demand and rents.

Moreover, as new business models like same-day delivery become more popular and e-marketplace brands establish their own delivery networks, the need for warehouses and distribution centers in critical locations near customers or major transportation hubs, are becoming even more critical.

As such, the growth in the industry is leading some of the biggest e-commerce companies to execute major acquisitions of such industrial spaces, resulting in the domination of e-commerce firms in warehouse leasing. To exemplify, one of the most significant and biggest purchasers, Amazon, completed two giant warehouse acquisitions with a total size of 78,000 sqm in Tuzla and Esenyurt in 2021. Again, within the same year, Getir, a Turkish unicorn e-commerce firm, purchased a 21,000 sqm warehouse in Esenyurt and made the fourth largest purchase in terms of warehouses.

Therefore, although it can be said that the biggest impact of e-commerce on real estate occurs in the commercial -which includes retail and office space- and industrial aspects, the e-commerce revolution has the influence to touch even residential real estate.

<sup>15</sup> Colliers Turkey study

<sup>16</sup> Turkey Real Estate Market Analysis 2022 by Cushman & Wakefield

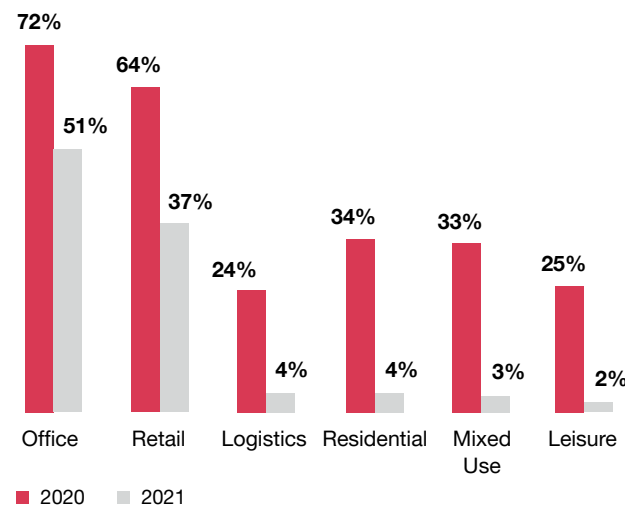


## Transformation of Conventional Retail

Besides pure e-commerce, conventional retail companies are now transforming the concept of physical stores and meeting with consumers at their locations through multiple online channels such as websites, mobile applications, social media, and services such as pick-up and on-demand delivery.

The increase in omni-channel service delivery is also affecting the commercial real estate and impacting the leasing needs and consequently rent and property values, resulting in two crucial outputs; firstly, in recent years, growing number of major retail brands have turned to e-commerce because of the increased rent for physical stores and low capital return, and secondly since e-commerce covers almost all business areas, impact the repurposing of the commercial real estate.

## Building Types to be Repurposed in Europe

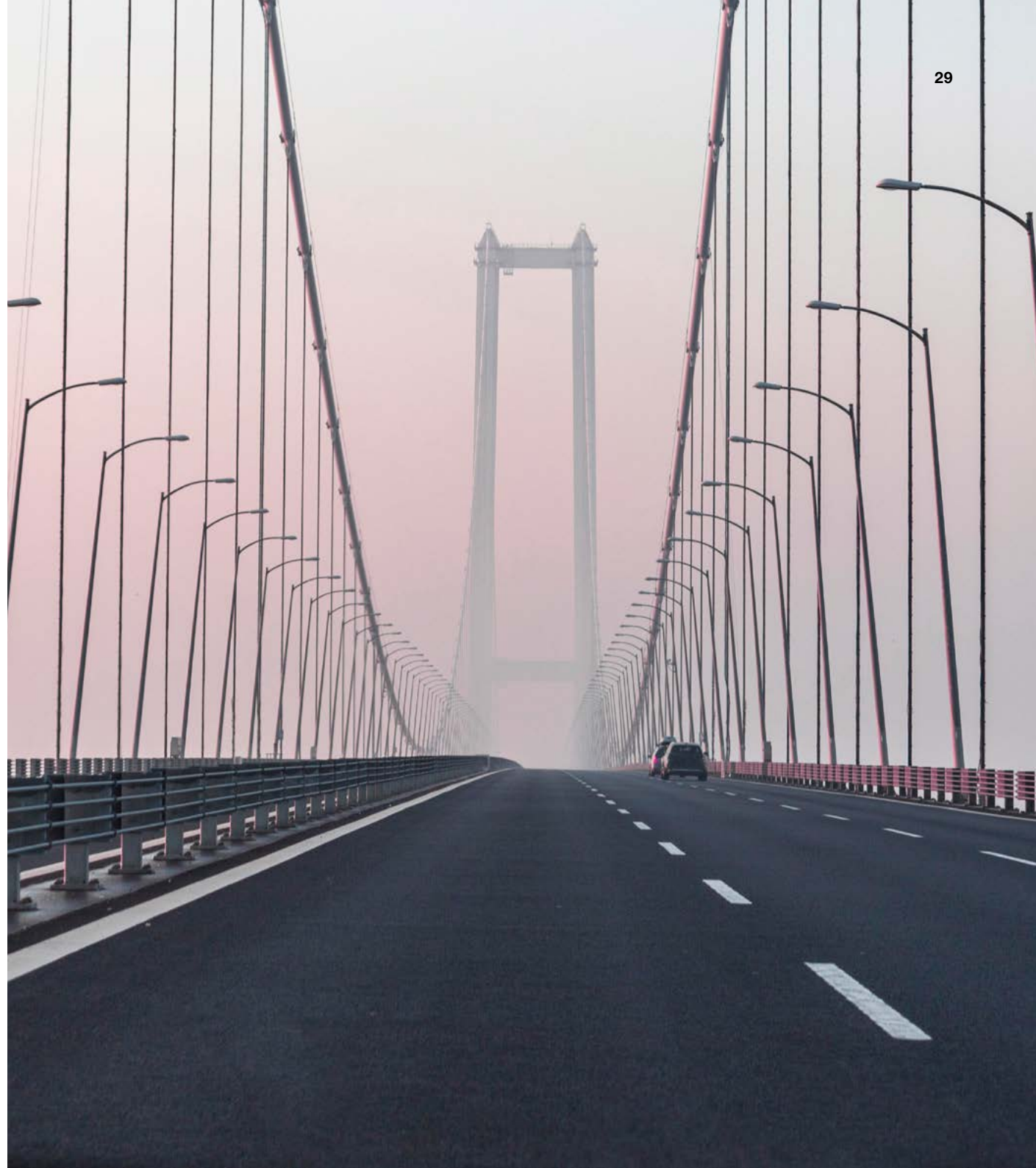


**Source:** PwC - Emerging Trends in Real Estate: Europe 2022

## Shift in Global Supply Chains

With the pandemic, many industries that are dependent on economies like China, have started to reevaluate their global supply chains as a result of facing international logistics restrictions. In addition to acceleration in domestic demand, Turkey's positioning as a global logistics hub and near-shoring and on-shoring trends in supply chains due to Turkey's strategic geographical location and cost advantages as an alternative to the East, is expected to boost the logistics and warehouse needs in Turkey even more. Turkey stands out as an alternative hub to Asia, especially China, with its proximity to European, Middle Eastern and North African capitals. Currently, major logistics companies like DHL, CEVA, FedEx, UPS are benefiting from Turkey's strategic location as a logistics hub. The demand for the Turkish real estate market from 3PL and end users is getting stronger due to the increasing e-commerce activity and near-shoring and on-shoring trends.

Furthermore, in recent years, the strong logistics network created by large infrastructure investments especially in the Marmara Region such as Istanbul Airport, Istanbul metro network, 3rd Bosphorus Bridge, North Marmara Highway, Istanbul-Izmir Highway, Marmaray and Eurasia Tunnels, as well as Turkey's becoming one of the most important energy corridors in the world, has created a high potential for real estate development by increasing accessibility.



## **The Impact of Retail Tech-celeration on Real Estate**

The fact that e-commerce being a more data-centric mode of trade compared to physical retail, creates the need for data centers besides supply-chain related industrial spaces required for stocking, storage, and distribution. E-commerce necessitates various IT solutions and infrastructures that are not necessarily required in physical retail, such as online ordering infrastructure, tracking system integrated with the cargo/distribution company, and payment services. Integrating technology solutions and tools that shall create a unique shopping experience into retail spaces will be essential for future rental and sales opportunities by aiding businesses to gather data that is vital for tracking traffic and learning more about the customer.

Furthermore, besides the IT requirements for online ordering and managing inventory primarily through servers and computers, digital supply chains are starting to come into play, creating a self-guided ecosystem that can operate with near autonomy, making 'smart' decisions related to procurement, production, warehousing, and logistics. This ability for supply chains to dynamically self-adjust to changing demand will, among other benefits, bring together the need for specialized industrial spaces like data centers. For this reason, in addition to e-commerce related industrial areas that come to mind initially such as hubs, warehouses and logistics centers, there exist high-potential real estate investment areas that are inconspicuous at the first stage such as data centers.

Besides the increasing interest in e-commerce, factors such as the intense competition in the field of telecommunications, digitalization of Turkish public services and the obligation of Banking Regulation and Supervision Agency (BRSA) to build data centers belonging to banks in Turkey, have paved the way for Turkey to become a global data center base. Today, Turkey has a total of 71 data centers in 14 cities; mainly 37 in Istanbul, 7 in Ankara, 6 in Izmir and 5 in Bursa, and this number is expected to increase gradually<sup>17</sup>.

Overall, e-commerce has major impacts on various aspects of the real estate sector. Although Turkey has an accelerating e-commerce market, it still has not reached its full potential and the desired levels in terms of international competitiveness.

<sup>17</sup> Data Center Map



### 3. Tourism

Turkey ranks the 6<sup>th</sup> most visited tourism destination with more than 51 million visitors in a year just before the pandemic<sup>18</sup> and is amongst the leading countries in the hospitality sector thanks to its many advantages such as the diversity of tourism modes, advanced international competitiveness in facility-based tourism, resistance to asymmetric shocks, young workforce, and flexible service understanding. Along with coastal, thermal, SPA, winter, congress, and expo tourism, Turkey is increasingly being regarded as one of the most popular holiday destinations in the world and especially in recent years, Turkey has become a global attraction spot for the increase in resort holidays and new alternative tourism modes such as golf and boat vacations.

Tourism is unarguably one of the sectors affected the most by the pandemic, which radically alter the global dynamics within the sector. Turkey's effort to become a global tourism hub by making strategic infrastructure investments has strengthened its perception of 'safe tourism destination' by adopting the right policies and new business model during the pandemic.

<sup>18</sup> UNWTO

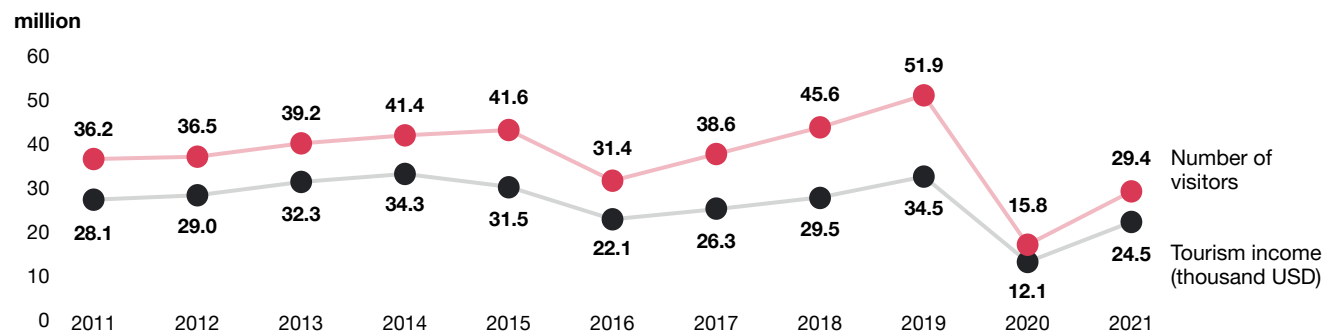






Even though the pandemic has inevitably reduced the growth of the sector in Turkey, it is predicted that the demand in the tourism sector, which started to recover in 2021, will gradually reach its previous levels, and that domestic tourism demand will recover faster than international demand. As can be seen below, although the closure of borders significantly reduced the number of visitors and tourism revenues in 2020, they are rapidly improving with the increase in the number of people vaccinated, and the lifting of restrictions across the country.

**Number of Visitors and Tourism Income of Turkey in the Last 10 Years (million)**



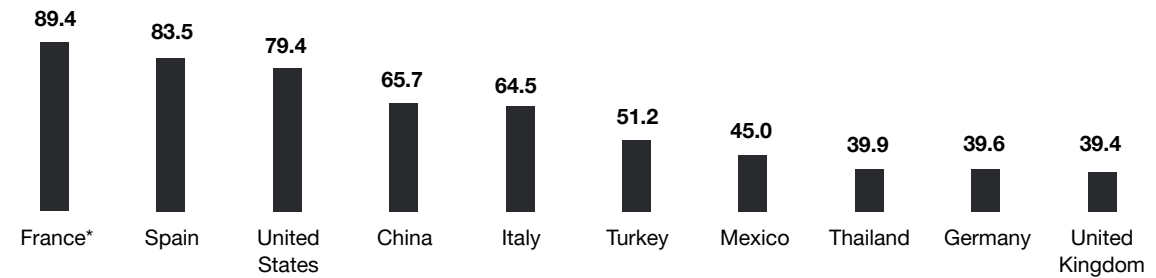
Source: TURKSTAT



Even if the decline in number of visitors negatively affected occupancy rates and average daily rate (ADR), Turkey has recorded an increasing trend as of 2020. While the hotel occupancy rate in Turkey in 2021 increased by 45% compared to the same period of the previous year and reached 52% that hit 55% in Istanbul . It is possible to state a similar upward trend for ADR as well. Further rebound is expected to be observed in 2022 along with the softening in travel restrictions.

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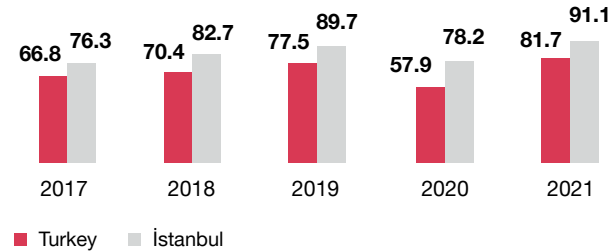
**International Tourist Arrivals in Top 10 Tourism Destination Countries in 2019 (million)**



\* 2018 data is used for France.

Source: UNWTO

**Annual ADR of Turkey and Istanbul in Last 5 years (EUR)**



\* 2021 data comprises Q3.

Source: GYODER

After a temporary downfall with the pandemic, Turkey is currently pioneering in the tourism sector with the help of its robust real estate and construction sectors. As of 2022, there exist 4,863 accommodation facilities having operation certificates with a total capacity of 510,000 rooms and 508 accommodation facilities having investment certificates with a room capacity of 62,000<sup>20</sup>. Furthermore Turkey, with 734 5-star hotels as of 2020<sup>21</sup>, is a hotspot for the attraction of international hotel chains. With tourism a lifeline for the economy, investment opportunities in the Turkish tourism market are expected to rise as urbanization grows rapidly.

<sup>19</sup> Turkey Real Estate Market Analysis 2022 by Cushman & Wakefield

<sup>20</sup> Ministry of Culture and Tourism

<sup>21</sup> Real Estate Market Size Introduction by Cushman & Wakefield, September 2021

## **New Tourism Trends After the Pandemic**

The tourism sector is fundamentally shaped by global trends that center on the understanding of providing experience rather than travel. Although significant challenges remain within the scope of the global economic recession, especially the uncertainty of the duration of the pandemic, countries and hotel chains are implementing a wide range of measures to mitigate the impact of the pandemic and encourage the recovery of the sector.

As a result of the closure of national borders, measures such as domestic travel restrictions, curfews, the fact that the pandemic could not be completely controlled and the uneasiness of the tourists due to the increase in the risk, new tourism alternatives aiming to eliminate the risks, have emerged such as new social distance friendly holiday villages.

Hotel design, renovation and construction projects are therefore shaped by increased health and wellness offerings that contain several construction and real estate potentials.

Hotel owners have begun to pay more attention to health-related features and new design specifications for indoor/outdoor architecture to reduce the risk and comfort their customers. To exemplify, hotels are now trying to connect indoor public spaces with the outdoors to get fresh air to reduce the transmission of the virus in the crowd or in case of an available area, constructing additional detached buildings.

## **Continued Interest of Luxury Chains on Turkish Holiday Destinations**

In recent years, there has been an increasing interest in luxury travel and demand for differentiated service levels. Turkey is becoming the center of attraction for the world's leading international luxury hotel chains. Investments made by Shangri-La, Four Seasons, Raffles and Mandarin Oriental have paved the way for growing luxury demand in Turkey's prominent tourism regions such as Bodrum, Izmir and Cappadocia and especially in Istanbul.

Luxury chain brands investing in Turkey will not only make a positive impact on Turkey's global reputation, but also will help Turkey to rebrand as a new luxury tourism center. Furthermore, investments that target fewer but more qualified customers rather than a large number of visitors will also attract high-end tourists with more spending power.

Seven new luxury hotels are planned to open in Istanbul, Bodrum and Cappadocia during the 2020-2022 period such as Jumeirah in Sea Pearl Ataköy or Peninsula in Galataport. In the upcoming years, it is anticipated for luxury hotel chains such as Curio, Radisson Collection and Waldorf Astoria to open up to Turkey as well. The success of luxury brands coming to Turkey increases the interest of other luxury brands in the world, and this interest is expected to increase in the upcoming years.

## Health Care Tourism

Demographic changes and differences in consumer preferences intensify the pressures on health systems and create new areas within health service delivery. An aging population and growing middle class are changing the needs of health care. Consumers' preference for accessible, low-cost, and specialized health services and the increase in medical demands, especially by developed countries, lead to an increase in health care tourism.

The historical trend of health care tourism from low-income countries to high-income countries is now reversing, and the growth of health care tourism has created new centers of attraction in developing economies like Turkey. Turkey, which had a robust conventional health care tourism sector even before the pandemic, has strengthened its position during the pandemic by providing online health services such as remote diagnosis, treatment and follow-up and bringing the patient together with the physician online.

### Snapshot of Turkish Health Tourism Market in the Last 10 Years

	2011	2021	2011-2021
Turkey's health tourism income (billion USD)	0.5	1.1	2.1x
Incoming international patients (thousand)	156	642	4.1x
Number of hospital beds in Turkey (thousand)*	195	251	1.3x

\* Number of hospital beds data is the data of 2020.

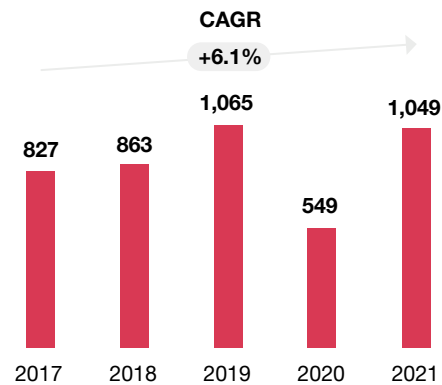
**Source:** TURKSTAT, Turkish Ministry of Health - General Directorate of Health Services





Turkey, which is among the largest exporters of health-related services, is in a net exporter position with its relatively small import share<sup>22</sup>. The relatively inelastic demand for healthcare despite the mobility constraint as a result of the pandemic demonstrates the resilience of health care tourism. Tourism expenditures increased only in the type of health expenditures in the 5-year period between 2017 and 2021.

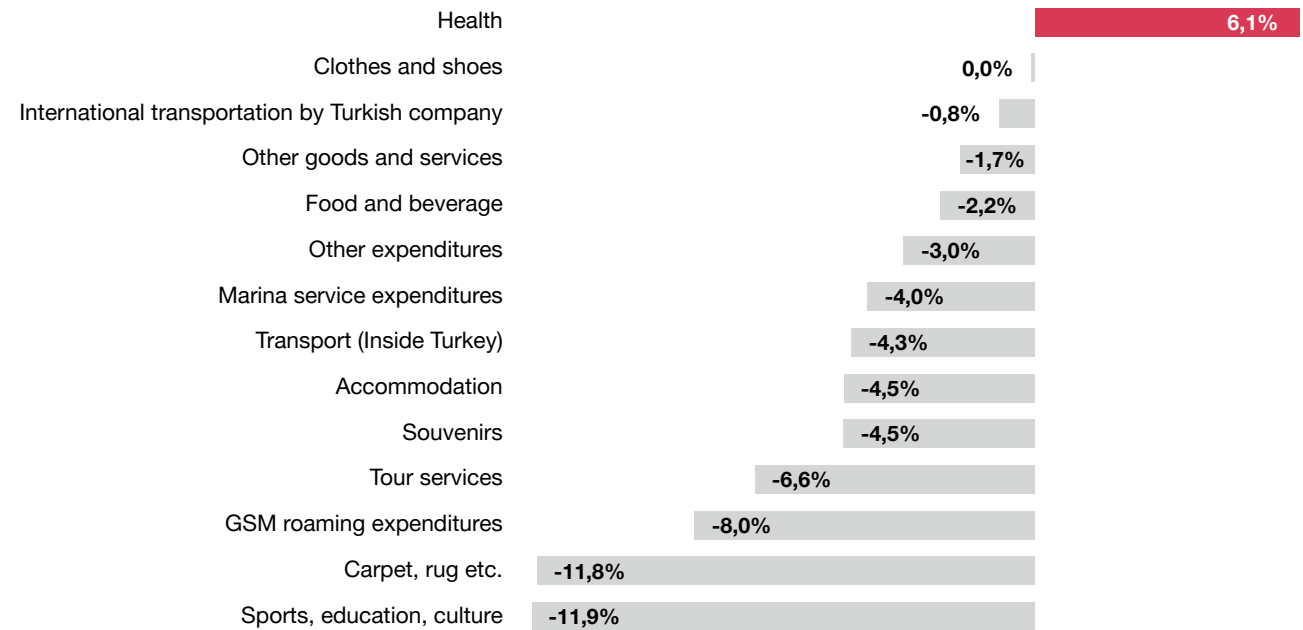
**Health Tourism Income of Turkey in the Last 5 years (Thousand USD)**



Source: TURKSTAT

<sup>22</sup> PwC analysis

**Tourism Revenues of Turkey by Type of Expenditure (CAGR Change between 2017-2021)**

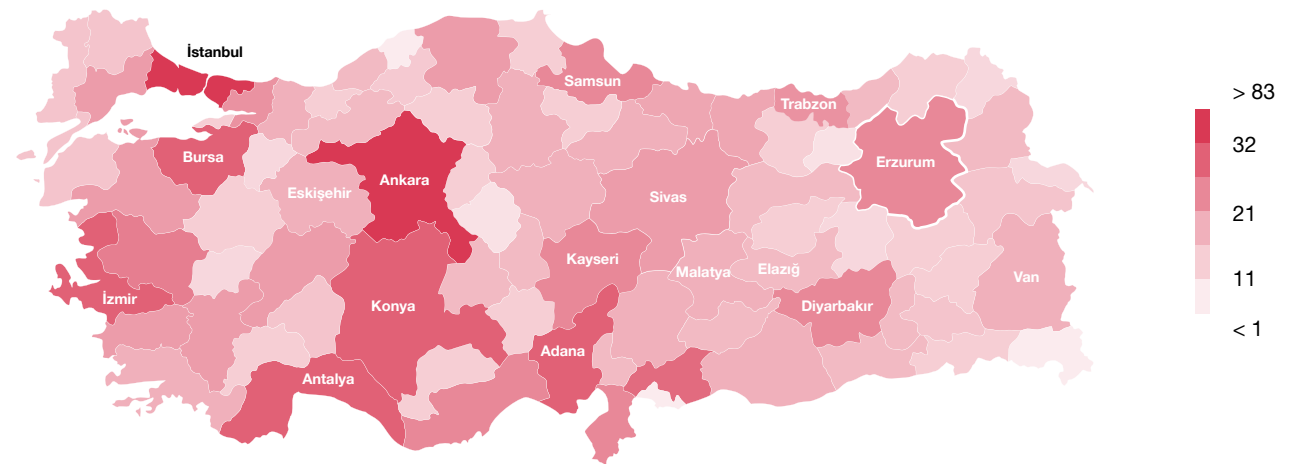


Source: TURKSTAT, PwC analysis

Accessibility and the healthcare infrastructure of the country plays a crucial role within the scope of health care tourism. With strategic infrastructure investments such as Istanbul Airport and city hospitals, Turkey has made significant breakthroughs. Supporting the access of countries to Turkey with direct flights, facilitates patients' access to health services in Turkey. A bridge between Europe and Asia, Turkey's ambition is to become a regional hub connecting flights throughout the world and to enlarge its national carrier, Turkish Airlines.

With this aim in mind, Turkey replaced its main Istanbul Ataturk Airport, which no longer serves commercial flights, with the Istanbul Airport in 2018, which was tendered under the PPP model. In this context, Turkey, which has already become a transit country with Istanbul Airport, is also a pioneer with its health care related real estate breakthroughs such as city hospitals. City hospitals were launched in 2013 and aim to build or expand health services across Turkey in partnership with the private sector. The project oversees the construction of 31 major hospital complexes that offer a wide range of services to assist Turkey's healthcare system. In the PPP model, hospitals built predominantly in the suburbs will be leased to private companies to operate, and the government will pay for medical imaging, laboratory, security, care, and healthcare workers.

### Number of Hospitals by Province, 2019



**Source:** PwC analysis

Although Turkey has made significant progress in its health infrastructure, it still lags its potential and has major investment opportunities. As of 2022, there are 1473 health facilities entitled to receive health tourism authorization certificates and 307 intermediary institutions entitled to receive health tourism authorization certificates in Turkey<sup>23</sup>. Despite the growth, Turkey lags the OECD average in the number of hospitals per million people and hospital beds per capita among OECD countries (Turkey: 2.9; OECD average: 4.7)<sup>24</sup>.

Although the government has implemented many structural and organizational reforms to enhance health tourism services, infrastructure investments are still highly needed especially in the eastern region of Turkey and collaborations with the private sector will be of great importance for the future strategy.

<sup>23</sup> Ministry of Health, Department of Health Tourism

<sup>24</sup> OECD Stat



## 4. Higher Exports

The COVID-19 pandemic and responses by the policymakers had a significant impact on the global economy in the last couple of years. The growth of the international goods trade that has already been hit by the trade-wars and global policy ambiguities in the late 2018 and 2019 was decelerated further with the impact of the pandemic associated disruptions in 2020. However, an unprecedented worldwide stimulus led the recovery -particularly in the manufacturing industry- to be sooner and stronger than anticipated. As it has been stated in the OECD paper<sup>25</sup>, the V-shaped recovery in the second half of 2020 “was particularly rapid and was due to the combined effects of a reduction in backlogs in supply chains and logistics and of a freeing up of pent-up demand for durable goods accumulated during the lockdowns of the first half of the year”.

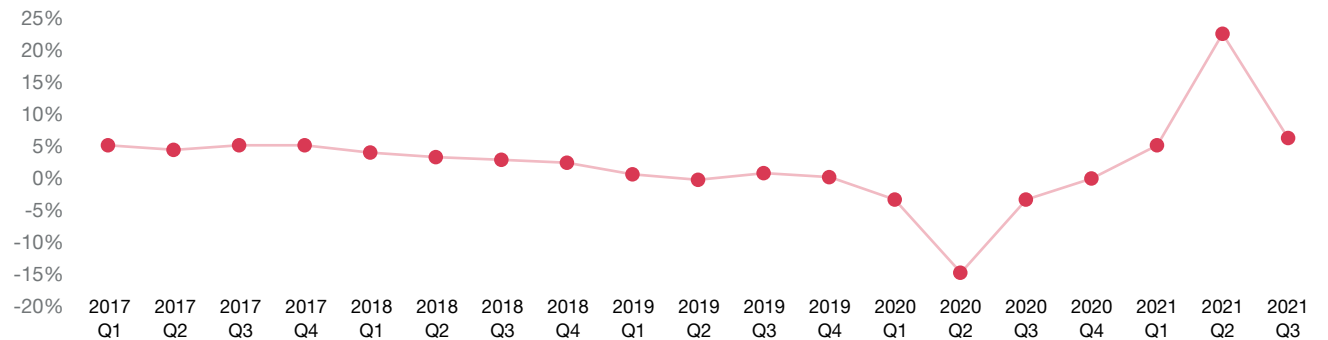
<sup>25</sup> [www.oecd-ilibrary.org/docserver/0b8eaafe-en.pdf?expires=1644415162&id=id&accname=guest&checksum=10FCA508913017E627E8CB4BB885BA81](http://www.oecd-ilibrary.org/docserver/0b8eaafe-en.pdf?expires=1644415162&id=id&accname=guest&checksum=10FCA508913017E627E8CB4BB885BA81)



The Turkish economy also exhibited a V-shaped recovery in the manufacturing industry. In addition to the above-mentioned escalation in the global demand, Turkey’s attractiveness to be a prominent near-shoring location with its wide range of export capability led trade figures to return to pre-COVID-19 levels in the second half of 2020. The upward trend in exports was maintained also in 2021 as a result of a sharp depreciation of the Turkish Lira.

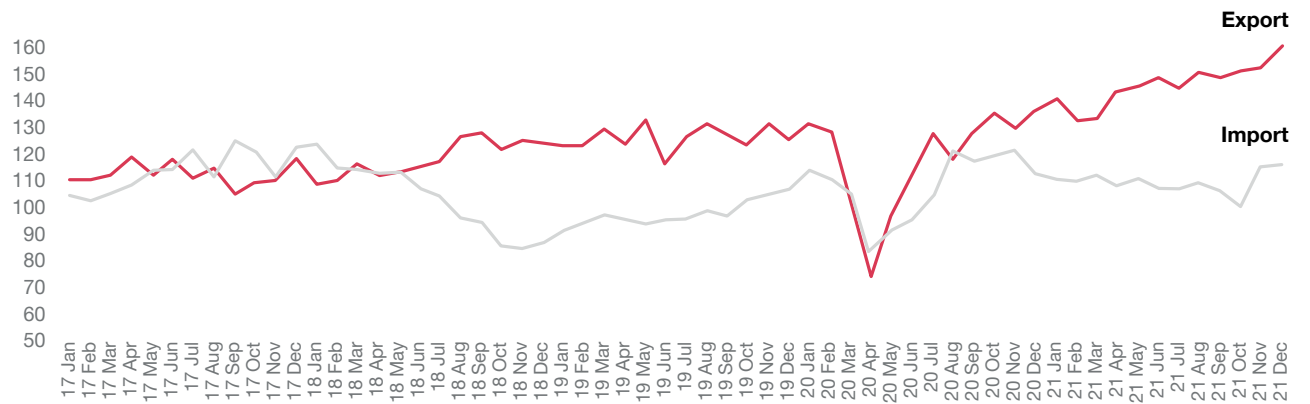
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**Annual Growth of Worldwide Goods Trade Volume**



Source: UNCTAD, PwC Turkey

**Foreign Trade Volume Indices (Seasonally Adjusted)**

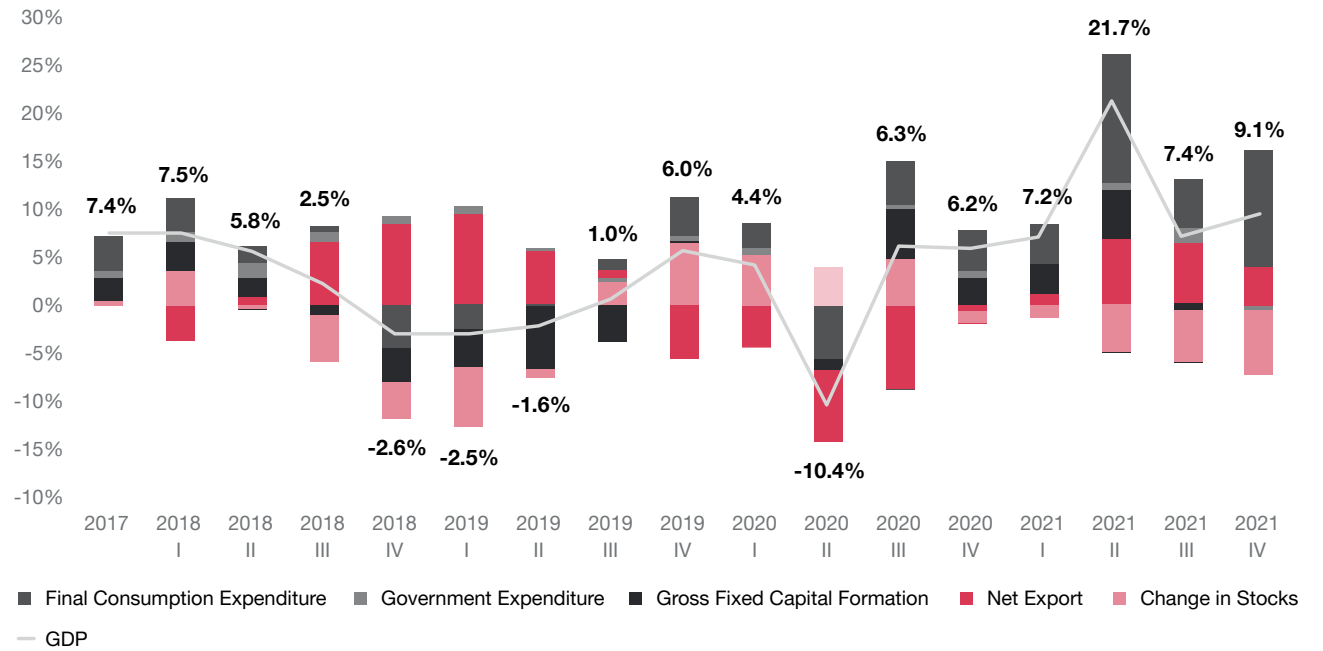


Source: TURKSTAT, PwC Turkey



On top of strong foreign demand, domestic policy measures have also bolstered the local demand that force production activity to recover rapidly. From purchasing managers index (PMI) to industrial production, all leading indicators regarding the manufacturing industry have demonstrated a V-shaped recovery in the second half of 2020. It was obvious from the GDP figures that private spending and net exports were the main contributors to the economic growth in 2021.

**Contribution to GDP growth**

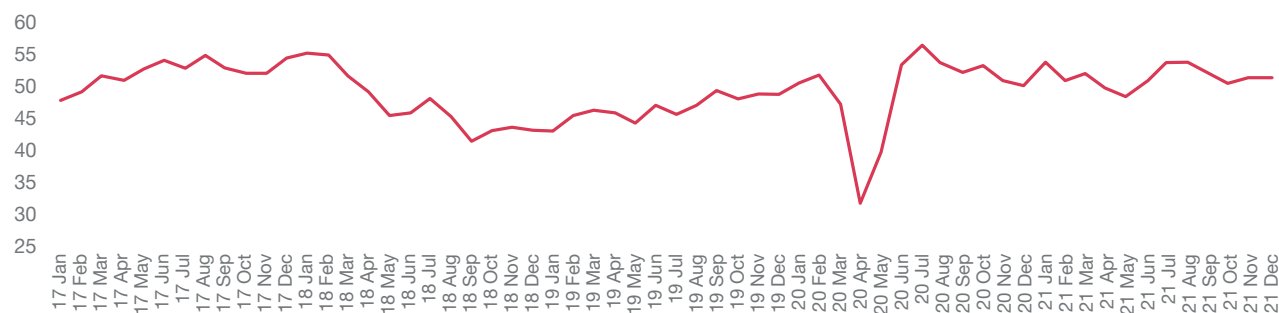


Source: TURKSTAT, PwC analysis

The higher the demand was accompanied with the higher capacity utilization which sometimes means a need for capacity development to meet the excess demand.

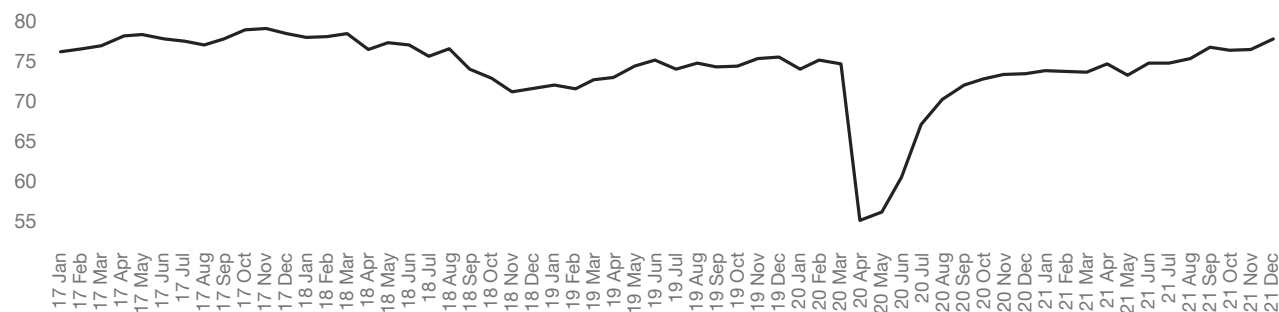
Increasing industrial production and capacity utilization bring the need for factories and organized industrial zones. The Turkish government is planning to accelerate the economy with new OIZs to be opened across Turkey. With 20 new OIZs to be established in the next three years, approximately 300,000 new jobs are expected to be created and thus, the total employment in OIZs will reach 2 million. Furthermore, with the specialized OIZs, it is aimed to double the OIZ exports, which is currently 43 billion USD. The increase in the need for industrial facilities arising with increasing exports also creates crucial real estate investment opportunities in industrial zones in Turkey in the upcoming years.

### Manufacturing PMI Index



Source: Markit, PwC analysis

### Capacity Utilization

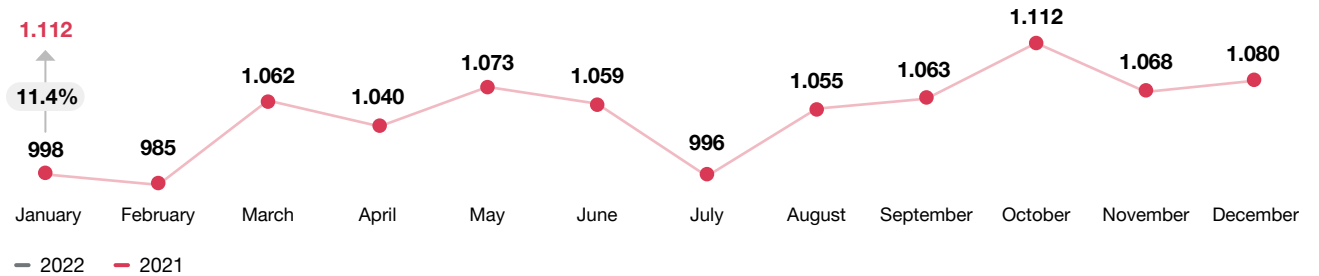


Source: CBRT, PwC analysis

Increasing industrial production and capacity utilization bring the key logistics element to the forefront as well. In January 2022, the amount of containers handled at Turkey's ports increased by 11,4% compared to the same month of the previous year and amounted to 1.112 million TEU.

Competitiveness in logistics as prioritised policy area, has led to significant infrastructure projects, impacts of which should be taken into account together with both increasing exports and regional development pipeline.

**Container Handling at Turkey's Ports, January 2022**



**Source:** Ministry of Transport and Infrastructure, General Directorate of Maritime. TEU: Twenty-foot equivalent unit

**Some of the many infrastructure projects to increase Turkey's logistics capacity**

**Asyaport**

- Commenced operations in 2015, Asyaport is Turkey's largest transit port, handling nearly 40% of the transit container transactions across the country.
- Asyaport, which is the first Transshipment Container Terminal (Hub Port) of Turkey having a draft up to 18 m, 2000 m total quay length in the position of a world-scale port with its capacity up to 2.5 million TEU, has made significant breakthroughs in recent years.
- Developing as a logistic center, Asyaport is the new trade gateway of the region and will provide significant contribution to increased export levels of Turkey.

**1915 Çanakkale Bridge and Motorway Project**

- The Project comprises 88 km of motorway including the 1915 Çanakkale Bridge and constitutes the pivotal central segment of the 324-km Kinalı-Tekirdağ-Çanakkale-Savaştepe Motorway Project, thus tying the links of the motorway chain encircling the Marmara Sea connecting the Gebze-İzmir Motorway.
- 1915 Çanakkale Bridge is the longest mid-span suspension bridge in the world with a total length of 4608 meters.
- The Project has been awarded within the framework of a PPP model to a Turkish-Korean consortium.
- With the Çanakkale motorway, the Marmara region will become a crucial hub and can rival the Piraeus port in particular. Faster and cost-effective transportation will strengthen the regional economic activity with minimized vehicle management costs and travel time.



**Source:** Official websites of 1915 Çanakkale, Asyaport, Mersin International Port

**Mersin International Port**

- Mersin International Port (MIP), which was privatized in 2007, meets a significant portion of Turkey's import and export volumes with its vast hinterland, accessible transportation opportunities and qualified human resources.
- MIP, one of the important ports of the Mediterranean, is not only the import-export gate of the Mediterranean and Anatolian regions, but also the transit center of the Middle East countries.
- Being Turkey's largest container port, MIP will be an important hub for the Mediterranean, especially within the scope of increasing e-commerce.

Booming logistic hubs also present key opportunities for the real estate markets, themselves located in strategic closeness to key industrial centers and further amplifying economic activity in their hinterland, including services. As of 2021, in Turkey there were 12 logistic hubs in operation, 2 in-progress and 11 planned.

### Logistic Hubs in Turkey



Logistic Centers	Samsun (Gelemen)	İzmit (Köseköy)	Uşak	İstanbul (Halkalı)	Eskişehir (Gökköy)	Balıkesir (Gökköy)	Denizli (Kaklık)	Kahramanmaraş (Türkoğlu)	Erzurum (Palandöken)	Konya (Kayacık)	Mersin (Yenice)	Kars
Capacity (1,000 Tonne), in 2020	1.156	2.000	246	2.000	1.400	1.000	500	1.900	437	1.700	896	412

**Source:** Ministry of Transport and Infrastructure, General Directorate of Turkish State Railways



## 5. Regional Development Programs

Regional development efforts in Turkey consist of several layers of policy, regulation, institutional capacity development and inter-institutional partnerships. A key component of this overarching policy is fostering competitiveness through innovation. With this strategic priority;

- The ratio of R&D spending to GDP, increased more than 30% between 2009 and 2020 and reached 1.09%,
- In 2020, total R&D expenditures amounted to 55 billion TRY, and R&D investments to 4.44 billion TRY,
- 56% of Turkish R&D investments in 2020 was carried out by private companies, 32% by universities and 12% by the government.

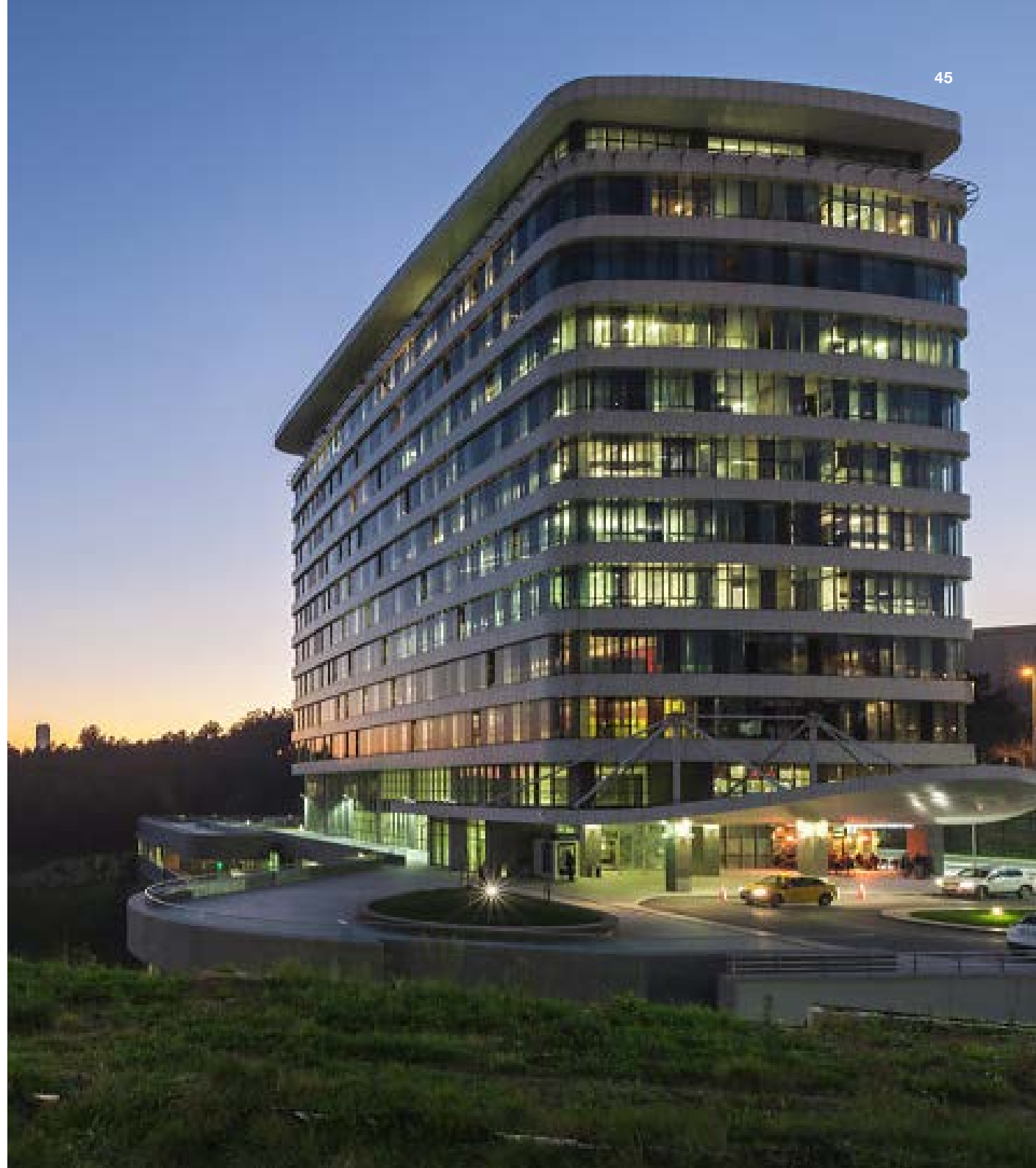
The focus on increasing competitiveness in the knowledge economy and industry has led to the establishment of several government interface organizations ranging from innovation centers to model factories. These are accompanied by private sector actors, established to either generate knowledge in the form of company R&D Labs or to accommodate the actors of the ecosystem in the periphery such as co-working spaces.

### An Illustrative Distribution of Organizations in Turkey, Facilitating Regional Development through innovation

	Generalist Innovation Focus	Operations Innovation Focus	R&D and Design Focus	Industry Focus	Technology Development Focus	Academic Focus	Ecosystem Development Focus
Innovation Centers	✓			✓			✓
Model Factory / Digital Transformation Offices		✓		✓			✓
Technoparks			✓		✓		✓
TEKMER (Technology Development Center)			✓		✓		✓
Technology Transfer Offices			✓			✓	✓
University R&D Centers			✓			✓	✓
Private R&D Centers and Design Centers			✓				
Development Agencies	✓						✓

Source: PwC analysis

This set of organizations, funded privately or publicly and working to improve Turkey's competitiveness, translate to opportunities for real estate development. Apart from the real estate occupied by the organizations, R&D and industrial clusters around these attract local and foreign academic circles, technology experts and inventors, businessmen and supplementary service providers. When putting these agents of innovation/competitiveness into focus, real estate developers need to keep two trends in mind;



## 1. Diversification of Location Options

In traditional industrial districts and innovative milieu, geographical proximity played a key role in network formation, company growth, and knowledge diffusion. However, the ICT revolution brings into question the importance of geographical proximity for firms. New forms of “virtual” agglomeration like the “innovation cluster” are emerging as a result of forward-looking public policies<sup>26</sup>. Traditionally, the key to location selection is the requirement of proximity to the catered public and to the employees to a lesser extent. Today more than ever, as evident in new ways of working (handled in detail under section New Ways of Working), virtual innovation clusters enable diversification of location options.

Consequently, selection of location (and consequent location scarcity) applies to some of the organizations on the spectrum more than others.

Co-working zones and innovation centers are among organizations relatively dependent on central locations. Innovation Centers, at least in Turkey, are designed to benefit a wide range of stakeholders, ranging from SMEs to university students, and therefore would need to be closer to urban centers. Technology centers, R&D Labs and arguably Technoparks would only require their labor force to be able to commute from nearby developing properties, and therefore may find location opportunities relatively outside of the traditional urban centers.

## 2. Functional Spaces for Niche Requirements

The building specifications required in the knowledge economy are diverse, differing for each of the organizational actors mentioned.

Those with an R&D and Design focus, namely Technoparks, Technology Development Center, Technology Transfer Office, R&D Centers and Design Centers require laboratories as well as co-working spaces. Early-stage companies located within these properties may require fitted laboratory and write-up space for administration and reporting on research, on flexible leases or licenses. The model is not dissimilar to traditional serviced offices, but with add-on facilities including equipment sterilization, laundry for scrubs and lab coats, and specialist waste disposal such as autoclaves.

<sup>26</sup> Salvador E., Mariotti I., Conicella F. (2013) “Science Park or Innovation Cluster? Similarities and differences in physical and virtual firms’ agglomeration phenomena”, *International Journal of Entrepreneurial Behaviour & Research*, vol. 19, n. 6, pp. 656-674

Alongside laboratory requirements, as is common for Technoparks in Turkey, these spaces have to cater for software developer start-ups and scale-ups. The market for such spaces is itself at an early stage of development, and is usually linked to academic or semi-public institutions, although there are opportunities for niche private operators in and around these centers.

Innovation Centers and model factories, two niche projects that have received heavy national and international donor funding, may not present much real estate development opportunity in and of themselves. However, as these relatively new organizations gain momentum, real estate opportunities around their property are expected to multiply, catered either towards organizations of similar objectives or towards establishments operating at different stages of the innovation value chain.



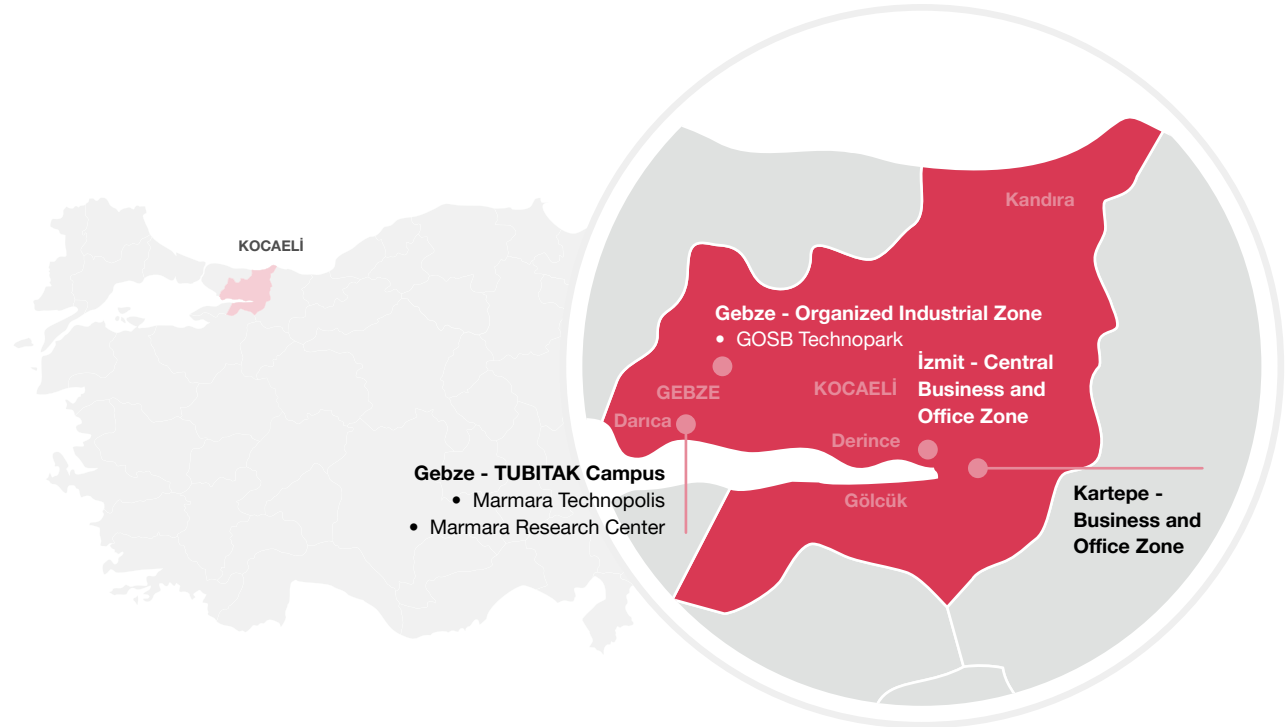


## Development Pipeline

Two cities have been identified, out of several, for further real estate development with regards to innovation based regional development projects;

### Kocaeli R&D Real Estate Market Development

Kocaeli is a logistics center serving international markets with active ports located on its shores, hosting an advanced automotive and chemical industry. The city is in an advantageous position in terms of agricultural investments with its fertile agricultural lands and climate suitable for agricultural production. On top of its strong industrial roots, in recent years the city has become the epicenter of R&D and innovation clusters. This is in part due to the Muallimköy Technology Development Zone established as part of the Informatics Valley project.



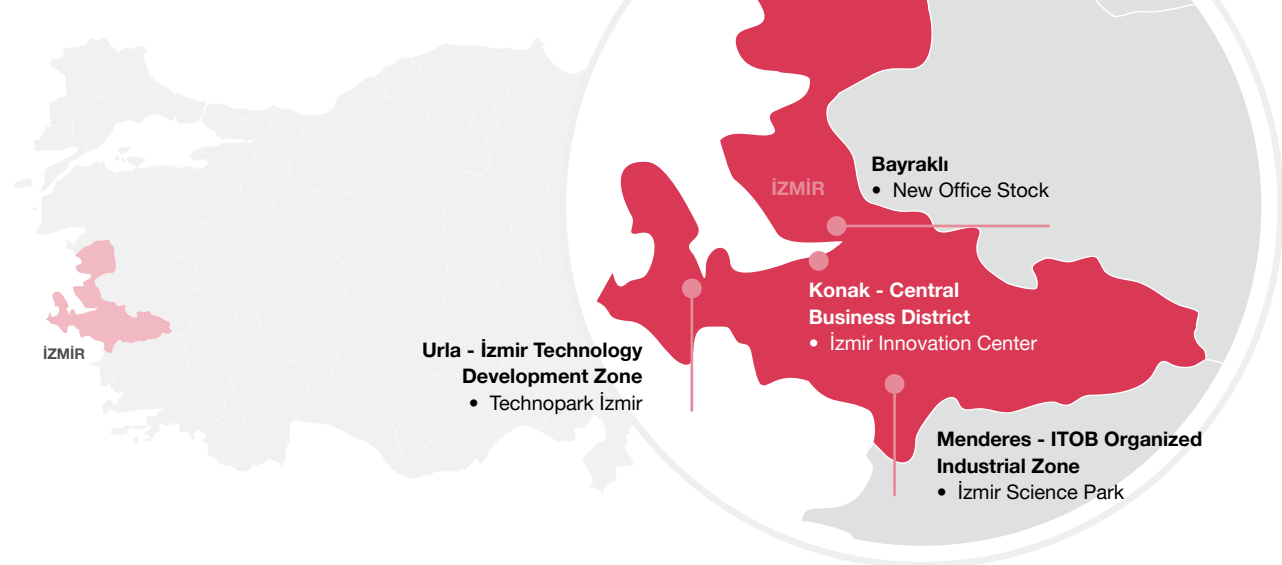
Kocaeli University, Sabancı University, Marmara Research Center, Gebze Institute of High Technology, TUBITAK (The Scientific and Technological Research Council of Turkey), TSE (Turkish Standards Institution) Central Laboratories, TEKMER (Technology Development Center), TUBITAK Marmara Technopolis, GOSB Technopark and KOU Technopark are institutions and organizations that drive the demand upward<sup>27</sup>.

## İzmir R&D Real Estate Market Development

Izmir is the third largest city in Turkey in terms of population. The city has a well-developed infrastructure network and hosts major ports. Apart from hard infrastructure, the city is well developed in soft infrastructure having 8 universities, 35 institutes, 41 R&D centers, 4 technology development areas and 13 organized industrial sites.

Technopark İzmir, İzmir Science Park, Depark and Aegean Technopark host within their boundaries firms working in informatics, electronics, energy, biotechnology, and telecommunication sectors.

Basmane-Çankaya Regions of Konak district, where commercial activities are concentrated in İzmir, can be described as the former Central Business District (CBD) of the province. Office property supply in this region mainly consists of old business center stocks that can be defined as B and C types. In this region, it is common for office users to choose small-scale office spaces, while companies that need larger space meet their office needs by renting a complete building or developing an entirely new building. İzmir Innovation Center, as an example, has employed the latter strategy.



The organization is renovating an old property at the heart of the central business district, belonging to the organization's shareholder - İzmir Chamber of Commerce, to be the functional HQ of the operations.

### İzmir Innovation Center Renovation Plan







## 6. New Ways of Working

The current work environment which entered our lives with the pandemic has brought flexibility and new skills, as well as new ways of working. Both the employees and the employers agree that the current trends, remote working and hybrid working models, will continue to be an essential part of the working life after the pandemic.

The COVID-19 pandemic has shown that working remotely at scale is achievable, and for many employees, desirable on a full time and sustained basis. Across the globe, workers across various industries had to switch to remote working within a few days. Although some workplaces have returned to their old settings due to the acceleration of the vaccination program in 2021, remote working continues to be the preferred model for many companies.

In many companies, determining what to do with the offices is the focal point of a much larger discussion. The success of remote work has reimagined how corporate work gets done, as well as where the work takes place. As a result, by design or default, most companies are heading towards a hybrid workplace where many office employees rotate in and out of offices configured for shared spaces. This model embraces the flexibility that most employees need after working from home for months and it is likely to transform the company's culture, employee engagement, the way the work gets done and how office space is used.

## **The office is here to stay, but its role is set to change**

The transition to flexible and remote working models altered the preferences for offices. According to Emerging Trends in Real Estate: Europe 2022 report by PwC, just under an half of executives (48%) anticipate they will need less total office space in 4 to 5 years, primarily due to increases in the frequency and number of employees working remotely. The other executives surveyed foresee no change or an increase in office space needs, primarily due to planned headcount expansion or the need to reduce office density as fears of the virus linger.

In addition, nearly the same number of executives (47%) believes that the square meters per office worker will increase. So they believe the change in terms of net demand for the offices will be insignificant. The dominant opinion (92%) is that offices with adequate ventilation and air quality will be more demanded and thus their prices will increase, where other offices will be preferred less and will face a rent discount.

Furthermore, most (85%) executives in Europe expect to make changes to their real estate strategy over the next 3 years. These plans include consolidating office space in premier locations and/or opening more satellite locations<sup>28</sup>.

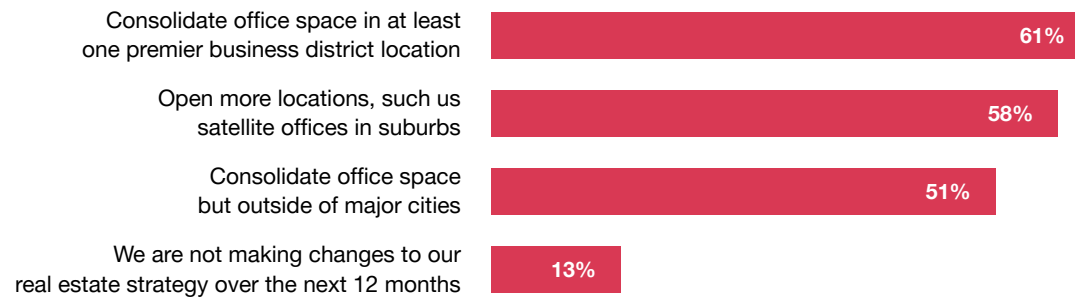
Besides the changes in the location and size of the offices, the interiors of the offices are expected to alter. Companies are taking up the opportunity to get creative with the workspace over the next couple of years. The goal is to make visits to the office an experience that enhances relationships and the company culture. Actions are likely to include improvements to office decor and an increase in collaborative hubs, including even bringing back some private offices or quiet spaces in a deliberate move away from cubicles and open floor plans. Companies recognize that some employees need or prefer having a place to go to work as well as a place where they can build relationships.

<sup>28</sup> PwC - Emerging Trends in Real Estate: Europe 2022



These mixed findings show that some companies are planning to reinvest the remote work dividend in new ways to create a special experience in the office. As a result, it is expected that the drive to align the real estate strategy with the hybrid workplace strategy will pick up speed in 2022, with implications for assumptions on real estates as a result of work from home trends.

### Real Estate Strategy in Transition as Companies Anticipate Multiple Changes



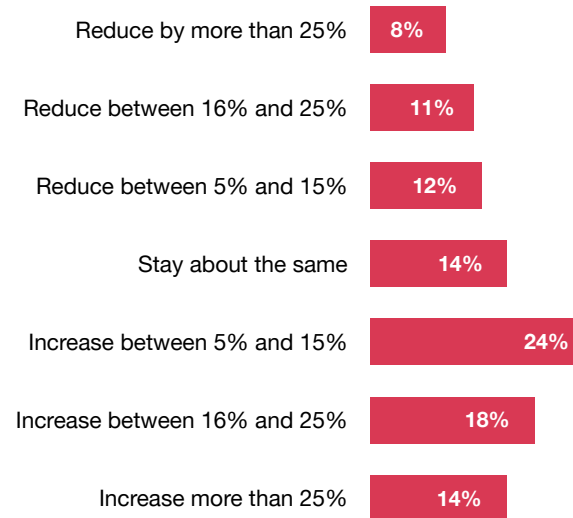
\* Q: What changes are you making to your real estate strategy in the next 12 months?

**Source:** PwC US Remote Work Survey-January 12, 2021

The office demand model is likely to be more complicated after COVID-19. Although it is anticipated that the need for offices will decrease with the transition to working from home, the majority of owners, investors and other property specialists believe that — as a result of social distancing needs — office tenants will require more square feet per worker than what was required pre-COVID-19. Space needs will now be dictated by the number of workers who will be in the office each day, how much space will be required to allow them to be productive and still meet any health safety concerns, and whether companies will reduce their existing real estate footprints as they move to more remote work models or use flexible office space to meet fluctuating space needs.

The pandemic has inevitably affected the office market in an unprecedented manner in Turkey as well, as millions started to work remotely from home. As of the third quarter of 2021, there has been a noticeable increase in office rental activities in the market, together with companies that implement hybrid working models. With the supply of office space remaining approximately the same and no noticeable change in the vacancy rates, it is seen that the rents in the regions preferred by offices have increased; compared to the previous quarter, average Class-A office rents in TRY-wise rose in most regions, with particularly striking rent hikes seen in the central business district (CBD) Levent and Maslak, respectively as 9% and 16%<sup>29</sup>.

### Some Executives Expect to Need More Office Space over the Next Three Years due to Rising Headcount and Social Distancing Needs



\* Q: How do you anticipate your total office space needs will be different three years from now?

Source: PwC US Remote Work Survey-January 12, 2021

<sup>29</sup> Colliers Turkey study



## **Opportunity to Live and Work in Far Outside of The Downtown**

Although new ways of working have altered the demand and preferences for office spaces, it has created brand new real estate investment areas. The infrastructure projects that have been undertaken and completed recently in Turkey, especially in Istanbul, have transformed the parts of the city which were previously thought to be far from the downtown, into areas suitable for living and working.

Infrastructure projects have been a lifeline of the Turkish economy since the early 2000s. The government has undertaken many transportation, energy, and urban transformation projects, many of which have been completed and several still in the pipeline. Public-private partnerships (PPP) is mainly used for major infrastructure projects in Turkey, and the government has offered to guarantee loans to consortiums, drawing foreign investment.

Turkey is keen to continue its infrastructure plans especially in highway, railway, and metro lines, with the help of increasing financing support and loans from International Financial Institutions (IFIs). To exemplify, the European Bank for Reconstruction and Development (EBRD) and the Istanbul Metropolitan Municipality (IMM) signed an agreement for a loan of up to EUR 80 million EUR in July 2020, to co-finance the Umraniye, Atasehir, Goztepe metro project line connecting three central districts of Istanbul and consisting of 11 stations and 13 km of metro, which is expected to carry 400,000 passengers per day. Furthermore, in December 2020, the last section of the North Marmara Highway, which is 467 km in length and provides faster travel between the Asian and European sides, was opened for use.

The increase in especially intracity metro lines has created new working and living opportunities far outside of the downtown. After the Marmaray, a city metro line, was connected to a line serving the suburbs of Istanbul, there was an 83% increase in passenger use<sup>30</sup>. At the same time, the pandemic is accelerating an outward migration of knowledge workers from the capitals to less-expensive locales<sup>31</sup>. It is predicted that this trend will accelerate even more as the remote parts of the city become suitable for working and living with new intracity metro lines and hybrid working models. As can be seen from metro lines under construction in Istanbul, parts of the city that used to be perceived as distant, now contain great real estate investment opportunities.

<sup>30</sup> EMIS Insights - Turkey Real Estate and Construction 2021-2022

<sup>31</sup> PwC US Remote Working Survey

## Metro Lines Under Construction



M10

M10 Pendik-SGH  
Metro Line, Pendik-  
Fevzi Cakmak Phase



M11

M11 Gayrettepe-  
Istanbul Airport Metro  
Line



M12

M12 Goztepe-  
Umranije Metro Line



M5

M5 Cekmekoy-  
Sultanbeyli Metro Line  
Extension



M7

M7 Kabatas-  
Mecidiyeköy Metro  
Line



M7

M7 Mahmutbey-  
Esenyurt Metro Line



M9

M9 Atakoy-Bahariye  
Metro Line



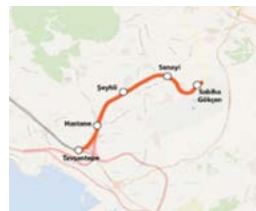
M13

M13 Yenidogan-Emek  
Metro Line



M3

M3 Kirazli-Bakirköy  
IDO Metro Line  
Extension



M4

M4 Tavsantepe-  
Sabiha Gokcen Metro  
Line Extension



M1B

M1B Kirazli-Halkali  
Metro Line Extension



M4

M4 Tavsantepe-Tuzla  
Metro Line Extension



M3

M3 Basaksehir-  
Kayasehir Metro Line  
Extension



M8

M8 Bostanci-Dudullu  
Metro Line

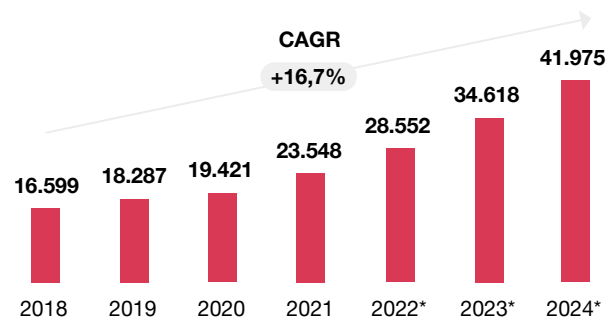


## Collective Working Places

While traditional offices may be a thing of the past, working from home isn't the only other option. Collaborative workspaces have been on the rise over the past decade, especially since the onset of the pandemic.

Workplace needs are shifting from traditional office spaces with long-term contract commitments to a more sophisticated and flexible working environment. The collaborative working spaces provide physical space, technological resources, comfort, and optionality to the users. As such, demand is growing for co-working spaces where freelancers, entrepreneurs, and small and medium-sized enterprises (SMEs) can share offices and services in flexible, affordable ways. Such spaces, which have become increasingly common in countries such as the US and UK, have a relatively low penetration rate in Turkey. This presents a significant opportunity for investors to convert some of the available commercial properties into co-working space.

**Number of Co-Working Spaces Worldwide from 2018 to 2021 with a Forecast to 2024**



\* Years marked with \* are forecasts.

**Source:** Statista

Such an expansion is a result of technological advances and economic interest, as well as the changing workforce preferences. Improved internet connectivity, reliability, and speed allow people to access cloud storage/computing and communicate from almost anywhere and erode the advantage of working from a custom office with wired network connections and telephony.

Furthermore, as people are changing their workforce preferences and want their workplace to be part of a vibrant community as opposed to a solitary home office or traditional office space, the social and business connections of coworking are becoming more important for today's workers.

Just like the world, there has been a significant increase in the number of co-working areas, especially in big cities such as Istanbul, Izmir, and Ankara. About 30% of new lease transactions were made by flexible office operators and this shows that the interest in coworking spaces that began with the onset of the pandemic period in Turkey continues to grow<sup>32</sup>. As of 2022, there exist nearly 80 co-working spaces in Istanbul, 9 in Ankara and 12 in Izmir<sup>33</sup>. A strong working relationship between the regulators, related public entities, and the private sector can address ecosystem needs and promote the development of these valuable centers of business innovation and diversity even further.

<sup>32</sup> Colliers Turkey study

<sup>33</sup> Coworker.com

## 7. Investor Friendly Incentives and Investment Areas

### Incentives

The Turkish government prioritizes attracting foreign investments to Turkey and thus, offers comprehensive investment incentives programs with a wide range of instruments that helps to minimize the upfront cost burden and accelerate the returns on investments that can also be tailored for projects in priority sectors classified as key areas for the transfer of technology and economic development. The provided incentives can be summarized under 4 pillars as general, regional, strategic, and project-based investment incentives that contain several investment facilitators such as VAT and customs duty exemptions, corporate tax reduction, social security premium and interest rate support, land allocations, infrastructure support and facilitation of authorization/permit/license procedures and purchasing guarantees<sup>34</sup>.

Project Based Investment Incentives was initiated to attract large scale foreign direct investment to Turkey. Carried out by the Ministry of Industry and Technology, incentives are provided for investments with a minimum fixed investment amount of 500 million TRY, which meet certain criteria, to those deemed appropriate as a result of mutual negotiations.

The Turkish government facilitates the investments by foreign investors at every stage from the very beginning to the end. Accordingly, the government provides general and customized business information, sectoral analysis and reports, gives site selection support to find appropriate location for the investment, arranges meetings with governmental bodies and other stakeholders, provides after-sales service support, matchmakes local partners, establishes business linkages, and provides project launch and press release services<sup>35</sup>.

Recently initiated “citizenship by investment” program is another initiative to encourage foreign investment. Investors will be eligible to acquire Turkish citizenship by purchasing real estate worth 250,000 USD or more and making an annotation that this immovable property will not be sold for 3 years from the land registry. While this amount was 1 million USD in the previous regulation, it has been reduced to 250,000 USD with the new regulation, which is in favor of those who want to acquire citizenship by purchasing real estate. Furthermore, by making a capital investment of 500,000 USD or more, depositing 500,000 USD or its equivalent in foreign currency or TRY in Turkish banks, buying government debt instruments for at least 500,000 USD or more, or buying real estate investment fund participation shares or venture capital investment fund participation shares of at least 500,000 USD or equivalent in foreign currency or TRY grant the same opportunity for citizenship.

<sup>34</sup> Presidency of the Republic of Türkiye, Investment Office

<sup>35</sup> Presidency of the Republic of Türkiye, Investment Office

## Licenses and Permits

Permissions to be obtained prior to the commencement of the project implementation include approval of zoning plans, environmental impact assessment (EIA) approvals or EIA Not Required Certificate, land use rights and other special permits depending on the nature of the project.

During the implementation of the project, workplace opening and operation permits, as well as site selection and facility establishment permits are needed and after the project is completed, a building occupancy permit must be obtained. Furthermore, industrial facilities must be registered with the industrial registry.

## Tax Implications

Due to the high inflation environment of the Turkish real estate sector and the limited resources of long-term funds based on foreign currency, debt financing has become more widely available than both local and foreign financial institutions. The following summarizes the major tax implications and exemptions offered by the government.

- Corporate tax as of 2022 constitutes 23% of annual net income.
- The dividend withholding tax rate to be made from the profit shares distributed by fully taxpayer corporations has been reduced from 15% to 10% in 2022.
- Property tax differs depending on the city and type of the property within the range of %0.1 - %0.6.
- Residential properties with a net area of more than 150 sqm are subject to 18% value added tax (VAT) in any case, regardless of region or city. If the residential property has a net area of less than 150 sqm, VAT differs at a rate of between 1% and 8%. Furthermore, in any city or region, within the scope of urban transformation, that is, within the scope of the Law on the Transformation of Areas under Disaster Risk, the deliveries of residences smaller than 150 sqm in places designated as reserve building areas and risky areas and in places where risky structures are located are also subject to a VAT of 1%.
- In case of renting out the real estate property, income tax will be applied. The same rule also applies in the sale of the property; earnings from the sale of real estate within five years from the date of purchase are subject to income tax.
- Stamp duty tax of 0.948% calculated over the value defined on the agreement.
- Title deed charge constitutes 2% for seller and buyer each.



## Tax Exemptions

- Real estate investment companies (REIC) and real estate investment funds (REIF) are exempt from corporate tax and profit distributions are subject to 0% dividend withholding tax for nonresidents.
- VAT exemption is applied if the seller is an individual not dealing with real estate or if the main activity of the seller company is not real estate and holding the property over 2 years. Furthermore, if the main activity of the seller company is not real estate and holding the property over 2 years, 50% of the profit is exempt from the corporate tax.
- For individuals, 9,500 TRY of the rental income to be obtained in 2022 will be exempt from the income tax. Housing rental income not exceeding this amount does not need to be declared.
- For individuals, income from sale of real estate after holding period of 5 years is not taxable unless their sale is the first sale in two years.
- The declaration limit for movable and real estate capital gains obtained in 2022, which are not subject to tax deduction or exemption, is 3,800 TRY.





## 5 The Recent Significant Projects

Recent mega projects offer significant potential for value increase. These high impact projects range from transportation to defense, energy to health, infrastructure to aviation and space industry.

### Public Sector Projects

Turkish real estate scene offers several opportunities for foreign investment. Public-Private Partnership (PPP), which allows for allocation of risk and cost and which have become a favored model for both government and private construction companies in the recent years, is especially preferred for infrastructure, energy, and healthcare projects. According to the World Bank, a total of 254 PPP projects with an estimated value of 146.2 billion USD were initiated in Turkey between 1990 and the first half of 2020<sup>36</sup>. While the most common PPP model used is the Build-Operate-Transfer (BOT) model, Build-Lease-Transfer (BLT) and Build-Operate models are also being implemented.

The BOT model has been used in mega projects such as city hospitals and Yavuz Sultan Selim (Third Bosphorus) Bridge. The latest project built with the model is Istanbul Airport, worth 35.59 billion USD.

Public projects are mostly awarded through an official tender process in accordance with the Public Procurement Law No. 4734. The law does not apply to PPP projects that are subject to other specific laws depending on the nature of the project.

In addition to PPP, urban transformation presents major investment opportunities in public sector projects. The Law on Reconstruction of Areas under Disaster Risk, which entered into force in 2012, initiated to renewal of the housing stock in Turkey after a series of earthquakes in 2011. The law aims to strengthen the nationwide housing infrastructure. Within this framework, Turkey's largest urban transformation project up to date, plans to demolish 6.7 million residences over the course of 20 years to prevent the risks of collapse in the event of an earthquake.

The total building stock to be renovated constitutes a significant part of the existing stock, mostly in Istanbul. Esenler, Bağcılar and Gaziosmanpaşa districts are forerunners of urban transformation on the European side and on the Asian side, Pendik, Tuzla and Kadıköy is followed by Üsküdar.

The northern axis of Istanbul is expected to be the main zone of urban transformation, with mega projects like Yavuz Sultan Selim Bridge, Istanbul Airport and Northern Marmara Highway increasing connectivity and valuation for residences.

Murat Kurum, Minister of Environment, Urbanization and Climate Change, stated that as of the end of 2021, reconstruction of 1.7 million residences has been completed, and despite the negative impact of the pandemic, 330,000 transformation and social housing constructions with an investment value of 110 billion TRY have been made. 400 billion USD investment is required to complete urban reconstruction projects in the pipeline over the next 20 years, as cited in government plans<sup>37</sup>.

<sup>36</sup> EMIS Insights - Turkey Real Estate and Construction 2021-2022

<sup>37</sup> Real Estate Market Size Introduction by Cushman & Wakefield, September 2021

## Private Sector Projects

Private sector real estate projects, including large-scale and complex infrastructure and energy projects, are mostly executed through turnkey engineering procurement and construction (EPC) contracts. The EPC contractor is required to satisfactorily perform the undertaken tasks and issue a guarantee for a certain period. Some of the mega projects that will facilitate national and regional economic activity and consequently increase the value of other nearby projects are 1915 Çanakkale Bridge, Kanal Istanbul, Galataport Istanbul, Istanbul International Financial Center, Tersane Istanbul (Haliçport) and Izmir Peninsula Project.







## Galataport Istanbul

Galataport Istanbul is a destination project located on the coastline between the Istanbul Karaköy Ferry Pier and the Mimar Sinan Fine Arts University Fındıklı Campus. The project, undertaken by Doğu Group in partnership with Bilgili Holding, has received an investment amount of over 1.8 billion USD. Galataport Istanbul is among the most important waterfront projects in the world with its unique cruise port located on the 1.2 km coastline by the Bosphorus, an exclusive hotel brand (Peninsula), cafes, restaurants, boutique shops, offices and two important art museums.

The underground car park with a capacity of 2,400 vehicles also contributes to the popularity. Galataport Istanbul provides an ecosystem in the center of the city, offering facilities and cutting-edge technology for the city dwellers.

A first in the World, passengers arriving by cruise ships will be able to reach the port via bellows. Passport control and customs procedures will take place in the underground. The project aims that its terminal and additional functions will be able to host the world's largest cruise ships. More specifically, Galataport Istanbul is expected to host a total of 25 million visitors annually, 7 million of which are foreigners.

Through the establishment, approximately 1.5 million cruise passengers, including the crew, are expected to visit Istanbul. The contribution of these visitors to Turkey's tourism income is estimated to be around 1 billion USD.

Galataport is expected employ approximately 4,500 people, once the cruise terminal, cafes, restaurants, shops, hotel, offices and parking lot is open for business.





## Istanbul Financial Center

Istanbul Financial Center, Istanbul International Financial Center or Ümraniye Financial Center is the mega financial center project planned to be in Ümraniye district of Istanbul. Turkey's Ministry of Environment, Urbanization and Climate Change stated that the project aims to be a larger financial center than those in New York, London and Dubai.

The project is expected host Central Bank of the Republic of Turkey (CBRT), Banking Regulation and Supervision Agency of Turkey (BRSA), Capital Markets Board of Turkey (CMB), Istanbul Stock Exchange, Ziraat Bank, Halkbank, Vakıfbank and İŞ Real Estate Investment Trust (REIT) within its premises, once completed.

Istanbul Financial Center offers 1.4 million sqm of office areas, a 100,000 sqm large shopping center, a conference center for 2,100 people, a 30,000 sqm 5-star hotel and a car park with a capacity of 26,000 vehicles. Once finalized, the project will employ approximately 75,000 people.



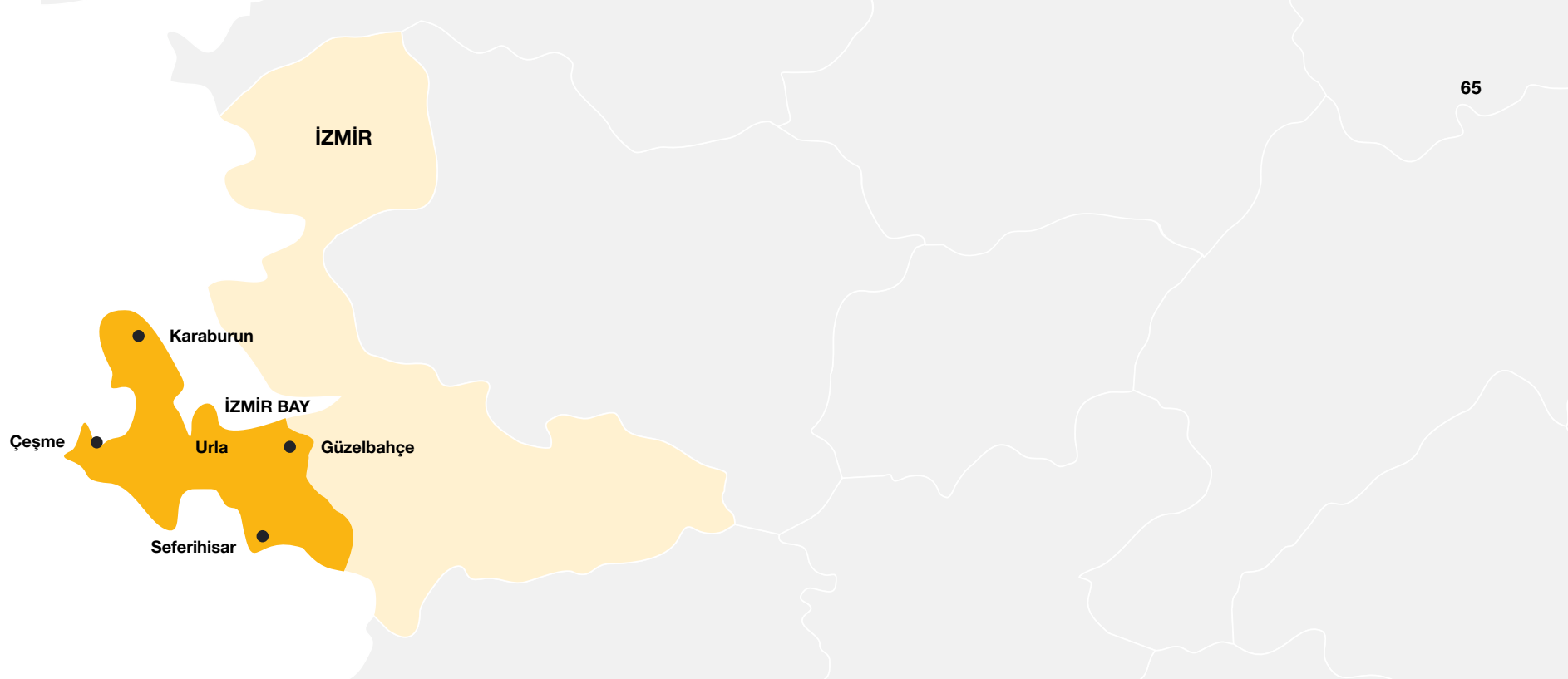


## Tersane Istanbul (Haliçport)

Tersane Istanbul, the master plan for which was designed by Singaporean DP Architects and architectural project realized by Tabanlıoğlu Architects, has been undertaken by Sembol Construction using Build-Operate-Transfer model.

Tersane Istanbul project, in which the legacy of the historical landmark Golden Horn is reinterpreted with modern technology and architecture, will host four hotels, two marinas, a city lines pier, three museums (Women Museum, Sadberk Hanım Museum and Turkish-Islamic Arts Museum), a commercial area, residences, social living areas and a parking lot with a capacity of 5700 vehicles. The project is distinguished from other reconstruction projects by its central and historical location, sustainability standards and innovative project development methods that will meet future use expectations.

The project is expected to employ at least 20,000 people once fully operationalized, and to be center of attraction for Istanbul with an annual target of 30 million visitors. The first phase of the project is planned to be completed towards the end of 2022, covering a 1,800-meter-long coastline and an area of approximately 238,000 sqm. With the completion of the project, in which 23 registered buildings of 83,000 sqm will be restored and made available to the public, the shore of the Golden Horn will re-meet the people after centuries.



## Izmir Peninsula

Izmir Metropolitan Municipality took the first step towards the Peninsula Project with the “Urla - Çeşme - Karaburun Peninsula National Idea Contest” organized in 2008. The Contest gave way to the “Izmir Peninsula Sustainable Development Strategy”.

The strategy, led by Izmir Metropolitan Municipality with the aim of “local development”, was developed with the support of Izmir Development Agency (IZKA), in cooperation with Izmir Institute of Technology, Ege University and Dokuz Eylül University. The Metropolitan Municipality paid attention to shape the strategy in line with the demands and needs of the people of the region, non-governmental organizations, professional chambers, and academicians.

The project aims to attract tourists and investment in the focus districts of Karaburun, Çeşme, Urla, Seferihisar and Güzelbahçe along with Balçova, Narlıdere, Menderes and Selçuk districts in the periphery. There are 130 “asset based local development” ideas at the backbone of the development strategy, to revive natural, cultural and historical heritage of the peninsula. Projects under the strategy fall under 3 themes: Travel Routes Projects, Local Production Projects and Vocational Training Projects.

# List of Abbreviations

<b>3PL</b>	Third-Party Logistics	<b>GRESB</b>	Global ESG Benchmark for Real Assets
<b>ADR</b>	Average Daily Rate	<b>GVA</b>	Gross Value Added
<b>AYD</b>	Shopping Malls and Investors Association	<b>GYODER</b>	Real Estate Investors Association
<b>BLT</b>	Build-Lease-Transfer	<b>HAMLE</b>	Technology Focused Industry Move
<b>BOT</b>	Build-Operate-Transfer	<b>ICT</b>	Information and Communications Technology
<b>BRSA</b>	Banking Regulation and Supervision Agency of Turkey	<b>IEA</b>	International Energy Agency
<b>CBD</b>	Central Business District	<b>IFC</b>	International Finance Corporation
<b>CBRT</b>	Central Bank of the Republic of Turkey	<b>IFIs</b>	International Financial Institutions
<b>CMB</b>	Capital Markets Board of Turkey	<b>I&amp;L</b>	Industrial and Logistics
<b>CO<sup>2</sup></b>	Carbon Dioxide	<b>IMM</b>	Istanbul Metropolitan Municipality
<b>EBRD</b>	European Bank for Reconstruction and Development	<b>IP</b>	Industrial Production
<b>EIA</b>	Environmental Impact Assessment	<b>IT</b>	Information Technology
<b>EMEA</b>	Europe, Middle East, and Africa	<b>IZKA</b>	Izmir Development Agency
<b>EPC</b>	Engineering Procurement and Construction	<b>KOSGEB</b>	Small and Medium Industry Development Organization
<b>ESG</b>	Environmental, Social and Governance	<b>KOU</b>	Kocaeli University
<b>ETBIS</b>	Electronic Commerce Information System	<b>LEED</b>	Leadership in Energy and Environmental Design
<b>EUR</b>	Euro	<b>NDCs</b>	Nationally Determined Contributions
<b>FDI</b>	Foreign Direct Investment	<b>OECD</b>	Organization for Economic Co-operation and Development
<b>GDP</b>	Gross Domestic Product	<b>OIZ</b>	Organized Industrial Zone
<b>GLA</b>	Gross Leasable Area	<b>PMI</b>	Purchasing Managers Index
<b>GOSB</b>	Gebze Organized Industrial Zone	<b>PPP</b>	Public Private Partnership

<b>R&amp;D</b>	Research and Development
<b>REIC</b>	Real Estate Investment Companies
<b>REIF</b>	Real Estate Investment Funds
<b>REIT</b>	Real Estate Investment Trust
<b>SMEs</b>	Small and Medium-sized Enterprises
<b>TCFD</b>	Task Force on Climate-related Financial Disclosures
<b>TEKMER</b>	Technology Development Center
<b>TRY</b>	Turkish Lira
<b>TSE</b>	Turkish Standards Institution
<b>TUBITAK</b>	Scientific and Technological Research Council of Turkey
<b>TURKSTAT</b>	Turkish Statistical Institute
<b>UK</b>	United Kingdom
<b>US</b>	United States
<b>USD</b>	United States Dollar
<b>UN</b>	United Nations
<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>UNSDGs</b>	United Nations Sustainable Development Goals
<b>UNWTO</b>	World Tourism Organization
<b>VAT</b>	Value-Added Tax
<b>WEF</b>	World Economic Forum
<b>YeS-TR</b>	National Green Certificate System



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