



DIŞ EKONOMİK İLİŞKİLER KURULU  
FOREIGN ECONOMIC RELATIONS BOARD

REPUBLIC OF TURKEY PRIME MINISTRY  
INVESTMENT SUPPORT AND  
PROMOTION AGENCY OF TURKEY



[invest.gov.tr](http://invest.gov.tr)

# Turkish Business Outlook 2012



# Turkish Business Outlook 2012



## DEİK Foreign Economic Relations Board

*All right reserved. No part of this book may be used or reproduced, copied, distributed in any manner without written permission of DEİK.*

### Headquarter - DEİK / Foreign Economic Relations Board

TOBB Plaza, Harman Sokak No: 10 Kat: 5 Esentepe - Şişli 34394 İstanbul - Türkiye  
Tel: +90 (212) 339 50 00 (pbx), +90 (212) 270 41 90 (pbx), Fax: +90 (212) 270 30 92  
www.deik.org.tr - www.turkey-now.org - www.dtik.org.tr - www.healthinturkey.com

### Ankara Representative Office

Türkiye Odalar ve Borsalar Birliği Dumlupınar Bulvarı No: 252  
(Eskişehir Yolu 9.km) 06530 Ankara  
Tel: +90 (312) 218 20 00 / e-mail: saslan@deik.org.tr

### Moscow Representative Office

119334, Leninsky St. Num: 45, Fln2, Office 16, office 346  
Tel: +7 (495) 935 82 24 / e-mail: moscow@deik.org.tr

### Washington D.C. Representative Office

Ronald Reagan Building & International Trade Center  
1300 Pennsylvania Ave. N.W Suite B60 Washington D.C. 20004  
Tel: +1 (202) 789 3644 / e-mail: neslihankaptanoglu@tobb.org.tr

### TOBB Brussels Representative Office

Avenue Franklin Roosevelt 14B/A B-1050 Bruxelles  
Tel: 00 32 2 646 40 40 - Fax: 00 32 2 646 40 40 / e-mail: bulent.bilgic@tobb.org.tr



## Prime Ministry Investment Support and Promotion Agency of Turkey

### ANKARA (Headquarters):

Kavaklıdere Mahallesi Akay Caddesi No: 5 Çankaya 06640 Turkey  
P: (+90 312) 413 89 00 • Fax: (+90 312) 413 89 01

### ISTANBUL:

Dünya Ticaret Merkezi A1 Blok Kat: 8 No: 296-297 Yeşilköy 34149 Turkey  
P: (+90 212) 468 69 00 • Fax: (+90 212) 465 72 72

Printed in İstanbul, 2011

DEİK Publishing: 772-2011/10-b2

Turkey in Global Economy Series

ISBN: 978-605-5979-09-6

# TABLE OF CONTENTS

## FOREWARDS

DEİK President's Message.....	4
ISPAT's President Message.....	6
DEİK Executive Committee Chairman's Message.....	7

## I. COUNTRY PROFILE: INTRODUCING TURKEY..... 9

1.1 HISTORY, GEOGRAPHY, POPULATION, ECONOMIC DEVELOPMENTS.....	9
1.2 FUTURE PROSPECTS.....	13
1.3 THE EU ACCESSION PROCESS.....	15

## II. MAJOR EXPORTS OF TURKEY..... 18

2.1 AUTOMOTIVE.....	18
2.2 IRON AND STEEL.....	36
2.3 TEXTILE AND APPAREL.....	43
2.4 JEWELRY.....	51
2.5 MARBLE, CERAMICS, SANITARY PRODUCTS AND GLASSWARE.....	56

<b>III. INVESTMENT OPPORTUNITIES IN TURKEY</b>	61
3.1 FINANCIAL SERVICES	61
3.2 PRIVATIZATION	95
3.3 FOREIGN INVESTMENT	105
3.4 TOURISM	109
3.5 CONSTRUCTION AND REAL ESTATE	123
3.6 ENERGY	140
3.7 HEALTHCARE	174
3.8 CHEMICAL PRODUCTS	182
3.9 INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)	188
3.10 CONSUMER ELECTRONICS	196
3.11 FOOD AND AGRICULTURE	198
3.12 EDUCATION	205
3.13 ENTERTAINMENT AND MEDIA	208
3.14 DEFENSE	210
3.15 SHIPPING AND SHIPBUILDING	217

## MESSAGE OF THE PRESIDENT

It is my great pleasure to introduce the “Turkish Business Outlook”, prepared by DEİK, aiming to introduce our country to the global business community and provide key information about current economic issues, the investment climate and the general business framework.

The investment opportunities in Turkey are vast and very exciting. Turkey is already ranked as the 17<sup>th</sup> largest economy in the world and ranked 6<sup>th</sup> largest economy in Europe. Turkey has been one of the fastest growing countries of OECD for many years and especially its achievements since the economic reforms conducted after 2001 are remarkable by any standard. Turkey has enjoyed the second highest growth rate in the world in the first half of 2011.

The figures tell their own story. Turkey is a manufacturing country, a major producer of a diverse range of industrial products. Turkey has the largest and most dynamic economy in the entire arc of countries from central Europe, down through Balkans and Eastern Mediterranean, through the Middle East and North Africa. Turkey exports to more than 200 countries and has a trade volume of around a \$300 billion. Two thirds of Turkish exports are sent out to the advanced industrial countries of the European Union, North America, and the OECD. Turkey is the sixth largest trading partner of the European Union. In the last 38 years, up until the end of 2010, Turkish contractors have undertaken almost 5.894 projects in 86 countries, with a total value of some \$187,3 billion. In 2010, 33 Turkish contracting companies are on the list of “Top 225 International Contractors” announced by the leading international industry magazine “ENR - Engineering News Record”. Turkey ranked second in the world after China. There are 24 Turkish companies within the list of 100 biggest companies in Islamic world.

Moreover, there are many opportunities in Turkey for international investors in particular. After 2001, Turkey has implemented several reforms in order to improve conditions for foreign investors. Consequently, after 2003, it attracted foreign direct investment over \$70 billion and the number of companies with foreign capital operating in Turkey reached to 24.000.

According to the United Nations Conference on Trade and Development (UNCTAD), Turkey also ranked 23<sup>rd</sup> in the world and 9<sup>th</sup> among the emerging markets in terms of attractiveness as an FDI destination. Turkey is also ranked 60 out of 181 economies in Ease of Doing Business Rank of the World Bank, and 15<sup>th</sup> most attractive economy for the location of FDI in UNCTAD's World Investment Prospects Survey 2008-2010.

We welcome global investors and promise them a vital and dynamic business climate in which they can look forward to sharing the opportunities of rapid growth. Since its establishment, Foreign Economic Relations Board (DEİK) has been a trail-blazer in establishing new links between the Turkish business world and its counterparts elsewhere. Its 33 founding institutions represent the entire Turkish private sector. The organization, which among many other activities set up 100 Bilateral Business Councils under its umbrella, has just gone through a major restructuring operation which will make its activities even more efficient.

I very much hope that this publication will succeed in its aim of encouraging business people to take advantage of the enormous opportunities in Turkey.

**M. Rifat HİSARCIKLIOĞLU**

President, Foreign Economic Relations  
Board of Turkey (DEİK) and Union of  
Chambers and Commodity Exchanges of  
Turkey (TOBB)

## MESSAGE OF THE ISPAT'S PRESIDENT

Dear Investors,

It is a distinct pleasure for me to introduce “Turkish Business Outlook” which will help you explore lucrative investment opportunities in Turkey and provide you with very useful information about business opportunities in Turkey.

As the 17<sup>th</sup> largest economy in the world, Turkey offers ample opportunity for global investors. Our economy has sustained remarkable economic performance over the past eight years, growing by an average annual growth rate of approximately 5%, thus becoming one of the fastest growing economies in the world. The strong economic performance, growing domestic market, young population, skilled labor force, and its strategic location have made Turkey one of the most attractive investment destinations in the world. Turkey attracted more than 100 billion dollars in Foreign Direct Investment over the past eight and a half years since 2003, whereas it had attracted only 15 billion dollars FDI in the preceding eight decades before 2003.

Turkey is even getting more and more attractive for investment as the global economy is undergoing fundamental changes which is shifting world's economic center of gravity toward emerging economies, like Turkey. In this picture, the proximity to the zones of opportunity and risk is more crucial than ever. The shift in the center of global economy has made Turkey one of the most attractive locations for global companies because of its strategic location, economic and political stability, skilled labor force and young population. Such a vibrant country with a robust economy is certainly promising more growth for investors. Therefore, as the Investment Support and Promotion Agency of Turkey, we invite global investors to join a rapidly growing Turkey.

The Investment Support and Promotion Agency of Turkey is at the disposal of global investors, providing them with assistance before, during and after their entry into Turkey. It serves as a contact point for international investors by linking them with both the government and businesses in Turkey. Working on a fully confidential basis and acting like a private venture; the Agency is trustworthy and adaptable. The Agency considers investors as clients and client satisfaction is a top priority for us.

**İlker AYCI**

President of Investment Support and  
Promotion Agency of Turkey

## MESSAGE FROM THE CHAIRMAN OF THE EXECUTIVE BOARD

Foreign Economic Relations Board of Turkey (DEİK) was founded in 1988 to promote the economic and commercial relations of Turkish businessmen abroad along with the broader goal of ensuring the overall integration of the Turkish economy into the global economy.

As a consequence of the economic liberalization policies of the 1980s, Turkey became a prominent actor in international trade as well as an attractive hub for foreign direct investments. In fact, DEİK has earned considerable credit for achievement as an institution that makes every effort to open the Turkish economy up to the world economy.

When we look at Turkey's most powerful sectors, we see that Turkey is the 2<sup>nd</sup> largest manufacturer of flat glass in the world, the number one textile and TV manufacturer in Europe, and the number one exporter of cement in Europe. Turkey has the world's 8<sup>th</sup> largest ship construction industry and Turkey is within the first 10 most popular tourist destinations in the world.

Due to the enactment of the new Law for Foreign Direct Investment in 2003, foreign investors have gained equal rights with Turkish investors. Accordingly, the value of foreign direct investments after 2003 is more than 70 billion U.S. Dollars.

In this new era, the priorities of DEİK include fostering production of goods and services which have high added value and competitive power, providing market diversity and depth, contributing in attracting the investments involving high technology to Turkey, and supporting the trademark of Turkish brands and providing them the opportunity to have activities in the global arena.

In addition to its routine meetings, DEİK coordinated very significant meetings where many of the most distinguished persons in the world could meet with Turkish and foreign business people.

I hope that Turkey will be promoted because of this publication, and new projects, enterprises, and cooperation will be established which will render Turkey one of the biggest economies in the world.

I sincerely believe that with the guidance of DEİK as a pioneering business organization serving Turkey's integration into global market place, Turkey will become further involved with the world.

**Rona YIRCALI**

Chairman of the Executive Board  
DEİK





# **I. COUNTRY PROFILE: INTRODUCING TURKEY**

## **1.1 HISTORY, GEOGRAPHY, POPULATION AND ECONOMIC DEVELOPMENTS**

Turkey, strategically located in the Eurasia region, is a dynamic country with a robust economy and a young population, often described as “Europe’s BRIC” – Brazil, Russia, India and China rolled into one.

It is a nation steeped in rich history and cultural life; a realm of sprawling cities and vast rural areas; of coastal towns and tiny fishing communities. It is a mountainous country with mist-hidden plateaus, combined with enormous steppes and fertile river valleys.

Sixty percent of the country is located at altitudes of 3,300 feet above sea level or higher. Located in eastern Turkey, Ağrı Dağı (Mount Ararat) at 16,976 feet is the nation’s highest peak and the biblical resting grounds of Noah’s Ark.

More than 99% of Turkey’s population is Muslim, but the nation is a secular state with a definite western perspective. Christian and Jewish communities also exist in the big cities like İstanbul, İzmir and Adana.

## **TWO CONTINENTS**

Located on two continents -- Europe and Asia -- Turkey has always served as a bridge between the Occident and Orient. The Silk Road, the traditional trade route connecting Europe to China, began in the ancient cities of what is now western Turkey.

Eight countries border Turkey: Bulgaria in the northwest, Greece in the west, Georgia in the northeast, Armenia, Azerbaijan and Iran in the east, Iraq and Syria in the southeast.

Turkey is the third biggest nation in Europe in terms of territory after Russia and Kazakhstan--- nearly twice the size of the state of California. Three percent of Turkey lies in Europe. Known as Thrace, European Turkey forms the southeastern tip of the Balkans. Ninety-seven percent of Turkey is located in Asia and is known as Anatolia. A bulging peninsula, shaped like a mare’s head, Anatolia is surrounded on three sides by the Black Sea, the Bosphorus, the Sea of Marmara, the Dardanelles, the Aegean and the Mediterranean and has been home to many civilizations, including the Hittite, and the Carian, Lydian and Phrygian empires. Anatolia served as the granary of the Roman and Byzantine Empires. Its loss to the Turks in the 11<sup>th</sup> century deprived the Byzantine Empire of its agricultural wealth and led to its eventual demise.

Turkey is a key member of NATO and has the second biggest standing army in Europe after Russia with around 730,000 men under arms. It is a member of the United Nations, the Organization for Economic Cooperation and Development and other international bodies.

## **FROM A FARMING NATION TO AN INDUSTRIAL POWER**

In the past three decades, Turkey has shifted from an agricultural economy to one of the world's fastest growing industrial countries. Turkish leaders have adopted free market policies designed to integrate Turkey with the global economy. Under the late President Turgut Özal and his successors, the government encouraged Turkish companies to do business in global markets.

In 2010, Turkey exports were destined to 229 countries, autonomous regions and free zones on five continents. Turkey had 50,000 exporters.

Exports of motor vehicles, ready-wear and apparel, iron and steel, chemical products, electrical appliances, color television sets, ready-wear and apparel, textiles and textile raw materials, non-ferrous metals, mineral products, processed food, cement, ceramic tiles, ocean going ships and yachts, sanitary ware and jewelry, have boomed. Imports, chiefly in crude oil, natural gas, boilers and machinery, iron and steel, motor vehicles, electrical machinery, plastics, valuable metals and stones, organic chemicals, pharmaceutical products and optical equipment have also rocketed.

Turkey's foreign trade increased 43-fold in the past 31 years from a mere \$7 billion in 1979 to \$299.42 billion in 2010, according to the Turkish Statistical Institute. Exports have risen from about \$2 billion in 1979 to \$113.929 billion in 2010. Imports have ballooned from \$5 billion in 1979 to \$185.493 billion in 2010.

The government set a target for \$500 billion in annual exports for the country by 2023, the centennial of the republic.

Many imported items previously banned in Turkey, such as computers, foreign-made automobiles and commercial vehicles, mobile phones, furniture, and food stuffs, are now available on the market and compete with domestic products.

Turkish political and economic influence has grown in the Balkans, the Middle East and in the Turkic Republics of the former Soviet Caucasus and Central Asia since the breakup of the USSR and Yugoslavia. Turkish companies are among the biggest foreign investors in Romania, Bulgaria, Russia, Egypt, Ukraine, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Uzbekistan, Turkmenistan, Tunisia, Libya, Syria, Morocco, Ethiopia, Sudan and Iraq.

During the past three decades, the nation completed a key part of its infrastructural development. New highways linking Europe with the Middle East, scores of new hydroelectric dams, power plants, modern telecommunication networks were constructed. Phone lines were installed in every village and hamlet in Anatolia.

Turkey's economy grew an average 4.1% in real terms between 1980 and 2001. The country's Gross National Product (GNP) growth averaged annual growth rates of over 6.2% from 2002 to 2007, making Turkey the fastest growing economy among members of the Organization for Economic Cooperation and Development (OECD). The economy declined an average 1.8% between 2008 and 2009, due to the global recession, but was one of the first countries to dig out of the crisis in 2010 with a torrid 8.9% growth.

## **AGRICULTURE BOOMS**

Nevertheless, Turkey still is a huge agricultural country, one of the few nations in the world still largely self-sufficient in food production. It is the world's biggest producer and exporter of hazelnuts, figs and pulses. It also turns out large surpluses of wheat, tobacco, cotton, barley, oats, sugar beets, fresh fruit and vegetables. Wide use of fertilizers and farm tractors since the 1950s has led to a green revolution.

An ambitious \$30 billion dams and irrigation project on the Euphrates and Tigris Rivers is turning the neglected region of southeastern Turkey into a Middle East breadbasket and providing badly needed electricity. The undertaking is simply known as GAP and calls for the construction of 15 dams, 18 hydroelectric plants and hundreds of miles of irrigation tunnels and canals. Officials predict the project will produce \$6 billion in food surplus annually in the next decade – most of it for exports to the arid Middle East.

An increase in agricultural output has led to the concurrent establishment of a vast food processing industry, with large factories producing pasta, confectionery, biscuits, canned and frozen foods, tomato paste and products, fruit juices, beverages, spirits, dairy products, packaged meat and poultry products for both the huge domestic market and for exports.

The country is endowed with rich mineral resources. It is the world's largest producer and exporter of chromites, meerschaum, boron and natural stones. It also produces large quantities of metals, and minerals such as aluminum, lignite coal, copper, iron ore and turns out sufficient amounts of sulfur, manganese and lead for exports.

## **YOUNG POPULATION**

Turkey is a nation of young people. Half of its population is under the age 28. The country's population has grown from 13.6 million in 1927 to over 73.771 million in 2010. By the end of 2020, Turkey is expected to have 81.650 million inhabitants. It already has the third largest population in Europe after Russia and Germany and is expected to surpass Germany in the next several years.

About 150 million ethnic Turks live outside Turkey, primarily in the Balkans, and the former Soviet Caucasus and Central Asia, Iran, China, Cyprus, Iraq and Syria.

Nearly 3.5 million expatriate Turkish nationals work and live in the European Community. Turkish nationals make up about three percent of Germany's population.

Since World War II, millions of peasants left the countryside and migrated to the cities, seeking work opportunities and higher living standards.

About 77% of Turkey's population lives in cities today, compared to only 25% in 1950. By the year 2020, 80% of Turkey's population will be living in urban areas. Some 18% of Turkey's population already lives in İstanbul.

The shift in population from rural areas to the cities in the past five decades has financially overstretched government resources, compelling state planners to find ways to create millions of new urban jobs and invest billions of dollars in new housing projects, infrastructure, health services and schools and universities in the metropolitan areas of the country.

## **ATATÜRK'S REFORMS**

Turkey was proclaimed a republic in 1923, emerging from the ruins of the Ottoman Empire which ruled the Middle East, North Africa, the Balkans and parts of Eastern Europe for over 450 years. The Ottoman Empire crumbled after its disastrous World War One defeat as an ally of the Central Powers.

From 1923 to 1938, Kemal Atatürk, the founder and first president of the Turkish Republic, carried out sweeping reforms that transformed the country from a backward, feudal state to a progressive nation with a western outlook. The Sultanate was abolished. Atatürk replaced the *Shariah*, or Islamic holy law, with civilian, commercial and criminal codes adopted from Switzerland, Italy and Germany.

In 1925, the fez and the turban were banned, replaced by the *şapka*, or western-style hat with a brim. Three years later, the Latin alphabet replaced the esoteric Ottoman script, allowing masses of illiterate Turks to learn to read and write.

Atatürk established state economic enterprises, or state-owned industries, as a solution to Turkey's economic underdevelopment. Enormous government-owned textile mills, mines and mineral processing plants, oil refineries and petrochemical complexes came into being. State banks with huge branch networks were also set up to help finance industrial growth and commerce.

## **PRIVATE SECTOR**

Atatürk's successors encouraged the creation of private industry. Until the 1980s, authorities protected local industry from outside competition by imposing severe restrictions on imports, including steep duties and customs barriers. The motor vehicle industry, synthetic fibers and yarns manufacturing, ready-wear and apparel, home textiles, pharmaceutical products, military aircraft

and armored vehicles, household appliances, shipbuilding, home electronics were some of the sectors that thrived as a result of the liberalization of the economy.

In the past 22 years, the government has privatized many major industries that were originally established during the early years of the Republic, including steel plants, pulp and paper mills, oil refineries, clothing and textile plants, and cement factories to make the economy more responsive to market forces.

## **1.2 FUTURE PROSPECTS**

### **CHALLENGES AND EXPECTATIONS**

Turkey is one of the fastest growing large economies of the world. It has had high growth rates over the past four decades. In 2010, the International Monetary Fund ranked Turkey as the world's 17<sup>th</sup> biggest economy in terms of Gross Domestic Product (GDP) with \$735.828 billion.

But a Goldman Sachs report published in September 2009 predicted that Turkey would become Europe's third biggest and the world's ninth largest economy in 2050, surpassing Japan, France, Germany, South Korea, Australia, Italy, Canada, and Spain in GDP. The report said Turkey's per capita income could reach \$60,000, a seven-fold increase from 2009.

In January 2011, a more sober HSBC report forecast that Turkey would become the world's 12 biggest economy by 2050 with a GDP of \$2.149 trillion and a per capita GDP of \$22,063.

A recent PricewaterhouseCoopers' report, "The world in 2050," had similar, though less ambitious, projections for Turkey. By the year 2050, what the report calls the "E7" economies — China, India, Brazil, Russia, Indonesia, Mexico and Turkey — will have outstripped the current G7 — US, Japan, Germany, UK, France, Italy and Canada - by between 25% when comparing GDP using market exchange rates to around 75% when using purchasing power parity (PPP) exchange rates.

Based on World Bank data, the report estimated that Turkey would grow more strongly due to its younger population, being of similar size to Italy by 2050 at both market exchange rates and in PPP terms.

Nevertheless, growth in Turkey has come in spurts and stalls, resulting in high inflation, budgetary and current account deficits and political instability. From 1960 through 1997, the country had three military interventions and a post-modern military and civilian coup.

International Monetary Fund-backed programs helped Prime Minister Recep Tayyip Erdoğan's government push down inflation to single digits from around 69.5% in 2001, revalue the Turkish Lira against the dollar, introduce a new currency and achieve six years of strong growth and help draw record foreign investment and capital. Year-to-year inflation in June 2011 stood at 6.24%, down from 10.13% in February 2010, according to the Turkish Statistical Institute (TÜİK).

After declining 4.7% in 2009, because of the global recession, the Turkish economy bounced back. The country's economy grew 8.9% in 2010, the highest among the 31 nations of the Organization for Economic Development Countries (OECD) and fifth overall in the world, behind only Singapore, Taiwan, China and Argentina. Turkey's four big industries -- automotive, textiles, chemical products and steel -- hit hard by the crisis, were once again booming, while the country's overall exports in 2010 were up 11.5% to \$113.929 billion. In the first quarter of 2011, Turkey's economy soared 11%, as the country became the world leader in growth, outpacing even Argentina, China and India, as there were increased signs of overheating.

But Turks are paying a high price for their fast growth with record current account deficits that are unsustainable, rising foreign debts and a stubbornly high unemployment rate that defies to be beaten back. Economists were also warning that the economic growth and reforms haven't filtered down to low income groups -- some 12.070 million Turks in 2010 were living under the poverty line, according to the Turkish Statistical Institute (TÜİK). Some 9.352 million workers out of 22.802 million, or 41% of the total national workforce, had no social security benefits.

The country in 2010 had a record current account deficit of \$48.557 billion, about 6.7% of the GDP, a figure most economic analysts said couldn't be sustained. What was really alarming was that the current account deficit for 2010 was larger than the accumulated balance-in-payments deficit from the beginning of the Turkish Republic in 1923 to the start of the administration of Justice and Development Party (AK Party) government at the end of 2002. In the first four months of 2011, the situation threatened to spin out of control as the country had a current account deficit of \$29.642 billion, and some bankers were suggesting that the balance-in-payments deficit could reach \$90 billion in 2011 unless steps were taken to control it, including a major devaluation of the Turkish Lira. *"The current account deficit is Turkey's soft under belly," Ege Cansen, a prominent business consultant and newspaper columnist, wrote in the daily Hurriyet. "Measures need to be taken."*

In moves to slowdown the overheated economy, curb inflation risks stemming from increased oil and commodity prices, and deter dangerous hot money, or short-term foreign capital, from entering the economy, the Central Bank of Turkey intervened in the market five times from October 2010 to April 2011 requiring higher reserve ratios (RRRs) on Turkish Lira and foreign currency denominated deposits. The moves helped absorb almost \$28.7 billion of liquidity from markets, and are likely to start cooling the red hot economy in the second half of the year.

*"Uncontrolled hot money brings disaster,"* Prime Minister Recep Tayyip Erdoğan told a meeting of bankers in Beirut on November 25, 2010. Added İlhami Koç, chief executive officer of İş Invest, Turkey's leading brokerage house: *"The Central Bank has abandoned its policy of keeping a high valued Turkish Lira."*

The Central Bank also aimed to dampen credit growth, which rose 34 percent last year, to a 20% to 25% pace.

## UNEMPLOYMENT AND GOVERNMENT DEBT

At the end of March 2011, Turkey's unemployment rate stood at 10.8%, down from its record high of 16.1% in February 2009, as the global recession began to fade away, but still the nation had one of the highest percentage of jobless among the 50 biggest economies of the world. The unemployment rate in Turkey stood at 9.9% in December 2007. *"In the mid and long term, unemployment is Turkey's main problem,"* Güler Sabancı, chairperson of Sabancı Holding, one of Turkey's biggest industrial and trade conglomerates, told a news conference in İstanbul. *"Unemployment in Turkey is a strategic difficulty. The country must determine where it is going and in which industries it most focus on. Parellel to this, we need to restructure the economy to solve unemployment."*

Turkey's domestic and foreign debts (including private sector foreign debt) combined stood at \$495.6 billion at the end of September 2010, or around 68% of GDP, a tiny figure when compared to neighboring Greece and many of the European Union countries and the United States, the Undersecretariat of the Treasury reported. Turkey's foreign debts at the end of September 2010 stood at \$282.3 billion, or 38.7% of GDP. Of this figure only \$91.3 billion was public debt. The remaining \$178.7 billion was the foreign debt of the Turkish private sector.

*"The (country's) relatively low level of government debt, compared to problem nations such as Greece and Spain, has been a favorable development for Turkey,"* Deniz Gökçe, a professor of economics at the Bosphorus University, wrote in an article in the newspaper Akşam.

### 1.3 THE EU ACCESSION PROCESS

An associate member of the European Union (EU), Turkey began accession talks with the world's biggest trade bloc on October 3, 2005. Turkey also forged a customs union with the Union, when it removed all trade barriers in 1996 against industrial goods produced in the 27-nation emporium in return for the lifting of all quotas against Turkish textiles. It also enacted laws to protect copyrights, patents and brands and other intellectual property rights and adopted the lower tariff system of the Union against industrial products from third countries. About 46% of its exports went to the European Union and about 39% of its imports came from the 27-state emporium in 2010.

But membership talks have moved forward at a snail's pace because of differences between Turkey and the Union over Cyprus and human rights and inertia on part of both sides.

Nevertheless, Turkey took an immense step with the creation of a new EU Ministry and the appointment of Egemen Bağış, a close associate of Prime Minister Recep Tayyip Erdoğan as chief negotiator, as minister.

Negotiations on only one chapter of 35 chapters, or policy areas -- science and research -- was begun and provisionally completed in June 2006.



Negotiations on 13 other chapters have opened since 2005. These are company law; intellectual property law; financial services; information, society and media; taxation; economic and monetary policy; statistics; enterprise and industrial policy; Trans European networks; environment; consumer and health protection; financial control; and food safety and veterinary and phytosanitary (plant health) policy, free movement of capital.

A screening process has been completed on 33 chapters.

The nation must complete reforms for negotiations to begin in seven other chapters, including public procurement; competition policy; social policy and employment; economic and monetary policy; regional policy and coordination of structural instruments; financial and budgetary provisions; institutions; and other issues.

Eight chapters have been blocked since the end of 2006 because of Turkey's refusal to open its ports and airports to cargo ships and commercial aircraft of EU member Greek Cyprus. These issues are: free of movement goods; right of establishment for companies to provide services; financial services; agricultural and rural development; fisheries; transport policy; customs union; and external policy.

Turkey in return demanded that the Greek Cypriots open its ports to Turkish Cypriot ships and aircraft and urged the Union to end its 34-year embargo against the Turkish Republic of Northern Cyprus. Cypriot administration in the southern part of the island as the sole government of Cyprus.

Cyprus has been divided since Turkey sent troops to the Mediterranean island in June 1974 to protect the Turkish Cypriot minority in wake of a coup against the Cypriot government, engineered by the junta then ruling Athens and aimed at uniting the island with Greece.

Negotiations on six other chapters, including freedom of movement of workers; energy; justice, freedom and society; judicial and fundamental rights; education and culture; and foreign security and defense policy, were frozen at the end of 2009 over disputes on several matters.

Relations took a turn for the worst in July 2011, when Foreign Minister Ahmet Davutoğlu warned Brussels that ties between Turkey and the trade bloc would be frozen if the Greek Cypriot Administration were allowed to become the new term president of the European Union.

Despite the obstacles, the European Union is providing €1.681 billion in aid to Turkey in the form of grants between 2011 and 2012. But large-scale EU funding for Turkey's huge agricultural sector and economically underdeveloped eastern parts of the country isn't forthcoming until Turkey itself carries out massive rural reforms.

Nevertheless, the European Investment Bank provided an estimated €14.3 billion in loans to Turkey from 2004 to 2011, including financing of a natural gas pipeline from Turkey to Greece to carry energy supplies from the Caspian region to Western Europe, and credits to small and mid-scale Turkish companies. It also provided €700 million for a high-speed train that will run from İstanbul to Ankara.

Additionally, some 370 projects of Turkish universities, industries and government organizations were designated to receive substantial grants through of the EU's Seventh Research Framework Program (2007-2013). The projects cover research in the fields of health, energy, food and agriculture, biotechnology, environment, climate change, transport, space and security, nanotechnology, social and economic sciences, competition and innovation and information and communication technology.

Furthermore, thousands of Turkish university students and lecturers have received EU-funded scholarships and fellowships to study and teach at universities in member countries of the empire. Turkish companies are also allowed to bid for contracts in the EU.

Accession talks have also resulted in a stampede of European, American, Japanese and Arab investment into Turkey's banking, insurance sectors and brokerage services and a flurry of mergers and acquisitions in the fields of energy, health services, telecommunications, building materials, real estate development and other industries and services. The appetite for Turkish investments continues today, despite a tightening up of global liquidity.

## II. MAJOR EXPORTS OF TURKEY

### 2.1 AUTOMOTIVE

The nation in 2010 ranked sixth biggest motor vehicle manufacturer in Europe and 16th largest in the world, according to provisional statistics of the Paris-based International Motor Vehicle Manufacturers' Association (OICA). In Europe, only Germany, Spain, France, Russia, United Kingdom manufactured more motor vehicles than Turkey in 2010. Turkey is Europe's largest producer of commercial vehicles and stands eighth biggest manufacturer on the planet.

The automotive industry has developed spectacularly since the launching of Turkey's customs union with the European Union (EU) in 1996, with most of world's major manufacturers deciding to establish production bases in Turkey for sales both to domestic and export markets. Production increases have been export-driven.

**DEVELOPMENT IN THE TURKISH AUTOMOTIVE MARKET (2002 - 2010)**  
(000 Units)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Production	357	562	862	914	1,024	1,132	1,171	884	1,124
Exports	262	360	518	561	706	828	920	637	763
Sales	175	401	754	763	670	641	526	575	793
Imports	83	223	436	438	384	359	306	267	465
Share of Exports (%)	73	64	60	61	69	73	79	72	68

Source: Automotive Manufacturers' Association (OSD)

Today, 14 out of every 1,000 motor vehicles produced in the world are manufactured in Turkey. In 2009, the nation became Europe's biggest producer of commercial vehicles, surpassing Spain and France in output.

All major foreign automotive companies have operations in Turkey, including Ford, Toyota, Mercedes Benz, Hyundai, MAN, Renault and Fiat. Turkey has 15 large motor vehicle manufacturers.

## THE CHINESE ARE COMING! THE CHINESE ARE COMING!

Chinese manufacturers, seeking entry into European and Middle East markets, are preparing to invest in the Turkish motor vehicle market.

Chinese automotive industry took the lead in world automotive production since 2008. With its fast growing purchasing power, there is an increasing demand for cars in China. Almost one quarter of the whole world production takes place in the country (2011). And approximately half of the production is done by the local companies. These companies do not only focus in the local markets, but as they grew they also focus on foreign markets. As a result of this, Chinese manufacturers seeking entry into European and Middle East markets are preparing to invest in the Turkish motor vehicle market.

*“It has become much too costly to produce motor vehicles in western Europe. European Union motor vehicle manufacturers are outsourcing their production to the new accession countries of Hungary, Slovakia, Poland, and Romania and to candidate country Turkey,” Ercan Tezer, secretary general of the OSD, said in an interview with FDI Magazine. “The present day success of Turkey’s motor vehicle industry is the result of investments made in the past. If the nation wants to maintain its position and to make new moves it must make new investments. Foreign direct investment is the key in this area.”*

China’s state-owned FAW Haima Group on May 19, 2010, announced plans to invest \$500 million to manufacture motor vehicles in the port city of İzmir with the aim of exporting to the EU countries. Based in Changchun, China, FAW Haima produces automobiles, buses, light, medium, and heavy-duty trucks, and auto parts.

The Turkish distributor of Chinese Dong Feng Motors (DFM), MGY Automotive Corporation, and DFM-Zhengzhou Nissan (ZNA ) signed an agreement in İstanbul on March 19, 2010, to produce at least 50,000 motor vehicles a year in Turkey.

Dong Feng (East Wind) Motor Corporation is China’s second biggest automobile manufacturer.

ZNA, established in March, 1993 and headquartered Zhengzhou City, China, is a Sino-Japanese commercial vehicle manufacturer. The Nissan Automobile Business Corporation comprises 30% stock share, the Dongfeng Co a 51% share and Zhengzhou Lightweight Car holds a 19% share. ZNA is the important manufacture base of Nissan in China.

### TURKISH AUTOMOTIVE PRODUCTION (1990 - 2011)

Year	Total Vehicle Production	Automobile Production
1990	209,150	167,556
1991	241,838	197,574
1992	322,931	265,245
1993	420,625	348,095
1994	243,174	212,651
1995	282,440	233,412
1996	276,747	207,757
1997	344,352	242,780
1998	344,502	239,937
1999	297,862	222,041
2000	430,947	297,476
2001	270,685	175,343
2002	346,565	204,198
2003	562,466	294,116
2004	862,035	447,152
2005	914,359	453,663
2006	1,026,427	545,682
2007	1,132,932	634,883
2008	1,171,917	621,567
2009	884,466	510,931
2010	1,124,982	603,394
2010*	561,225	312,468
2011*	644,957	335,783

\* Figures are for January-June only

Source: Automotive Manufacturers' Association

Most of the companies in the sector are either foreign-owned or joint ventures with foreign manufacturers. Some produce under license agreements with foreign manufacturers. In addition to passenger cars, farm tractors, trailers, light and heavy-duty trucks, pick-up trucks, passenger buses, mini and midi buses are produced in Turkey. The country also has thriving components, parts and tire industries.

Many of the vehicles produced in Turkey are domestically designed and manufactured only locally and nowhere else. But Turkey doesn't have its own brand automobile. Prime Minister Recep Tayyip Erdoğan has urged the country's leading businessmen to come together to produce Turkey's first international brand automobile.

## 2010 RESULTS

Turkey produced 1,124,982 motor vehicles in 2010, a 27% increase from 2009, as manufacturers bounced back from a 13-month slump, the Automotive Manufacturers' Association (OSD), a trade group representing the country's top 15 motor vehicle producers, reported. Turkey manufactured a record 1,171,917 motor vehicles in 2008.

Export earnings from the automotive industry, including motor vehicles and components combined, climbed nine percent in 2010 to \$15.905 billion, the Uludağ Exporters' Association (UIB) and the Central Anatolian Exporters' Association (OAİB), two trade groups, reported. Turkey earned a record \$21.889 billion from automotive exports in 2008.

However, the rapid recovery of the Turkish automotive industry has slowed down, industry executives warned, as the European Union, Turkey's main export market, was grappling with the growing crisis over the debt problems of member states like Greece, Spain, Portugal, Belgium, Ireland, Italy, France and England.

### TURKISH MOTOR VEHICLE PRODUCTION IN 2009 - 2010

(In Units)

	2009	2010	% Change
<b>AUTOMOBILES</b>	<b>510,931</b>	<b>603,394</b>	<b>18</b>
<b>COMMERCIAL VEHICLES</b>	<b>358,674</b>	<b>491,163</b>	<b>37</b>
Midsize Trucks	7,403	20,429	176
Light Trucks	843	3,422	306
Pick up Trucks	330,044	442,408	34
Buses	5,931	5,268	-11
Minibuses	11,829	16,978	44
Midibus	2,624	2,658	1
<b>TRANSPORT VEHICLES</b>	<b>869,605</b>	<b>1,094,557</b>	<b>26</b>
<b>FARM TRACTORS</b>	<b>14,861</b>	<b>30,425</b>	<b>105</b>
<b>TOTAL MOTOR VEHICLE PRODUCTION</b>	<b>884,466</b>	<b>1,124,982</b>	<b>27</b>

Source: Automotive Manufacturers' Association (OSD)

Experts also said that the OSD's target to double production by 2015 to over 2 million vehicles and make the automotive industry the biggest sector of Turkey, overtaking the combined apparel and textiles, carpet and leather industries, was unlikely to be reached. According to the OSD, the industry could employ 600,000 people, three times more than it does today and earn \$60 billion annually from exports.

Prime Minister Recep Tayyip Erdoğan's conservative government set a target for \$75 billion in annual automotive exports for the country by 2023, the 100<sup>th</sup> anniversary of the Republic

The country's export drive was also slowing down due to the strong Turkish Lira and continued weaknesses in European markets. Most Turkish motor vehicle manufacturers say that the country's record 2008 production and exports figures should be overtaken in 2011. Others warned that the industry could face a new crisis in 2011 if the global economy takes a turn for the worst over Europe's, financial woes and supply problems generated by the earthquake and tsunami in Japan.

*"Europe's debt problems pose the greatest risks for Turkey's economy,"* Dominique Strauss-Kahn, the former managing director of the International Monetary Fund, stressed.

#### TURKISH MOTOR VEHICLE PRODUCTION IN 2010 BY COMPANIES (In Units)

Companies	Passenger Cars	Commercial Vehicles	Agricultural Tractors	Total
Tofas	115,720	196,525		312,245
Oyak-Renault	307,083			307,083
Ford Otosan		242,070		242,070
Toyota	83,286			83,286
Hyundai Assan	77,000			77,000
Türk Traktor			28,277	28,277
Karsan		24,719		24,719
Honda Turkey	20,305			20,305
M. Benz Türk		14,480		14,480
Temsa		3,367		3,367
B.M.C.		3,342		3,342
Anadolu Isuzu		3,292		3,292
Otokar		2,236		2,236
Hattat Tarım			2,148	2,148
MAN Turkey		1,132		1,132
<b>TOTAL</b>	<b>603,394</b>	<b>491,163</b>	<b>30,425</b>	<b>1,124,982</b>

Source: Automotive Manufacturers' Association (OSD)

The global recession triggered by the collapse of U.S. housing market battered the Turkish motor vehicle industry in 2009 and laid bare a major structural weakness – the industry is largely export-oriented -- Nearly 80% of all automobiles and 69% of all commercial vehicles are sold abroad. About 70% of all of its vehicle exports are destined to the nations of Europea Union. Production of low-cost, small, hybrid or electrically charged models -- the real need of the nation's consumers -- is just in its incipient stages in Turkey. With export markets drying up, motor vehicle output severely contracted in 2009, leaving the domestic market open to an invasion by imported vehicles.

The government in early 2011 introduced tax incentives to encourage the country's foreign-dominated manufacturers to produce electric models for domestic and export markets to revive the industry. Sales taxes on electrical model cars would be a fraction of cars running on gasoline and other fossil fuels.

The administration was also working on measures to encourage businessmen to establish battery-charging service stations, as the country moves from a fossil fuel economy to renewable energy. Large new renewable energy resources, including nuclear power plants and an array of hydroelectric facilities, will be needed in the next 10 years to meet the coming changes in the automotive business.

#### **TURKISH MOTOR VEHICLE EXPORTS IN 2009 - 2010** (In Units)

	2009	2010	% Change
<b>AUTOMOBILES</b>	<b>388,994</b>	<b>439,999</b>	<b>13</b>
<b>COMMERCIAL VEHICLES</b>	<b>239,976</b>	<b>314,470</b>	<b>31</b>
Pick up Trucks	231,260	306,902	33
Minibuses	1,271	800	-37
Trucks	1,910	2,411	26
Midibuses	1,065	807	-24
Buses	4,470	3,550	-21
<b>TRANSPORT VEHICLES TOTAL</b>	<b>628,970</b>	<b>754,469</b>	<b>20</b>
<b>FARM TRACTORS</b>	<b>8,885</b>	<b>9,201</b>	<b>4</b>
<b>TOTAL MOTOR VEHICLE EXPORTS</b>	<b>637,855</b>	<b>763,670</b>	<b>20</b>

Source: Uludağ Exporters' Associations (UİB)

A record 793,172 motor vehicles were sold in Turkey in 2010, up 38% from 2009, according to the OSD. The previous record in sales of motor vehicles in the country was in 2005, when 763,163 units were sold. Some 59% of all motor vehicles sold in Turkey in 2010 were imports.

A record 509,784 automobiles were sold in Turkey 2010, a 38% expansion from 2009. The largest number of automobiles sold in one year previously was in 2000, with 466,726 passenger cars sales.



But still an alarming 69% of all passenger cars sold in Turkey in 2010 were imports, the OSD said. A record 73% of all cars sold in Turkey in 2006 were imports.

Foreign carmakers have been more successful in marketing their vehicles in Turkey than domestic producers because they offer a wider variety of automobiles than produced in the country and because the strength of the Turkish Lira (TL) makes foreign manufactured vehicles affordable, industry watchers said. Many middle and upper class Turks also prefer imported cars to locally manufactured vehicles as status and wealth symbols. Most of the domestic producers are also major importers.

Despite the phenomenal growth of the industry, three major producers have gone out of business in the past four years: commercial vehicles producers Otoyol, Askam and farm tractor manufacturer Uzel Makine. The global economic meltdown left hundreds of small scale Turkish suppliers in financial straits, requiring a restructuring of bank debts.

## EXPORT PROJECTS

A major export project has been the development of the Minicargo vans by automaker Tofaş. Under this project, the company has spent \$410 million to design and produce the commercial vehicles for Fiat, PSA Peugeot and the Citroen Group. In 2008, it began turning out 135,000 commercial vehicles a year for eight years. Ninety-five percent of production is being exported, one-third to Fiat, one-third to PSA Peugeot and one-third to Citroen.

Commercial vehicles manufacturer Ford Otosan, a joint venture between the Ford Motor Company and Turkey's Koç Group, began exporting its Ford Transit LCVs to the U.S. starting in 2009.

### TURKISH AUTOMOTIVE INDUSTRY EXPORTS 2009 - 2010 (In U.S. Dollars)

Sector	2009	2010	% Change
<b>MOTOR VEHICLES EXPORTS</b>	<b>9,692,721,590</b>	<b>10,524,185,321</b>	<b>9</b>
Passenger Cars	6,092,414,843	6,200,098,720	2
Buses	771,886,548	611,349,266	-21
Others	2,828,420,200	3,712,746,334	31
<b>TOTAL SIDE INDUSTRY EXPORTS</b>	<b>4,915,931,898</b>	<b>5,381,571,154</b>	<b>9</b>
Spare Parts and Components	3,935,854,200	4,294,684,843	9
Tires and Tire Tubes	826,339,394	958,038,048	16
Batteries	83,759,055	78,585,048	-6
Auto Safety Glass	69,979,249	50,263,215	-28
<b>TOTAL AUTOMOTIVE EXPORTS</b>	<b>14,608,653,488</b>	<b>15,905,756,475</b>	<b>9</b>

Sources: Uludağ Exporters' Associations (UİB) and Central Anatolian Exporters' Associations (OAİB)

### TURKISH MOTOR VEHICLE PARK 2004 - 2010

Year	Total registered vehicles in Turkey	Total registered cars in country
2004	10,236, 357	5,400,440
2005	11,145,826	5,772,745
2006	12,227,393	6,140,992
2007	13,022,945	6,472,156
2008	13,765,395	6,796,692
2009	14,316,700	7,093,964
2010*	15,023,323	7,498,086

\*As of November 30

Source: Turkish Statistical Institute (TUIK)

### GLOBAL MOTOR VEHICLE PRODUCTION BY TOP MANUFACTURING 19 COUNTRIES IN 2008 - 2010 (In Number of Vehicles)\*

Country	2008	2009	2010**
1 China	9,345,101	13,790,994	18,264,667
2 Japan	11,563,629	7,934,516	9,625,940
3 USA	8,705,239	5,711,823	7,761,443
4 Germany	6,040,582	5,209,857	5,905,985
5 S. Korea	3,806,682	3,512,926	4,271,941
6 Brazil	3,220,475	3,182,617	3,648,358
7 India	2,314,662	2,632,694	3,536,703
8 Spain	2,541,644	2,170,078	2,387,900
9 Mexico	2,191,230	1,557,290	2,345,124
10 France	2,568,978	2,049,762	2,227,742
11 Canada	2,077,589	1,489,651	2,071,026
12 Thailand	1,393,742	968,305	1,644,513
13 Iran	ua	ua	1,599,454
14 Russia	ua	725,912	1,403,244
15 UK	1,649,515	1,090,139	1,393,463
16 Turkey	1,147,110	869,605	1,094,557
17 Czech Rep.	ua	974,569	1,076,383
18 Italy	1,023,774	843,239	896,359
19 Poland	ua	879,186	869,376

\*Includes Automobiles and Commercial Vehicles Only \*\* Figures for 2010 are provisional

Source: The International Organization of Motor Vehicle Manufacturers (OICA)

## COMPONENTS INDUSTRY

Despite increasing exports, domestic demand is crucial for future investments in the automotive industry. In this framework, the level of income, interest rates and consumer confidence are critical determinants in the development of domestic demand. Due to its low saturation level, there is a high potential in domestic demand for automotive products.

**TURKISH MOTOR VEHICLE EXPORTS BY COMPANIES 2007 - 2010**  
(In Number of Units)

Company	2007	2008	2009	2010
Oyak Renault	204,458	252,232	222,278	233,057
Tofaş	146,177	209,443	168,353	193,737
Ford Otosan	221,741	217,876	128,388	175,754
Toyota	154,386	119,586	69,097	73,163
Hyundai Assan	69,224	61,000	17,136	42,249
Karsan	1,632	482	7,287	19,441
Honda Turkey	7,732	34,926	9,172	10,633
Türk Traktör	5,761	9,648	8,808	8,911
Mercedes Benz Turk	8,708	9,083	3,317	3,471
Temsa	1,151	1,245	1,114	836
MAN TURKEY	1,699	1,538	1,180	834
Anadolu Isuzu	750	1,042	565	498
BMC	1,524	1,189	582	423
Otokar	1,115	619	501	373
Hattat Tarım Mak.	0	53	77	290
<b>Total</b>	<b>829,879</b>	<b>920,763</b>	<b>637,855</b>	<b>763,670</b>

Source: Automotive Manufacturers' Association (OSD)

The high quality of the industry in terms of production technology, innovation capacity and human resources is appreciated worldwide. Geographical position and logistic opportunities make Turkey an attractive location for automotive investments. Turkish companies are aware of the importance of these factors for global competition. Turkey is also showing good progress in harmonizing its legislation and regulations on the automotive sector with those of the EU in matters such as fair competition, consumers, patents, machinery directives etc. The country's legislation is generally in line with international rules of free trade within the context of the Customs Union and the World Trade Organization.

## AUTOMOBILES

Turkey has five automobile manufacturers:

- Oyak Renault, a joint venture between Turkey's Armed Forces Pension Fund (OYAK) and France's Renault.
- Toyota.
- Tofaş, a partnership between Italy's Fiat S.p.A. and Turkey's Koç Holding.
- Honda Turkey.
- Hyundai Assan, a joint venture between South Korea's Hyundai and Kibar Holding of Turkey.

### GLOBAL AUTOMOBILE PRODUCTION BY TOP 19 MANUFACTURING COUNTRIES IN 2008 - 2010 (In Number of Vehicles)

Country	2008	2009	2010*
1 China	6,737,745	10,383,831	13,897,083
2 Japan	9,916,149	6,682,161	8,307,382
3 Germany	5,526,882	4,964,523	5,552,409
4 S. Korea	3,450,478	3,158,417	3,866,206
5 Brazil	2,561,496	2,575,418	2,828,273
6 India	1,829,677	2,175,220	2 814,584
7 USA	3,776,358	2,195,585	2,731,105
8 France	2,145,935	1,819,462	1,922,339
9 Spain	1,943,049	1,812,688	1,913,513
10 Mexico	1,241,288	939,469	1,390,163
11 Iran	940,870	1,170,503	1,367,014
12 England	1,446,609	999,460	1,270,444
13 Russia	1,469,429	509,265	1,208,362
14 Czech Rep	933,312	967,760	1,069,518
15 Canada	1,195,436	822,967	968,860
16 Poland	840,000	819,800	785,000
17 Turkey	621,567	510,931	608,394
18 Italy	659,221	661,100	573,163
19 Slovakia	ua	461,340	556,941

\*Provisional

Source: The International Organization of Motor Vehicle Manufacturers (OICA)

The domestic market is dominated by imports. Sixty-nine percent of all cars sold in Turkey in 2010 were imports.

**Renault** was number one seller of automobiles in 2010 with 80,022 cars followed by **Ford** with 55,212, **Hyundai** with 49,535, **Fiat** with 44,953, **Volkswagen (VW)** with 39,822, **Opel** with 39,768 **Toyota** with 38,534, **Peugeot** with 18,851, **Chevrolet** with 18,061 and **Honda** with 16,169 followed the leaders. **Ford's**, **Chevrolet's**, **Opel's**, **Peugeot's** and **VW's** cars were all imports. Some 48 manufacturers sold cars in Turkey in 2010.

**TOP 37 TURKISH AUTOMOTIVE COMPANIES IN 2010 IN TERMS OF NET SALES**  
(In Million U.S. Dollars)

Name of Company	Total Sales	Main Line of Business
1 Ford Otosan	4,941	Commercial Vehicles Manufacturing
2 Oyak Renault	4,300*	Automobiles Manufacturing
3 Tofaş Oto Fabrika	4,141	Automobiles, Commercial Vehicles Manufacturing
4 Doğu Otomotiv Sanayi	2,215	Motor vehicles Importation / Distribution
5 Toyota Otomotiv	2,011*	Automobiles Manufacturing/ Importing
6 Hyundai Assan	1,764*	Automobile Manufacturing/Importing
7 Otokoç	1,414	Automobile Distribution
8 Kordsa Global	817	Tire Cord Fabric Production
9 Türk Traktör	771	Farm Tractor Production
10 Mermerler	686	Automobile Distribution
11 Brisa	633	Tire production
12 Türk Pirelli Lastikleri	565	Tire Production
13 Borusan Otomotiv İthalat	525	Motor Vehicles Importation/Distribution
14 Goodyear Lastikleri	523	Tire production
15 Koluman Motorlu Araçlar	520	Motor vehicle importation / Distribution
16 BMC	417	Production
17 Borusan Oto Servis	371	Motor Vehicle
18 MAN Turkey	370	Commercial vehicles manufacturing
19 Karsan	357	Commercial vehicles manufacturing *
20 CMS Jant ve Makina Sanayi	238	Aluminum wheels producer*
21 Otokar	334	Commercial and Military Vehicles Manufacturing *
22 Autoliv Cankor Oto	282	Automotive parts manufacturer*
23 Borusan Oto Servis	280	Motor Vehicle After Sales Services
24 MAN	276*	Commercial Vehicle Manufacturing
25 Componenta Döktaş	266	Automotive Parts Manufacturing
26 Has Otomotiv	266	Motor Vehicles Importation/Distribution

27	Standard Profil Otomotiv	231	Automotive Parts Manufacturing
28	Federal Mogul Segman ve G�mlek	230	Automotive Parts Manufacturing
29	Anadolu Isuzu	220	Commercial vehicles Manufacturing
30	Petlas Lastik	218	Tire Manufacturing*
31	Tırsan Treyler Sanayi	207	Truck Trailers Manufacturing
32	Abd�lkadir �zcan Otomotiv	204	Tires, Tire Chains
33	Mutlu Ak�	201	Automotive batteries production
34	Hema Endustri	176	Farm Tractor, Auto Parts Manufacturing
35	Co�kun�z Metal Form Makina	166	Automotive Parts Manufacturing
36	Major SKT Oto Donanım	154	Automotive Parts Manufacturing
36	Bey�elik Gestamp Kalıp	141	Automotive Parts Manufacturing
37	Gelecek Otomotiv Sanayi	127	Automobile Distribution

\*Estimate, Excludes Imported Commercial Vehicles Sales

Source: Fortune Magazine Turkey, Turkish Exporters' Assembly (TİM)

### TOP 20 TURKISH AUTOMOTIVE COMPANIES IN 2010 IN TERMS OF EXPORT SALES (In Million U.S. Dollars)

Name of Company	Total Exports	Main Line of Business
1 Oyak Renault	3,237	Automobiles manufacturing
2 Ford Otosan	2,644	Commercial vehicles manufacturing
3 Tofaş Oto Fabrika	2,316	Automobiles, commercial vehicles manufacturing
4 Toyota Otomotiv Sanayi	1,311	Automobiles manufacturing
5 Kibar Dıř Ticaret	811	Automotive exporter
6 Bosch Sanayi ve Ticaret	684	Parts, components manufacturing
7 Mercedes Benz T�rk	508*	Commercial vehicles manufacturing
8 Goodyear	287	Tire production
9 T�rk Pirelli Lastikleri	275*	Tire production
10 Kordsa Global	246	Tire fabric, Industrial Yarns
11 T�rk Trakt�r	218	Farm tractors production
12 Delphi Automotive System	209	Components manufacturing
13 MAN Turkey	209	Commercial vehicle producer
14 CMS Jant Sanayi	201	Aluminum, metal wheels
15 Honda Turkey	206	Automobile manufacturing
16 Karsan	178	Commercial vehicles producer

17	Autocliv Cankor Otomotiv Sanayi	176	Seat belts production
18	Brisa	167*	Tire Production
19	Federal Mogul Sapanca Piston Segman Gömlek	150	Parts, components manufacturing
20	TEMSA Global	121	Commercial Vehicles manufacturing
21	Petlas Lastik	118	Tire manufacturing
22	Componenta Dökümcülük	100*	Parts, components manufacturing
23	FNSS Savunma Sistemleri	93*	Armored vehicles production

\*Export figure for 2009

Sources: Turkish Exporters' Assembly (TIM), Fortune Magazine

## COMMERCIAL VEHICLES

Some 10 major companies, led by Tofas and Ford Otosan, produce commercial vehicles in Turkey, including light trucks, mid-sized trucks, pickup trucks, buses, minibuses, midi buses. Other manufacturers are Tofaş, Hyundai Assan, BMC, (owned by the Çukurova Group), Karsan, Mercedes Benz, MAN Turkey, Otokar, Temsa, Anadolu Isuzu. Some 45% of all light commercial vehicles sold in Turkey are imports.

### COMMERCIAL VEHICLE PRODUCTION BY TOP TEN MANUFACTURING COUNTRIES IN 2008 - 2010 (In Number of Vehicles)

Country	2008	2009	2010*
1 USA	4,928,881	3,462,762	5,030,338
2 China	2,607,356	3,407,163	4,367,584
3 Japan	1,647,480	1,072,355	1,318,558
4 Canada	882,153	667,288	1,102,166
5 Thailand	992,433	663,055	1,090,126
6 Mexico	949,942	617,821	954,961
7 Brazil	658,979	605,989	820,065
8 India	484,985	466,456	722,199
9 Turkey	525,543	358,674	491,162
10 Spain	598,595	357,390	471,387

\*Provisional

Source: The International Organization of Motor Vehicle Manufacturers (OICA)

## FARM TRACTORS

Turkey has two producers of large agricultural tractors: Türk Traktör, a joint venture between Koç Holding and New Holland; Hattat Tarım Makineleri turns out American Universal and Massey Ferguson tractors farm tractors under license. The company Erkunt produces small Turkish-designed tractors.

### INVESTMENTS PLANNED BY TURKISH AUTOMOTIVE MANUFACTURERS 2010 - 2011

Company	Amount in Million U.S. Dollars
Tofaş Oto	180
Ford Otosan	150
Hyundai Assan	150
Oyak Renault	275
Toyota	200
Others	50

Source: Hürriyet Newspaper

## PARTS AND COMPONENTS

*“The components’ industry,” according to the Export Promotion Center of Turkey (İGEME), “possesses a high technology and vertically integrated industrial infrastructure installed through investment incentives and foreign investments, know-how and licensing agreements with the most reputable companies of the world.”*

The country has 800 components and parts and tire manufacturers. Eighty percent of the components used are locally manufactured.

The companies turn out a wide range of products including air brakes, agricultural equipment, air compressors, air filters, radiators, chassis frames and parts, springs, alternators, piston rings, tires, stabilizers, seats, shafts, hydraulic and pneumatic systems. They also produce suspension systems, body panels, fuel tanks, body parts, batteries, bolts and nuts, ball bearings, mirrors, engines, transmissions, windshield wipers, wheels, various aluminum and plastic parts, tires, and head lamps and electrical systems.

Some of the foreign companies with investments in the auto components industry include Bosal Holding (Belgium), Arcelor Auto (France), H.P. Chemie Pelzer (Germany), Magnetti Marelli (Italy), Mecaplast (Monaco), Autoliv (Sweden), Gestamp Automocion and Bamesa Group (Spain).



Robert Bosch (Germany), Hanil E Hwa (South Korea), and Federal Mogul (U.S.), Cummins Inc. (U.S.), Teksid (Italy), Heyes Lemmerz (U.S.), Arvin Meritor (U.S.), Exide Corp (U.S.), Faurecia (France), Sango Co. (Japan), Yazaki (Japan), Michelin Kronprinz, Groupe Plastic Omnium (France), Goodyear (U.S.), Bridgestone (Japan), Toyoda Iron Works (Japan), ZF Lemförder (Germany), ZF Friedrichshafen (Germany) Mando Corp. (South Korea) also have investments in Turkey.

## **TIRES**

The Goodyear Tire Company; Brisa, a joint venture between Japan's Bridgestone and Sabancı Holding of Turkey; and Türk Pirelli, the Turkish subsidiary of the Italian Pirelli Tire Co., produce vehicle tires and tire tubes. The three control about 70% of the domestic market. Two other domestic tire companies are active in the market -- Petlas, which turns out aircraft tires as well as tires for commercial vehicles, cars and farm tractors, and Özka, based in Kocaeli province, which produces tires for commercial and farm vehicles and for earth movers and bulldozers. The two have a total five percent market share.

Imported tires controlled one-fourth of the market. Some 100 brands, led by Michelin, are imported.

## **NEXT GENERATION VEHICLES**

The Ministry of Finance on February 25, 2011, slashed the special consumer tax (ÖTV) on electrical automobiles to as low as 3% from 37%, paving the way for the mass production and sales of zero emission passenger cars in Turkey.

Purchasers of electrical automobiles up to 85 kilovolt engine capacity would be taxed at three percent. Those buying vehicles operating at 85 to 120 kilovolt engine capacity would be charged a 7% ÖTV. A 15% ÖTV would be charged on purchasers of vehicles with engine capacity of over 120 kilovolts.

Buyers of of automobiles operating on gasoline, diesel or liquefied petroleum gas will pay anywhere between 37% to 84% ÖTV on cars depending on the engine capacity.

İbrahim Aybar, general manager of Renault Mais, the importer and distributor of Renault automobiles, said the Turkish government decision would help attract investment into the production of electrical vehicles in Turkey.

An executive at car maker Oyak Renault in Bursa said the vehicle manufacturer had a capacity to produce 30,000 electrical automobiles a year at its automobile plant. The first electrical Fluence rolled off Oyak Renault's assembly line in January 2011.

Renault plans to produce an electrical version of the gasoline-running sedan Fluence at its Bursa plant, which it operates in partnership with the Turkish Armed Forces Pension Fund (OYAK), for the Israeli market, where hundreds of electrical charging service stations are under construction.

Company officials said Oyak Renault had received firm orders from Israel for 35,000 electrically run Fluence sedans. (Turkey's leading construction contractor Ali Ağaoğlu, known for his flare for sports cars, said that he would acquire 500 electrical Fluences.)

Renault's Global Chief Executive Officer Carlos Ghosn told the newspaper *Dünya* on February 27, 2010, that 10 percent of the global car market by 2020 would be vehicles run on electricity, as the world shifts from fossil fuels to a renewable energy economy.

Turkish auto industry experts agreed.

*"New technologies are emerging. New generation vehicles will come out. The world will change completely,"* Ömer Buhranoğlu, former president of the Association of Automotive Parts and Components Manufacturers, told the financial magazine *Turkishtime*.

The developments came as Turkish-designed electrical automobiles were the stars of the March 2011 Geneva Automobile Show.

Turkish university graduate student and car designer Emre Husman, who won a full scholarship from France's Peugeot as a finalist in an automobile design contest, displayed his "Scorpion" at the show. The "Scorpion" is a sleek four-door electric engine sedan.

The three-wheel, two-seat electrical Tilter car, produced by majority Turkish-owned French innovative vehicles producer Synergetic, also went on display at the auto show.

A Turkish consortium consisting of Brightwell Holding, and auto parts manufacturers B Plas and Orhan Holding in July 2010 acquired an 80% share in Synergetic for €20 million and announced it would relocate the plant and produce the company's Tilter and small four-wheel electrically charged Softcar in the industrial city of Bursa.

Alphan Manas, chairman of Brightwell Holding and a noted futurist, said that the group had also persuaded Hawthorne, New York-based fuel cell producer Xcellerion to co-manufacture fuel cells in Bursa, the automotive capital of Turkey, on a 50-50 basis with the Turkish group.

B Plas and Orhan Holding, both based in Bursa, are major suppliers of parts and components to French car maker Renault, which has also announced plans to turn out electrical vehicles.

In a related development, the Municipality of İstanbul and Renault Mais, the distributor of Renault automobiles, in July 2010 signed an agreement on for the establishment of auto electric charging stations in Turkey's largest city to prepare for electrical automobiles Renault plans to introduce into the Turkish market in 2011. All municipal car parks will have power charging units.

Manas told the newspaper *Hurriyet* that his consortium planned to invest €20 million in the compact, three-wheel, two-seat Tilter and export it to 40 countries. He said each vehicle would sell at around €8,000 and be the lowest cost electrical automobile in the global market.

Earlier Manas teamed up with Turkish automobile designer Murat Günak to develop Turkey's first electrically charged automobile. The vehicle, Mia (Its Me), designed by Günak, was displayed as the star of last year's Geneva Auto Show.

A consortium led by Gunak and Manas earlier failed to acquire financially ailing niche French vehicle maker Heuliez. The two men went their own ways but the French niche motor vehicle maker Heuliez agreed to produce Günak's Mia. Manas also confirmed his group would distribute the Mia in Turkey.

Ford Otosan has also announced plans to produce electrically run Transit Connect light commercial vehicles at its plant in Karamürsel, along the Sea of Marmara.

Turkish carmaker Tofaş said it had developed an electrical version of its Doblo, a taxi-cum-commercial vehicle, and would begin mass production in 2011. İzmir-based automotive company Atalan Makine was also developing a small electrical automobile with India's Ranal Group.

BD Otomotiv, owned by 37-year-old businessman Osman Fevzi Boyner and members of his family, said it would distribute Chinese-made BYD cars in Turkey and eventually produce electrically powered automobiles in Turkey. Boyner reportedly planned sell 10,000 conventional automobiles in Turkey a year, starting in August 2011. BD Otomotiv would begin producing electrical vehicles in Turkey in 2012.

BD Otomotiv also plans to distribute the American Fisker-designed electrical "Karma" automobiles in Turkey. Karma electrical cars can go up to the speed of 201-km-an-hour.

Warren Buffet, 80, the world's third richest man after Mexico's Carlos Slim Helu and Microsoft's Bill Gates and chairman of the Omaha, Nebraska, investment house Berkshire Hathaway, holds a 10% stake in Chinese car maker BYD.

Eskişehir-based Hisarlar Group also produced Turkey's first electrically operated four wheel drive heavy commercial vehicle, capable of operating in off-road operations.

Bursa-based Turcoto produced a low-emission light commercial vehicle, the Uveyk, and an open electrical vehicle capable of carrying 15 passengers, the Truva. The company announced it would produce 10,000 to 15,000 Uveyks annually starting in fall 2011. The energy-saving vehicle, which is intended for rural use, is capable of speeds of 75km per hour, can carry loads up to 1 ton at a time, and can go 1,000 km on a single filling of low-cost fuel (3.5TL per 100km).

## **FLYING AUTOMOBILES**

Two Turkish businessmen living in the U.S. announced they would produce "flying automobiles" in Turkey, Anka News Agency reported on June 6, 2010.

Anka said businessmen Huseyin Kızanıklı and Kaya Boztepe, owners of the company Planet Green, had reached agreement with the U.S. company Terrafugia to turn out the flying "Transition" cars in Turkey.

The two-person, 1,320 pound cars carry folded wings and can operate on highways and roads, but must takeoff from an airport tarmac. The Transitions have a 100 horsepower motor and can fly a maximum 750 kms distance.

The first 200 flying vehicles would be produced in the U.S. with the remaining output set for Turkey, the newspaper *Dünya* reported on June 8. The aircraft-cum-automobile runs on leadless gasoline.

### FORD OTOSAN, PRODUCER OF COMMERCIAL VEHICLES

Ford Otomotiv Sanayi (Ford Otosan) is one of the most successful U.S.-Turkish manufacturing partnerships. Turkey's leading producer and seller of commercial vehicles since 2001, Ford Otosan is a joint venture between the Ford Motor Co. and Koç Holding with each having a 41.04% stake. About 17.92% of the company is publicly owned.

In 2010, the company produced 242,070 commercial vehicles -- trucks, minibuses, and pick-ups., and exported 65,904 vehicles.

Ford Otosan has a 25.1% market share in Turkey for light commercial vehicles. It also turns out engines and spare parts, and also imports Ford automobiles. The company employs 7,991 persons, including more than 800 engineers and 6,600 blue collar workers.

The company invested \$650 million in its new Gölcük plant, which opened in summer 2001, aiming to bolster its vehicle production capacity to 300,000 vehicles a year in 2007 from 240,000 in 2005, and focus on exports. The Gölcük plant has become a production hub for Ford's light commercial vehicle sales to the European market.

The investment is the biggest in the Turkish automotive industry to date. Ford Otosan began production of its new light commercial vehicle, the Transit Connect, at the plant starting in September 2002, and has been exporting it worldwide through Ford Motor Company's distribution channels. Export markets include the European Union, Eastern Europe, Central Asia and North and Central Africa. Ford Otosan will begin exporting its Transit Connect light commercial vehicle to the U.S. in May 2009. The Karamürsel-based company plans to export 25,000 LCVs a year to America.

Ford Otosan's history dates back to 1928, when businessman Vehbi Koç, founder and first chairman of Koç Holding, became Ankara regional distributor of the Ford Motor Company. In 1938, Koç tried to persuade the American car manufacturer to produce automobiles in Turkey. In 1946, the Koç Group became the representative of the Ford Motor Company in Turkey.

Otosan was founded in 1959 and it produced Turkey's first automobile in 1966, the Anadol. In 1976, Otosan signed a license agreement with Ford to produce its trucks and transit series in the country, and opened its engine factory in İnönü, Eskişehir in 1979.

In 1983, Ford acquired a 30% stake in Otosan. Ford's and Koç's shares in the company were equalized in 1997, and the company took the name Ford Otosan. In 2001, Ford Otosan's Kocaeli factory was established.

## 2.2 IRON AND STEEL

### A MAJOR PARTNER OF THE U.S.

Ranking behind only Canada, the EU, China and South Korea, the Turkish steel industry is one of the largest exporters of steel to the United States. It delivered \$422.5 million worth of steel and steel products (including welded steel pipes, valves, nuts and bolts) in 2010, a whopping increase from the \$205 million of exports to the U.S. market in 2009, the İstanbul Steel Exporters' Association reported. The dramatic rise in steel exports was due to improvements in the global economy, as nations pulled out of the world recession that had been triggered by the collapse of the U.S. housing market. However, with its rapidly growing economy at home and its impending entrance into the European Union, Turkey does not anticipate any further increase in steel exports to the United States in the next few years. It already exports 54% of its products to the EU, a number unlikely to contract as the country's economy rapidly expands with the process of accession to the EU.

However, Turkey has two points to raise in its agenda with the U.S, as the Turkish steel executives reported to the Metal Center News:

Like some other major exporters to the United States, Turkish steelmakers have been accused of dumping their products in the U.S. at below market prices by domestic steelmakers. At the end of 2005, five domestic producers filed antidumping petitions against Turkey, China and Germany after imports from those three countries nearly doubled over a two-year period. The U.S. International Trade Commission voted against the domestic industry. The Turkish steelmakers would like to see a system where filing cases against foreign companies requires more care.

With its status as the bridge between Europe and the Middle East, Turkish officials believe the country is in prime position to take advantage of any growth going on in the Middle East and Northern Africa. Chief among the opportunities is the rebuilding in Iraq and Libya, Dubai, Kuwait, Qatar in the Middle East and Egypt, Algiers and Morocco in North Africa are also markets targeted by the Turks.

### MARKET TRENDS

Turkey is one of the major players in the international steel market. It was Europe's fourth largest and the world's 10th biggest steel producer with a record production of 29.143 million tons in 2010, commanding 2.1% of global output, according to the Turkish Steel Manufacturers' Association (DÇÜD). Only Russia, Germany, Ukraine are bigger manufacturers of steel in Europe than Turkey.

Some 55 countries in the world produce steel. Turkish steel production is expected to increase to 35 million tons in 2011 and 42 million tons by 2012, DÇÜD said.

The industry is well positioned, combining high potential for growth with proximity to the European Union, but also has a structural problem: Production is biased 75% to 25% in favor of long

products over flat products, while in consumption the ratio is 50% to 50%. But this is rapidly being remedied with enormous investments in flat steel production underway.

### PRODUCTION OF IRON & STEEL 2003 - 2010

(000 tons)

	2003	2004	2005	2006	2007	2008	2009	2010
<b>Long</b>	11,395	13,232	13,498	18,690	19,400	21,043	18,723	21,420
<b>Flat</b>	3,535	3,616	3,760	3,903	5,700	5,237	6,452	7,286
<b>Specialty*</b>	320	330	343	424	700	536	127	437
<b>Total</b>	<b>15,750</b>	<b>17,178</b>	<b>19,601</b>	<b>23,017</b>	<b>25,800</b>	<b>26,806</b>	<b>25,304</b>	<b>29,143</b>

\*Quality engineering steel

Sources: Turkish Iron and Steel Producers' Association, Cemtas

Steel production in Turkey increased 15.2% in 2010 to 29,143 tons as the global economic crunch faded away.

Some 73.5% of Turkey's manufactured steel, or 21.420 million tons, was in long products; and 25%, or 7.286 million tons, was in flat products, and 1.5% or 437,000 tons was in quality, engineering steel in 2008.

## FOREIGN TRADE

In 2010, Turkey earned \$8.768 billion from iron and steel exports, the Turkish Statistical Institute (TÜİK) reported. The country also earned \$4.511 billion from the foreign sales of steel products, including welded steel pipes and castings for industry. The bulk of the steel exports came from long products. Steel exports totaled 17.3 million tons in 2010, according to the İstanbul Steel Exporters' Association.

The government set a target for \$55 billion in annual steel exports for the country by 2023, the centennial of the republic.

Turkey's steel industry was severely affected by the economic crises in Asia and Russia and low steel prices beginning in 1997 and continuing through the first half of 1999.

The powerful earthquakes that rocked northwest Turkey in 1999 also hampered the industry as construction was halted throughout the country while the government enacted new building regulations. The recession of 2001, the worst in Turkey since 1945, further harmed the industry as domestic housing sales plunged 36.5%.

### IRON & STEEL FOREIGN TRADE, 1998 - 2010

	Exports		Imports	
	\$ million	000 tons	\$ million	000 tons
1998	1,525	6,045	1,821	5,150
1999	1,463	7,020	1,280	4,595
2000	1,559	6,975	1,931	6,223
2001	2,029	9,676	1,203	4,227
2002	2,219	10,105	1,692	5,493
2003	2,899	10,450	2,660	6,819
2004	5,251	12,195	4,554	7,994
2005	4,869	11,074	5,835	9,594
2006	6,065	12,658	6,946	11,430
2007	8,100	13,700	9,500	13,000
2008**	15,000	16,500	12,500	12,500
2009	7,641	ua*	11,351	9,700
2010	8,768	ua	16,414	ua

\* ua means unavailable

\*\* includes steel products

Source: Turkish Iron and Steel Producers' Association, Turkish Statistical Institute

The industry roared back with soaring steel prices, only to be hit by the global recession, stemming from the collapse the U.S. mortgage market in summer 2007. The effects of the crisis began to be felt in the domestic steel industry and throughout Turkey only in the second half of 2008. The construction and real estate markets and the markets for automobiles and durable consumer goods in Turkey went into a tailspin in 2009, forcing most producers of long products to halt production for several months.

The Erdemir Group, the country's biggest steel producer with two integrated steel plants and 26% of total output, slashed salaries by 35% in 2009 and took other radical measures to remain solvent and prevent layoffs. Recovery in the industry began in the last quarter of 2009.

Asian countries, such as China and Taiwan, once Turkey's main markets for iron and steel exports, also became its rivals because of devalued currencies. In the past, as much as 70% of Turkey's steel exports went to China, Taiwan and other Far East nations.

*"As a result, Turkish manufacturers, in addition to losing an important market, started to face competition from Far Eastern manufacturers in export markets and even in the domestic market,"* a senior analyst with Finansinvest, a brokerage house, said.

Turkey's main steel export markets are the Middle East and Gulf region countries, the European Union states, followed by North African nations, the U.S. and the Far East states.

**WORLD CRUDE STEEL OUTPUT  
BY TOP 12 PRODUCING COUNTRIES 2009 - 2010  
(In 1,000 Tons)**

Country	2009	2010	% Change 10/09
1 China	573,567	626,654	9.3
2 Japan	87,534	109,600	25.2
3 United States	58,196	80,594	38.5
4 Russia	60,011	67,021	11.7
5 India	62,838	66,848	6.4
6 South Korea	48,572	58,453	20.3
7 Germany	32,670	43,815	34.1
8 Ukraine	29,855	33,559	12.4
9 Brazil	26,507	32,820	23.8
10 Turkey	25,304	29,143	15.2
11 Italy	19,848	25,751	29.7
12 Taiwan	15,814	19,641	24.2
World	1,211,461	1,395,459	15.2

Source: Turkish Steel Producers' Association (DÇÜD)

Turkish producers meet 38% of the world's demand for long products.

In 2009, Turkey spent \$16.414 billion on iron and steel imports. It also imported \$1.966 billion in steel products. The biggest import items were flat products and semi-finished products. Turkey doesn't produce enough flat products to satisfy the needs of Turkey's consumer industries, particularly those of motor vehicle and household appliances and consumer electronics manufacturers, forcing the nation to be a major importer of flat products.

Turkey is the world's biggest importer of scrap iron. The Turkish industry in 2010 used about 22 million tons of scrap iron, importing \$8.5 billion in scrap iron.

To increase value-added, the industry has been switching to finished products like reinforcing bars from raw billet steel and converting some manufacturing of long product to flat products. Turkey also imports large amounts of anthracite (hard coal) and other raw materials that go into the production of steel.



## **TURKISH STEEL INDUSTRY**

Some 27 companies produce raw steel in Turkey.

The Turkish steel industry employs 200,000 people. Most of the companies in the industry use electric arc technology that causes smog and water pollution.

Erdemir, an integrated steel mill with two blast furnaces on the western Black Sea Coast of Turkey, is Turkey's biggest producer of flat products and largest steel manufacturer overall. Other domestic manufacturers of flat products are Erdemir's İskenderun Demir Çelik (İşdemir) subsidiary; Borçelik, a member of Borusan Holding; Çolakoğlu Demir Çelik, a subsidiary of the Çolakoğlu Group; the Tosyalı Group; and the Turkish-Russian Atakaş-MMK Joint Venture in Dört Yol, in Adana province. The remaining steel mills produce mainly long products and specialty steel products.

Erdemir, owned by a subsidiary of the Armed Forces Pension Fund (OYAK), acquired İşdemir, a long products manufacturer, in 2001 by way of privatization, and production there has been largely converted to flat products.

In pipe production, there are 125 firms and only the state-owned Machinery and Chemical Industries Foundation (MKEK), better known as a light arms and munitions manufacturer, produces seamless steel pipes.

## **STEEL PIPES**

Turkey is Europe's largest steel pipe manufacturer, having outdistanced both Italy and Germany in recent years. The country has an annual capacity to produce 6 million tons of steel pipes. Welded steel pipe production of Turkey reached an estimated 3.500 million tons in 2010, according to the 19-member İstanbul-based Steel Pipes Producers' Association. The country also turned out an estimated 100,000 tons of seamless steel pipes in 2010. Demand for welded steel pipes reached 1.642 million tons in 2010, Borusan Mannesmann, the country's biggest producer of welded steel pipes, said in its latest annual report.

Demand for welded and seamless steel pipes is expected to grow phenomenally when construction of the Nabucco Pipeline, bringing natural gas from the Caspian region and the Middle East through Turkey to western Europe, begins in 2011.

About 45% of the country's production of welded steel pipes – 1.6 million tons -- was exported in 2010. Some 56% of Turkey's welded steel pipe exports go to markets in Europe.

Additionally there are about 1,693 foundries -- the vast majority small ateliers -- producing gray, malleable, spheroidal iron and steel castings. Turkish foundries are capable of turning out every kind of alloyed and unalloyed castings, specializing in the production of cast parts for the automotive, cement and steel industries, and other manufacturers. They also produce pumps, valves, nuts

and bolts and components for earth moving machines agricultural machinery as well as pipe fittings and central heating radiators. Turkish foundries turn out 1.5% of world castings production.

High finance and energy costs have been the main stumbling blocks of the Turkish iron and steel sector as Turkish steel makers have faced increased competition under a customs union pact between Turkey and the European Union, which took effect in January 1, 1996.

## **HISTORY**

Turkish industrialization was laid in the 1930s, and the nation produced raw steel for the first time in the northern Anatolian city of Karabük, in 1940. Today the Kardemir mill in Karabük has a raw steel capacity of 700,000 tons per year. Several other steel producers have mushroomed in the city in the 1980s.

In 1955, Mannesmann-Sümerbank Pipe Industries (now Borusan Mannesmann Boru Yatırım) was established in Izmit, in western Turkey, for the production of welded steel pipes. To meet the demand for flat rolled steel Erdemir came on stream in 1965.

In 1977 the İskenderun Demir Çelik (İşdemir) began production.

Another public enterprise, MKEK, better known as an armaments manufacturer, was the first producer of specialty steel, turning out rolled alloy steel products, forged steel and cold rolled bright steel.

Incentives given by the governments headed by the late Turgut Özal in the 1980s led the establishment of more than a dozen long product steel mills, using electric arc technology.

## **EXCESS SUPPLY OF STEEL**

Although the industry produces most types of steel, the product mix is skewed towards lower-valued long products that are used mainly in the construction industry. The industry meets domestic demand for flat products mainly through imports. Responding to this situation, Erdemir has converted its İşdemir plant into flat production through modernization and conversion investments worth \$1.9 billion. Production capacity for flat products exceeded seven billion tons a year in 2009, and is likely to be over 12 million tons a year by 2012, ending the excess capacity in long products and, at the same time, absorbing the supply deficit in flat products. The new facilities will also help end Turkey's costly imports of flat products.

Çolakoglu Metalurji, for instance, began producing flat products at its steel mill in Gebze, a town 40 km east of İstanbul, in July 2010. The plant has an annual three million ton capacity. The Atakaş Group, based in the steel producing Mediterranean port city of İskenderun, also opened a plant in 2011 with a capacity to turn out two million tons of flat steel. The Arcelor-Borçelik partnership is also envisaging new investments in flat products. The Tosyalı Group in February 2010 opened

a steel plant in the southern city of Osmaniye, turning out flat products and structural steel. The group was expected to invest \$3.5 billion in flat and structural steel production by 2015.

Yücel Boru is investing \$500 million in a flat steel mill to be used in production of steel pipes.

Processors import scrap iron, semi-finished products or purchase them from integrated steel producers and mini-mills. In the past, most steel producers were sub-scale rolling mills supplying low-value-added, often very substandard, long products to the construction industry.

Turkey had been turning out excess supply of long products in the past two decades, forcing manufacturers to find export markets.

## **SURGE IN IMPORTED STEEL**

In 1998, the government slapped a 22.5% tax for hot rolled sheets and 30% for cold rolled sheets for non-European Union flat products to stymie a surge in low quality and cheap imports from Russia and Ukraine that was threatening Erdemir's market.

Duty free quotas of 650,000 tons for hot rolled sheets and 200,000 tons of cold rolled sheets were set. Erdemir distributed these quotas.

## **PRIVATIZATION OF STATE STEEL PRODUCERS**

As part of austerity measures announced on April 5, 1994, aimed at slowing down Turkey's overheated economy, then Prime Minister Tansu Çiller's government transferred ownership of the state-owned Karabük Steel Mill (Kardemir), which had been a constant money loser because of its outdated technology, to its employees, local businessmen and a labor union. The government did not have the funds to rehabilitate the plant.

Under private owners, Kardemir slashed its workforce by half and began modernization to become once again a moneymaking operation.

In 1998, the government also privatized a small steel mill in Sivas, in northeast Turkey for \$6.7 million.

In 2002, the government also turned over its remaining steel mill, İşdemir, a Russian-built integrated complex in İskenderun, on the Mediterranean coast, to Erdemir for \$50 million with the aim of increasing its steel-making capacity from 2.2 million tons to 2.5 million tons, and converting 2 million tons capacity to flat products with \$700 million in new investments in state-of-the-art technology. Policy makers, analysts said, aimed to correct the imbalance in the sector toward long products with the privatization of İşdemir.

In February 2006, the government also sold its 49.9% stake in Erdemir to Ataer Holding, a subsidiary of the Oyak Group, for \$2.960 billion.

## FOREIGN INVESTMENT

Foreign investment is entering the industry. ArcelorMittal, the world's largest steel producer, in October 2007 acquired a 51% of Turkish construction steel producer Rozak for an undisclosed sum.

The firm aims to double its sales and expand to countries near the Mediterranean and Caspian Sea.

The deal follows the announcement of ArcelorMittal that it will build a \$500 million new hot strip mill in Gemlik, northwestern Turkey, with Borusan Holding, Turkey's leading steel pipe producer. Gonzalo Urquijo, a member of the ArcelorMittal management board, said the company's aim is to improve its position in the Turkish construction market, which is one of the most important worldwide, and look into future expansion to nearby countries.

"We have been investing in Turkey for 15 years and will continue to do so. We want to expand our activities in Turkey and are looking at further opportunities. We see Turkey as a growth platform to other markets," he said. "We want to develop the Turkish market and expand to Caspian and Mediterranean regions in partnership with Rozak."

In March 2011, Russia's RMK Group and Turkey's Atakaş Group launched a new 2.5 million ton capacity steel mill in Dörtyol, in southern Turkey as a joint venture, and South Korea's Pohang Iron and Steel Company (Posco) began building a plant in Kocaeli province, in north west Anatolia, to produce flat, cold rolled, stainless steel.

## 2.3 TEXTILE AND APPAREL

The textile industry, combining cotton and synthetic yarns, fibers and fabrics, home textiles, ready-wear and apparel, continues to be the largest economic sector of Turkey, employing an estimated 2.5 million people and providing indirect jobs for 6.5 million others. The industry contributes to around 10% of the GNP.

The clothing industry until recent times was characterized by small, low-capital family-run operations, many of which were simple cut and paste operations with no original designs and products. The country has around 180,000 clothing producers. The country has around 2,000 textile manufacturers, which are large-scale, heavily mechanized operations, employing more than 150 persons each and having more than \$15 million in annual sales each.

About 60% of the nation's textile and clothing are exported.

Turkey is the world's sixth biggest ready wear and apparel manufacturer and the European Union's second largest supplier after China. Its textile industry is the world's tenth biggest and the European Union's number one supplier.

The nation controls a 4.3% share in the global export trade in clothing, a 6.4% share in foreign sales of apparel in the European Union, and a 1.7% of exports of apparel to the U.S, according to the Turkish Clothing Manufacturers' Association and the Center for the Promotion of Exports (İGEME).

## EXPORTS IN 2010

Turkey exported \$21.172 billion in clothing and textiles in 2010, a 12.5% increase from the 2009, the Turkish Exporters' Assembly (TIM) reported. Textile industry officials said that export recovery was robust due to the increased costs of textile products from China, Turkish main rival, and a revalued Chinese Yuan. But they warned that the recovery could slow down due to the overvalued Turkish Lira, rising oil prices and because of austerity measures introduced in the debt-ridden countries of the European Union and the U.S., Turkey main markets, raising fears of a global double dip recession. Turkey exported a record \$22.600 billion in clothing and textiles in 2007, up 15.5% from 2006.

Turkish companies were also aggressively seeking new markets in Africa and the Middle East, and the former Soviet Union as alternatives to the European Union and the U.S.

Along with leather products and carpets, total sector exports in 2010 reached \$23.732 billion, a 13.2% rise from 2009. Sector exports in 2008 stood at a record \$25.067 billion, up slightly from \$24.886 billion in 2007.

The government has, set a target for \$85 billion in annual textile sector exports for the country by 2023, the 100<sup>th</sup> anniversary of the republic

In 2010, Turkey's ready-wear and apparel exports climbed 10.7% to \$14.644 billion from \$13.297 billion in 2009. In 2010, exports of textile and raw materials (cotton yarn, gray cloth, fabrics, home textiles, synthetic fibers and yarns and fabrics, accessories, and non-woven and technical textiles) jumped 18.4% to \$6.528 billion from \$5.514 billion.

Exports of carpets rose 20.8% to \$1.286 billion from \$1.086 billion in 2009, while leather and leather products (footwear, leatherwear and accessories) sales abroad soared 19.5% to \$1.272 billion from \$1.064 billion in the same period of 2009.

Sector exports accounted for 20.9% of all Turkish exports in 2010.

Although the sector continues to be the biggest industry of Turkey in terms of employment, its shares in the country's exports have been declining steadily over the past eight years, down from about 36.1% in 2000, as Turkish producers of ready-wear and apparel have been losing their competitive edge. This has been due to a strong Turkish lira against the dollar and the Euro, and because low cost Chinese and Indian products have been inundating the European Union and the United States, Turkey's main export markets, since the lifting of global quotas against textiles at the start of 2005.

Ready-wear and apparel production has also been in sharp decline in Turkey over the past several years. This can be partly attributed to a large number of major apparel manufacturers having relocated their production units from Turkey to less costly countries, such as Egypt, to benefit from lower taxes and low cost energy offered by the hosts. Other Turkish clothing producers are beginning to turn to higher end products -- fashion and designers' clothing and apparel and technical textiles, based on nonwovens and nanotechnologies -- areas in which China with its large population is unwilling to invest.

**TURKEY'S TEXTILE, CLOTHING, LEATHER AND  
CARPET EXPORTS IN 2009 AND 2010**  
(In 1,000 U.S. Dollars)

Products	2009	2010	Change in % Over 2009
Ready wear and apparel	13,297,909	14,644,153	10.7
Textile and Raw Materials*	5,514,480	6,528,299	18.4
Leather and leather products	1,064,715	1,272,305	19.5
Carpets	1,086,205	1,286,389	20.8
<b>Total</b>	<b>20,963,349</b>	<b>23,732,144</b>	<b>13.2</b>

\*Textile and raw materials: cotton yarn, gray cloth, fabrics, home textiles, synthetic fibers and yarns and fabrics, accessories, and technical textiles.

Source: Turkish Exporters' Assembly (TİM)

## RESTRUCTURING

The industry is undergoing a major restructuring because of increased competition from low cost products from China in the European Union and the U.S., Turkey's principal markets for textiles. Particularly hard hit have been Turkish ready-wear manufacturers, who are seeing their profits decline and markets shrink. The strong Turkish Lira against the U.S. dollar and the euro and rising domestic labor and energy costs are also making many ready-wear producers uncompetitive.

Nevertheless, Turkey's vast clothing and apparel industry is changing its image from a mass producer of ready wear for manufacturers, fashion houses and department stores in western Europe and the United States to a creator and retailer of new designs, fashions and quality labels, turning out higher end and higher priced products for upper income families.

Scores of leading Turkish clothing manufacturers are beginning to open their own fashion stores in the country and building sales networks abroad, forming joint ventures with foreign distributors and acquiring retail chains to sell their own brands, and even buying popular Western labels.

Turkish clothing manufacturers say that they must create and market their own brands, produce higher value-added apparel abroad and focus more on technical textiles, to survive the Chinese and Indian onslaughts.

The industry is expected to lose 30% of its market share in the European Union (EU) as low cost products from China flood the market in wake of the lifting of EU quotas on all textiles from the Asian country, according to one study. *"The expected decline in the market share of Turkey in the EU's net textile and clothing imports will result in a net damage of \$2.5 billion. Such a loss accounts for 3.5% of Turkey's projected export figures,"* Özgür Altuğ, chief economist of Raymond James Securities, wrote in a report on the Turkish textile industry.

Altuğ also warned that Turkey could lose as much as 10% market share in its textiles (cotton yarn, fabrics, home textiles, synthetic fibers, yarns and fabrics) in the United States, a major market for textile products, as China and India raise their market share.

To preserve their foreign markets and find new ones, some 50 Turkish ready-wear manufacturers have invested in factories in the low labor cost countries of Tunisia, Bulgaria, Egypt, Uzbekistan, Jordan, Moldova, China, Russia, Pakistan, Sudan and the Czech Republic. Another 100 Turkish firms -- mainly ready-wear companies -- are planning to invest a total \$4 billion in a special industrial zone in Egypt. Turkey's ready-wear manufacturer Söktaş and the International Finance Corporation has invested \$80 million together in a shirt fabrics manufacturing plant in India.

The tumble in production was expected to continue in 2011 because the EU completely lifted all quotas on textile imports as of January 1, 2007, ending a 2.5-year limitation on 10 categories of Chinese textile exports to the world's biggest emporium, after the World Trade Organization lifted all global quotas on textiles in 2005.

**TURKEY'S 24 BIGGEST APPAREL AND TEXTILE MANUFACTURERS  
IN TERMS OF SALES IN 2010  
(In Million U.S. Dollars)**

Company	Net Sales From	
	Production	Products/Business Line
1 Tema Mağazacılık	1,361.7	Men's and women's apparel, retailing
2 Aksa Akrilik Kimya Sanayi	842.6	Acrylic fibers and tops
3 Sanko Tekstil İşletmeleri	509.8	Cotton yarn, mixed fabrics
4 Korteks Mensucat Sanayi	387.2	Synthetic fibers, yarn and curtains, and other home textiles
5 Özdilek Alışveriş Merkezi	374.2	Retailing, home textiles production.
6 Yeşim Tekstil San. ve Tic.	295.5	Ready-wear
7 Beyteks Tekstil Sanayi	280.1	Yarn and fabrics
8 Gaat Dış Ticaret	279.0	Apparel, home textiles
9 Gülsan Sentetik Dokuma	276.0	Polypropylene spunbond fabrics
10 Merinos Halı San. Ve Tic.	262.2	Machinemade carpets
11 Altınyıldız Mensucat ve Kon.	242.1	Fabrics and apparel
12 Koton Mağazacılık Tekstil San.	228.7	Apparel, retailing
13 Orta Anadolu Tic. ve San.	214.1	Cotton yarn, fabrics
14 Ozon Giyim Sanayi ve Tic	205.0	Apparel
15 Bossa Ticaret ve Sanayi Isl.	200.9	Denim and sportswear, shirts, technical textiles
16 Menderes Tekstil San ve Tic.	195.8	Home textiles
17 Aydınli Hazır Giyim	187.7	Ready-wear
18 Mavi Giyim Sanayi	178.5	Jeans

19	GAP Güneydoğu Tekstil San.	168.5	Fabrics and apparel
20	Mudo Satış Mağzaları	162.7	Leatherwear, retailing
21	OSD Deri Sanayicileri	160.5	Leatherwear
22	Hugo Boss Tekstil Sanayi	160.2	Ready-wear
22	Matesa Tekstil	158.2	Yarn and fabrics
23	Sarar Giyim	157.4	Apparel
24	Eroğlu Giyim Sanayi	136.8	Ready-wear

Source: Fortune Magazine Turkey

The categories include T-shirts, pullovers, blouses, all types of hosiery, men's trousers, women's overcoats, bras, flax, synthetic yarns and woven flax fabrics. All other categories were exempt from the limitations.

Turkish manufacturers also have to reduce costs, pool the resources of small family-owned companies by merging them into larger export conglomerates, invest more in research and technology, open more stores in the EU for direct and aggressive marketing, spend greater amounts of money to promote their products with more fashion shows and advertising in major international dailies, magazines and trade publications and television commercials to remain competitive, and establish a presence in the Japanese clothing market, the world's second biggest read-to-wear market.

**TOP 22 TURKISH CLOTHING AND TEXTILE EXPORTERS IN 2010**  
**(INCLUDES MANUFACTURERS AND FOREIGN TRADE COMPANIES)**  
**(In Million U.S. Dollars)**

Company	Total Exports	Category
1 GSD Dış Ticaret A.Ş.	958	Foreign trade company
2 Pergamon-Status	554	Foreign trade company
3 AK-PA Tekstil İhracat Pazarlama	339	Foreign trade company
4 Sanko Dış Ticaret	200	Foreign trade company
5 Yesim Tekstil Sanayi ve Ticaret	197	Manufacturer
6 DTS Denizli Tekstil Dış Ticaret	171	Foreign trade company
8 Hey Dış Ticaret	192	Foreign trade company
9 Menderes Tekstil San. ve Tic. A.Ş.	169	Manufacturer
10 Formark İleri Giyim Sanayi	168	Manufacturer
11 Sektör Dış Ticaret	160	Foreign trade company
12 Taha Pazarlama	153	Foreign trade company
13 DSD Deri Sanayicileri	114	Foreign trade company
14 Gülpa Pazarlama	79	Foreign trade company



15	Beypa Dış Ticaret	105	Foreign trade company
16	GAP Güneydoğu Tekstil	103	Manufacturer
17	Bossa	99	Manufacturer
18	Boyteks	99	Manufacturer
19	İpek Tekstil	99	Manufacturer
20	Cross Tekstil	96	Manufacturer
21	Erpa Hazır Giyim	95	Manufacturer
22	Merinos Halı	90	Carpet manufacturer

Source: Turkish Exporters Assembly (TIM)

## FOREIGN INVESTMENT AND OUTSOURCING

The conditions are ripe for foreign investment and partnerships in aspects of quality design and production, management, marketing and distribution. Co-production of European and Turkish firms is now a general fact.

Some 294 foreign-owned firms operate in the sector. Many western manufacturers, such as Hugo Boss and Levi Strauss have manufacturing operations in Turkey. Foreign department stores and hypermarkets, such as Marks and Spencer, JC Penny, and Sears have purchasing offices in Turkey or have agents that make purchase orders on behalf of them. Companies such as GAP, Next, and Nike also buy direct from Turkish producers for their (world-wide networks). The existence of these companies has to some extent protected Turkey from the progressive loss of competitiveness due to the over-valued Turkish Lira.

### THE TURKISH TEXTILE INDUSTRY

#### Strengths

- The nation's strong cotton production -- it is the world's seventh largest producer -- and proximity to European markets are the main strengths of the clothing and textile industries. Delivery times are two to three weeks, compared to two to three months in the Far East.
- The country is also close to rapidly developing markets as Russia and other former Soviet republics, the Middle East and North Africa.
- A further advantage for Turkey's manufacturers is that their production complies with internationally accepted ecological standards. The country's laws ban the use of carcinogenic azo dyes in clothing and fabric manufacturing, unlike some Far East and Asian manufacturers who still use these materials liberally.

- Other strong points of the industry are its skilled workforce -- combined with the adaptability and entrepreneurship of the Turkish people, the nation's telecommunications infrastructure and a liberal foreign exchange regime.
- Turkey is among the limited number of nations that have integrated and high capacity operations. These countries include Turkey, China, India and Egypt and are set to benefit most from the expanding global exports of textiles and apparel.
- Modern production equipment (albeit with overcapacity in some sectors).
- In 2006, 228 out of Turkey's 1,000 largest manufacturing companies were in the textile, apparel, and leather and carpet business. This is probably the single most important source of sustainable competitive advantage.

#### **Weaknesses**

- The main weakness of the textile and clothing industry has been that it has been losing its cheap labor cost advantage in recent years. Turkish wages are four or five times more than in China, India, Thailand and Indonesia.
- The industry also uses more expensive energy and financing than in Europe and the Americas.

Turkey has been producing garments and ready wear for a wide range of European and American fashion houses and clothing manufacturers and retailers from Versace to Benetton to Wal-Mart and Carrefour for the past two decades.

The country's demographics – 50% of Turkey's 73.711 million people are under the age 28 – and its closeness to heavily populated markets in Western and Eastern Europe, the Middle East, and Africa make it an excellent base for foreign investment.

## **CLOTHING EXPORTERS**

Clothing manufacturers such jeans producer Mavi, and women's wear manufacturer Öztekin are carving out markets in the United States and Western Europe for their products.

So popular have some Turkish brands become that U.S. pop recording star and actress Cher and former first daughter Chelsea Clinton dress from Mavi Jeans, former South African President Nelson Mandela wears Damat&Tweed suits, and former President George Bush always has a collection of Bisette silk shirts in his wardrobe. The White House also keeps a steady supply of Turkish-produced bathrobes and towels.

The top five foreign markets for Turkish exports are Germany, the USA, the Russia, the UK and France.

## BRANDING AND PROTECTION OF DESIGNS

Turkey's Brands Association, whose 124 members include top western European and Turkish garment and ready wear manufacturers, are cracking down hard on violators of original designs and working with similar associations abroad to protect Turkish labels in Europe, the U.S and the Far East. Infringement of designs and colors continues to be a major headache for the industry. Cheap, fake copies of La Coste shirts, Pierre Cardin ties and hosiery abound in the market.

### TURKEY'S MAIN TEXTILE EXPORTS ARE

- Cotton weaves including, cotton apparel and weaves.
- Woolen yarns and weaves.
- Silk and synthetic yarns, weaves and chord fabrics.
- Linen, hemp and jute, including sisal yarn and sisal weaves.
- Floor coverings, hand made and machine made carpets, tufting, felt and kilims.
- Knit wear
- Ready wear garments.
- Leatherwear and footwear.

## IMPORTS

Turkey also imports clothing and textiles -- mainly gray cloth, cotton yarn, fabrics, synthetic fibers and yarns. Most of its imported clothing comes from Italy, Spain, China, England, Germany, France, Bulgaria, India, Greece and the Netherlands. Most of its textile imports originate from the U.S., Italy, Germany, China, India, South Korea, Pakistan, Indonesia and Greece. Turkey imported 2.557 billion in textile and apparel in 2010, TÜİK reported.

The country is also a major importer of cotton. In 2010, it paid \$ 3.385 billion for cotton imports.

Turkey also imports chemical dyes. Turkey's clothing manufacturers are also hoping to be admitted to planned special industrial zones that will be able to sell products to the U.S. without any quotas and tariffs.

Textile imports were around \$10.179 billion in 2010, including cotton and synthetic fibers and leather products and accessories. Clothing imports increased rapidly between 1999 and 2005, with a CAGR of 25.4%, reaching \$2.562 billion in 2010. Around 70% of the total textile and apparel imports are textile materials like cotton, fibers, yarns and fabrics, and the rest are ready-made garments and articles.

## 2.4 JEWELRY

### DESPITE PROBLEMS, TURKEY EYES GOLD THRONE

Turkey has the world's third biggest jewelry market after India and the U.S., and is bent on dethroning Italy as global leader in gold jewelry fabrication. While Italy's output is shrinking, Turkey's production has been growing steadily over the last 17 years, after the government privatized gold importing, established a modern gold exchange and a gold refinery, and permitted gold banking and set up a derivatives market.

But Turkey's jewelry sector is facing increased labor costs and high taxation that could result in the shifting of production to lower cost countries in the east, warned Atasay Kamer, president of the İstanbul Precious Metals and Jewelry Exporters' Association (İMMİB) in an interview with the newspaper *Dünya* on January 9, 2008.

*"Labor costs are rising and this will lead to an important loss in the export market," said Kamer. "The special consumer tax (ÖTV) on diamonds, precious stones and semi-precious stones has been increased and this represents a major stumbling block for the jewelry sector."*

Nevertheless, industrialization of gold jewelry fabrication, development of original computer-aided designs, brands and trade marks have bolstered the sector, dominated by 10,000 goldsmiths, of which about 4,000 are located in and around İstanbul's 15<sup>th</sup> century Covered Bazaar, the traditional hub of Turkey's thriving jewelry trade. Some 750,000 people are employed in the sector, including 400,000 working at an estimated 100,000 jewelry shops around the country. Seven of Turkey's 1,000 largest manufacturing companies are gold jewelry fabricators, while two are gold mining companies, according to an İstanbul Chamber of Industry survey.

*"Following the liberalization of the gold market, the production quality increased in the first instance and later the imitation products were replaced by the works of our designers. In recent years, the act of following the jewelry trends abroad has begun to be replaced by activities to create and lead the fashion in the jewelry world," said Murat Akman, former general director of the World Gold Council's Turkish operations.*

Added Kürşad Tüzmen, former state minister responsible for foreign trade: *"Turkish gold will definitely sit on the throne of world leadership in the next decade. Turkey will have won its struggle at the top only when it manages to have Turkish gold identified with its own name from the first purchaser down to its final consumer."*

Seventy-three percent of Turkey's gold is used in jewelry production. The remaining goes for the making of coins, medallions, or is used in dentistry and in the electronics industry, or is reserved as gold bullion by the Central Bank of Turkey.

## FOREIGN TRADE

Turkey is the world's fifth biggest importer of gold, following Italy, India, Japan, Saudi Arabia. Russia, China and the U.S. are also big importers. In 2010, Turkey's gold imports increased 13% to 42.490 tons from 37.592 tons from 2009, as the world recession receded, the İstanbul Gold Exchange reported. But this was still far short of the 165.936 tons of gold imported in 2008. Selami Erten, director of TEB Gold and Precious Metal Banking, estimated that gold imports would reach 60 tons to 70 tons in 2011.

One reason why gold imports fell in 2009 was that hundreds of thousands of anxiety-ridden Turks, facing possible job losses and economic uncertainty during the height of the global recession, cashed their gold brooches, bracelets and rings, providing a huge supply of scrap to the jewelry industry, in a frenzy of profit-taking as gold prices soared. The selling of Turkey's gold hoard by households heightened to 150 tons in the first 11 months of 2009, experts said. Rising gold prices also dampened imports. A large part of this scrap gold is still sloshing around in the market, reducing the need for large supplies of imported gold.

Another reason why Turkish gold imports are still relatively low is that the country has become a producer with Turkish and foreign companies exploring for gold in sites in Anatolia that were once mined by ancient civilizations as the Lydians and the Hittites.

Turkish exports of precious metals and jewelry rose from a mere \$2.8 million in 1992 to \$1.060 billion in 2010 (with sales to visiting tourists about one-third that amount), the İstanbul Precious Metals and Exporters Association said. But exports fell 81% from \$5.8 billion in 2009 as the government in Russia, a major market for Turkish jewelry, clamped down on tourist traders bringing in gold jewelry, carpets and other supplies from Turkey.

### **TURKISH EXPORTS OF JEWELRY, PRECIOUS STONES, COINS, PEARLS 2005 - 2009 (In Billion U.S. Dollars)**

2005	1.3
2006	1.8
2007	2.6
2008	1.8
2009	5.8
2010	1.1

Source: Turkish Statistical Institute (TÜİK), Turkish Exporters' Assembly (TİM)

Nevertheless, gold jewelry remains Turkey's biggest export item after motor vehicles and components, apparel and textiles, iron and steel, household appliances, home electronics and chemical products.

## FUTURE PROSPECTS

Gold has been a traditional savings instrument in Turkey. Gold brooches, bracelets and coins and other jewelry are given to women during weddings as dowries, and Anatolian families hoard the precious metal as a hedge against inflation and as a precaution for bad times.

*“Gold has an indispensable place in the lives of Anatolian people,”* wrote former State Minister Tüzmen in an introduction to a directory on Turkish jewelry. *“Babies in Anatolia recognize gold as soon as they open their eyes to the world; they come across it all turning points in their lives; in gold, they find their last security and comfort. Gold, for Anatolian people, is the symbol of sharing on good days; on bad days, the power to hold on.”*

But as domestic demand grows with income levels increasing and inflation falling, Turks are regarding gold and jewelry more as fashion goods than as instruments for investment. With the number of tourists expected to double to 60 million by 2030 and an aggregate national income of around \$1 trillion by 2015, the Turkish jewelry sector offers major opportunities.

Local industry leaders now believe Turkey will soon become the world’s biggest gold jewelry production center.

Sedat Yalınkaya, general manager of **Goldaş Kuyumculuk**, Turkey’s biggest jewelry fabricator and exporter, has high aspirations: *“Between 50 and 60 people are employed in our product development department only, while the largest Italian firms employ some 25-30 in these departments. We will reap the benefits of this in the mid term. Previously we used to go to different countries for promoting our products, now they are coming to us.”* **Goldaş** aims to grow 20% to 25% every year.

### TURKISH GOLD IMPORTS 2004 - 2009

Year	Total in tons
2004	250.9
2005	269.5
2006	192.7
2007	230.8
2008	165.9
2009	37.6
2010	42.5

Source: İstanbul Gold Exchange

## **GOLD HOARDINGS**

Conservative estimates put gold jewelry, bullion and coins held by Turkish households at \$192 billion, equivalent to about 26.1% of Turkey's Gross Domestic Product (GDP) and 10% greater than the country's national budget for 2009. Gold hoardings by Turks, experts say, are about 5,000 tons to 6,000 tons, or about three percent to four percent of world gold stocks, according to the İstanbul Gold Exchange. Per capita gold hoardings by Turks in 2009 stood at around 70 grams, Osman Saraç, vice chairman of the İstanbul Gold Exchange, said.

An injection of that gold into the financial system would help Turkey clear about 68% of its \$282.3 billion foreign debt, of which \$178.7 billion is private sector debt, officials say.

## **GOLD MINING AND HISTORY**

According to present-day written and archaeological findings, gold has been produced in Anatolia since 3000 BC.

Two-thirds of the world's ancient gold mines were found in Anatolia and the Ionians, Lycians and Lydians used the metal for ornaments and coinage. The mined gold was the source of their political power and their riches.

Lydian King Croesus minted the first gold coins during his reign from 560 to 546 B.C. King Midas, whose legendary deadly touch turned everything into gold -- including his beloved daughter -- lived in western Anatolia.

Gold became accumulated in treasures such as that found by Schliemann at Troy -- lost in the confusion of World War Two Berlin and only rediscovered at a museum in Moscow in 1994 -- or the mysterious Dorak collection photographed and displayed in the Illustrated London News in 1967, and now missing.

In the Turkish Republic, there has only been silver mining production since 1987. The Ovacık (Bergama) gold mine started production in 2001, while the Manisa-Salihli-Sardis Mine began operations in 2002. The Ovacık mine has 24 tons of gold reserves. Manisa-Salihli-Sardis Mines, believed to be a source for the wealth of the Lydian Empire, has 10 tons of gold reserves.

Three other gold mines began operating after 2002. These are: Uşak Kışladağ Mine, Erzincan Iliç Mine and the Gümüşhane Mastra Mine.

Koza Madencilik of Turkey operates a gold mine in Ovacık, near the ancient ruins of Pergamum in western Turkey, and is prospecting in several other sites that it acquired from Australia's Normandy Group, and has begun producing gold, despite strong opposition from environmentalist groups because of its use of cyanide leaching in the process. Koza Madencilik went public in January 2010, drawing \$600 million from investors and becoming the first Turkish mining company to be listed on the İstanbul Stock Exchange.

In 2010, Turkey turned out 17 tons of gold, up from 1.4 tons in 2001, when the Republic first began gold production. Gold output is expected to double once new mines began operating, particularly in the Kaz Mountains (Mount Ida of Homeric times) in the northeast Aegean region.

The nation also produces around 500 kg of gold per year as a side product of its annual production of copper wire and rods, according to an IBS Research and Consultancy report prepared for Türkiye Ekonomi Bankası (TEB).

The Energy and Natural Resources Ministry granted several foreign companies in the early 1990s licenses to mine for gold in Turkey. Some nine companies, including those working at Ovacık and Manisa-Salihli-Sardis, are in various stages of carrying out gold mining in Turkey, including work on feasibility and environmental impact studies since 2002.

Turkey's has some 267 gold deposits, and known and recoverable gold reserves stood at about 6,500 tons at the end of 2002. It is estimated that 13 of these deposits could contain above 150 tons of gold, 40 between 30 and 150 tons and 214 less than 30 tons.

The world's total processable gold reserves are 42,500 tons and about 65% of this is in the U.S., Canada, Australia and South Africa, the four countries where 53% of global gold production takes place.

**TURKISH GOLD PRODUCTION 2001 - 2010**  
(In Tons)

Year	Amount
2001	1.4
2002	4.3
2003	5.4
2004	5.0
2005	5.0
2006	8.0
2007	10.0
2008	11.0
2009	14.5
2010	17.0

Source: Turkish Gold Miners Association



## **2.5 MARBLE, CERAMICS & SANITARY PRODUCTS AND GLASSWARE**

### **MARBLE**

Turkey is one of the world's oldest and biggest producers of marble.

The natural stone has been produced in Anatolia for 4,000 years with mining having started on Marmara Island, from which it is believed marble (*mermer* in Turkish) got its name. Most of the cities of the ancient land were constructed from marble, including Ephesus, Pergamum, Miletus, Perge, Side and Aphrodisias. Important buildings in western Anatolia constructed using marble included the Temple of Artemis, and the Mausoleum of Halicarnassus, two of the Seven Wonders of the Ancient World. Byzantine emperors and Ottoman sultans made wide use the natural stone in the building of İstanbul. The 6<sup>th</sup> century Hagia Sophia, one of the greatest achievements in Christian religious architecture, and the 17<sup>th</sup> Century Blue Mosque, a masterpiece of Islamic art, were constructed from marble and are still standing with all of their splendor and magnificence, having survived many devastating earthquakes, destructive fires and violent political upheavals.

The nation has the world's largest marble reserves with 13.9 billion tons (5.2 billion cubic meters), controlling one-third of global reserves, according to the Undersecretariat of Foreign Trade. In 2009, some 2.715 million cubic meters of marble and 15.322 million tons of other natural stones were mined in Turkey, the seventh biggest producer and eighth largest exporter of the natural stone in the world.

Turkey's exports of marble and other natural stones (travertine, granite, limestone, dolomite, andesite, and onyx) stood at 6,640,908 tons worth \$1.568 billion in 2010, up 28.3% from \$1.222 billion in 2009, accounting for 42.9% of the country's mineral and ore exports, the General Directorate of Mining reported.

The U.S. is the second biggest importer of processed Turkish marble and natural stones after China. In 2010, it imported processed marble and natural stones worth \$218.3 million, or 13.9% of all of Turkey's marble and natural stone exports.

More than 1,500 marble quarries, 1,500 marble processing plants and 7,500 workshops exist in the country, employing 250.000 persons.

### **CERAMICS & SANITARY PRODUCTS**

The ceramics industry is one of Turkey's most competitive sectors.

The industry expanded its output three-fold during the 1990s and the early 2000s, as a result of investments in technology, research and development and gigantic increases in capacity. Turkey

today is the world's sixth biggest producer of ceramic tiles and the third in terms of exports. The nation is also Europe's biggest producer of sanitary ware.

Turkey produces floor and wall tiles, porcelain, and ceramic bathroom sinks, water closets, bathtubs, bidets and accessories. One-third of Turkish production is exported.

Turkish ceramic exports totaled \$644,706 million in 2010, a 21.7% increase from 2009, according to the Turkish Statistical Institute (TUIK). Turkish ceramic tile exports go to 113 countries, while its sanitary ware products are sold in 95 nations.

**EXPORTS OF THE CERAMIC INDUSTRY 2008 - 2010**  
(In Million U.S. Dollars)

	2008	2009	2010
Ceramic Tiles	517,116	390,849	487,798
Ceramic Sanitary Ware	176,516	139,036	156,908
Total Ceramic Exports	693,632	529,885	644,706

*Source:* Undersecretariat of Foreign Trade

Discovery of pottery shards in Alacahöyük, a Hittite settlement east of Ankara, attests that the craft of ceramic-making existed in Anatolia as early as the ninth millennium BC. Decorative arts in the life of the Turks date back to the 1st century BC. Inheriting a rich tradition, Turkish ceramic producers have combined the multicultural and multi-colored historical riches of Anatolia with modern designs.

The Turkish ceramics industry employs an estimated 220,000 people.

Seven producers -- Kale Group, Söğüt, Toprak, Seramiksan, Graniser, Eczacıbaşı, Yurtbay and Tamsa -- control about 60% of production capacity in ceramic tiles. There are 26 large and mid-size firms producing ceramic tiles and 40 firms manufacturing sanitary ware in Turkey.

In sanitary ware, Eczacıbaşı has the largest production capacity in the world with 6.2 million units and, at the same time, the largest capacity available under one roof. Another major global producer is Serel Seramik. The nation's produces around 17 million items annually, according to the Turkish Ceramics Federation, a trade group.

The top seven companies control 67% of productive capacity in the ceramics sanitary ware sub-sector.

The industry's only weakness appears to be energy costs, which are roughly 60% more in Turkey than in Europe, although many companies have now installed low-cost natural gas-fired power plants (auto producers) to turn out electricity and steam for their manufacturing operations.

By the end of 2010, Turkey had a 407.375 million-square meter ceramic tile production capacity, as a result of new investments and capacity increases, the Turkish Ceramics Federation reported.

**ANNUAL PRODUCTION CAPACITIES CERAMIC WALL AND  
FLOOR TILE PRODUCERS IN TURKEY IN 2010**

<b>Company</b>	<b>Capacity in Square Meters</b>
Kaleseramik	72,000,000
Söğüt	35,000,000
Toprak*	28,000,000
Ege	24,500,000
Seramiksın	23,000,000
Graniser	21,500,000
Eczacıbaşı	21,000,000
Yurtbay	20,700,000
Tamsa	20,500,000
Termal	19,000,000
Kütahya	17,700,000
Hitit	15,500,000
Ercan	12,500,000
Uşak	12,400,000
Umpaş	10,500,000
Seranit	8,000,000
Ankara Seramik	8,000,000
HA&NA**	7,500,000
Yüksel	6,200,000
Anatolia	6,100,000
Akgün Seramik	5,775,000
Efes	4,000,000
Pera	3,000,000
Bozhöyük	1,800,000
Altın Çini	1,700,000
Granist	1,500,000
<b>Total</b>	<b>407,375,000</b>

\* Operates two separate plants

\*\*Owned by Tamsa

Source: Turkish Ceramics Federation

A thriving housing and real estate market in Turkey has driven enormous increases in production, particularly for wall and floor coverings and sanitary ware.

The country's biggest ceramics manufacturer is the Kaleseramik, which has an annual 72 million-square meter ceramic tile production capacity. Turkish production in ceramic tiles in 2010 was around 260 million square meters while production in sanitary ware was 230,000 tons.

## GLASSWARE

The glass industry is one of the most important and highly developed sectors in Turkey. Historically, glass production dates back to the Seljuk Period. Turkish handmade glassware has a good reputation abroad and best reflects Turkish art. The number of glass products reaches thousands of items including handmade and machine made products.

Production in 2009 totaled 582,794 tons, including 334,855 tons of industrial glassware and 175,970 tons of home glassware and 71,969 tons of fibre glass, the Turkish Statistical Institute (TÜİK) reported. The country also produced 14.961 million square meters of security glass. Turkey's glass and glass products exports in 2010, totaled \$903.5 million, while imports stood at \$616.5 million, TÜİK announced.

The Şişecam Group, a conglomerate with a wide range of product groups, accounts for over 90% of the total glass production and exports and over 75% of total demand in Turkey. A number of smaller glassware producers operate in the sector. These include Güral Cam and Koncam. Şişecam is the world's eighth biggest and Europe's fifth largest producer of flat glass used for window panes.

The production technology used by Şişecam is at a par with its competitors in Europe and the US. The company transferred technology from well-known companies including Japanese glassware producer Ishisuka and German glassware producer Schott during the establishment of its Kırklareli and Eskişehir factories. Currently it is developing its own proprietary technologies used only in its factories. In recent years, Şişecam has started to establish factories abroad with its own technology, including a glassware factory in Russia and two bottle factories in Georgia, Ukraine and some other countries.

Şişecam is also one of Turkey's leading investors abroad with factories in Russia, Ukraine and investments in Bulgaria. It has already poured \$450 million into seven factories in Russia, where it is the leading producer of flat glass, has a 20% market share for beverage bottles and employs 2,800 persons. The group, said Şişecam's Chief Executive Officer Ahmet Kirman in an interview with the newspaper Dünya, plans to bolster investments in Russia to \$1 billion and hire 1,700 more persons by the end of 2014, in a bid to become a regional glass manufacturing giant. He said the group planned to invest around \$900 million in 2011 alone, and was looking to acquire glass producers in a number of countries, including China.

*"Russia is an important place in our efforts to become a regional power and we will use this until the end,"* Kirman said.

Şişecam acquired a packaging plant in Ukraine and is also investing in a flat glass factory in Egypt with French glass maker Saint Gobain.

The company accounts for 69% of domestic demand, 18% of European demand and 6.8% of the world demand for glassware.

Glassware is the most important item in Turkish glass exports with a 48% share. Exports have been on the increase over the years; with number of destination countries expanding continuously. The glass industry overall is exporting to 180 countries. The U.S. is the third largest market for the Turkish glassware. Germany and the U.K come immediately before the U.S. Glassware imports were mainly from China (28%), followed by France (15%) and then from India and Italy.

## III. INVESTMENT OPPORTUNITIES IN TURKEY

### 3.1 FINANCIAL SERVICES

#### BANKING

As of April 15, 2011, some 44 banks operated in Turkey, down from 81 at the end of 1999, as a result of a consolidation in the banking sector. Four small Islamic-style participation banks that are subject to the same cash and reserve requirements as other banks also exist in the system.

The country has 31 commercial banks of which three -- T.C. Ziraat Bankası, Halkbank and Vakıfbank -- are state-owned, 11 are privately owned deposit banks, 16 are foreign banks, and one is controlled by the Savings Deposits Insurance Fund (TMSF), a state banking receivership fund. Turkey also has 13 development and investment banks of which three are state-owned, six are privately owned and four are foreign-owned.

NUMBER OF BANKS IN THE FINANCIAL SYSTEM

	1999 4Q	2000 4Q	2001 4Q	2002 4Q	2011 1Q
<b>Commercial Banks</b>	62	61	46	40	31
State-owned	4	4	3	3	3
Privately-owned	31	28	22	20	11
Banks in Receivership Fund	8	11	6	2	1
Foreign banks	19	18	15	15	16
<b>Development and Investment Banks</b>	19	18	15	14	13
State-owned	3	3	3	3	3
Privately-owned	13	12	9	8	6
Foreign banks	3	3	3	3	4
<b>Sector</b>	<b>81</b>	<b>79</b>	<b>61</b>	<b>54</b>	<b>44</b>

\*Excludes participation banks.

Source: Banks' Association of Turkey

The total assets of the Turkish financial system as of the end of 2010 stood at \$847.8 billion, according to the Banking Regulation and Supervision Agency (BDDK), Turkey's supreme banking authority.

Yet the Turkish financial system remains tiny compared to those of the U.S. and member countries of the European Union. The total assets of the Turkish financial system at the end of 2010 were equivalent to around 22.3% of that of the Royal Bank of Scotland, the world's biggest bank.

The country's banking system has grown 5.1-fold since the end of 2002, when total bank assets stood at a mere \$126.7 billion, to \$650.5 billion in 2010. Growth has run parallel with the robust performance of the Turkish economy, strength of the Turkish Lira, record foreign investment into the banking system, and abundance of global liquidity, as the nation rebounded from the 2001 crisis -- the worst recession the country experienced since World War II.

Turkey's economy went into a tailspin in the fourth quarter of 2008, as the global recession triggered by the U.S. mortgage morass, rammed into the nation, but its highly regulated banking system remained resilient, largely unaffected by the turmoil in financial markets. The country began coming out of slump in the fourth quarter of 2009.

In 2010, Turkey's banks posted a record net income of \$14.168 billion, up from \$13.852 billion in 2009.

Bank deposits stood at \$398.603 billion in 2010, up from \$344 billion at the end of 2009. Loans totaled \$339.732 billion, up from \$262 billion at the end of 2008, the BDDK reported. Some 3.6% of all loans were non-performing, compared to 5.3% at the end of 2009. The Capital Adequacy Ratio (CAR) of the Turkish banking system stood at a healthy 18.9%.

**GROWTH IN TURKISH BANKING 2006 - 2010**  
(In Billion U.S. Dollars)

	2006	2007	2008	2009	2010
Assets	347	498	524	522	650
Credits	164	224	243	262	344
Deposits	211	305	301	344	398
Net Income	8	13	8	13	14
# of banks	46	46	45	45	44
# of branches	6,849	7,618	8,790	9,581	10,066
# of employees	143,168	158,559	171,598	184,216	191,180
CAR*	ua	ua	18	20.6	18.9

\* Capital Adequacy Ratio

Source: Banks Association of Turkey (TBB), Banking Supervision and Regulation Agency (BDDK)

## ASSETS OF THE TURKISH FINANCIAL SYSTEM IN 2007 - 2010

Financial Groups	Total Assets in Billion U.S. Dollars				% of the Financial System in 2010
	2007	2008	2009	2010	
Central Bank of Turkey	*	75.0	73.3	82.9	9.9
Banks**	587.7	484.0	521.9	650.5	77.3
Leasing Companies	11.7	11.4	9.7	10.2	1.2
Factoring Companies	6.3	5.2	6.9	9.4	1.1
Consumer Finance Companies	3.3	3.1	3.0	3.9	0.5
Asset Management Companies	ua	ua	0.3	0.5	0.1
Insurance Companies	17.5	17.5	20.4	20.0	2.4
Private Retirement Insurance Companies	8.5	8.1	9.9	11.5	1.4
Retirement Investment Fund Companies	ua	ua	ua	7.6	0.9
Brokerage Houses	3.3	2.8	3.3	5.2	0.6
Investment Trust Companies	0.6	0.4	0.5	0.5	0.1
Mutual Funds Operators	22.6	15.9	19.9	13.2	2.3
Real Estate Investment Trust Companies	3.3	2.8	2.9	3.3	0.4
Venture Capital Companies	ua	0.1	0.1	0.1	0.0
Asset Management Companies	ua	ua	ua	29.0	3.4
<b>Total</b>	<b>405.4</b>	<b>664.8</b>	<b>618.9</b>	<b>847.8</b>	<b>100.0</b>

\* Figures for the Central Bank of Turkey for 2007 are included in the results of the Banks.

\*\* Includes Participation banks

ua: unavailable

Source: Banking Regulation and Supervision Agency (BDDK), Economist Magazine

In terms of assets, the largest Turkish banks are state-owned T.C Ziraat Bankası and Türkiye Garanti Bankası, the country's biggest private bank. Other big top tier banks include the privately-owned Türkiye İş Bankası (İşbank), Akbank, Yapı ve Kredi Bankası, and state-owned Vakıfbank and Halkbank.

Akbank is owned by Turkey's Sabancı Holding, the nation's third biggest conglomerate, and Citibank. Turkey's Doğuş Holding, Spain's Banco Bilbao Vizcaya Argentaria S.A. (BBVA) and General Electric GE Finance of the U.S. own Garanti Bankası. Yapı ve Kredi Bankası is 57.4% owned by a Koç Financial Services, a joint venture of Turkey's Koç Holding and Italy's UniCredito Group.



The Turkish banking system remained relatively immune to the global financial crisis, despite increased liquidity shortages and rising non-performing loans, because of its solid capitalization, lack of toxic assets, and the presence of regulatory body that tightly monitors the nation's banks.

The Banking Regulation and Supervision Agency (BDDK), Turkey's supreme banking authority, established after the economic crisis of 2001, ensures that high capital adequacy ratios and good corporate governance is maintained throughout the country's banking system.

*"Our banking system continues to bewilder financiers around the world and is being seen as a model for the future global financial market,"* Tolga Egemen, executive vice president of Türkiye Garanti Bankası, a large private commercial bank, said in an interview with the Banker Magazine.

Free of the kinds of toxic assets that rocked and toppled some of the world's biggest banks, the Turkish banking system has kept a capital adequacy ratio of 18.9% at the end of 2010, more than twice as high as international requirements.

Bank executives said that world financial markets today are facing the kinds of problems that Turkey's banking system encountered in 2001 and solved.

Turkey created a strong and resilient banking system in wake of the crisis in the economy in 2001, the worst experienced in the country since World War II. Wayward banks were eliminated. Turkish banking authorities took over, merged, privatized or shut down more than 20 financially tottering banks. Another dozen banks were merged with bigger affiliates. The Central Bank was made independent and the BDDK was established to regulate the banking sector.

Scores of bank executives of collapsed banks were imprisoned on charges of fraud in causing huge losses to depositors and investors, for lending beyond legal limits to affiliate companies, and transferring funds to shady offshore financial institutions.

The BDDK raised the minimum capital adequacy ratios of Turkish banks during the bull market of the 2003-2007 to 12%, while international accords required only 8 percent.

*"The banking authority squeezed us in good times, not in bad times,"* Egemen said.

The watchful eye of the BDDK has also kept Turkish bankers on their toes about moral hazards when lending funds and buying securities.

*"We have high standards of corporate governance in the Turkish banking system, and solid risk management practices,"* Ömer Aras, chairman and group chief executive officer of Finansbank, a Turkish bank owned by the National Bank of Greece, said. *"I can say that Turkish bankers are more prudent toward risks than their Western counterparts."*

## TOP BANKS OF TURKEY IN TERM OF ASSETS AS OF DECEMBER 31, 2010

Name of Bank	Total assets (In million dollars)	Number of domestic branches*	Number of employees*	Year when founded
1 T.C. Ziraat Bankası A.Ş.	97,545	1,399	22,708	1863
2 Türkiye Garanti Bankası A.Ş.	88,501	876	16,627	1946
3 Türkiye İş Bankası A.Ş.	85,142	1,147	23,934	1924
4 Akbank T.A.Ş.	77,510	913	15,339	1947
5 Türkiye Vakıflar Bankası T.A.O.	47,779	648	11,077	1954
6 Türkiye Halk Bankası A.Ş.	46,829	734	13,450	1938
7 Yapı ve Kredi Bankası A.Ş.	45,413	868	14,411	1944
8 Finansbank A.Ş.	24,612	504	11,734	1987
9 Denizbank A.Ş.	21,869	450	7,789	1997
10 Türkiye Ekonomi Bankası (TEB)**	20,801	599	5,871	1927
11 HSBC Bank A.Ş.	11,716	336	6,430	1990
12 ING Bank A.Ş.	11,065	322	5,865	1984
13 Şekerbank T.A.Ş.	7,364	266	3,485	1953
14 İller Bankası	6,509	19	3,042	1933
15 T. Sınai Kalkınma Bankası	5,103	4	347	1950
16 Citibank A.Ş.	4,000	37	2,116	1980
17 Turk Eximbank	3,905	2	360	1987
18 Alternatifbank	2,781	56	1,086	1991
19 Eurobank Tekfen	2,681	57	743	2001
20 Anadolubank A.Ş.	2,604	86	1,834	1996
21 Deutsche Bank Turkey	2,359	1	90	1987
22 T. Kalkınma Bankası	1,953	1	712	1975
23 The Royal Bank of Scotland (Turkey)	1,950	3	129	1921
24 Tekstil Bankası A.Ş.	1,662	44	903	1986
25 Bank Pozitif	1,050	2	288	2002
26 Turkland Bank	770	27	510	1985
27 Turkish Bank	665	21	273	1991
28 Arab Turkish Bank	651	6	255	1977
29 Fibabanka	650	18	292	2003

\* As of April 10, 2011

\*\* Results for TEB after merger on March 22, 2011, with Fortis Bank A.Ş.

Source: Banks Association of Turkey, Banking Regulation and Supervision Agency (BDDK)

But much of the profits of Turkish banks in 2009 stemmed from their acquisition of average two-year government bonds at 25% interest in 2007 – the benchmark bond interest rate is now fluctuating around seven percent. The differences in interest rates resulted in huge one-time profit taking for the banks in 2009.

But Turkish banks have been criticized of leaning excessively on high-yield government bonds during the economic crisis for leverage, as they did during the double and triple-digit inflationary 1980s and 1990s – a charge that has been dismissed by leading bankers.

*“If the Turkish banking system is pulling through the present economic crisis with ease, the banks have been managing their risks well. The banks should be congratulated, not criticized,”* Ziya Akkurt, general manager of Akbank, a large bank, reported. *“Acquiring government bonds also posed considerable risks for Turkish banks,”* he noted.

Shored up with an influx of foreign investment, the Turkish banking system has strengthened its capital base, become more stream-lined and flexible, and its asset quality has improved. Turkey’s banks are less hurt from turbulence in international financial markets, such as the U.S. mortgage crisis, than before, bankers said.

## CONSUMER BANKING GROWS

During the heady growth years from 2002 to 2010, Turkish banks focused on the domestic market, opening new branches, hiring new staff and expanding in consumer finance, mortgages and lending to small and mid-size companies, previously untouched areas of business. The banks didn’t acquire any collateralized debt obligations (CDOs) -- debt packages containing American junk bonds, loans or mortgages -- the main source for global economic meltdown, bankers said.

*“There was no profit pressure on Turkish banks as there was among American and European banks,”* Zafer Kurtul, chief executive officer of Sabancı Holding and former chief executive officer of Akbank, reminisced. *“The huge untapped domestic market was our prime target.”*

The number of bank branches in Turkey expanded from 6,106 in 2002 to 10,066 by the end of 2010, and the number of employees in the banking sector grew from 123,271 in 2002 to 191,180 in 2010, the Banks Association of Turkey reported.

In 2010, consumer loans, including credit card expenditures, stood at around \$112.552 billion, or around 33% of the \$344 billion in total loans. Consumer loans are bank credits for the purchases of consumer needs, such as household appliances, automobiles, educational and travel loans for family members and housing credits. About one-third of all consumer loans in 2010 were housing/mortgage loans.

In 2005, consumer loans stood at only \$16.5 billion, accounting for only 16% of all bank loans. Bankers predict that consumer loans will eventually increase to 50% of all bank loans in the next five to ten years.

### TOTAL BRANCHES AND EMPLOYEES IN THE TURKISH BANKING SYSTEM 1995 - 2010

Year	Total Branches	Total Employees
1995	6,244	144,793
1996	6,422	148,153
1997	6,819	154,864
1998	7,370	166,492
1999	7,691	173,988
2000	7,837	170,401
2001	6,900	137,495
2002	6,106	123,271
2003	5,966	123,249
2004	6,106	127,163
2005	6,164	131,012
2006	6,849	143,168
2007	7,618	158,559
2008	8,790	171,598
2009	9,581	184,216
2010	10,066	191,180

Source: Banks' Association of Turkey

In addition to direct consumer loans, credit and debit card usage is on the rise. Turkey has been one of the fastest growing markets for credit card and debit card usage. Credit cards were first introduced into the Turkish market in the 1960s. But credit card usage didn't catch fire until the 1990s.

By the end of 2010, Turkey's banks had issued a total 46,956,124 credit cards and 69,916,462 debit cards. This made Turkey the third biggest credit card market in Europe, after Germany and England, and ranked it tenth in the world, according to the Interbank Card Center (BKM).

Fully 80% of these cards can be used internationally, and many are denominated in foreign exchange.

The Interbank Card Center (BKM) in İstanbul processes Visa, MasterCard and debit card transactions for member banks.

The number of Automated Teller Machines (ATMs) has ballooned to 27,649 at the end of 2010 from 4,656 ATMs in 1995. Banks operate proprietary networks, but some 26 in 2009 developed network sharing, despite rivalries and different interest rates applied. Major American and Eu-

ropean networks have reciprocal arrangements with Turkey's banks. ATM cards are an accepted part of the Turkish consumer economy.

### STATISTICS ABOUT ON PLASTICS CARDS IN TURKEY

As of December 31, 2010

Number of credit cards issued	46,956,124
Number of debit cards issued	69,916,464
Number of POS machines	1,823,520
Number of ATMs	27,649

Source: Interbank Card Center

Some banks have developed their ATM programs so that cardholders can use them to give, sell or buy orders on the İstanbul Stock Exchange, to obtain gold prices, stock exchange indices and foreign exchange rates, and to buy and sell travelers checks and mutual fund certificates.

The growth of Points-of-Sale (POS) terminals has been heady in the past 15 years. The number of POS terminals grew to 1,823,250 on December 31, 2010 from 299,950 in 2000 and only 25,000 in 1995, the Interbank Card Center reported. The advanced nature of cash management common in the Turkish economy makes debit and credit cards attractive to Turkish consumers. Consumers use POS terminals at retail stores to debit purchases from their current accounts. An estimated 100,000 new POS terminals are added to Turkey each year, growing at an eight percent rate, bankers said.

Consumer banking in Turkey developed rapidly in the early 1990s as credit cards, consumer loans and automatic teller machines (ATMs) began to multiply. Banks are now placing increased emphasis on services, with individual and retail banking becoming the most rapidly developing sectors of the financial system.

The change follows an increasing awareness by Turkish consumers of the financial products that they can expect from a developed banking system. It also reflects the heightened competition between Turkish banks as they seek to develop and market services attuned to their clients' needs. Several developments are expected to enhance the scope and sophistication of consumer financial services in Turkey in the late 1990s.

Citibank, which has serviced corporate customers in Turkey since 1981, entered the consumer banking market in early 1996, opening a consumer branch in İstanbul and establishing an operations center for phone banking and credit card marketing. The bank plans to add branches in other Turkish cities. Turkish bankers believe that Citibank's high service level and range of financial products force innovations in the Turkish market. Citibank even sponsored a cinema house - the first in the world - in İstanbul's Capitol Shopping Center, where it operated an ATM.

The debut of consumer finance companies in 1995 injected fresh competition into the market. Koç Finans, a household finance company affiliated with Koç Holding, Turkey's largest industrial and trade empire, began financing consumer purchases of goods produced by the conglomerate, chiefly automobiles and home appliances. There are now several companies competing in the consumer credit arena, including HSBC Bank's Benkar.

Most loans were for motor vehicles with durable consumer goods a distant second. The finance companies decided in July 1998 to begin an association much like the Banks Association to promote their industry.

Türkiye İş Bankası, one of Turkey's leading private commercial bank, aims to double the share of revenues of consumer banking in the bank's business from about 25% in 2008 to 50% by 2015, senior bank officials said.

"Our aim is to raise the share of the bank's revenues from consumer banking every year," a senior executive of İş Bankası, declared. "In Iceland, 80% of the population uses credit cards. Turkey is rapidly developing in this field. We have a huge market in front of us and we want to benefit from this."

## **INTERACTIVE PHONE AND INTERNET BANKING**

Interactive phone banking and internet banking are relatively new products in Turkey, but giant strides are being made because of developments in information technology and telecommunications. Most banks are pouring vast amounts of money into both areas to improve their operational efficiency, reduce work loads at undermanned branches, create alternative distribution channels and slash costs in an inflation-free environment.

"While reducing operational costs, Internet banking is increasing customer satisfaction," Fuat Erbil, deputy general manager of Garanti Bankası. "A bank transaction that takes place at a branch office costs \$3. Each banking transaction on the Internet costs between 25 cents and 30 cents."

Added the general manager of a leading Turkish bank: "Our aim is to bring the bank to the home and office, and not force people to come to the bank for business,"

Many commercial banks are investing in internet banking, with the view that ownership of personal computers (PCs) and Internet users are rapidly rise in Turkey, especially among middle-income families. Some 26 Turkish banks had 13.362 million Internet banking service customers, as of the end of 2009, a nearly 13-fold increase from March 2002, when the country had just over 1 million internet banking service users, the Banks Association of Turkey reported.

Of the total internet banking service customers at the end of 2009, some 11.060 million were individuals, while 1.402 million were corporations. Some 5.940 million users, or 44.5%, were active, having logged in at least once in the last three months of 2009.

A group of Turkish banks formed a company to establish Turkey's first consumer credit information center, Interbank Card Center. Credit information is available to any licensed financial institution in the country, including insurance, leasing and factoring firms.

The center has helped solve a major problem hampering the growth of consumer financial services in Turkey: the lack of a common source of reliable information about the credit risk of individual consumers.

The introduction of third generation 3G technology to mobile communications is also helping the spread the use of telephone banking, as individuals with mobile phones can now carry out all banking transactions from outdoors.

## **OUTSOURCING AND CALL CENTERS**

The growth of the credit card market and wider use of ATMs in the Turkish banking system, the boom in consumer loans and the entry of foreign investment into the Turkish banking sector is fueling demand for outsourcing and call center services, bankers say.

The market size for outsourcing of information technology and telecommunications services and call center operations in Turkey was \$694.8 million in 2009, and is growing at a fast pace, according to Interpromedya, Turkey's number one research organization on information and communication technology (ICT).

"Outsourcing service revenues are progressing with secure steps," Interpromedya said in a study of Turkey's top ICT companies. "Companies are showing more and more interest in outsourcing services to reduce costs and increase productivity."

Interpromedya said that 58 companies were providing a wide range of outsourcing services, including the operating of call centers for customers, providing billing services, printing of plastic payment cards and running of credit card and ATM operations. Only five of these companies do significant business in banking and financial services. Outsourcing for the banking and financial sector is believed to be only a small fraction of the total market.

Only midsize and small Turkish banks are using outsourcing services in credit card and ATM operations to cut down costs. Major Turkish banks, state banks included, have set up their own separate companies and centers to run credit card and automated teller machine (ATM) operations, and have established their own call centers. These banks jealously guard their own credit card and customer information and, it appears, they don't want to share this information with one another or with third parties, except for reporting cases of non-performing consumer loans and bad debts.

Yapı ve Kredi Bankası established a large banking operations center outside İstanbul as early as in 1998 to run its credit card and ATM operations. Denizbank and Garanti Bank have established separate technology companies to operate their credit card and ATM services. State-owned T.C

Ziraat Bankası, Ziraat Bank Bosnia and Halkbank share card operations through a joint venture operation set up in İstanbul. Finansbank has established three operational centers, including one in Erzurum, in eastern Turkey.

As consumer banking becomes the main business line of the country's biggest banks, many will have to review their costly credit card and ATM operations, and may opt for outsourcing of these services to cut down overhead costs, bankers said.

*"If new large, trustworthy, financially strong companies with proven track records of carrying out large-scale outsourcing emerge even the bigger banks will begin outsourcing their services,"* the director of the credit card and alternative payments channels of a major bank said in an interview.

First Data Corp, the world's largest provider of merchant processing services, opened offices in İstanbul in October 2007.

David Yates, chairman of Greenwood Village, Colorado-based corporation, in a news conference in İstanbul in October said: *"The banks in Turkey that issue credit cars and debit cards are among the world's leading institutions advocating change. We want to work with these institutions and to expand the market for card usage."*

#### TOP 15 INFORMATON AND COMMUNICATION TECHNOLOGY COMPANIES IN TERMS OF OUTSOURCING AND CALL CENTER SERVICES' REVENUES IN 2009

Rank	Company	Revenues in Million U.S. Dollars
1	Multinet	257.140
2	Global Bilgi Pazarlama	163.498
3	Bilesim Alternatif Dağıtım	38.804
4	CMC	30.914
5	Koc Sistem	30.774
6	Xerox	16.215
7	Simtec	13.683
8	Metiş	13.280
9	Anadolu Bilisim Hizmetleri	11.986
10	Interbank Card Center	11.467
11	Fintek	10.975
12	Vodatech	7.066
13	Bilgitaş Teknik Servis	7.020
14	Hobim Bilgi İşlem	6.459
15	Unite Bilgi Teknolojileri	4.632

Source: Interpromedya



## FOREIGN BANKS JOIN IN THE MAD RUSH

Foreign banks joined the stampede into the consumer banking bonanza by acquiring Turkish banks or shares in Turkish banks after the 2001 crisis and now control about 42 percent of banking assets in Turkey.

Foreign financial institutions are playing a pivotal role in Turkey's banking system in bringing in an infusion of much-needed capital, introducing new products and efficiency and healthy competition into the market. Foreign banks began entering the Turkish commercial banking sector in the early 1980s. Operating out of one or two branches, they came to dominate Turkey's foreign trade and exchange markets with their expertise and lower overhead costs, capturing market share from overmanned, undercapitalized, big Turkish commercial banks.

Turkish banks responded by introducing automated systems and offering almost every foreign trade or exchange product and banking service available.

Acquisitions of Turkish banking assets by foreign institutions in Turkey in the 2000s were:

HSBC Banking Corp. in 2001 acquired Demirbank, Turkey's 10<sup>th</sup> largest bank, from a state banking receivership fund for \$350 million and named it HSBC Bank.

Portugal's Millennium Bank acquired the small Sitebank from the Savings Deposits Insurance Fund for \$35 million in fall 2001 and renamed it Millennium Bank. The Portuguese group sold its interests in the bank to a foreign subsidiary of Fiba Holding of Turkey in early 2010.

Italy's UniCredito Group acquired a 50% stake in Koçbank and in other six other Koç Holding financial companies in May 2002.

In February 2005, France's BNP Paribas bought 50% of TEB Financial Investments A.Ş. from Turkey's Çolakoglu Group for \$216.8 million, gaining control of a 42.165 % stake in Türk Ekonomi Bankası (TEB), a midsize Turkish bank, and shares in seven other financial subsidiaries.

In May 2005, Koç Financial Services, a 50-50 joint venture between Koç Holding of Turkey and UniCredito of Italy, acquired a 57.4% of Yapı ve Kredi Bankası for \$1.495 billion. Koç Financial Services merged Yapı ve Kredi Bankası, Turkey's fifth biggest bank, with its Koçbank under Yapı ve Kredi Bankası's name in 2006. Koç Financial Services also gained control over a dozen financial companies owned by Yapı ve Kredi Bankası.

In August 2005, U.S. General Electric Consumer Finance bought a 25.5% share of Türkiye Garanti Bankası, Turkey's fourth biggest commercial bank, for \$1.556 billion from Turkey's Doğuş Holding. With the acquisition, GE Consumer Finance also gained shares in 27 financial subsidiaries of the bank. These included Garanti Securities, one of the leading brokerage firms of Turkey, Garanti Leasing, a leading Turkish leasing company with assets of \$151 million, and Garanti Sigorta, a leading insurance company, and several foreign banks.

In March 2011 Spain's Banco Bilbao Vizcaya Argentaria (BBVA) acquired 24.89% of Garanti Bankası from GE Money and Turkey's Doğuş Group for a total \$5.76 billion. Under the sales ac-

cord, BBVA acquired GE Money's 18.60% share in Garanti Bankası for \$3.7 billion and a 6.29% stake in the bank from the Doğu Group, one of Turkey's biggest conglomerates, for \$2.06 billion. The accord gave BBVA, Spain's second biggest banking group, and the Doğu Group each an equal 24.89% share in the Turkish bank. GE Money will retain around a two percent share. The remaining shares are publically owned and traded on the İstanbul and New York Stock Exchanges. The deal made BBVA the biggest foreign investor in Turkish banking.

Belgium's Fortis Bank in July 2005 acquired an 89.3% share in Türkiye Dış Ticaret Bankası (Dışbank) from Doğan Holding of İstanbul for \$1.051 billion. Fortisbank also gained control over several non-banking financial subsidiaries of Dışbank, which specializes in foreign trade financing. It renamed Dışbank as Fortis Bank A.Ş. TEB and Fortis Bank merged under TEB in March 2011.

Israel's biggest financial institution Bank Hapoalim (BH) in September 2005 acquired 57.5% share in Turkey's C Kredi ve Kalkınma Bankası (C Bank), a small investment bank, from businesswoman Damla Cıngıllıoğlu for \$113 million, with the aim of breaking into the lucrative Turkish mortgage and project finance markets. The bank was renamed Bank Pozitif A.Ş. and was the first major Israeli investment in Turkey.

The National Bank of Greece in April 2006 acquired a 46% stake in Finansbank from Fiba Holding for \$2.8 billion.

Another transaction was Belgium's Dexia Group's acquisition of 96.6% stake in DenizBank from Zorlu Holding and other shareholders for \$3.161 billion in 2006.

Citibank in January 2007 acquired a 20% stake in Akbank from Sabancı Holding for \$3.1 billion.

Greece's EFG Eurobank Ergasias bought a 70% stake in Tekfenbank from Tekfen Holding in March 2007 for \$182 million.

Kazakhstan's Turan Alem Bank acquired a 34% stake in Şekerbank for \$260 million. Russia's state-owned Sberbank gained control of those shares in 2009.

Lebanese Bank Med and the Jordanian Arab Bank, both owned by the family of former Lebanese Prime Minister Rafiq Hariri, purchased a 91% stake in MNG Bank and changed its name to Turk-landbank (T-Bank).

ING Bank of the Netherlands acquired Oyakbank from the Oyak Group in December 2007 for \$2.67 billion.

All of the foreign banks are headquartered in İstanbul, Turkey's financial capital. U.S. banks with local branches include Citibank, and JP Morgan Chase Bank. European banks include the National Bank of Scotland, Credit Lyonnais, Banco di Roma, BankEuropa, Deutsche Bank, HSBC Bank, Société Generale, and Westdeutsche Landesbank Girozentrale. Other foreign banks include the Arab Turkish Bank (a joint venture among the Libyan Arab Foreign Bank, the Kuwait Investment Co, Türkiye İş Bankası, Ziraat Bankası and Tekfen Holding), Habib Bank (Pakistan), Bank Mellat (Iran), and Taib Yatırım Bank.

Foreign banks or financial institutions with separate banking operations in Turkey or shares in domestic banks include HSBC Bank, Italy's UniCredito Group, France's BNP Paribas, U.S. GE Consumer Finance, Israel's Bank Hapoalim (BH), the National Bank of Greece, Belgium's Dexia Group, Citibank, Greece's EFG Eurobank Ergasias, Kazakhstan's Turan Alem Bank, Lebanon's Bank Med and the Jordanian Arab Bank, ING Bank of the Netherlands, JP Morgan Chase Bank, Credit Lyonnais, Deutsche Bank, Société Generale, and Westdeutsche Landesbank Girozentrale, the Libyan Arab Foreign Bank, the Kuwait Investment Co, and Taib Investment Bank.

Some 35 foreign banks have representative offices in Turkey, and are developing their correspondent relationships.

## **FINANCING SMALL AND MID-SIZED COMPANIES**

Bank lending to small and mid-sized enterprises (SMEs) -- a long neglected segment of business -- has also grown phenomenally. In 2010, Turkey's banks provided \$103.545 billion in loans to SMEs, or 30% of all bank loans, compared to around four percent a decade ago.

SMEs, or KOBİs as they are known locally, form the backbone of Turkey's economic life, accounting for 99.5 percent of the total number of firms and 61.1 % the total employment and 27.3 % of the value-added of the manufacturing industry, according to some estimates. Their share in total employment is around 57.3 percent and 38 percent in total value added of the country.

SMEs in Turkey are companies with less than 250 employees, and assets under \$16.1 million and annual sales below \$30 million. Due to a large unregistered economy in Turkey -- as much as 50 percent of the country's income goes untaxed -- exact figures on the number of SMEs are unavailable. Nevertheless, an Organization for Economic Cooperation and Development (OECD) report on the companies estimated that nearly 3.86 million SMEs existed in Turkey in 2004.

Associate Professor Riza Gürbüz of Çankırı Karatekin University who has studied Turkish SMEs noted that 46% of Turkish SMEs were in trade, 14.35% in manufacturing 14.21% in transportation, 9.48% in tourism, 5.27% in social services, 2.08% in civil engineering and 8.42% in other fields.

Turkish SMEs are overwhelmed with constraints, including low quality output and services, use of outdated technology and weak management skills, insufficient qualification of manpower, infrastructure and marketing are the factors adversely affecting their productivity. Taxes, duties and other levies with excessive bureaucracy imposed a heavy financial overburden on SMEs.

The İstanbul Stock Exchange in March 2011 launched a Developing Companies Market, where SMEs can raise funds through public offerings and bond sales.

## PRIVATE BANKING

Turkey's fledgling private banking and asset management businesses are taking off.

Private banking is only 10 years old in Turkey, but most of its banks have established special private banking units to deal with an estimated 180,000 customers with bank deposits of at least Turkish Lira (TL) 250,000 (\$161,499).

Turkish banks offer a wide range of products to high net worth customers, including mutual funds composed of domestic and international securities, foreign shares and bonds, exchange traded funds, futures and options and other derivative products, based on global precious metals and agricultural commodities.

*"All the markets in the world can be investment areas,"* said M. Fikret Önder, executive vice president responsible for private banking of Akbank, the first financial institution in Turkey to establish a private banking division, said in an interview with the Banker Magazine. *"The horizon of Akbank Private Banking is as wide as the entire world. As investment strategies for our special customers are developed, our managers evaluate investment opportunities all over the world."*

Akbank offers its private banking services to customers with at least TL 500,000 (\$332,823) in assets, and special wealth advisory services are offered to families with assets of at least TL 5 million (\$3.328 million).

Private banking customers are also advised on mortgages, leasing, acquiring business properties and even purchases of yachts.

Yapi ve Kredi Bankası, for instance, advises the bank's private banking customers in the areas of building and maintaining art collections and informs and updates clients with information about art works through its Yapı Kredi Cultural Activities Arts and Publishing, one of Turkey's leading arts and culture companies.

On international securities and derivative products, Turkish banks and asset management companies work closely with foreign banks, brokerage houses and international commodities traders, and innovative products are entering the market.

Akbank and its affiliated Ak Asset Management Company, working with Templeton Franklin Investment Services, in 2010 launched BRIC Funds for its wealthy customers. BRIC Funds are based on a basket of high dividend earning shares of companies from Brazil, Russia, India and China.

On January 29, 2010, Türkiye İş Bankası (İşbank) issued TL 111 million capital protected funds based on the DowJonesUBS commodities index. The fund, the biggest issued by a Turkish bank, is based on gold, copper, corn, crude oil and nickel derivatives.

Four major banks, led by İşbank and Türkiye Garanti Bankası, this year introduced capital-protected gold funds, based on gold futures and options, which have been snapped up by investors, as gold prices soared.

## MARKET SIZE

The market for private banking in Turkey is potentially enormous. With wealth in the country concentrated in the hands of a small segment of the population, few families and institutions, bankers say, competition among the country's banks for the deposits of wealthy Turks is cutthroat.

A Merrill Lynch and Cap Gemini report said Turkey had 37,900 dollar millionaires at the end of 2010. But Önder of Akbank estimated that the country had 55,000 dollar millionaires, including those who keep their assets outside the financial system or in banks abroad.

*"These figures give an idea about the potential size of the market," Önder said in an interview.*

From October 2008 to the end of 2009, the Turkish government managed to attract to the nation \$31.575 billion in funds mainly held by Turks living abroad -- around one-seventh of all savings and securities held by Turks in foreign banks -- under the so-called "asset peace plan." Under the plan, the government asked no questions about the sources of the funds and left them untaxed, as long as the funds remained in Turkey.

Most of these funds have entered the Turkish banking system and are now managed by the private banking units of Turkey's financial institutions, bankers said.

*"The asset peace plan has had positive effects on the banking market," Önder said. Through the efforts of Akbank Private Banking, some 60 persons brought \$333.8 million to Turkey. If the asset peace campaign is extended, considerable new funds will enter the market. This is because Turkish banks now appear more trustworthy than foreign banks. "Many wealthy individuals have closed down their accounts in Swiss and other European banks and have become Akbank's customers. Interest rates in Turkey are higher (than in other European countries). Presently, Turkey is a safer port than many markets," Önder said.*

Added Arif Tepe of Yapı Kredi Asset Management: *"Turkey is attracting funds because it is the rising star of investors' markets. It is a country that has a future. In the past, customers would go and ask bank and asset managers about what products they should invest in. Today they want to know which organization should carry out their investments. Turkish financial institutions are attracting funds because the Turkish market is more sound and better regulated than markets in Europe "*

In the past, high net worth individuals in Turkey had very few options to maintain their wealth. Some held on to precious foreign exchange, which was an illegal practice that could land one in jail until the liberalization of the economy in the early 1980s. Or they acquired properties, or turned their money to the banks for high returns -- as a hedge against inflation.

During the turbulent 1980s and 1990s, when the country was rocked by double and triple-digit inflation, the banks sought to lure the deposits of wealthy Turks by offering above market interest rates. But this led to a war over interest rates and to the collapse of more than two dozen banks and loss of billions of dollars in savings.

## ASSET MANAGEMENT

Turkey's asset management companies, established only nine years ago, manage the mutual funds and capital-protected funds, discretionary funds and exchange traded funds issued by the country's banks and brokerage houses and the pension funds of the country's pension companies.

The country has 25 asset management companies, most of which are owned by the country's leading banks and brokerage houses.

But four companies dominate the asset management business in Turkey – İş Asset Management, a subsidiary of İşbank; Yapi Kredi Asset Management, owned by Yapi ve Kredi Bankası; Ak Asset Management, controlled by Akbank; and Garanti Asset Management, owned by Garanti Bankası, according to the Capital Market Board, a state agency that monitors stock and bond trading.

As of July 31, 2010, these four companies had \$27.986 billion in assets under management, or 75% of all assets under management.

Total assets under the management of Turkey's asset management companies as of July 31, 2010, stood at TL42.876 billion (\$27.986 billion), of which 75% was in mutual funds. Five foreign-owned asset management companies operate in the system – HSBC Asset Management, ING Asset Management, Ergo Asset Management, Ashmore Asset Management and Unicorn Asset Management. But the total assets managed by these companies stood at a mere \$2.062 billion, or around 7.3% of the market.

*"Turkish asset management has come a long way (in the past nine years),"* Turan Erol, former chairman of the Capital Market Board, said.

Erol noted that the first mutual fund in Turkey was launched in 1987. The value of mutual funds under management in Turkey, he said, tripled from \$6.676 billion in 2002 to around \$20 billion at the end of September 2010.

The number of investors in mutual funds in Turkey also increased from 1,500,000 million in 2002 to 3,260,763 at the end of 2009.

## INTERNATIONAL FINANCIAL CENTER

Turkey has taken steps to turn İstanbul into a major international financial center

(IFC-İstanbul) to serve Eurasia, a vast area stretching from the Adriatic to the Chinese frontier, as well as the Middle East and North Africa, with which it still shares cultural ties existing from Ottoman times.

Prime Minister Recep Tayyip Erdoğan's government has given top priority in its Ninth Economic Development Program (2007-2013) in transforming of the city into a fully fledged IFC and enlisted the support of 300 representatives of more than 80 public sector agencies and private trade

and financial associations to help establish the legal framework for the entity. The government sees the IFC-Istanbul as a long term project.

*“The successful outcome of this project will offer significant benefits to İstanbul and Turkey,”* Prime Minister Erdoğan said. *“However, such outcome is possible by continuous support from private sector agencies and non-governmental organizations.”*

A State Planning Organization report on the subject said: *“It is important to make necessary changes to build a competitive structure so that İstanbul should assume a significant role in directing the regional and global capital.”*

The administration is moving to change the regulatory approach and improve the tax system to integrate IFC-Istanbul to Turkey. It also intends to build a legal infrastructure that operates along international standards, increase the diversity of financial products and services, strengthen the physical and technological infrastructure and ensure that the educational system provides qualified human resources in required fields.

Two major institutions planned are specialized courts that will be able to deal with international trade and financial disputes, and a carbon exchange, where countries and corporations can buy and sell carbon credits to reduce global greenhouse gas emissions.

With the rapid expansion of trade and emergence of new economic powers in the east, existing international financial centers, such as London, New York City, are becoming inadequate in coping with the volume of business, requiring the decentralization of financial services.

A half a dozen cities around the world have announced their candidacy for being an international financial center. Kuala Lumpur, for instance, is portraying itself as a center for Islamic finance. Seoul is viewed as a regional financial center serving the Far East. Madrid has positioned itself as a gateway to Latin America.

Turkey has had plans to turn İstanbul into a major international financial center for more than a decade, during which it established a modern stock exchange, a gold exchange and a gold refinery.

İşbank’s Chairman Ersin Özince says İstanbul is going to attract more investment from abroad, including global asset management companies and private equity funds, and this will translate into jobs and greater wealth.

“If we (Turks) don’t establish an international financial center in İstanbul, foreigners will come in and set it up themselves,” warned Özince in an interview with the Banker Magazine.

IFC-Istanbul is likely to be located in the city’s fast developing Ataşehir District, where the Central Bank of Turkey and T.C. Ziraat Bankası, the country’s biggest bank, have acquired large properties to which they plan to move their headquarters from Ankara.

## INSURANCE

Turkey's insurance business, where foreign companies now control about 50% of all direct gross insurance premiums and 62% of the market, is also rapidly growing. Thirty-five of the country's 56 insurance companies are 100% foreign-owned, while four have more than 50% foreign interest. But 10 firms in 2010 controlled 61% of all premiums. The country also had two reinsurance companies. The country's insurance companies employed a total 14,280 persons directly in 2010.

As foreign banks acquired Turkish banking assets during the 2000s, they also came to own large slices of affiliate financial companies, including brokerage houses, factoring and leasing companies, and insurance firms.

Total insurance premiums in Turkey 2010 stood at \$9.124 billion, a 13.6 percent increase from 2009, but still short of the record \$9.453 billion in 2007. Total premiums in 1988 stood at a mere \$410 million.

Per capita insurance premiums stood around \$191 in Turkey in 2010, up six-fold from 2002, when it stood at a mere \$32, a sign of phenomenal growth. Still Turkey remains the low man on the totem pole among most European nations when it comes to generating insurance premiums.

The Undersecretariat of Treasury at the end of 2003 revoked the licenses of 14 insurance companies and one reinsurance firm. Most of these were firms affiliated with banks that collapsed during the financial turmoil of 1999 and 2001.

Turkey has 16,000 private insurance agencies.

### INSURANCE PREMIUMS IN TURKEY BY SELECTED YEARS 1990 - 2010 (In Million U.S. Dollars)

Year	Amount
1988	410
1990	710
2000	2,846
2003	3,585
2004	4,736
2005	5,815
2006	6,829
2007	9,453
2008	7,782
2009	8,302
2010	9,124

Source: Sigortacı Newspaper, Association of Turkish Insurance and Reinsurance Companies



Major foreign companies that operate in Turkey's insurance sector or own Turkish insurance assets are: AXA, Coface and Groupama of France, Aviva of Britain, GE Consumer Finance, American Life, Metlife, Chartis and Liberty Mutual of the U.S., Ergo International, Allianz and HDI Gerling International Holding A.G. of Germany, Yashoi, Tokyo Marine, Sompo Japan and NKSJ of Japan, Global Equities Management (GEM) of the Bahamas, TBIH, AEGON and Eureko of the Netherlands, Mapfre of Spain, BNP Paribas Group and Dexia of Belgium, Zurich Financial of Switzerland, Abraaj Capital of the United Arab Emirates, and Unicredito Group, Assicurazioni Generali and Assitalia of Italy.

The freeing of premium rates in the late 1980s -- they were previously fixed by the government -- liberalized the sector and paved the way for fast growth in Turkish insurance.

### INSURANCE PREMIUMS BY LINES 2010

(In 1,000 Turkish Lira)

	2010	% change from 2009
Land Vehicles	3,117,453	16.6
Land Vehicles/Personal Indemnity	2,544,997	13.2
Life	2,186,358	20.4
Fire and Disaster	1,980,063	2.7
Health	1,705,200	20.5
General Loss	986,037	6.1
Accident	593,592	10.0
General Indemnity	324,036	28.6
Transport	305,846	13.0
Sea Going Vessels	107,344	-4.7
Financial Loss	84,510	29.1
Aircraft/Personal Indemnity	50,519	6.9
Aircraft	47,134	-17.6
Legal Protection	43,192	19.9
Credit	31,026	9.1
Embezzlement	16,436	-2.3
Rail Vehicles	681	345.5
Sea Going Vessels/Personal Indemnity	543	45.1
<b>Total</b>	<b>14,125,263</b>	<b>13.6</b>
In U.S. \$: 9.124 billion		

Source: Sigortacı Newspaper, Association of Turkish Insurance and Reinsurance Companies

**TOP INSURANCE COMPANIES IN THE NON-LIFE BRANCH  
IN TERMS OF PREMIUMS IN 2010  
(In Million Turkish Liras)**

Insurance Company	Total Premiums
AXA Sigorta	1,518.5
Anadolu Sigorta	1,420.5
Allianz Sigorta	995.8
Ak Sigorta	758.3
Yapı Kredi Sigorta	737.4
Güneş Sigorta	693.9
Groupama Sigorta	693.7
Ergo Sigorta	618.4
Eureko Sigorta	414.8

Source: Sigortacı Newspaper, Association of Insurance Reinsurance Companies

## LIFE AND HEALTH INSURANCE

On December 31, 1997, insurance companies were separated into two main categories: life insurance and non-life or elementary insurance. Companies are able to operate in only one of the two categories. A few insurance companies in the non-life branch still offer health insurance, but this is progressively getting to be a smaller part of their business.

**TOP 12 LIFE INSURANCE COMPANIES OF TURKEY IN  
TERMS OF PREMIUMS IN 2010  
(In Million Turkish Liras)**

Insurance Company	Total Premiums
Ziraat Hayat ve Emeklilik	601,770
Anadolu Hayat ve Emeklilik	357,610
Garanti Emeklilik	234,160
Mapfre Genel Yaşam	157,898
Avivasa Emeklilik	155,333
Halk Hayat	141,343

Acıbadem Sağlık ve Hayat	135,207
Yapı Kredi Emeklilik	106,956
Vakıf Emeklilik	93,470
Finans Emeklilik ve Hayat	85,491
American Life	76,774
Allianz Hayat ve Emeklilik	74,303
Deniz Hayat ve Emeklilik	72,438
AXA Hayat	56,648
Demir Hayat	51,997
Groupama Emeklilik	51,623

Source: Sigortacı Newspaper, Association of Insurance and Reinsurance Companies

Although it accounted for just 5.5% of total premiums in 1986, health insurance accounted for around 12% of all insurance premiums in 2010. Consumers are turning to private health insurance because of the inferior conditions and health services at state-run hospitals. Growth potential is substantial, because the existing customer base amounts to just 30% of the estimated 12 million prospects. Health insurance rates are deregulated, and a 5% premium tax applies.

One-quarter of the life business is sold to groups, the rest to individuals. A five percent premium tax applies to personal accident policies. Life premiums are tax-deductible within limits, and death benefits are subject to the inheritance tax.

## CONSOLIDATION

The fall in inflation and drop in interest rates on government bonds and treasury bills in Turkey following the signing of standby agreements between the government and the International Monetary Fund in 1999 and 2001 set the stage for consolidation in the insurance sector, industry officials said. Some 21 insurance companies and one reinsurance firm have gone out of business since 2000.

Interest rates on government bonds and treasury bills fell from 95% to under 25% after the International Monetary Fund approved a three-year \$31.5 billion in standby loans to Turkey. Interest rates hovered around seven percent as of April 20, 2009.

Before the drop in interest rates, most insurance companies were investing their funds into high-interest bearing treasury bills where they could get real returns of up to 30%. The Treasury had kept interest rates high to attract funds to pay for Turkey's mounting domestic and foreign debts.

Since interest rates have fallen, insurance companies have had to find new ways to make money. They have begun to switch some of their from fixed income government securities to private sector equities and real estate.

The development has led to a reduction in the number of companies operating in the field of insurance, industry officials said.

Low inflation has also shifted the market in favor of the bigger insurance companies. To survive smaller insurance companies have to find niche areas to operate.

## **PRIVATE RETIREMENT INSURANCE**

Some 13 companies collected private retirement insurance premiums of \$7.892 billion as of December 31, 2010, about six-fold from 2005.

Experts said that the new law on private retirement insurance could help create anywhere between \$10 billion and \$30 billion in new institutional investors' funds over a ten-year period that could be funneled into the stock market.

On December 31, 2010, the number of private retirement insurance holders stood at 2,319,316, according to the Retirement Supervision Center.

One of the main reasons for volatility in the İstanbul Stock Exchange has been the lack of domestic institutional investors in Turkish stocks, foreign and Turkish fund managers said.

Under the law, insurance companies with more than TL 20 trillion capital have established new insurance companies to create retirement funds that will be run by separate asset management companies. These funds come under the supervision of the Capital Market Board, which regulates İstanbul Stock Exchange and the capital market.

Private companies, as in the United States, will also be required to establish retirement plans for their employees. The insurance scheme is likely to bolster the sector in Turkey.

**TOTAL PRIVATE RETIREMENT INSURANCE PREMIUMS IN TURKEY  
BY COMPANIES AS OF DECEMBER 31, 2010**

Company	Premiums in TL	Number of Participants	Number of Retired Participants
1 Anadolu Hayat Emeklilik	2,675,875,012	515,810	1,758
2 Avivasa Emeklilik	2,597,967,176	361,064	239
3 Yapı Kredi Emeklilik	1,883,032,772	280,192	447
4 Garanti Emeklilik ve Hayat	1,871,959,673	459,175	26
5 Vakıf Emeklilik	714,852,964	162,659	88
6 ING Emeklilik	651,502,104	167,178	12
7 Groupama Emeklilik	628,502,104	88,531	136
8 Allianz Hayat ve Emeklilik	539,823,550	64,748	232
9 Fortis Emeklilik ve Hayat	394,902,691	75,722	41
10 Aegon Emeklilik ve Hayat	104,230,205	56,711	3
11 Ergo Emeklilik ve Hayat	58,046,342	14,951	
12 Finans Emeklilik ve Hayat	55,641,507	42,328	
13 Deniz Emeklilik ve Hayat	45,718,125	30,247	
<b>Totals</b>	<b>12,028,074,714</b>	<b>2,319,316</b>	<b>2,982</b>

Source: General Directorate of Retirement, Sigorta Gazetesi

In 2010, premiums for private retirement insurance stood at only 1.63 % of Turkey's Gross Domestic Product, compared to more than 150 % in some European Union countries, Sigortacı Gazetesi reported.

## COMPULSORY EARTHQUAKE INSURANCE

In wake of the powerful earthquakes that rocked northwest Turkey in 1999, killing nearly 20,000 people and leaving more than 600,000 people homeless, the government enacted legislation that requires all homeowners to buy earthquake insurance starting on September 1, 2000.

Homeowners won't be able to recuperate losses in the case of earthquake damage to residences without the insurance, or buy or sell property that isn't insured against earthquakes.

By the end of 2019, some 3,413,000 households had insured their homes against earthquakes, according to the Natural Disaster Insurance Organization (DASK). The country had 12,988,669

housing units. Insurance executives said that only 26.8% of all housing units in Turkey were insured against earth tremors.

Under the legislation, which went into effect on September 27, 2000, all earthquake insurance funds are collected in a pool run by the Natural Disaster Insurance Organization. This organization is composed of members from the Treasury, the cabinet, the Central Bank, Ministry of Housing and Settlements, the Association of Turkish Insurance and Reinsurance Companies, and specialists in geophysics and geology. The funds will be collected by insurance companies, which will receive a commission for their service. Insurance premiums depend on the size of the building, its construction class, and to the degree that the area carries earthquake risks. Initial announcements said a \$50 premium would have to be paid for \$25,000 home.

Insurance executives estimate that eventually \$9.2 billion will be collected in the pool, including premiums and interest. Premiums from compulsory earthquake insurance in 2010 stood at a mere \$206.3 million.

## **İSTANBUL STOCK EXCHANGE**

The İstanbul Stock Exchange (İMKB) has been one of the world's most volatile stock markets with share prices yo-yoing. Yet it has been profitable for investors with strong stomachs and steel nerves.

On December 31, 2007, the benchmark İMKB 100 Index stood at 55,539, up 42% from 2006, as the İstanbul Stock Exchange was the fifth best performing bourse in the world after the Shanghai (China), Indonesia, Pakistan and Indian bourses. But by December 31, 2008, the index had plunged 51.6% to 26,864 points, the lowest level since 2004, as jittery institutional investors and hedge fund managers, battling a global liquidity crunch and an economic slowdown in the world due to the U.S. mortgage crisis, sold their shares in Turkish stocks in a frenzy of profit-taking.

But the market bounced back. On November 9, 2010, the index reached a new high of 71,543 points, as shares regained all the value lost over the past two years and investor confidence returned amid signs that the world was rebounding from the worst recession since World War II, only to drop back to 66,004 points at the end of 2010. The index was down from the year end once again, hovering at 60,932 points on June 15, 2011.

Market capitalization of the İMKB as of April 1, 2011, stood at \$317.959 billion, up 3.5% from December 31, 2010, when it was \$307.354 billion. A record \$2.908 billion in shares were traded on August 17, 2007. The İMKB is the world's 19<sup>th</sup> biggest exchange in terms of the volume of shares traded and 29<sup>th</sup> in terms of market value in 2010 the Association of Turkish Capital Market Intermediaries reported.

The İMKB has come a long way. Only 80 companies were listed in 1986, when the present, modern bourse was established. The total market value of the companies listed then was only \$1

billion. The number of shares traded daily on exchange in 2010 averaged \$1.7 billion, compared to 1986 when it was only \$50,000.

The resiliency of Turkey's economy led Fitch Ratings in December 2009 to upgrade Turkey's long term foreign currency issuer default rating to BB+ from BB- and Moody's Investor Service to raise Turkey's government bond rating one notch to BA2, citing the country's financial shock absorption capacity, at a time when the credit ratings of three dozen countries were downgraded.

*"The ability of the government and the country more generally to regroup when faced with a very significant financial challenge indicates that Turkey has reached a higher level of resiliency,"* Sarah Carlson, an analyst with Moody's in London, wrote in a note on the upgrade.

The credit rating upgrades has allowed Turkey's major banks to renew syndicated loans in 2010 at lower interest rates than in 2009.

Record low interest rates, a drop in inflation and unemployment, a boom in project finance loans, a flurry of mergers and acquisitions, a lively derivatives market, and major investments being carried out by dozens of large air transport, automotive and energy corporations presage a bright future for Turkey's economy.

## CONFIDENCE RETURNS

Some bankers cited the growing confidence among international investors as the main reason for the rapid rise in Turkish share prices – 66% of all trading in shares on the İstanbul exchange was carried out by foreign institutional investors in 2010. They also noted that some of the liquidity injected into the economies of the U.S. and European Union by the U.S. Federal Reserve and European central banks had filtered down to emerging economies like Turkey.

*"As in other markets, share prices on the İstanbul Stock Exchange reflect more international developments and the positive recovery of global risk appetite than macroeconomic and local activities,"* Ziya Akkurt, the chief executive officer of Akbank, a large commercial bank, said in interview with the Banker Magazine.

But brokers said the sharp rise in Turkish share prices was due an influx of new investment money pouring mainly into bank stocks and government bonds and Treasury bills (T-bills).

*"Turkey's banks have outperformed manufacturing companies on stock market three-fold to four-fold,"* Serdar Pazı, director of Ata Asset Management, a major Turkish asset management company, explained in an interview. He said investors were persistently acquiring bank shares rather than equities in Turkish industrial companies.

Others agreed.

*"Banking is the locomotive sector in the stock market. Its superior performance should not be seen as odd,"* added Ersin Özince, chairman of Türkiye İş Bankası (İşbank), Turkey's second biggest private bank.

In 2010, all 45 banks, and four Islamic-style participation banks, raked in hefty profits.

## HEAVYWEIGHTS

Although only 16 of the 343 companies listed on the İstanbul Stock Exchange are banks, banking assets are heavily weighted, accounting for 50% of the total assets on the bourse.

One reason why the banks carry so much weight on the İMKB is that the bourse still is very shallow. At the end of June 2010, the nation had only 1,035,135 investors in Turkish equities, or 1.4% of its total 73.722 million inhabitants.

The number of companies listed on the İstanbul exchange remains miniscule compared to bourses in many emerging markets. On the Korea Stock Exchange, for instance, 1,798 companies are listed. On the Bursa Malaysia, shares of 917 companies are traded. Even the rival Cairo & Alexandria Stock Exchange has more listed companies than the İMKB.

### BEST PERFORMING STOCKS ON THE İMKB IN 2010\*

Company or Share	% increase in value from Dec 31, 2009
Aslan Çimento	656.10
Rhea Girişim	576.92
Kent Gıda	493.26
Avrasya Yatırım Ortaklığı	346.67
Denizli Cam	309.36
Borova Yapı	268.01
Merkez B Tipi Yatırım Ortaklığı	260.00
Datagate Bilgisayar	251.22
Favori Dinlenme Yeri	229.21
Marshall Boya	213.08
Petrokent Turizm	205.00
Afyon Çimento	196.74
Milpa	188.65
Metro Yatırım Ortaklığı	186.90
Y&Y REİT	174.70

\* As of October 10, 2010

Source: İMKB

Although the volume of shares traded on the İstanbul Exchange in 2010 reached \$426 billion, only 129 of Turkey's 500 biggest corporations in terms of sales revenues were listed.



“Listing requirements are an expensive and difficult proposition for most companies,” Alpaslan Budak, deputy secretary general of the Association of Capital Market Intermediary Institutions of Turkey, (TSPAKB) a trade group composed of 103 brokerage houses and 42 banks, said.

## MOBILIZING PUBLIC OFFERINGS

Companies listed on the İstanbul Stock Exchange are required to supply annual and semiannual externally audited financial reports to the İMKB, according to principles approved by the Capital Markets Board (SPK), a regulatory agency supervising the bourse. All financial statements must include provisions for deferred taxation. These financial statements have to be published in national newspapers as information for potential investors.

### HIGHEST VALUED COMPANIES ON THE İMKB AS OF MAY 18, 2011

Company or Share	Market Value in billion U.S. dollars
Garanti Bankası	18.663
Akbank	18.380
Türk Telekom	17.408
T. İş Bankası (C)	14.372
Turkcell	12.359
Koç Holding	11.555
Yapı ve Kredi Bankası	11.387
T. Halk Bankası	9.429
Sabancı Holding	9.299
Enka İnşaat	8.276
Finansbank	7.460
Tüpraş	6.923
Anadolu Efes	6.320
Vakıflar Bankası	5.854
Erdemir	5.569
BİM Mağazalar	4.982
Denizbank	4.723
Emlak Konut REIT	4.418
Coca Cola İçecek	3.597
Aslan Çimento	3.594

Source: İMKB

The capital market reforms passed in May 1992 extended the Capital Market Board's supervisory powers, making its functions and powers comparable to those of the Securities and Exchange Commission in the United States.

İstanbul Stock Exchange officials have suggested that the government should reduce corporate tax five percent on companies that go public. Hüseyin Erkan, chairman of the exchange, has traveled throughout Turkey since he became head of the bourse in November 2007 to explain the workings of the İMKB and urge companies to go public. He says that by 2023, the 100<sup>th</sup> anniversary of the Turkish Republic, the number of companies should reach 1,000.

Erkan's efforts have paid off. Thirty-one companies went public from 2010 to May 12, 2011--10 in the first five months of 2011 alone. There shares are now actively traded on the İstanbul Bourse. Some of these companies are:

- Publishing giant İhlas Yayın Holding.
- Investment Logistics company Ran Lojistik.
- Gold mining company Koza Altın.
- TSKB Real Estate Investment Trust (TSKB REIT).
- Newspaper publisher İhlas Gazetecilik.
- Ankara-based conglomerate Akfen Holding.
- Resort hotels developer Martı REIT.
- Shopping malls developer Torunlar REIT.
- Brokerage House Gedik Securities.
- DO&CO, an international airline catering and airport restaurant operator established in Vienna by a Turkish businessman and the first enterprise listed abroad to go public in Turkey.
- Hotel operator Utopia Tourism.
- Transport company Latek Lojistik.
- Real estate developer Reysaş REIT.
- Investment house Euro Yatırım.
- Fruits processor and exporter Mango Gıda.
- Power plants builder and operator Aksa Enerji.
- Industrial oils and soap producer Ekiz Yağ ve Sabun Sanayi A.Ş.
- Real estate investment company Idealist REIT.
- Energy services company Anel Elektrik.

- Turkey's biggest real estate developer Emlak Konut.
- Industrial castings producer Çemaş Döküm.
- Financial services company Gözde Finansal Hizmetler A.Ş.
- Supermarkets operator Kiler Gıda.
- Kiler REIT, a real estate developer and operator of the İstanbul Sapphire, Turkey's tallest and Europe's fourth highest building.
- Home textiles producer Hateks Hatay Tekstil, an exporter of bathrobes to the Middle East.
- Medical Services company Lokman Hekim.

Another 60 Turkish companies have applied to the SPK to go public or have expressed interest in holding public offerings this year or in the next three years. These include the nation's second biggest carrier, Pegasus Airlines; Hey Pazarlama, a textile export company; power plants operator BİS Enerji; the Turkish Petroleum Corp (TPAO); real estate developer Halk REIT; Turkey's biggest commercial bank T.C. Ziraat Bankası; commercial vehicles manufacturer Temsa Global; Tırsan, a truck trailer producer; jet fighter manufacturer TAI; KVK, Turkey's leading importer of mobile phones; former national soccer champion Bursaspor; the Turkish Petroleum Corporation (TPAO) and conglomerates Limak Investment Company, Altınbaş Holding, Kombasan and Doğuş Holdings.

## INTERNATIONAL MEMBERSHIP

Both the U.S. Securities and Exchange Commission (SEC) and the Japanese Securities Dealers Association recognize the İMKB. In addition the İMKB holds memberships in many international financial associations including the following: Federation Internationale des Bourses de Valeurs (FIBV), World Federation of Exchanges, International Securities Services Association (ISMA), European Capital Markets Institute (ECMI), World Economic Forum (WEF) and the Swiss Commodities, Futures and Options Association (SCFOA).

The ISE is open to foreign as well as domestic investors. Trading volume is strong, as the average domestic investor holds shares for less than one week. The volatility of such trading is counterbalanced by the large stakes of foreign investors, who control roughly 63% of the value of the ISE and more than half of the free float. However, many listed companies on the İstanbul exchange remain closely held, with only 15-40% of shares free-floating.

## DIFFERENT MARKETS

The İMKB has one main stock exchange, known as the National Market, where the main companies are traded. Some 343 companies were listed as of May 11, 2011. There are a seven other sup-

porting equity exchanges for domestic markets: the Regional, Wholesale, New Economy, Primary, Rights Coupon, and Watch-List markets.

The Regional Market, also known as the Second National Market, is a vehicle for the development of regional companies into nationally competitive firms, with the goal of eventual listing on the national market. The Wholesale Market provides a platform for the transactions of stocks in large volume, especially in capital increases, privatization and block sales by shareholders. The New Economy, or New Companies' Market, is designed for high technology companies. Initial public offerings can be done on the Primary Market. The Rights' Coupon Market is used for secondary trading of pre-emptive rights coupons during capital increases. The İMKB and the regulatory Capital Market Board (SPK) use the Watch List Market, when there is suspicion of irregularity or outright financial weakness.

The İMKB had 103 brokerage houses as members as of July 31, 2010. Many of the brokerage firms are affiliates of banks. These firms employed a total 4,948 persons in 2010. Some 30 banks and 11 development investment banks are also members. The Capital Markets Board determined that all commercial and investment banks were no longer eligible to trade stocks directly, resulting in the foundation of many same-name brokerage houses subsidiary to a parent commercial bank. Investment banks, however, are permitted to advise companies going public and underwrite public offerings. Both investment banks and commercial banks can buy and sell private and public sector bonds, T-Bills and Repos and Reverse Repos.

#### INTERMEDIARY INSTITUTIONS AT THE İMKB AS OF MAY 15, 2011

Market	Brokerage Houses	Development Investment Banks	Commercial Banks	Total
Stock Market	103	0	0	103
Bonds and Bills Market Outright Purchases and Sales Market	89	11	29	129
Bonds and Bills Market & Repo-Reverse Repo Market	54	11	28	9
Foreign Securities Market International Bonds Market	89	11	29	129
Equities-favored Repo and Reverse Repo Market	33	11	29	129

Source: İstanbul Stock Exchange (İMKB)

The capital market reforms passed in May 1992 extended the Capital Market Board's supervisory powers, making its functions and powers comparable to those of the Securities and Exchange Commission in the United States.

## FREE ZONE

The opening of the free trade zone at the İMKB in 1996 was an important development. The zone is primarily for the tax-free trading of equities in the form of Depository Receipts with US dollars as the currency of account. There are popular markets for international bonds and foreign open-ended mutual funds in the international zone.

The stock exchange also has industrial, financial, services and technology indexes.

Outside Turkey, there are now more than five closed-end mutual funds investing in Turkish equities. Listed on exchanges from Dublin to the New York Stock Exchange, they are mostly investment vehicles of major international banks such as JP Morgan or ABN Amro. The market leader has been the Turkish Smaller Companies Fund of Global Securities, a major Turkish brokerage house.

In September 2004, Dow Jones announced formation of the Dow Jones 20 ETF, an exchange-traded fund linked to the new Dow Jones Turkey Titans 20 Index.

### MARKET CAPITALIZATION OF THE İSTANBUL STOCK EXCHANGE IN SELECTED YEARS 1994 - 2011 (In Billion U.S. Dollars)

Date	Market Capitalization
1994	21.755
1995	20.782
1996	30.787
1997	61.897
1998	33.975
1999	114.271
2000	68.635
2001	47.189
2004	100.000
2005	161.537
2007	288.761
2008	119.698
2009	229,900
2010	307.354
2011*	317.959

\* As of April 1, 2011

Sources: İstanbul Stock Exchange, Association of Capital Market Intermediaries of Turkey

## DEBT MARKET

The country has a lively bond market, dominated by government debt instruments, including bonds, treasury bills, repurchasing agreements (repos) and reverse repos, with a total trading volume of \$5.037 trillion in 2010 on the İMKB and the Over-the-Counter Market, more than ten times bigger than the trading volume of equities on the İMKB, the TSPAKB said in a review of Turkish capital markets.

### LEADING BROKERAGE FIRMS ON THE İSTANBUL STOCK EXCHANGE (İMKB) AND PERCENTAGE OF SHARES TRADED IN 2010

Brokerage Firm	% Shares Traded on the İMKB
1 İş Invest	6.87
2 Garanti Yatırım	5.99
3 Yapı Kredi Yatırım	5.88
4 Finans Yatırım	4.54
5 Ak Yatırım	3.82
6 Deniz Yatırım	3.59
7 Meksa Yatırım	3.40
8 Gedik Yatırım	3.40
9 TEB Yatırım	3.29
10 Tacirler Menkul Değerler	3.16

Sources: Association of Turkish Capital Markets' Intermediary Companies (TSPAKB)

Some 90% of the T-Bill trading and 83% of the repo trading was carried out by banks. The remaining portion was processed by brokerage houses, some of which are subsidiaries of banks. Only brokerage houses can trade in equities.

Now that interest rates and inflation has fallen to single digits, a private sector debt market is burgeoning in Turkey, previously crowded out by government securities. In 2010, 20 companies sold \$3.707 billion in 35 bond issues, and market watchers said that more private companies would follow suite.

Private companies in the past could only raise money by either going public or by borrowing at rates charged or maturity dates set by banks.

*“If private companies could issue bonds, they could raise funds at lower rates and maturities because they would dictate the terms themselves,”* Budak of the TSPAKB, said.

## MUTUAL FUNDS

Investors have been snapping up mutual funds.

The country had 566 mutual funds, including 140 retirement pension funds, at the end of 2010, up from 245 in 2008.

Launched mainly by banks and operated by affiliated brokerage houses and asset management companies, the mutual funds are separate corporations in accordance with the country's capital market laws. The Turkish mutual fund market was valued at a total \$29.287 billion as of April 30, 2011, according to the TSPAKB.

İş Asset Management, a subsidiary of İşbank, for instance, operates 19 separate investment funds issued by the bank that are either low-risk, low-yield funds based on government bonds, T-bills and repurchasing agreements, or high-risk, high-yield securities based mainly on private sector equities or securities that contain a mix of the two. High-yield certificates based on gold and other valuable metals and commodities have also been introduced on the market.

In 2008, when shares on the bourse came tumbling down, Ak Asset Management, and Yapı Kredi Asset Management, introduced capital protected funds, where the bulk of the mutual funds are invested in low-risk, low-yield government securities, and small portions on high-yield but high risk financial instruments to protect the investments of fund holders.

The country also has numerous retirement funds, Stock Market Funds, Investment Partnerships, real estate development trusts, and venture capital funds, but their total assets were valued at \$10.080 billion as of April 30, 2011.

## SECURITIZING MORTGAGES

Ersin Özince, chairman of İşbank, pointed out the need to develop further the mortgage market and real estate investment funds.

*"Developing a real estate market and registering and securitizing all building activities, including construction of roads, drinking water and sewage systems, and other infrastructure, will make the economy more transparent and will increase the government's tax base,"* Mr. Özince remarked.

Mortgage loans, he noted, account for 80 percent of the Gross National Products of western European countries. But in Turkey, there is plenty of room for growth as housing credits only represent five percent to seven percent of the GNP.

A mortgage clearing house, similar to the U.S. Federal National Mortgage Association, proposed by Özince, has been looked upon with askance by the Finance Ministry because of the collapse of Fannie Mae.

*"Just because the Titanic sank doesn't mean that we shouldn't build new ships,"* Özince argued.

## DERIVATIVES MARKET BOOM

The trading volume on the six-year old İzmir-based Turkish Derivatives Exchange (VOB) has also swelled from a total \$2.242 billion in 2005 to \$576 billion in 2010, the VOB reported.

Core products offered are 91-day and 365-day futures on Turkish T-Bills, foreign currency futures in U.S. dollars to YTL and Euros to YTL, İstanbul Stock Exchange (İMKB)-30 share and İMKB-100 share futures as well as cotton and wheat futures.

## 3.2 PRIVATIZATION

Turkey's ambitious privatization program is switching gears, shifting from the sale of sprawling state industries to infrastructure projects.

The privatization program was first initiated in 1984 and Privatization Administration (PA) was established in 1994 as the main agency assigned to carry out the country's huge privatization program. From the date that the program was first initiated until the end of 2010, the PA has sold the state owned shares in 199 companies and generated a total of \$42 billion revenues. It is important to note that almost %80 of all the privatization implementations have been realized during the last 8 years.

The state has left the sectors like forestry products, petrochemicals, milk and dairy products, pulp and paper production, oil refining and oil products retailing, tobacco and spirits, aluminum, animal feed production, cement industries, and shipping. While several industries still remain in PA's portfolio, such as sugar (Şeker Fabrikaları A.Ş.).

The privatization endeavor in Turkey is now focusing mainly on infrastructure projects like energy, seaports, toll roads and motorways, bridges, banking, finance and real estate sectors.

The biggest privatization to date was the privatization of Türk Telekom which is the state owned telecommunications company. In 2005 Oger Telecom bought %55 of Türk Telekom shares for \$6.5 billion and afterwards Turkish Treasury sold %15 of the company shares in İstanbul Stock Exchange.

Apart from PA, privatization is also being carried out by the Savings Deposits Insurance Fund (TMSF), a state banking receivership fund that is responsible from the sale of companies and assets of more than 20 banks that collapsed since 1997. Some other state agencies, banks and municipalities are also involved in privatization.

Major sales by the TMSF in the past three years were the mobile phone services operator Telsim to Britain's Vodafone for \$4.550 billion and a series of television channels and cement companies.



**THE CLOSED PRIVATIZATIONS IN THE  
ELECTRICITY DISTRIBUTION SECTOR in 2010**

<b>Company Privatized</b>	<b>Buyer</b>	<b>Purchase Amount in Million U.S. Dollars</b>
Uludağ Electricity Distribution Company	Uluğ Enerji Dağıtım ve Perakende Satış Hizmetleri A.Ş. (Limak-Kolin-Cengiz Joint Venture)	940.000
Osmangazi Electricity Distribution Company	Dedeli Yatırım İnşaat Taahhüt Elektrik San. Ve Tic. A.Ş.	485.000
Yeşilırmak Electricity Distribution Company	Çalık Elektrik Dağıtım A.Ş.	441.500
Çamlıbel Electricity Distribution Company	Çamlı Enerji Dağıtım ve Perakende Satış Hizmetleri A.Ş. (Limak-Kolin-Cengiz Joint Venture)	258.500
Çoruh Electricity Distribution Company	Çoruh Aksa Elektrik Hizmetleri A.Ş.	227.000
Fırat Electricity Distribution Company	Fırat Aksa Elektrik Hizmetleri A.Ş.	230.250

Source: Privatization Administration

**THE CLOSED PRIVATIZATIONS IN THE  
ELECTRICITY DISTRIBUTION SECTOR IN 2009**

<b>Company Privatized</b>	<b>Acquiring Company</b>	<b>Purchase Amount in Million U.S. Dollars</b>
Baskent Electricity Distribution Company (Ankara and its vicinity towns)	Sabancı Holding- Verbund-Enerjisa JV	1,225.000
Sakarya Electricity Distribution Company	AkCez	600,000
Meram Electricity Distribution Company	Alcen Enerji Dağıtım	440,000

Source: Privatization Administration

## MAJOR SALES OF STATE ASSETS 2010

Privatized Asset	Buyer	Purchase Amount in Million U.S. Dollars
Port of Bandırma (**)	Celebi, Bandırma International Port Management Co.	175.500
Port of Samsun(**)	SAMSUNPORT-Samsun Port Administration/ Ceynak Logistics	125.200
State Railways Administration Properties in İzmir Konak	Konya Yıldız Un İnşaat Makine Sanayi	12,600

Source: Privatization Administration

\* Privatization of ports through sale is not allowed according to the Privatization Law No: 4046. Therefore ports are privatized by the method of transfer of operational right (TOR) for a certain period of time such as for 30-49 years.

## STATUS OF MAJOR TENDERS IN 2011

### ELECTRICITY GENERATION

The operating principles of the Turkish electricity market are stated in the Electricity Market Law (“EML”) No. 4628, which was enacted in 2001. With the enactment of the EML, Electricity Sector Reform and the Privatization Strategy Paper (“Strategy Paper 2004”) and the Electricity Energy Market and the Supply Security Strategy Paper (“Strategy Paper 2009”) which included the road-map for liberalization in the sector and supply security, were published on 17 March 2004 and 18 May 2009, respectively.

The objectives of the liberalization of the Turkish electricity market are:

- to establish a competitive market structure
- to increase efficiency in both electricity generation and distribution sectors
- to promote necessary investments to ensure long-term security of supply
- to reduce the market dominance of state-owned companies, and transform the government’s role mainly into a regulatory body

50 run-of the river hydro electric plants with a total installed capacity of 140 MW were tendered under 18 portfolios in 2010. As of June 2011, 9 portfolios have been transferred to the private sector.

## OVERVIEW OF GENERATION PRIVATIZATION PROCESS

There are 18 thermal plants and 27 hydroelectric plants under privatization scope. This portfolio of 45 power plants with 16,201 MW total installed capacities constitutes 33% of Turkey's and 67% of EÜAŞ's total installed capacity.

18 thermal plants within this portfolio constitute 100% of EÜAŞ's total thermal installed capacity. Within this group, there are 11 lignite-fired plants with 7,461 MW total capacities, 4 natural gas plants with 4,083 MW total capacity, one 300 MW hard coal-fired plant and two fuel-oil plants with installed capacities of 630 MW and 50 MW, respectively.

The 27 hydroelectric power plants that are in the privatization scope represent 23% and 31% of Turkey's and EÜAŞ's hydroelectric capacity, respectively, with a total capacity of 3,687 MW as of 2010.

The initial grouping of these plants under 6 portfolios is being revised and it has been proposed that 45 power plants should be categorized under three main classifications; 4 priority assets, 9 portfolio groups and Çatalağzı and Hopa Plant to be decided. The new portfolio grouping has not been officially approved by the Ministry of Energy and Natural Resources.

The priority power plants include Hamitabat, Kangal, Soma A-B and Seyitömer thermal plants, which correspond to 7% of the total generation capacity of Turkey and 13% of the total generation capacity of EÜAŞ as of 2010.

The 39 power plants grouped under 9 portfolios with total capacities ranging from 365 MW to 2,795 MW consist of hydroelectric and thermal plants. Whereas portfolios I, II and III consist solely of thermal power plants, portfolios VI, VII, VIII and IX consist only of hydro assets. Portfolio IV and V are mixed portfolios of hydroelectric and thermal plants.

The privatization tender of Hamitabat Combined Cycle Natural Gas Plant with 1,156 MW installed capacity was launched on March 21, 2011. Six potential investors have pre-qualified and the deadline for the bids was September 23, 2011, however the tender was cancelled.

Privatization tender of a group of 5 run-of-the river hydro electric plants Kısık; Durucasu İ Ladik-Büyükkızıoğlu, Bozkır and Göksu with a total 21.7 MW installed capacity was launched on June 7, 2011 and the bidding deadline was July 29; 2011. The tender was cancelled due to insufficient bids.

## ELECTRICITY DISTRIBUTION

- **İstanbul Anadolu Yakası Electricity Distribution Company, İstanbul Asian Side**  
Electricity Distribution Company (AYEDAŞ) which distributes electricity on the Asian side of İstanbul province has 2.3 million subscribers with an annual loss and theft rate of 6.9% in 2010. 11 groups placed bids for AYEDAŞ where MMEKA Makine İthalat Pazarlama ve Ti-

caret A.Ş. (MMEKA) placed the highest bid of \$ 1,813,000,000. As MMEKA and the second highest bidder Yıldızlar SSS Holding A.Ş. failed to fulfill their obligations under the tender specifications, the third highest bidder Enerjisa Elektrik Dağıtım A.Ş. has been invited to execute the share purchase agreement, in the framework of the Privatization High Council decision.

- **Akdeniz Electricity Distribution Company**

Akdeniz Electricity Distribution Company (Akdeniz) which distributes electricity in Antalya, Burdur, Isparta provinces in southwest Anatolia has 1.6 million subscribers and an annual loss and theft rate of 9.9 % in 2010. 15 groups placed bids for Akdeniz Electricity Distribution Company where Park Holding A.Ş. had placed the best offer with \$ 1,165,000,000. As Park Holding A.Ş. and the second highest bidder Enerjisa Elektrik Dağıtım A.Ş. failed to fulfill their obligations under the tender specifications, third bidder EMKAT Joint Venture Group was invited to execute the share purchase agreement, in the framework of the Privatization High Council decision.

- **Toroslar Electricity Distribution Company**

Toroslar Electricity Distribution Company (Toroslar) which distributes electricity in Adana, Gaziantep, Hatay, Mersin, Kilis, and Osmaniye in southern Turkey has 2.8 million subscribers and an annual loss and theft rate of 7.9 % in 2010. 13 groups placed bids for Toroslar where Yıldızlar SSS Holding A.Ş. placed the highest bid with \$ 2,075,000,000. As Yıldızlar SSS Holding A.Ş. and the second highest bidder Park Holding A.Ş. failed to fulfill their obligations of tender specifications, fourth bidder Türkerler İnş. Mad. Enerji Ticaret ve Sanayi A.Ş. was invited to execute the share purchase agreement, in the framework of the Privatization High Council decision.

- **Vangölü Electricity Distribution Company**

Vangölü Electricity Distribution Company (Vangölü) which distributes electricity in provinces of Van, Bitlis, Hakkari, and Muş in the southeast of Turkey has 445,684 subscribers and an annual loss and theft rate of 57.2 % in 2010. 6 groups placed bids for Vangölü where AKSA Elektrik Perakende Satış A.Ş. had placed the highest bid of \$ 100,100,000. AKSA Elektrik Perakende Satış A.Ş. was invited to execute the share purchase agreement and the deadline for the signing of the agreement is December 30, 2011.

- **Dicle Electricity Distribution Company**

Dicle Electricity Distribution Company (Dicle) which distributes electricity in provinces of Diyarbakır, Mardin, Siirt, Şanlıurfa, Batman and Şırnak in the southeast of Turkey has 1,2 million subscribers and an annual loss and theft rate of 65,3 % in 2010. 9 groups placed bids for Dicle where Karavil Dayanıklı Tüketim Malları İnşaat Otom. Pet. Ürün Paz. Sanayi ve Ticaret Ltd. Şti.- Ceylan İnşaat ve Ticaret A.Ş. Joint Venture Group placed the highest bid of \$ 228,000,000. Karavil Dayanıklı Tüketim Malları İnşaat Otom. Pet. Ürün Paz. Sanayi ve Ticaret Ltd. Şti.- Ceylan İnşaat ve Ticaret A.Ş. Joint Venture Group was invited to execute the share purchase agreement and the deadline for the signing of the agreement is December 30, 2011.

- **Boğaziçi Electricity Distribution Company**

Boğaziçi Electricity Distribution Company (Boğaziçi) which distributes electricity on the European side of Turkey's largest city İstanbul; has 4.1 million subscribers and an annual loss and theft rate of 10.9 % in 2010. 10 groups placed bids for Boğaziçi where İş-Kaya İnşaat Sanayi ve Ticaret Ltd. Şti.-MMEKA Makine İthalat Pazarlama ve Ticaret A.Ş. Joint Venture Group placed the highest bid with \$ 2,990,000,000. As İş-Kaya İnşaat Sanayi ve Ticaret Ltd. Şti.-MMEKA Makine İthalat Pazarlama ve Ticaret A.Ş. Joint Venture Group failed to fulfill their obligations under the Tender Specifications, second highest bidder; AKSA Elektrik Perakende Satış A.Ş. was invited to execute the agreement, in the framework of the Privatization High Council Decision.

- **Gediz Electricity Distribution Company**

Gediz Electricity Distribution Company (Gediz) which distributes electricity in Manisa, İzmir provinces in Western Anatolia has 2.4 million subscribers and an annual loss and theft rate of 7.5 % in 2010. 10 groups placed bids for Gediz where İş-Kaya İnşaat Sanayi ve Ticaret Ltd. Şti.-MMEKA Makine İthalat Pazarlama ve Ticaret A.Ş. Joint Venture Group placed a bid of \$ 1,920,000,000 and Eti Gümüş A.Ş. & Söğütseren Seramik Sanayi İnşaat Madencilik İthalat İhracat A.Ş. Joint Venture Group placed a bid of \$ 1,915,000,000. As both JVG's and the third highest bidder Enerjisa Elektrik Dağıtım A.Ş. failed to fulfill their obligations under the Tender Specifications the tender was cancelled in the framework of the Privatization High Council decision.

- **Trakya Electricity Distribution Company**

Trakya Electricity Distribution Company (Trakya) which distributes electricity in Edirne, Kırklareli and Tekirdağ provinces has 0.8 million subscribers and an annual loss and theft rate of 6.8 % in 2010. 10 groups placed bids for Trakya where AKSA Elektrik Perakende Satış A.Ş. had placed the highest bid with \$ 622,000,000. As AKSA Elektrik Perakende Satış A.Ş. failed to fulfill its obligations under the Tender Specifications, IC İçtaş İnşaat San. ve Tic. Ltd. Şti. was invited to sign the Share Purchase Agreement in the framework of the Privatization High Council decision and the deadline for the signing of the agreement is December 30, 2011.

- **Aras Electricity Distribution Company**

Aras Electricity Distribution Company (Aras) which distributes electricity in Ağrı, Erzincan, Erzurum, Kars, Bayburt, Ardahan, Iğdır provinces has 0.8 million subscribers and an annual loss and theft rate of 25.6 % in 2010. Tender for sale of 100% of shares of Aras Elektrik Dağıtım A.Ş. was completed on September 25, 2008 with the highest bid of 128,500,000 US Dollars given by Kiler Alışveriş Hizmetleri Gıda Sanayi ve Ticaret A.Ş. The tender was cancelled by Council of State and Privatization Administration has appealed the decision in 2011.

- **Kayseri ve Civarı Elektrik T.A.Ş.**

Shares of Kayseri ve Civarı Elektrik T.A.Ş. (KCETAŞ) belonging to Türkiye Elektrik Ticaret ve Taahhüt A.Ş. was included in privatization program with Privatization High Council decision dated December 03, 2009 no. 2009/67. Preparations for the privatization of %20 shares of Kayseri ve Civarı Elektrik T.A.Ş. are ongoing.

- The State Railway's (TCDD's) **Port of Derince** is located close to key industrial regions of İstanbul, İzmit and Adapazarı in the Gulf of İzmit. Derince Port's privatization has not been completed due to the problems in its zoning plan. A preparation for the new zoning plan is being implemented by PA. PA is planning to initiate the tender process immediately as soon as the zoning problems are solved.
- The PHC on January 7, 2010, approved the sale of Tekel's old **Paşabahçe Spirits Factory** and its land in İstanbul to Asya Gayrimenkul Pazarlama İnşaat for TL 333,100,000 (\$222.4 million).
- The privatization process of %80 of the shares in **Başkent Natural Gas Distribution Inc. Co (Başkentgaz)** has commenced. The bidding deadline for the tender of the Turkey's second biggest natural gas distribution company is January 27, 2012. The previous tender in which MMEKA was the highest bidder, was cancelled due to the buyers' failure to comply with the stipulations of the share purchase agreement. The Ankara Metropolitan Municipality has also announced the start of the process for the privatization of their %20 share in Başkentgaz.
- Binbirgıda Tarım Ürünleri Sanayi ve Ticaret on December 17, 2009, won tenders for the privatization of the **Ayvalık Salt Flats (Saltpan)**, on the Aegean Coast, and the **Camialtı Salt Flats (Saltpan)** in İzmir, in a move by the government to withdraw completely from salt mining and processing. The government has sold seven salt flats from 2003 to 2006. Salt is mined or recovered in salt flats. Binbirgıda offered TL115 million (\$76.8 million) for the Camaltı Salt Flat, located northwest of the port city of İzmir. The salt flats include one of the country's most important migratory birds' sanctuaries: The "İzmir Birds' Paradise." Binbirgıda also offered TL 9 million (\$6 million) for the Ayvalık Salt Flats.
- Limak Ortaklığı Enerji in October 2010 won the tender for the State Railway's **Port of İskenderun**, with a bid of \$372 million. The port, located on the northeastern corner of the Mediterranean Sea, has a 1,426 meter pier and a 750,000 square meter port area and employs 491 persons.
- Yıldırım Dış Ticaret was the highest bidder for the privatization of **Emekli Sandığı (State Employees' Pension Fund) Foça Holiday Village in Foça**, a resort town on the Aegean Coast 70 km north of İzmir, with an \$8.2 million bid. Formerly operated by the French Club Mediteranee organization, the Foça Holiday Village includes 350 bungalows, two restaurants, two bars, an olympic swimming pool, nine tennis courts, basketball and volleyball courts and a gymnastic saloon.
- The government has restarted the **Salıpazarı Cruise Port** privatization (formerly known as Galataport) The Port will be privatized through transfer of operational rights. PA is currently undertaking preparatory studies for the project.
- Gür-Tem Madencilik Turizm ve Ticaret A.Ş. in October 2010 was the highest bidder for the Treasury's **İstanbul Maltepe Properties** with a TL 127 million (\$88.8 million) offer.
- The Ministry of Transportation specified the bidding deadline as January 10, 2011 for the 414 km-long **North Marmara Express Highway and Third Bosphorus Bridge**. The project

is to be constructed on a build-operate-transfer (BOT) basis, with the winners of the tender constructing and operating the highway and bridge for a certain amount of time, possibly 15 years, after which they would be turned over to the state.

- The TMSF invited bids for lands along the Berke Hydroelectric Dam, formerly owned by the Uzan Group. The TMSF seized control of the properties in southern Turkey from the Uzan Group after its owners failed to come up with a plan to pay their debts to the state.
- The government is planning to sell 473,419 hectares of deforested lands throughout the country in a bid to bolster the real estate market. The properties are known as the 2B lands.
- Turkey plans to sell a 49% stake in the state-owned **Turkish Petroleum Corporation** (TPAO) in a public offering. TPAO is the primary producer of crude oil and natural gas in Turkey and one of the country's biggest companies in terms of assets and sales. Being a state enterprise, it continues to be one of the most profitable enterprises in Turkey. In 2009, TPAO ranked 30th biggest in terms of sales among Turkey's 500 biggest industrial corporations. TPAO employs 4,570 employees. It is exclusively producing for the local market and also produces natural gas. TPAO owns oil and natural gas exploration investments in Kazakhstan, Azerbaijan and Libya. Its oil production is increasing due to new on shore and offshore exploration, particularly in Turkey and abroad.
- PA started the privatization process of portfolio **B and C of Turk Şeker A.Ş.** Portfolio B covers Elazığ, Malatya, Erzincan and Elbistan sugar factories while Portfolio C covers Kastamonu, Kırşehir, Turhal, Yozgat, Çorum, Çarşamba. 6 bids for Portfolio C and 7 bids for Portfolio B were received on 11.11.2001

PA is also planning to privatize other portfolios of sugar factories of **Turk Seker A.Ş.** **Portfolio D** includes sugar mills in Bor, Ereğli and Iğın in west Turkey. **Portfolio E** covers Usak, Alpullu, Burdur and Afyon Sugar Factories in western Turkey. **Portfolio F** includes Eskisehir and Ankara Sugar Factories. With more than 27 factories and interests in three others, Turk Şeker A.Ş. is Turkey's 15th biggest industrial corporation in terms of sales with turnover of \$1.345 billion in 2009. Turkey is one of the world's biggest producers of beet and sugar beet. Although there are several private sugar companies, the state sugar industry produces about 80 percent of the country's sugar with 14,539 employees and is one of the world's biggest producers of the commodity. It buys and sells 80 percent of the sugar beet produced in the country from farmers. Its products are sold all over the world, but major buyers are from the countries of the former Soviet Union, the European Union and the Middle East. It has minority shares of several sugar factories, such as Konya Şeker Fabrikası, in which majority shares have already been sold.

- PA launched the tender process of the **motorways and bridges** where the bidding deadline is February 16, 2012. The scope of privatization covers Turkish motorway network with a sum of 1,975 km including "Edirne-İstanbul-Ankara Motorway", "Pozantı-Tarsus-Mersin Motorway", "Tarsus-Adana-Gaziantep Motorway", "Toprakkale-İskenderun Motorway", "Gaziantep-Şanlıurfa Motorway", "İzmir-Çeşme Motorway", "İzmir-Aydın Motorway", "İzmir and Ankara

Ring Motorway”, “Bosphorus Bridge”, “Fatih Sultan Mehmet Bridge and Ring Motorway” with their connection roads and the service facilities, maintenance and operation facilities, toll collection centers and the other units of goods and service production and other assets located in such motorway which were under the responsibility of the General Directorate of Highways. Motorways and Bridges will be privatized through transfer-of-operating rights method for a period of 25 years starting from the actual transfer day of the motorways.

- PA is planning to privatize the Port of Taşucu in Mersin. The port was formerly owned by SEKA, the privatized state paper company and preparatory studies are ongoing.
- Halkbank is a commercial bank operating in line with Banking Law and the Law No.4603. Due to the PHC Decision, 24.98 % of the Halkbank shares were listed on Istanbul Stock Exchange on May 10, 2007 and generated a record demand for the biggest public offering ever carried out in Turkey. US\$ 1.8 billion was raised from this public offering. The paid-in capital of Halkbank is TL 1.250.000.000. The Bank’s controlling shareholder is the PA, with a share percentage of 75.02%. The privatization structure for the remaining PA shares has not been decided. The sale strategy will be determined in accordance with the market conditions.
- Kalamış-Fenerbahçe Marina; the largest marina in Turkey will be privatized through the method of transfer of operational rights. The preparatory studies for the marina is ongoing.

There are ample amount of closed privatization deals waiting for closing as of 2011; some of these are awaiting regulatory approvals, while some are being reviewed by courts where in some cases the buyers are using their time in the framework of the tender specifications. The amount of the due receivables is approximately \$9 billion as of November 2011.

#### STATE COMPANIES UNDER THE CONTROL OF THE PRIVATIZATION ADMINISTRATION (ÖİB)

Name of the Company	Industry	Share of ÖİB (%)
Sümer Holding A.Ş.	Textile, leather, ceramics, carpet	100.00
T. Denizcilik İşletmeleri	Maritime	100.00
Tütün, Tütün Mam., Tuz ve Alkol İşletmeleri A.Ş. (TEKEL)	Tobacco Products, Salt	100.00
Türkiye Elektrik Dağıtım A.Ş. (TEDAŞ)	Electricity Distribution	100.00
Ankara Doğal Elektrik Üretim ve Ticaret A.Ş.	Electricity	100.00
Türkiye Şeker Fabrikaları A.Ş.	Sugar processing	100.00
Karadeniz Bakır İşlet. (KBİ)	Copper	99.99



Başkent Doğalgaz Dağıtım A.Ş.	Gas Distribution	80.00
Acıpayam Selüloz San.ve Tic. A.Ş.	Cellulose Production	76,83
T.Halk Bankası A.Ş.	Banking	74.98
Doğusan Boru Sanayi ve Ticaret A.Ş.	Pipe Production	56.09
Türk Hava Yolları A.Ş. (THY)	Airline	49.00
Emek İnşaat ve İşletme A.Ş.	Construction	49.00
Taksim Otelcilik A.Ş.	Hotel	31.43
Oyak İnşaat A.Ş.	Construction	25.00
Kayseri ve Cıvırı Elektrik T.A.Ş.	Electricity	20.00
Yeditepe Beynelminel Otelcilik	Hotel	15.00
Petrokimya Hold. A.Ş. (PETKİM)	Petrochemicals	10.32
Kayseri Şeker Fabrikası A.Ş.	Sugar processing	10.00
Hamitabat	Electricity generation	100
Hidrojen Peroksit San ve Tic. A.Ş.	Chemicals	28.20
Türk Telekomünikasyon A.Ş.	Telecoms	31.68 *

\*Shares are owned by Treasury.

### TURKISH ELECTRICITY DISTRIBUTION COMPANIES IN CLOSING PROCESS

Toroslar (Adana, Mersin, Osmaniye, Hatay, Gaziantep and Kilis)	Trakya (Edirne, Kırklareli and Tekirdağ)
Van Gölü (Van, Hakkari, Muş, Bitlis )	AYEDAŞ (Asian side of İstanbul)
Dicle (Diyarbakır, Mardin, Siirt. Şanlıurfa, Batman, Şırnak)	Bogaziçi (European Side of İstanbul)
Akdeniz (Antalya, Burdur and Isparta)	

Source: Privatization Administration

## ENTITIES IN THE PRIVATIZATION PORTFOLIO MOTORWAYS AND BRIDGES

Toll Motorways	Bosphorus Bridges
1 Pozantı-Tarsus-Mersin	1 Boğaziçi (Bosphorus)
2 Edirne-İstanbul-Ankara	2 Fatih Sultan Mehmet ve Çevre
3 Tarsus-Adana-Gaziantep	
4 Toprakkale-İskenderun	
5 İzmir-Çeşme	
6 İzmir-Aydın	
7 Gaziantep-Şanlıurfa	
8 İzmir ve Ankara Çevre	

Source: Privatization Administration

## OTHER ENTITIES IN THE PRIVATIZATION PROGRAM PORTS

1 State Railways İzmir Port
2 State Railways Derince Port
3 Kalamış-Fenerbahçe Marina
4 TDI- Güllük Port
5 Kemerköy Wharf

Source: Privatization Administration

### 3.3 FOREIGN INVESTMENT

Turkey has attracted tremendous amount of foreign direct investment (FDI) in recent years. By attracting more than \$100 billion over the past eight years, where as it only had attracted \$15 billion FDI in the eight decades between 1923 and 2003, Turkey has developed into an attractive destination for FDI in the world. The country attracted a record high over \$22 billion FDI in 2007. As such the country continues to be one of the most attractive FDI destinations in the world.

“Turkey has the potential of attracting five percent of its GNP -- around \$25 billion -- in foreign investment every year,” Mustafa Alper, former secretary general of the International Investors Association of Turkey (YASED), declared in an interview.

#### FOREIGN DIRECT INVESTMENT INFLOWS TO TURKEY 1980 - 2010

Year	\$ Million	Year	\$ Million
1980	18	1997	805
1981	95	1998	940
1982	55	1999	783
1983	46	2000	982
1984	113	2001	3.352
1985	99	2002	1.082
1986	125	2003	1.702
1987	115	2004	2.785
1988	354	2005	10.031
1989	663	2006	20.185
1990	684	2007	22.047
1991	810	2008	19.504
1992	844	2009	8.411
1993	636	2010	9.280
1994	608	2011 Jan-Aug	10.113
1995	885		
1996	722	<b>Total</b>	<b>118.874</b>

Source: Central Bank of the Republic of Turkey

Turkish authorities are approaching FDI without discriminating about the sector or origin, but give special attention to investments that will bring new jobs, know-how and generate value-added to the economy. Investments in information and communications technology, machine tools, machinery, metal processing, logistics and automotive industry, food processing, pharmaceuticals, energy, services and infrastructure are being particularly encouraged.

Consumer-oriented service companies are pouring into the country, mesmerized by the country's young population and rapidly changing shopping habits.

*“Turkey presents its compatibility with global business environment, but the country is also receiving more and more greenfield investments in different sectors,”* was told in an interview with the magazine Foreign Direct Investment (FDI) by Investment Support and Promotion Agency of Turkey (İSPAT). *“The expansion of already installed companies (as in the automotive industry, household appliances, etc) presents also an important domain for Turkey’s economy. We are enjoying seeing that those investors strongly believe in the future of Turkey and its competitive advantages.”*

## **TURKISH INVESTMENT ABROAD**

Some 3,500 Turkish companies have invested a total \$23.6 billion in 103 countries by October 2010, the Central Bank of Turkey reported in January 2011.

The biggest investment areas of Turkish companies abroad are in energy, banking, financial services, chemical products, airport operations and textiles, officials said.

Major Turkish investors abroad include synthetic fibers manufacturer Advansa Sasa, tire fabric and industrial yarns producer Kordsa Global, commercial vehicles manufacturer Temsa Global, the Turkish Petroleum Corporation (TPAO), TAV Holding, mobile phone services company Turkcell, glass manufacturer Şişecam, Çalık Holding, media group Doğan Holding, banks İşbank, Ziraat Bankası and Garanti Bankası, Enka Holding, Eroğlu Holding, Koç Holding, Tekfen Holding, Çelebi Holding, Alarko Holding, Yıldız Holding, Doğu Holding, the Borusan Group, Fiba Holding, and Gübretaş.

One of the biggest Turkish investments abroad is TAV Holding’s operations of the \$550 million Enfidha International Airport in Tunisia constructed on a build-operate-transfer basis. TAV will operate the airport, which opened at the end of 2009, for 40 years, and the facility is expected eventually to receive 22 million foreign travelers a year, as Tunisia enters the big leagues in world tourism. TAV Holding also operates the newly renewed Monastir Habib Bourguiba International Airport, which it renovated, under a 40-year contract with the Tunisian government.

Turkey’s top 19 non-financial multinationals held more than \$31 billion in foreign assets as of December 2009, according to a study carried out jointly by Kadir Has University (KHU), KPMG Turkey, the Foreign Economic Relations Board of Turkey (DEİK) and Vale Columbia Center on Sustainable International Investment (VCCI). The foreign sales of these companies in 2009 stood at \$14.725 billion. They employed 89,946 persons abroad.

### TOP 19 TURKISH MULTINATIONALS BY FOREIGN ASSETS, FOREIGN SALES AND FOREIGN EMPLOYEMENT IN 2009

Ranking by foreign assets	Corporation	Foreign Assets in million U.S. dollars	Foreign Sales In million U.S. dollars	Number of emplyoyees abroad
1	Sabancı Holding	8,051	1,319	5,982
2	Doğuş Group	6,357	1,158	6,244
3	Enka Construction	3,195	2,030	14,116
4	Turkcell	3,195	2,185	2,103
5	Çalık Holding	2,633	861	13,585
6	Turkish Petroleum Corp.	1,254	882	27
7	Koç Holding	1,160	1,756	4,423
8	Şişecam A.Ş.	1,129	480	5,158
9	Tekfen Holding	1,003	940	7,619
10	Doğan Holding	801	745	4,652
11	Alarko Group	636	214	907
12	TAV Holding	571	781	14,184
13	Zorlu Energy Group	459	11	127
14	Orhan Holding	293	239	1,550
15	Eczacıbaşı Holding	262	347	1,531
16	Borusan Holding	235	444	624
17	Yıldız Holding	165	94	513
18	Eroğlu Holding	106	191	3,030
19	Çelebi Holding	95	37	3,571
<b>Total</b>	<b>31,402</b>	<b>14,726</b>	<b>81,946</b>	

Source: Kadir Has University - KPMG-T - DEİK, VCC survey of Turkish multinationals 2010

## MERGERS AND ACQUISITIONS

In 2010, Turkey had 203 cases of mergers and acquisitions (M&A), totaling \$29 billion, up five-fold from 2009, the consultancy company Deloitte Turkey said in a report published in January 2011.

Deloitte Turkey said 35 transactions worth \$14.6 billion involved the privatization of state enterprises, though many of these are still awaiting approval from competition authorities, court rul-

ings and financing to be finalized. Twenty-four cases of M&As totalling \$850 million were carried out by private foreign equity funds.

The biggest single case of an M&A in 2010 was Spain's Banco Bilbao Viscaya Argentaria's (BBVA's) acquisition of a 24.89% of Garanti Bankası from GE Money and Turkey's Doğuş Group for a total \$5.76 billion. The deal was concluded in the first quarter of 2011.

The M&A transactions were concentrated in energy, health and medical services, pharmaceuticals and retailing. The average transaction was \$50 million, an indication that small and medium-sized companies dominated the deals.

### **3.4 TOURISM**

#### **THE FLORIDA OF EUROPE, TURKEY ATTRACTS TOURISTS FROM ALL OVER THE WORLD.**

Construction is continuing on hundreds of new luxury hotels and holiday villages along the Turquoise Coast, the highly indented southwest corner of Anatolia, which will cement the nation's place in the big leagues of world tourism in the next five years.

In addition to the hotel and resort construction boom, drinking water and sewage systems are being overhauled, and new marinas and golf courses are being built to attract rich foreign tourists to coastal areas, characterized by miles of long, unpolluted beaches, ruins of magnificent cities of antiquity, and long warm summers and mild winters. New hotels are also springing up in İstanbul and other big cities to encourage convention and business tourism across Turkey.

Turkey is one of the world's fastest growing tourism markets.

The number of tourists visiting Turkey swelled 21.7-fold in the past three decades, from 1.523 million in 1979 to a record 33.027 million in 2010, including 28.632 million foreign nationals and 4.395 million Turks living abroad but visiting the country, according to the Turkish Statistical Institute (TUIK). In 2008, the country had a 3.34% share in the global tourism market share, up from 2.7% in 2005.

By 2023, the centennial of the republic, Turkey aims to attract 60 million foreign tourists annually and earn \$60 billion a year from tourism, according to the State Planning Organization (DPT).

Rank	Country	UNWTO Regional Market	International tourist arrivals (2010)	Change /2009
1	France	Europe	76.8 million	=
2	United States	North America	59.7 million	+8.7%
3	China	Asia	55.7 million	+9.4%
4	Spain	Europe	52.7 million	+1.0%
5	Italy	Europe	43.6 million	+0.9%
6	Turkey	Europe	28.6 million	+5.9%
7	United Kingdom	Europe	28.1 million	-0.2%
8	Germany	Europe	26.9 million	+10.9%
9	Malaysia	Asia	24.6 million	+3.9%
10	Mexico	North America	22.4 million	+4.4%

Source: Turkish Tourism Ministry, World Tourism Organization

### TARGETS OF TURKISH TOURISM TOWARDS 2023

Years	Number of Tourist Arrivals (In Millions)	Tourism Revenues (in Billion \$)
2010	33	20
2013	35	28
2016	42	32
2019	50	42
2021	55	50
2023	60	60

Source: State Planning Organization, İstanbul Chamber of Commerce, and the Tourism Investors' Association

Yet Turkey has barely even scratched the surface in terms of potential from its travel and leisure industry, the World Travel and Tourism Council says. As the nation is so vast and diverse it has the opportunity to develop alternatives including ecological tourism, incentive and convention tourism, adventure travels, ski holidays, religious and culture tours, and there is almost immeasurable potential for growth and profit in the travel and tourism industry in Turkey.

Turkey is also looking to expand upon its traditional summer tourism appeal with the development of new out-of-season incentives to visitors, including thermal and health tourism and archaeological tours. Turkey has one of the world's richest cultural heritages, and sites of historic

interest are becoming of increasing value as tourist destinations in their own right. Opening up new tourism sites in the country's interior will have a significant effect on the economic development of these areas.

Turkey has been the world's third fastest growth travel destination, behind Russia and China, throughout the past two decades, according to the World Tourism Organization (WTO).

In 2009, it ranked seventh in the world in the number of tourist arrivals and ninth in terms of tourism receipts. France ranked number one with 74.2 million visitors, followed by the U.S. with 54.9 million and Spain with 52.2 million visitors. The U.S. followed by Spain were the leaders in tourism tourism receipts in 2009 with \$94.2 billion and \$53.2 billion respectively.

The high value of the euro against the U.S. dollar, low-cost, all-inclusive travel packages, and direct charter flights from major European cities to the country's main resorts contributed to Turkey's success in tourism, particularly in attracting travelers from the European Union and the former Soviet Union.

In 2010, Germany led with the most visitors to Turkey with 4,385,263 tourists, followed by the Russia with 3,107,043. Some 642,768 American tourists visited the country in 2010.

Turkey's tourism earnings also grew from a modest \$280 million in 1979 to a record \$21.2 billion in 2009, according to the Ministry of Culture and Tourism. Turkish tourism receipts were down slightly in 2010 with earnings at \$20.806 billion.

To catch up with the tourism boom, the government began a crash hotel, motel, and holiday village building program that aims to increase hotel bed capacity to about 1.2 million, a whopping 113% increase from its 1998 capacity.

#### FOREIGN TOURIST ARRIVALS IN TURKEY 2003 - 2009

Year	Tourists (million)	Revenues (billion dollars)
2004	17.6	15.9
2005	21.1	18.2
2006	19.8	16.9
2007	23.3	18.5
2008	26.3	21.9
2009	27.0	21.2
2010	28.6	20.8



## VISITORS TO TURKEY FROM TOP 15 COUNTRIES 2010

Country	Number of Tourists
Germany	4,385,263
Russia	3,107,043
Britain	2,673,605
Iran	1,885,097
Bulgaria	1,433,970
Georgia	1,112,193
Holland	1,073,064
France	928,376
Syria	899,494
Italy	671,060
Greece	670,297
U.S.	642,768
Ukraine	568,227
Belgium	543,003
Austria	500,321

Source: Ministry of Culture and Tourism

Rank	Country	UNWTO Regional Market	International Tourism Receipts (2010) <sup>[2]</sup>	Change /2009 in local currencies
1	United States	North America	\$103.5 billion	+9.9%
2	Spain	Europe	\$52.5 billion	+3.3%
3	France	Europe	\$46.3 billion	-1.3%
4	China	Asia	\$45.8 billion	+15.5%
5	Italy	Europe	\$38.8 billion	+1.4%
6	Germany	Europe	\$34.7 billion	+5.3%
7	United Kingdom	Europe	\$30.4 billion	+1.7%
8	Australia	Oceania	\$30.1 billion	+0.8%
9	Hong Kong (China)	Europe	\$23.0 billion	+39.8%
10	Turkey	Europe	\$20.8 billion	-2.1%

### TOP 10 MOST VISITED CITIES BY ESTIMATED NUMBER OF INTERNATIONAL VISITORS BY SELECTED YEAR

City	Country	International visitors (millions)	Year/Notes
Paris	France	15.1	2010
London	United Kingdom	14.6	2010
New York City	United States	9.7	2010
Antalya	Turkey	9.2	2010
Kuala Lumpur	Malaysia	8.9	2010
Singapore	Singapore	8.6	2010
Hong Kong	China	8.4	2010
Bangkok	Thailand	7.2	2010
İstanbul	Turkey	6.9	2010
Dubai	United Arab Emirates	6.8	2009

Source: World Tourism Organization, Ministries of Tourism

İstanbul and Antalya are among the world's 10 most visited cities, and are in the same league as London, Paris, New York City, Hong Kong, Kuala Lumpur, Singapore, Bangkok and Dubai when it comes to attracting foreign travelers.

## HOTELS

At the end of 2009, Turkey had 3,379 hotels and holiday villages with a total bed capacity of 840,241, according to the Association of Turkish Travel Agencies. This is an enormous expansion since 1966, when the country had only 456 hotels with a bed capacity of just under 40,000. In 1979, the country had fewer than 90,000 beds – about the same as the Greek island of Rhodes.

Investors are pouring \$3 billion into the construction of 124 new hotels, including 22 five-star and 36 four-star facilities, across the country, the Tourism Investors' Association said. Some 50 hotels, including 15 five-star complexes are also being revamped. On the Asian side of İstanbul alone, some 21 hotel projects are in various stages of planning and construction, and several have opened, including the DoubleTree by Hilton in Moda, the Ağaoğlu My City in Ümraniye, the Green Park Pendik, the Titanic Business Hotel in Kartal, the Divan İstanbul Asia Pendik and the ByOtell in Kozyatağı.

In Beşiktaş, on the European side of the city, Tanrıverdi Holding is investing \$250 million to transform an old tobacco warehouse into the seven-star Shangri-La İstanbul Hotel. The Singapore-

based Raffles Hotels and Resorts will operate a 5-star premium hotel that is being constructed at the Zorlu Center in Zincirlikuyu.

The April 2006 report of the Association of Real Estate Investment Companies (GYODER) also stated that İstanbul needed an additional 91,325 beds by 2015. Assuming that this requirement is met through five and three to four star hotels, some 60 five-star and 276 three-star hotels are needed just in İstanbul. İstanbul topped the list of hotel occupancy rate list in 2005, a study by Deloitte Moscow stated.

In income per room, İstanbul ranked second after Moscow. Further, more new bed capacity is needed in Central Anatolia and Black Sea, while Antalya region desperately needs investments to lengthen the tourism season, such as golf, health, shopping and entertainment facilities. The government extends generous incentives for tourism investments, including allocation of land.

An emerging trend in the past few years is the mushrooming of boutique hotels. Their number has reached 500, of which 150 are in İstanbul. The chairman of the Turkish Hotel Owners Association said that tourists coming for İstanbul and other historical places would increase to a great extent if the number of boutique hotels increases.

Some 255 foreign hotel operators have direct investments in Turkey, including America's Hilton, the Ritz Carlton Hotels and Resorts and the Sheraton, and Canada's Four Seasons Hotels and Resorts, Germany's Kempinski and Iberote, the Marriott and France's Novotel Hotels and Club Mediterranean.

## **THE WORLD'S MOST EXPENSIVE HOTEL**

Luxury hotels are also being developed on the Mediterranean coast of Turkey.

In May 2009, Azeri billionaire Telman Ismailov launched the five-star Mardan Palace Hotel – in Antalya with a \$1.4 billion investment and fanfare. The facility, touted as the “world's most expensive hotel,” resembles İstanbul's Topkapı Palace, the residence of the Ottoman sultans, and has a lobby the size of a football pitch, lit by a gigantic chandelier. It also has a two acre spa, an 18-hole golf course and an immense swimming pool that one can cross in a gondola. The hotel has beaches with white sand flown in from Egypt. A one night stay in the hotel's suites costs around \$18,000. Each room has remote control toilets and many other unusual attractions. Ismailov is chairman of AST, Russia's biggest property developer.

## **MAJOR TOURISM PROJECTS**

Development of marinas, protection of the environment, incentives for winter sports, mountaineering, adventure and religious tours and golf tourism are among the major projects of the Tour-

ism Ministry. These projects aim to expand the tourism season in Turkey into a year-round affair and attract wealthy tourists to the country.

One big project is the Çeşme Tourism City Project, an ambitious tourism, real estate development and golf and yachting sports undertaking on 2,058 hectares of land along the Alaçatı Bay, near the town of Çeşme, on the Aegean coast. The land is located adjacent to one of the world's best windsurfing sites, and one of Turkey's biggest wind farms. The project will include hotels and holiday villages with a total 70,000 bed capacity, 14 golf courses, and several marinas. The Tourism Ministry is seeking foreign investors for the project.

Another big initiative is the Ağaoğlu Group-Net Holding revenue-sharing joint venture, known as the Bodrum-Milas Real Estate and Tourism Development Project (or the Halicarnassus Project). The undertaking is to be located on 2,625 acres of land near the small Aegean port community of Güllük, 200 km south of İzmir and only 12 km from Bodrum International Airport.

The Halicarnassus Project will include a new resort town to service a population of 30,000 inhabitants year-round. It will have four five-star hotels, several apart hotels, 5,000 luxury villas, hundreds of time-share housing units, a Turkish bazaar, an 18-hole golf course and country club, an aquapark, an equestrian club and other sports and recreational facilities. Within the property is the necropolis of the ancient Carian town of Bargylia, which will be maintained as an archaeological site.

Construction will cost at least \$500 million. The project will create a pleasant alternative to Bodrum, an overdeveloped resort town favored by low-budget Britons, only 22 km to the south, and attract wealthy foreign travelers to Turkey. Only the Costa Smeralde on the Italian Mediterranean island of Sardinia, the Alverde on the southern tip of Portugal, and El Conquistador Resort and Country Club in Las Croabas in Puerto Rico are of the same size and scope of the Halicarnassus Project, says Haluk Elver, a senior executive and urban planner with Net Holding who prepared the project.

Net Holding acquired the property in 1989 and prepared a detailed project in the 1990s, but could not get sufficient financial backing to start construction. At one point, Hungarian-born billionaire financier George Soros and Mark Mobius' Templeton Emerging Markets Fund were said to be interested in the Halicarnassus Project, but eventually bowed out due to the then severe fluctuations in Turkey's economy and the financial difficulties faced by Net Holding. Ağaoğlu will carry out the construction and share the revenues from project with Net Holding.

## **YACHTING AND SAILING**

Some 16 new marinas are in various stages of planning and construction on the Mediterranean coast, the Sea of Marmara and the Black Sea with berths for 7,940 yacht berths. The new marinas would run from Syrian border to the Georgian frontier along the coastal areas of the Anatolian peninsula and make Turkey the biggest yachting center in the Mediterranean and the Black Sea. A

major new marina is also planned as part of the Haydarpaşa Project in İstanbul that will transform the city's main railway terminal into a tourism hub.

On July 23, 2010, Prime Minister Recep Tayyip Erdoğan inaugurated the Yalova Yachting Marina along the Sea of Marmara. The facility, built and operated by SETUR, Turkey's leading marina operator, has berths for 340 yachts, of which 243 are on the sea and 97 are on land.

Many of the marinas will be constructed on a build-operate-transfer (BOT), or build-operate-own (BOO) basis. Under these schemes, private contractors would line up financing for each project, construct the sites, own and operate them for a specified period of time, say 25 years. At a mutually agreed date, they would return the marinas back to the state. Or they would own the marinas permanently.

Turkey has several marinas that were built on a BOT basis and are privately operated, including the Fenerbahçe and the Pendik Marinturk Marinas in İstanbul, the Marmaris Marina, in southwest Turkey, and the Turgut Reis Marina, near Bodrum, on the Aegean Coast. Turkey has 46 marinas and small yacht landings. The country earns over \$1 billion a year from yachting.

In the mid 1990s, several marinas on the Aegean and Mediterranean coast were privatized.

Sailing along Turkey's southwest corner, known as the Blue Voyage, is extremely popular among American and Canadian tourists who want to experience the Turkish coast, visit untouched beaches and bays, fringed by pine forests, swim and dive and go spear fishing among sunken ancient cities.

The government is also turning over state-owned marinas to the private sector.

The administration is also now beginning to encourage yachting along the rugged Black Sea Coast of Turkey by holding regattas from İstanbul to the Georgian border.

Officials predict there will be a boom in yacht tourism in the Black Sea region after many European waterways are connected to the Danube, Europe's second longest river.

The Danube, which has many tributaries and extends 1,800 km from its source, rises in the southern German Black Forest Mountains and flows in a southeasterly direction through Austria, Slovak Republic, Hungary, Serbia, Bulgaria and Romania before emptying into the Black Sea. Newly built canals now actually link the North Sea and the English Channel to the Danube, allowing sailboats and yachts and small boats to go directly to the Black Sea from Northern Europe instead of circumventing the Atlantic and the Mediterranean.

Tourism officials say that other countries with shores on the Black Sea, including Bulgaria, Romania, Ukraine, Russia and Georgia stand to benefit from the coming yachting boom.

Officials said the Turkish government improved hundreds of fisherman jetties and ports on the Black Sea Coast and would allow foreign yachts to anchor in them.

The Turkish Black Sea coast is one of the country's least developed tourism regions, despite

its miles of spectacular coastline and empty beaches, Alpine-like mountain ranges and historic churches and monasteries. It has very few hotels where tourists can stay.

Sailing in Turkey is a growing sporting and recreational activity among affluent Turks. But Turkey is a major importer of racing sailboats with only three domestic producers of fiberglass sailboats: Algomar in Bodrum, Ege Yacht in İstanbul and Sirena Marine in Yalova. Masts are also produced in Turkey, but not the sails themselves. Numerous sailing courses have opened, led by Hedef Yelken, owned by former national sailing champion and national team head coach Levent Özgen and youthful entrepreneur Yiğit Eroğlu, in İstanbul's Fenerbahçe Marina. Hedef Yelken's clients include employees of many multinational corporations working in Turkey.

## **BOATBUILDING**

Turkey has emerged as one of the world's leading boatbuilding countries, and is attracting foreign investment in the field. Turkey's 500 boatbuilding companies produce annually some 1,000 motor boats ranging from skiffs to megayachts (50 meters to 90 meters in length) and gigayachts (over 90 meters length).

The vast majority of these boat builders are small family-owned enterprises, or "momma and papa" companies, according to one source. But several are owned by large Turkish holding companies, such as RMK Marine, a subsidiary of Koç Holding, Turkey's biggest industrial and trade conglomerate.

But it is in the superyacht category (25 meters to 50 meters in length) that Turkey has emerged as the world's fourth biggest producer with 50 manufacturers, launching up to 100 superyachts a year. In 2010, some 27 superyachts were lowered to sea alone from Antalya's Free Zone, a major center for boat building.

Turkish exports of ships (including commercial cargo vessels and oil tankers) and yachts in 2010 totaled \$1.118 billion, up nearly four-fold from 2002, when Turkey exported only \$290.2 million of vessels.

Turkish boatbuilders sell their yachts to the U.S., Italy, Britain, France, Germany and Greece. Recent purchasers of Turkish super yachts included U.S. movie star Johnny Depp, English footballer and Chelsea team captain John Terry and U.S. socialite and celebrity Paris Hilton. In 2010, Russian oligarch and billionaire Roman Abramovich reportedly ordered a \$360 million gigayacht from Turkey's Angel Yachts in Tuzla, which would become the world's biggest yacht. The 182-meter yacht would surpass Abramovich's Eclipse by 19 meters in length and have 16 royal suites, four dream rooms, two helicopter pads and a swimming pool lined with palm trees.

The boatbuilding business has also spawned a vast components, parts and accessories industry, producing everything from navigational equipment to mooring ropes, racing and cruising lines to shell and transom doors, swimming platforms hatches, modern marine kitchens and furniture

to walkways, hinging and latching systems. Kaya Ropes, based in the town of Gebze, for instance, aims to become one of world's top three producers of marine ropes in the next five years.

Many foreign-built motoryachts and superyachts are purchased by Turkey's nouveaux riches, who buy the boats and bring them back to Turkey bearing U.S. flags and a Wilmington, Delaware, port of origin, solely for tax purposes.

Foreign companies, such as Dubai-based equity fund Abraj Capital and Italy's Perini Navi have invested in Turkish boatbuilding companies, and others have their yachts built in Turkey, where costs are at least 30% less than in the European Union. Abraj Capital is a 70% shareholder of İstanbul boatbuilder Numarine Denizcilik Sanayi Ticaret A.Ş., while Perini Navi owns Yıldız Gemi ve Makine Sanayi.

The country's closeness to western Europe, the major market for yachts, low labor costs and tradition of boat building -- for decades the Aegean tourist boom towns of Bodrum and Marmaris have been major centers for the manufacture of ketches and gulets, wooden-framed, leisure yachts with round sterns -- are attracting buyers and investors from abroad.

In addition to Bodrum and Marmaris, the boat building industry is located mainly in Tuzla, a town 25 km east of İstanbul, in the Antalya Free Zone on the Mediterranean coast, and in the new shipbuilding center of Yalova, along the Sea of Marmara.

## GOLF INVESTMENTS

Turkey currently has 23 operating golf courses, three in İstanbul and 18 in and around Belek, near the Mediterranean resort city of Antalya. Most of the golf courses are linked up with resort hotels. The nation also has several driving ranges.

The country earned a mere \$20 million in 2005 from golf tourism, compared to \$6.5 billion earned by Spain, which attracted 2.8 million golf tourists. Even Portugal has 72 golf courses. But in 2009, Turkey earned \$130 million from golf tourism, according to the Turkish Golf Federation.

### GOVERNMENT INCENTIVES AND INITIATIVES IN TOURISM

#### Investment Incentives

Tax exemption on imported items.

VAT exemption on local machinery and equipment.

Tax duties and charges exemption on local purchases.

Land allocation on 49 year lease base (75 years in tourism cities)

Electricity and water consumption at the lowest available price (during investment and operation periods)

### **Land Allocation**

The Ministry of Tourism provides public land to investors under 49 year lease contracts on BOT basis for building accommodation facilities. Until now more than 100 thousand beds were built on public lands allocated to tourism investors, consisting 20% of the total bed capacity of Turkey. According to lease contracts, tourism establishments pay 0.5 -1 % of their annual revenues to the Ministry of Finance.

### **Public-Private Sector Partnership Practices**

There are several laws concerning PPP, and currently there are many facilities operational under BO, BOT, TOOR and similar models. Consequently, the private sector has gained considerable experience in infrastructure projects.

### **Tourism Cities Project**

Recently the government has started a plan for setting up new tourism cities consisting of accommodation establishments, marinas, shopping centers, golf courses, congress centers, etc. Since large capital (about 3-5 billion US\$ for each) is needed for building such tourism complexes (cities), land allocation will be made to consortia rather than individual firms and priority will be given to consortia with foreign partners. For tourism cities land will be allocated to investors for 75 years.

The project is to be promoted in Europe, USA and Gulf countries and calls for proposals were announced in 2007.

### **Development, Protection and Restoration of Historical Assets**

The government allocated a budget to 150 restoration projects across Turkey in 2007, giving momentum to the reconstruction and preservation work of cultural heritage sites in 50 provinces. (The works anticipate the realization of 39 projects in 28 provinces including Konya, Kars, Tokat, Malatya, Adiyaman and Bursa)

### **Thermal Tourism Cities Project**

Started in 2006 with the aim of increasing tourism receipts and increasing diversity, this project selected the following as the priority regions: Southern Aegean (İzmir, Manisa, Aydın, Denizli), Phrygia ( Afyon-karahisar, Kütahya, Usak, Eskişehir, Ankara), southern Marmara (Bursa, Çanakkale, Balıkesir, Yalova) and central Anatolia (Yozgat, Kırşehir, Nevşehir, Aksaray, Niğde) are the priority regions.

## **WINTER TOURISM**

Many officials and leading sports figures believe that the economic underdevelopment of snow-swept Eastern Turkey can be overcome by developing winter sports facilities, and encouraging tourism, rather than building industrial factories. Describing snow as “white petroleum,” they say that the harsh winter conditions and terrain in the area could be turned into an economic advantage.



Ski lifts, ski, snowboard and toboggan trails, and ice rinks should be built at each town and city located on the slopes of mountains in the region, they say. Local youth would also be trained in all winter sports categories, as they will eventually earn their livelihood from sports.

Altitudes in the rugged region, which accounts for 20% of Turkish territory and is three times the size of the Alps, reach an average 2,000 meters (6,600 feet). The Palandöken and Sarıkamış ski resorts in Eastern Turkey have already become magnets for tourists from Russia and other countries of the former Soviet Union.

Turkey's sparsely populated eastern provinces are among the most neglected in the country, where per capita income is one-fifth of Turkey's average. Highways, airports and new hotels would also have to be developed.

Snow blankets the region for at least seven months of the year, isolating and paralyzing entire towns and villages in the mountainous areas throughout the winter.

The holding of the January 27-February 7, 2011 University World Winter Games (Winter Universiade) in Erzurum, in eastern Turkey, when more than 2,500 athletes, trainers and sports officials from 56 countries participated, is spurring growth in winter tourism in the country. New hotels and sports facilities were constructed in the city, including two Olympic ice rinks – one for figure and the other for speed skating. Five ski jump towers and a curling rink -- the first ever in Turkey -- were also built. The nearby Palandöken Ski resort was used for Alpine skiing and cross country and biathlon events. Turkey won its first medal ever in the winter university games – a silver medal in the pairs ice dancing contest. The government invested \$420 million in sports facilities and hotels for the games. Erzurum is now considering bidding to host the 2022 Winter Olympic Games.

Turkey already has 20 ski resorts, but only three where international skiing events can be held -- Sarıkamış, in Kars province, and Palandöken, both in eastern Turkey, and Uludağ, in the western province of Bursa, 250 km (150 miles) southeast of İstanbul. Many of the resorts either lack lodgings or ski lifts.

Uludağ, due to its closeness to İstanbul, is the most developed of the country's ski resorts with 14 hotels and total bed capacity of 7,000. Construction work and planning of 11 new hotels in the resort is at various stages of development, and several new facilities have opened.

The İstanbul-based Üstündağ Group took over the unfinished Kartepe Resort, near the lake town of Sapanca, 150 km east of İstanbul, and developed it into a modern facility with a hotel with 250 rooms, 52 apartment flats, and a dozen ski runs. The resort opened in 2004. Other hotels are planned in Kartepe.

Extensive investments in ski resorts have also been made in Kartalkaya, Bolu province, as well as at Mount Erciyes, in central Turkey near Kayseri, and at the Ilgaz Ski Resort, northwest of Ankara, and in a number of other sites across the country.

## THERMAL TOURISM

In the recent years, Russian, British, German and Dutch tourists have been flocking to Turkey's spas and thermal baths for treatment of rheumatism and arthritis. The country is also becoming a popular destination for health care tourism.

Turkey has Europe's third biggest number of spas and thermal springs after Italy and Germany with a total 270 facilities, the weekly financial magazine Para reported. Some 385 hotels provide spa/wellness facilities.

An estimated 500,000 foreign tourists spend holidays in the country's spas, and the country earns up to \$100 million a year from the "thermal tourists." Russians, British, German and Dutch citizens make up the bulk of the foreign tourists visiting Turkey's spas for health cures. Turkish Tourism officials believe that the centers could attract as many as 1 million tourists a year.

### THE THERMAL TOURISM CITIES PROJECT

A new initiative by the Turkish government could soon be bringing an estimated £8 billion-worth of potential revenue into the country. The TTCP, launched in January 2007 by the Ministry of Tourism, aims to establish the country as one of the world's leading thermal tourism destinations.

According to the Turkish Geothermal Association (TGA), Turkey has the world's seventh-largest (and Europe's largest) thermal resources with over 1,300 sites of thermal interest across the country. Despite this abundance of thermal riches, however, the Turkish thermal tourism market is near-virgin territory: only 10,000 foreign tourists visited Turkish thermal sites in 2005, compared with the nearly 12 million visitors who made the trip to the Japanese spa city of Beppu last year alone. The TGA estimates that the country's thermal resources could cater for over 30 million visitors annually.

*"The thermal waters of Turkey are better than those of Europe because of the flow and heat of the Turkish waters, as well as their various physical and chemical features,"* said TGA president Orhan Mertoglu. These areas will receive extra government funding both to develop thermal sites and to promote new and existing facilities at home and abroad.

Commercial interest in the thermal potential has already made itself known in the form of a £25.6-million investment by French and Turkish firms and governmental bodies into the city of Denizli, some 200 km north of Dalaman. The Pamukkale Thermal Cure Center, due to be completed in approximately seven years, will eventually be able to handle some 1,500 visitors per day.

The Ministry of Health plans to privatize Turkey's best known spa, the historic Yalova Thermal Baths, located in northwest Turkey. Under the plan, private companies would rent out, or restore, operate and transfer (ROT) the old baths back to the state. The baths have been a popular spa since Roman times. Kemal Atatürk (1881-1938), founder and first president of the Turkish Republic, built a summer home at the spa and had the leading landscape artist of the country build public parks there.

## CULTURAL TOURISM

Cultural tourism and faith tourism are increasingly gaining recognition as areas of strong potential and present further scope for development. But this requires improving access and infrastructure and hence considerable future investments. Meanwhile, historical sites will now be opened to investors through a build-operate-transfer (BOT) model – bringing private capital into the preservation, renovation and marketing of these attractions.

Some 38 civilizations, ranging from the Hittites and Lycians to the Lydians and Romans, made Anatolia their home in the past. Turkey has an estimated 20,000 monuments and sites of archaeological significance, registered with the Ministry of Culture and Tourism.

Although Turkey is a country where more than 99% of the population is Muslim, it contains many holy sites of early Christianity and Judaism, making the country interesting for religious tours.

Since the global 2000th anniversary celebrations of the birth of Jesus, Turkish travel agencies have begun offering “tours of faith” to a combination of Jewish, Christian and Islamic shrines and sites in Turkey.

*“The philosophy on which our tours of faith are based is to convey to the world that we are keeping the traditions of our ancestors alive who enabled all the communities to live together in tolerance,”* a senior tourism official said.

Christianity spread west from the Holy Lands in the Eastern Mediterranean through Anatolia to Europe. Christianity came to Anatolia seven centuries before the Islamic faith.

Many sites of Christian pilgrimage are located in Turkey, such as the last House of the Virgin Mary, near the ruins of Ephesus, a Roman city in western Turkey. The Seven Churches or early Christian communities, mentioned in the New Testament’s “Book of Revelations,” are located in Turkey: Laodicia (near Pamukkale), Sardis (east of İzmir), Philadelphia (Alaşehir -- not to be confused with the American city), Thyatira (Akhisar), Ephesus, Smyrna (İzmir), and Pergamum (Bergama).

St. Paul the Apostle was born in Tarsus, along the Mediterranean coast and journeyed the length of the southern and western coast of Anatolia from Antioch-on-the Orient (Antakya) to Alexandria Troas (Odun İskelesi) during the middle of the first century as part of his missionary travels to spread the Gospel.

Many of the earliest councils of Christianity gathered in Turkey, including İznik, the ancient Nicaea, where the first Ecumenical Council met in AD 325 to promulgate the Nicene Creed, one of the major statements of Christian belief.

Saint Nicholas, the bearer of gifts, was born in Myra (Demre), and a festival is held every year in the Turkish Mediterranean town in his honor every year.

The country also has many old Jewish sites, including the remains of the third century Synagogue at Sardis -- the world’s largest known Jewish shrine, as well as the Ahrida Synagogue in İstanbul, which existed long before the Turkish conquest of the city and is still in operation.

## 3.5 CONSTRUCTION AND REAL ESTATE

### CONSTRUCTION INDUSTRY BEGINS PAINFUL RECOVERY

Turkey's construction industry grew 17.5% in 2010 after slumping 16.3% in 2009, the second consecutive year in the doledrums after five successive years of strong growth, the Turkish Statistical Institute (TÜİK) reported. The industry has run parallel to Turkey's recovery from the global recession, during which the housing market sharply declined, government spending on infrastructure projects, ranging from urban transport and intercity motorways to hydroelectric dams and sewerage systems, fell.

The Real Estate Investment Trusts' Association (GYODER), a trade group, estimated that market size of the construction industry was \$43.6 billion in 2010.

Partly financed by the national government, local administrations and foreign financial institutions, public sector projects and the housing boom helped revive the construction industry from 2005 to 2007. The sector was severely hurt from the devastating earthquakes that battered north-western Turkey in 1999 and the recession that jolted its economy in 2001.

The sector grew 21.5% in 2005 and 19.4% in 2006, and 5.7% in 2007, after a flat average annual 2.4% growth from 1990 to 2004.

The construction industry accounted for 3.8% of Turkey's Gross Domestic Product (GDP) in 2009, down from 5.3% in 2006, TÜİK said. But experts predicted that the industry's share in the economy would grow in the coming years.

*"The construction and the building materials industries combined are the sectors that contribute the most to Turkey's economic growth,"* Can Fuat Gürlelel, an economist and consultant to the Association of Building Materials' Manufacturers (İMSAD), told a news conference in İstanbul in January 2008.

At the end of October 2010, the construction industry employed 1,422,000 million, or 6.4% of the nation's working population of 22,665,000, TÜİK said.

There are two big BOT (Build Operate Transfer) bids are going to take place in coming months in Turkey. They are;

#### **Bid for Construction and Operation of North Marmara High Way (Including 3rd Bosphorus Bridge):**

The length and the standard of the road is about 299 km motorway and 115 km connection road.

Method will be Built Operate and Transfer. The shortest duration of construction and operation will be considered the low bidder.

Bidding Date: 10/01/2012

Organized by Ministry of Transportation and Communications (General Directorate of Highways).

## Çukurova Regional Airport

Construction and operating of an Airport which will have two runways, each 3500x60 m in dimension, parallel to one another and center lines spaced by 1275 m, and suitable for independent approaches.

Method will be Built Operate and Transfer. The shortest duration of construction and operation will be considered the low bidder.

Bidding Date: 15/12/2102

Organized by Ministry of Transportation and Communications (General Directorate of State Airports Authority of Turkey).

## HOUSING MARKET

Demand for public housing is continuing in Turkey's urban centers, particularly İstanbul, its largest city, because of an influx of rural migrants displaced from the countryside, rising income levels among metropolitan residents, a booming young population and the availability of low-cost mortgages.

The country's population is rising 1.6% a year, but in the cities of western and southern Turkey, the population is growing four percent annually because of the migration from the rural areas, according to Turkish Statistical Institute (TÜİK).

GYODER in a report published in 2011 estimated that Turkey would need to build 3.4 million housing units by 2015. The requirement for housing loans will be around \$80.103 billion a year in 2015, a more than two-fold increase from 2010, the report said.

GYODER also said housing loans in 2011 would reach \$44 billion from around \$35.7 billion in 2010. But in 2010, 357,343 housing units were sold in Turkey, down 32.8% from 2009, because of an over supply in the market, TÜİK reported.

Long-term housing loans are new to the Turkish banking system, introduced for the first time in 2003, and coincide with falling inflation. Plagued by high inflation for three decades, Turkish banks couldn't previously handle long-term, low-interest consumer credits. In 2000, housing loans stood at a mere \$961,654, the Banks Association reported.

The need for urban renewal is also feeding demand for new housing, contractors said.

*"Some 50% of housing in Turkish cities needs to be renewed, including 50-year buildings, to meet new construction standards,"* Celal Teoman Metehan, chief executive officer and founder of ProjeMax, a land developer, told FDI Magazine.

More than 60% of the homes in the cities are slum dwellings, known as gecekondu, or night landings, ramshackle structures literally built overnight on private or state property by rural migrants. These sprawling, dilapidated habitat communities, which encircle urban areas such as Ankara, İzmir and İstanbul like festering sores, need to be reconstructed because they have been shoddily built and would

likely be levelled in a powerful earthquake, experts said. Ninety-five percent of the country lies along the Anatolian fault, one of the world's most active earthquake belts. Powerful tremors killed 20,000 people in northwest Turkey in August and November 1999 and left 500,000 persons homeless.

İstanbul is getting the lion's share of real estate development with more than 100 large housing projects (anywhere from 60 housing units to 7,000 apartment flats) under construction. The bulk of these projects will be finished by the end of this year

According to İstanbul's master plan, the city alone has 50 urban renewal projects that aim to create a new urban center, new green areas, and social infrastructure. The projects also aim to promote the city as a cultural center and as a hub for high technology industries. As part of overall development, two new cities are planned north of present day İstanbul one on the European side of the city, the other on the Asian side, near the Black Sea.

### STATE HOUSING ADMINISTRATION LEADS CONSTRUCTION DRIVE

The State Housing Development Administration (TOKİ) is spearheading the drive for creation of social housing for middle and low income families in Turkey. From 2003 to the end of 2010, TOKİ and its private sector partners constructed 500,000 social housing units at 830 townships in 81 provinces. Entire new districts have emerged, composed mainly of high rise apartment blocks and American-style residential neighborhoods, new schools, sleek shopping centers, restaurants and outdoor cafés, student dormitories, hospitals, police stations, nursing homes, libraries, social centers, mosques and sports facilities, including a stadium.

This was a major initiative and a success story in a country where 2 million to 2.5 million low-income people need immediate housing. The lands are owned by TOKİ and its participation, land developer Emlak Konut Real Estate Investment Trust (Emlak Konut REIT), while the private companies build on them on a revenue-sharing basis.

TOKİ's subsidiary Emlak Konut REIT has completed many residential and commercial construction projects in Turkey, including Ataşehir on İstanbul's Asian side, once an empty wasteland area but now a busy, teeming district of more than 100,000 inhabitants, and the the Mavişehir Project in İzmir.

All of its projects are developed and constructed by private contractors on lands TOKİ and Emlak Konut REIT own on a unique revenue-sharing basis. Emlak Konut tendered the building of 195,000 housing units to private companies on lands it owns in various cities, and the construction work was completed. Emlak Konut REIT's housing projects are for mid and upper mid income families. Revenues generated from the sale of the housing developments have been used to finance construction of TOKİ's social housing – including 139,000 units for the poor, 60,000 units converting shanty houses into modern apartment flats, 18,000 houses provided to disaster areas, 4,000 housing units to carry out village modernization, and 84,000 development housing units.

Emlak Konut REIT went public at the end of 2010, in a move to attract more investors into real estate development. With assets worth over \$2.5 billion, Emlak Konut REIT is by far the biggest real estate investment trust to be listed on the İstanbul Stock Exchange.

One major urban renewal project of İstanbul is the planned renovation of Tarlabası, an old neighborhood with narrow streets located near central Taksim where old Christian, Muslim and Jewish

families live together. Many of the centuries-old buildings in the district, including residential apartments, shops, social centers, churches, mosques and synagogues, are in a sad state of dilapidation and in danger of collapsing, requiring immediate action. Some 238 buildings will be renovated, according to Ahmet Misbah Demircan, mayor of the Beyoğlu district municipality. Many of the buildings will be interconnected to form classy shopping arcades, boutique hotels and pensions. Each residential apartment will have an underground car park.

*“It is estimated that if the economic and spatial tendencies and policies do not change, the population of İstanbul will reach 23 million by the year 2023. However, according to the criteria related with environmental thresholds, infrastructure possibilities and quality of life, İstanbul can only bear 4 million more inhabitants. Therefore the population assumption of the plan is 16 million. This target can only be attained if the national and regional policies work in unison with the master plan of İstanbul,”* the İstanbul Metropolitan Municipality said in a report published about the city’s master plan.

## **FOREIGN INVESTORS**

Foreign developers, such as Coldwell Banker of Parsippany, New Jersey, and Emaar of Dubai, have also entered the market.

Coldwell Banker, the biggest U.S. real estate company, in 2008 began to invest \$5 billion in Turkish real estate, including construction of studio apartment flats in İstanbul’s Beylikdüzü district. Emaar, which has developed the \$700 million “Toskana Valley” villas in İstanbul’s Büyükçekmece district, acquired the Libadiye Properties, on the Asian side of the city, from the Savings Deposits Insurance Fund, a state banking receivership fund, in February 2008. It announced that it would build new residential homes, business offices and a shopping center at the site near the Çamlıca hilltop park. Emaar also said it was looking at investing in housing projects in other fast growing Turkish cities.

## **MORTGAGE LAW**

On February 22, 2007, Turkey’s Grand National Assembly passed legislation establishing a legal mortgage system that gives middle and lower income families the opportunity to become home owners.

Under the law, deposit banks, participation banks and leasing companies will be able to lease homes to customers. Lenders are allowed to borrow funds or create resources from institutions that operate on a wholesale basis, known as mortgage funding institutions.

The law also speeds up collection procedures in case the borrower goes bankrupt.

The law allows lenders to offer variable-rate mortgages that can then be turned into securities and be taken off bank’s balance sheets, though this has yet to be applied in Turkey due to nervousness on part of Turkish banks and financial authorities following the collapse of the U.S. mortgage market in 2007.

Turkish banks require borrowers to pay 25% of the total cost of a home up front in cash before allowing them to take out a housing loan for the remaining 75% cost. The safeguard has prevented the collapse of the Turkish housing market -- unlike in the U.S. -- and kept banking non-performing loans on mortgages to a minimum. Only two percent out of the 907,748 persons (or 18,124 persons) who had taken out housing loans in Turkey were in arrears on payments of installments in the first 11 months of 2009, the Banking Regulation and Supervision Agency (BDDK), Turkey's supreme banking authority, reported.

*"If the U.S. had applied the 25% advance payments on mortgages, the economic crisis would not reached its present state,"* Deputy Prime Minister and Economics Minister Ali Babacan told a meeting of the Eurochambers in İstanbul on February 22, 2010.

#### CONSTRUCTION PERMITS ISSUED FOR RESIDENIAL BUILDINGS, 1995 - 2010\*

	Dwelling units (000)	Area (Million m <sup>2</sup> )
1995	508	65
1996	454	58
1997	464	61
1998	433	56
1999	339	46
2000	315	45
2001	280	40
2002	161	24
2003	202	30
2004	330	31
2005	546	50
2006	600	57
2007	584	63
2008	503	71
2009	510	79
2010	823	160*

\* Includes commercial siyes

Source: Turkish Statistics Institute, Turkish Union of Contractors, Dünya Newspaper

With interest rates on housing loans hovering around 0.85 percent for 10-year housing loans in May 2011, down from around 1.5% in March 2008, demand for mortgages was once again beginning to rise among low and middle income families in the new year.



## TWO MAJOR ONGOING INFRASTRUCTURE PROJECTS

**Marmaray Project:** Construction began in 2005 on the \$4.1 billion **Marmaray Project**, one of the world's most ambitious urban rail commuter projects. Described by the Ministry of Transportation and Telecommunications as the "project of the century," **Marmaray** aims to upgrade the commuter rail system of İstanbul. The 76.3-km long rail line will connect Halkalı on the European side of the city to with suburban Gebze on the Asian side and vastly reduce travel time between the two and help relieve the city of its growing traffic congestion, officials at the Ministry of Transport said. The rail system will carry 75,000 passengers every hour, and link up with the municipal light-rapid rail system and metro. Some 63 km of the system will be above ground, while 13.6 km will be underground, including a 1.4 km immersed tunnel crossing under the Bosphorus. Thirty-seven existing stations will be upgraded while three new underground stations will be constructed. Construction work, scheduled for completion in October 2013, is being carried out by a Japanese-Turkish consortium, led by Taisei Corp. of Japan. Other members include Kumagai Gumi Co. of Japan, Gama Endustri Tesisleri İmalat ve Montaj A.Ş. and Nürol Construction and Trade of Turkey. The Japan Bank for International Cooperation (JBIC) has provided a long-term low-cost \$950 million loan, while the European Investment Bank has provided a €650 million soft loan. The State Railroads, Ports and Airports Administration is overseeing the project.

**Ilisu Dam:** Work was expected to resume on the controversial Ilisu Dam in spring 2010, despite a massive internet campaign by environmentalists against the project and withdrawal of some foreign state funding that left the project in a lurch. Environment and Forestry Minister Veysel Eroğlu told the newspaper *Dünya* in December 2009 that new funding had been obtained and construction would restart, but gave no details on the new donors. On August 15, 2007, Turkey had signed a **Euro (€)**1.277 billion credit package with a group of 14 western banks, government agencies and contractors and suppliers for construction of the dam. A consortium of banks and government export guarantee agencies under the leadership of Va Tech Finance, including Germany's **Deka Bank**, the **Austrian Bank** and **France's Societe Generale** provided the commercial €752 million in commercial loans. But **German Hermes**, **Austrian OEKB** and **Swiss SERV** withdrew export coverage worth €525 million, saying that the Turkish government failed to come up with a plan to save Hasankeyf, a picturesque 2,000-year old city that will be flooded when the dam begins to operate. Construction of the barrage began in fall 2006 after a five-year delay. **Sulzer Hydro** of Switzerland and **V.A. Technology** of Vienna will build the 1,200 MW dam. Britain's **Balfour Beatty**, Sweden's **Skanska** and Italy's **Impreglio** withdrew from the project in November 2001 because of strong pressure from the protestors who argued that up to 78,000 persons would be left homeless and that 80% of Hasankeyf would be come under waters. Proponents of the dam say the benefits outweigh the sacrifices of displaced people and the environmental impacts downstream. Turkey is using only one-fourth of its hydroelectric resources and plans to build 450 dams in the next 25 to 50 years.

## NEW LARGE PUBLIC PROJECTS

Construction work has started on several other major transport projects. One of these is the **Eurasia Tunnel**, the second tube crossing the Bosphorus. The project, expected to cost \$1.1 billion, will run 1.8 km south of the Marmaray from Kazlıçeşme and Cankurtaran, on the European side of the city along the Sea of Marmara, to Göztepe on the Asian side of the city and be completed in 3.5 years. Multiple entries are envisioned. Some 5.4 km of the 14.6 km highway will be underground.

“Today we are witnessing a new project for Turkey. We will construct a highway beneath the Bosphorus. With this project, it is aimed to decrease the traffic on the bridges and in the city,” Prime Minister Recep Tayyip Erdoğan told a ground-breaking ceremony in İstanbul on February 28, 2011.

A Turkish-Korean joint venture – Yapı Merkezi from Turkey and SK E&C, Kukdong, Samwhan Corp. and Hanshin from South Korea – won the tender and formed a new company ATAS-Avrasya Tunnel Construction to build the project under a Build-Operate-Transfer (BOT) scheme.

The Directorate of State Highways set an August tender for the **414-km Northern Marmara Highway Project** by August 23, 2011. The \$6.5 billion project, to be carried out on a BOT model also calls for a controversial third Bosphorus Bridge, which will connect Garipçe village on the European side of the Bosphorus to Poyrazköy on the Asian side.

Environmentalists have demurred, saying the bridge and highway will decimate İstanbul’s remaining green areas on both sides of the Bosphorus.

Tenders for four major projects for the expansion of the existing metro and light rapid rail system for İstanbul are also expected to be launched soon.

## **PROJECT OF THE CENTURY**

Turkish authorities also held the ground breaking ceremonies in February 2011 for the \$6 billion **İstanbul-İzmir Highway**, dubbed the “Project of the Century.” The 420-km highway begins in Gebze, 30 km east of İstanbul and crosses into the town of Orhangazi in Bursa province. From Orhangazi it runs to the northwestern province of Balıkesir before proceeding southwest to the Aegean port city of İzmir.

The project includes a three-kilometer-long suspension bridge across the Gulf of İzmit that will be the world’s second longest and will include 30 viaducts, four tunnels, and 209 bridges.

A Turkish-Italian contractors’ consortium of six companies will build and operate the bridge and highway for 24 years and four months before returning it to the state. The highway and bridge will reduce travel time between the two cities from 6½ hours to 3½ hours. The project will be the first highway and bridge to be operated by the private sector in Turkey.

The consortium is led by Nurol of Turkey and Astaldi of Italy. Other members of the consortium include Turkey’s Özalp, Makyol, Yüksel İnşaat and Göçay.

## **SEVEN TUNNELS FOR SEVEN HILLS**

Construction is continuing on the so-called Seven Tunnels for Seven Hills in İstanbul, aimed at easing traffic congestion in the city. Actually, construction of some 34 by-pass tunnels are envisioned in the project, which will cost at least \$1 billion.

Several of the tunnels have been completed and opened to traffic, including the Kağıthane-Dolmabahçe Tunnel Road, which aims to end traffic jams in downtown Taksim. The vehicles coming from Sütlüce on the Golden Horn and from Trans European Highway (TEM) and Alibeyköy are taken to the tunnel via a junction, reducing travel time between Dolmabahçe, near Taksim, and Kağıthane, on the upper reaches of the Golden Horn, from 35 minutes to four.

The tunnels will include the following: Dolmabahçe-Fulya line (2,270 meters), Fulya-Levazım (4,450 meters), Levazım-Akatlar (3,380 meters), Levazım-Zincirli (2,800 meters), Sarıyer-Çayırbaşı (4,080 meters) and Eyüp Silahtarağa Street-Gaziosmanpaşa Street (268 meters), the Üsküdar-Paşalimanı Ahmediye Tunnel (560 meters), Baltalimanı-Ayazağa Tunnel (4,568 meters), Tophane-İplikçi Tunnel (2,550 meters), Taşkızak-Hasköy Tunnel (940 meters), Eyüp cemetery Halid bin Zeyd Boulevard-Coastal Road Tunnel (700 meters) and Sarıyer Center-Coast tunnel (556 meters).

## THE CRAZY PROJECT

Prime Minister Recep Tayyip Erdogan on April 27, 2011, unveiled the “Crazy Project” -- a mega canal scheme that aims to be a safer alternative route to the Bosphorus for oil tankers, commercial shipping and military vessels.

Set to be completed by 2023, the centennial of the Turkish Republic, Canal İstanbul will stretch 50 km and link the Black and Marmara Seas. Dwarfing both the Suez and Panama Canal projects, the vast waterway will be at least 150 meters wide and 50 meters deep -- big enough for the navigation of supertankers and aircraft carriers.

Speaking at a glitzy ceremony in İstanbul just over a month before parliamentary elections, Prime Minister Tayyip Erdogan said: *“İstanbul, from now on, will be a city which has two seas. With this project, there will be two peninsulas and one island in the city.”*

The canal, which will be located at least 50 km west of İstanbul in Thracian Turkey, is intended to cut heavy shipping congestion on the Bosphorus, a 31 km waterway that snakes through the heavily populated city of İstanbul, and make it a yachting and sailing paradise.

Increased tanker traffic on the Bosphorus has been threatening the city of 14 million for the past four decades. The city has so far narrowly escaped damage from several fiery oil tanker collisions on the waterway that set off spectacular explosions, fires and oil spills that polluted its shores.

The Bosphorus with the connecting Sea of Marmara and the Dardanelles make up the Turkish Straits that link the Black Sea with the Aegean and the Mediterranean. Due to its 12 sharp turns, cross currents, sudden impenetrable fog that often descends along its shores without warning, and hundreds of oil tankers, chemical carriers, passenger ferries, fishing boats, and a host of other small craft that ply its waters daily, the Bosphorus is the most difficult to navigate of the three bodies of water in the Turkish Straits. Around 50,000 ships pass through it every year, including some 8,000 oil tankers, hundreds of naval vessels.

Turkey's government has been pushing for construction of an overland pipeline that would bypass the straits and reduce the dangerous traffic, but has failed to persuade oil companies to commit to using the pipeline. The need to unload and load the oil one additional time would make the route expensive, according to oil company officials, the Wall Street Journal reported.

Turkish officials said ships carry 140 million tons of oil, four million tons of liquefied petroleum gas and three million tons of chemicals through the strait annually, putting the city's inhabitants at risk.

From 1982 to 2003 there were 608 shipping accidents in the Bosphorus, according to a study by the French Association of Ships' Captains. A Romanian tanker crash with a Greek freighter in 1979 spilled 95,000 tons of oil and killed more than 42 Romanian crew members. In 1991, a Lebanese cargo vessel, carrying 20,000 sheep, sank in the Bosphorus after colliding with a Philippines freighter. For several months the waterway was strewn with dead sheep. In 1994, an oil tanker and cargo vessel collided in the Bosphorus, spilling 9,000 tons of oil and closing the strait for days as some 20,000 tons of oil burned.

Plans also include the building of a third airport in İstanbul, resort hotels and marinas along the proposed canal and new condominium townships in Thrace. Turkey's opposition, however, claims the schemes are aimed at enriching cronies in the ruling Justice and Development Party.

İstanbul Mayor Kadir Topbaş said Canal İstanbul would cost at least \$10 billion, but analysts predicted it would more likely exceed \$50 billion as the waterway would have to be cut through rolling hills, rich farmlands blooming with sunflowers and pastures with dairy farms.

Property prices along the proposed route immediately soared upon the announcement of the project.

Vedat Akgiray, chairman of the Capital Market Board, which governs securities trading in Turkey, said the Canal İstanbul could be financed with an offering of "Crazy Bonds."

Construction of the canal, however, won't guarantee that commercial ships will go through it. Navigation on the Turkish Straits is governed by the 1936 International Montreux Agreement. Turkey can only charge fees for sanitary control stations, lighthouses services, channel buoys, life saving services and pilotage. But pilotage services, the biggest money earner, are optional.

## **SHOPPING CENTERS AND COMMERCIAL BUILDINGS**

A surge is taking place in the construction of new office buildings and shopping centers in cities throughout Turkey, where new American-style suburbs are mushrooming.

Turkey had 270 modern shopping centers as of March 11, 2011, and some 74 others were under construction, according to Jones Lang LaSalle, a global real estate services group. Even once-sleepy eastern Anatolian cities, like Elazığ, Diyarbakır, Tatvan, Karabük, Kastamonu and Sivas now have thriving shopping malls.

### SHOPPING CENTERS IN TURKEY AS OF MARCH 31, 2011

	<b>İstanbul</b>	<b>Anatolia</b>	<b>Total</b>
Existing Centers	96	174	270
Under Construction	28	46	74
<b>Total*</b>	<b>124</b>	<b>220</b>	<b>344</b>

\* Total projected for and 2013.

Source: Jones Lang LaSalle

Some 6,780,000 square meters of rentable space was available at Turkish shopping centers as of the end of March 2011, up from 4,858,280 million square meters at the end of 2007. By the end of 2013, Jones Lang LaSalle said, Turkey will have a total 344 shopping centers with available rentable space of 9,070,000 square meters.

### RENTABLE SPACE IN TURKISH SHOPPING CENTERS (M<sup>2</sup>)

	<b>2009</b>	<b>2010</b>	<b>2011 MARCH</b>	<b>UNDER CONSTRUCTION</b>	<b>END OF 2013 TOTAL</b>
İstanbul	2.280.000	2.650.000	2.850.000	1.020.000	3.870.000
Anadolu	3.410.000	3.870.000	3.930.000	1.270.000	5.200.000
<b>Total</b>	<b>5.690.000</b>	<b>6.520.000</b>	<b>6.780.000</b>	<b>2.290.000</b>	<b>9.070.000</b>

Source: Jones Lang LaSalle

All this isn't strange in a country that introduced the concept of shopping centers to the world. The 15<sup>th</sup> century Covered Bazaar is still the world's biggest emporium with more than 4,000 shops on 58 streets in a labyrinthine structure of connecting markets in central İstanbul, selling mainly jewellery, furniture, garments, leatherwear, ceramics, carpets and other home textiles, and serving tourists and native customers who arrive on foot.

As a result of a building spree that began 22 years ago, İstanbul with its population approaching 14 million now has more modern shopping centers than in any other European city -- 96 in all -- and 28 more are being built. New York City, a metropolis of far greater wealth, had only 57 shopping malls. By the end of 2013, İstanbul was expected to have more than 124 shopping malls, according to some projections.

In October 2009, the ultramodern Forum İstanbul opened in the city's Bayrampaşa district. Touted as Europe's biggest shopping mall, Forum İstanbul has 180,000 square meters of rentable space and sells hundreds of foreign brands. Multi-Turk Mall spent nearly €1 billion to develop Forum İstanbul. The megamarket also has Turkey's largest aquarium, the 8,500 square meter Turkuazo, where visitors can view 10,000 sea creatures, while shopping.

But there were fears that the market for shopping centers in İstanbul had reached a saturation point and that some would go out of business, turning into American-style dead malls, because of insufficient visitors. One plan was to turn some of the lesser used shopping complexes into modern hospitals. One shopping mall in İstanbul drawing few visitors was temporarily housing a new university.

Many of İstanbul's shopping complexes are mixed-use sites (a combination of shopping centers, office buildings, residences and hotels.)

Four major sites under construction in İstanbul are the Diamond of İstanbul, the Varyap Meridien, the Zorlu Center and the Mall of İstanbul.

The Diamond of İstanbul is a 53-floor futuristic, mixed-use site that will include a shopping mall, a 308-room deluxe hotel and 44 residential apartments in İstanbul's mushrooming Maslak business district. The 270-meter building, under construction since 2002, will be the tallest structure in Turkey when completed. It will also be the country's first steel skyscraper. Designed by Dome Architecture of İstanbul, the building comprises three diamond-shaped steel wings connected to a central (concrete) elevators core. The complex will also have a five-floor parking garage situated in the bottom-most floors of the building, and a rooftop restaurant with a panoramic view of İstanbul.

The Varyap Meridien is a five-building, mixed-use complex under construction in Ataşehir, a newly developing financial center of the city. Dubbed Turkey's first "green project", the site includes residential buildings of 61-floors 45-floors and 41-floors, a five-star hotel and business offices. Designed by RMJM Architects of New York, the complex has underground parking space for 2,500 cars, because all the roads above are left for bicycles and pedestrian traffic.

The \$800 million Zorlu Center, under construction in Zincirlikuyu on land which once housed the regional headquarters of the State Highways Department, will include residential housing, a showcase concert hall with a 2,500-seating capacity, a five-star hotel to be run by the Canadian-owned Fairmont Raffles Hotels organization of Toronto, Ontario, a shopping complex and recreational facilities.

Construction on the \$323 million Mall of İstanbul is expected to be completed in 2014. The mixed-use site, which has been developed by Torunlar REIT, includes apartment towers with 1,200 units, office towers, a shopping center, a planetarium, a snow park, and a five-star hotel.

Two major upcoming projects are the Atakent Theme Park and the Ağaoğlu Maslak Project.

In fall 2011, Mesa Mesken and Kantur-Akdaş Joint Venture will begin the Atakent Theme Park Project in İstanbul Halkalı district, which will include residential buildings with 3,000 housing

units, a shopping center, an outlet department store, a hypermarket, a hotel, a convention center, exhibition grounds, a hospital and a theme park on 1.5 million square meters of land. The Ağaoğlu Group's project will be Turkey's biggest housing project – a 6,000 unit complex with a shopping center in İstanbul's Maslak's district

One major complex that opened in 2011 was the İstanbul Sapphire. The 64-story, 261-meter İstanbul Sapphire, described as Turkey's first "ecological skyscraper," is currently Turkey's tallest and Europe's fourth highest building. Developed by Kiler Real Estate Investment Trust, the structure includes a 64-store shopping center, a residential complex, sports facilities and car park in İstanbul's 4. Levent district.

Trump Towers İstanbul, a complex of two towers, one with 39 floors and the other with 37 floors, was slated to open in October 2011. It was constructed by the Trump Organization of New York City, Turkey's Doğan Group, Yeşil İnşaat and Taş Yapı, in the Mecidiyeköy business district. The buildings offer office space, residential flats and a shopping mall.

## **RETAIL MARKET**

Dominated by sales of small family-owned stores, groceries and chain stores and supermarkets operating out of large shopping centers, Turkey's retail market is booming. In 2010, retail sales reached a total \$187 billion, according to a report by Deloitte Turkey, with food purchases -- \$96 billion – leading the way. Some \$26.5 billion was spent on furniture, \$24.3 billion on apparel and textiles and \$7.3 billion on home technology and electronics products. The remaining was distributed among a wide range of products. By 2014, the size of Turkey's retail market will soar to \$250 billion, Deloitte Turkey said.

The growth in the Turkish market has whetted the appetite of foreign retailers who are flocking to Turkey's shopping centers to open franchises. Some 40% of the stores in Turkey's shopping malls were either foreign-owned or were franchises of foreign companies, the newspaper Hürriyet reported.

Some of the well known international brands that are represented in the shopping centers with stores include Swatch, Samsung, DKNY, Quicksilver, Benetton, Stefanel, Karl Lagerfeld, Vodafone, Pierre Cardin, Zara, Mango, Samsonite, Tommy Hilfiger, U.S. Polo, Mothercare, Divarese, Harvey Nichols, Versace, Starbucks Café, and Gloria Jeans Café, Second Cup, Burger King, McDonald's, Kentucky Fried Chicken, and Pizza Hut.

Both corporate and individual foreign investors are plunging into the housing market, developing large housing projects in İstanbul or buying summer homes on the Aegean and Mediterranean coasts, while many foreign companies are the big investors in the commercial market.

Shopping malls have become centers of attraction for institutional investors and pension funds. CGI, the real estate investment fund of Commerzbank, invested €80 million in a shopping mall project in İzmir. In March 2008, the Canadian Pension Plan Investment Board Real Estate Hold-

ings took a 26.53% share in the Multi Turkey Retail Fund in partnership with Multi Corp BV of Holland. The Canadian Pension Plan provided €250 million to the fund, which is a development platform that consists of 21 completed, under construction or planned shopping centers in Turkey with a projected value upon completion of over \$5 billion. The fund is financed through a combination of equity and bank loans.

Major multinationals, such as Carrefour, IKEA, Bauhaus, H&M, Real and Metro Group, are constructing new shopping malls and hypermarkets, acquiring business offices and warehouses, and opening chain stores to sell their products in Turkey and neighboring countries

Other foreign companies involved in shopping center investments include ECE Turkey (German) and MDC Turk Mall (Netherlands), General Growth of USA, Multi Turkmall and DIFA (Germany). Corio NV ((Netherlands), Merrill Lynch and Germany's MFI Management fuer Immobilien AG have recently announced that they plan to spend \$3.9 billion to build malls in Turkey. Pramerica, the real estate management business of Prudential Financial Inc. of the U.S., in June 2011, developed the \$220 million TerraCity Shopping Mall in Antalya.

German investment company Prime Development announced in April 2009 that it would make investments in the shopping mall and housing sector in Turkey at a total cost of USD 1.5 billion, with the first shopping centers in Iskenderun and Antakya. Dutch properties investor Redevco said it would invest €1 billion in shopping malls in the cities of Istanbul, Ankara, Edirne, Erzurum and Manisa.

Turk Mall has earmarked a €1.3 billion project finance facility. European and Arab investors are developing skyscraper office blocks or acquiring properties to build large business centers and some of the world's leading hotel operators are building new hotels and holiday villages.

Dubai Properties International, for example, plans to invest \$5bn in real estate in Turkey, including Europe's two highest office buildings in Istanbul, the spiral Dubai Towers, for \$500m in partnership with the Istanbul Municipality, though the project has so far been halted by the Council of State on procedural grounds. Other developers from Gulf include Tamniyat Group, Eta Star of Dubai and Emaar Group.

*"The real estate market is still premature and the presence of financial institutions is still limited,"* says Hakan Kodal, chief executive officer of the Krea Group, a real estate development company.

Only German Aareal Bank and Eurohypo, specializing in real estate finance, have opened offices in Turkey and are providing long-term loans for the development of commercial properties. Senay Azak-Matt, general manager of Aareal Bank Turkey, says that any turbulence in Turkish real estate market won't affect business. *"We make certain that borrowers earn foreign currency to be able to repay their loans in hard cash. Thus our bank carries no foreign exchange risk."* she says. As of end of June 2009, the bank had a total portfolio volume of €950 million in Turkey.

Eurohypo, on the other hand, has provided loans totaling €1.4 billion since it began operating in Turkey, specializing in financing of commercial properties, including warehouses, logistics centers, and office buildings.



## DEVELOPMENTS ON THE TURKISH COAST

Massive real estate development is taking place on the coastal regions of the Aegean and Mediterranean, attracting both corporate and individual foreign investors, particularly from the northern European countries.

Allison Thornton, who's in charge of Turkish sales at real estate agency Headlands International, based in Irthlingborough, central England, said: *"There's been a huge increase in interest over the past few months. You get an awful lot more value for money in Turkey than other Mediterranean countries. A detached villa with sea views around Bodrum, where the Aegean and Mediterranean seas meet, costs about \$129,000, similar to the cost of a small flat in coastal Spain,"* Thornton said.

As of February 24, 2011, some 114,323 foreign nationals, individually or in groups, had acquired 103,356 plots of land and homes in Turkey, equivalent to 74,317,606 square meters of land, the General Directorate of Title Deeds and Cadastral Affairs announced on its web site. Properties in the coastal provinces of Muğla, Antalya, İzmir, Aydın, as well as İstanbul, Bursa, Ankara and Konya were preferred by foreign nationals, it said.

Some 34,330 Britons had bought property, followed by 25,304 Germans, 10,806 Greeks, 6,905 Irish, 5,693 Danes, 5,616 Dutch, 4,979 Norwegians, 3,813 Russians, 3,587 Austrians, and 3,102 Belgians.

*Spain and Portugal were the first choices for European homeowners, but these countries are now saturated. It's Turkey's turn to attract western homeowners,"* Erdinç Varlıbaş, chief executive officer of Varyap Varlıbaşlar Yapı, a Turkish contractor developing housing projects in İstanbul and a hotel in Bodrum, said in an interview.

In a magazine interview, Ali Ağaoğlu, chairman of the Ağaoğlu Group of Companies, Turkey's leading real estate developer and hotel operator, had this to say: *"We can sell 1 million homes to foreign nationals. France and Spain can serve as models for us, because Spain sold 1.8 million homes and the French sold 500,000 homes to foreigners. Turkey's target for the sales of 1 million homes would be equivalent of drawing \$100 billion in foreign investment into the country. Our research shows that foreigners with homes in Turkey spend six months of the year here. In Spain these foreign homeowners spend €3,000 a month. In Turkey, this figure would be €2,000. Foreigners stay 10 to 15 days in the hotels we have built. But by owning homes, we can extend their stay to 180 days."*

Ağaoğlu reportedly asked former Spanish Prime Minister José Maria Aznar Lopez, the man responsible for the spectacular development of Spain's real estate business, to become a consultant for his İstanbul-based company's tourism and housing projects.

In Didim, a resort town south of İzmir with 20,797 inhabitants, some 5,000 British citizens have bought homes, and the British population now outnumbers the town's Turkish inhabitants, a Didim municipal official told the real estate summit in İstanbul in May 2006. British citizens, he said, operate restaurants, have businesses, and produce an English language newspaper in Didim; and the town's leading tax payer is a British woman realtor.

*“Even London cab drivers own homes along the Turkish Coast,”* commented Kodal of the Krea Group.

British and German citizens have also invaded the resort towns of Bodrum and Fethiye, Kaş and Kalkan, where they have acquired properties.

Some 10,000 Germans, Scandinavians and Dutch make the Mediterranean resort town of Alanya their year round home. Danish real estate investment company Keops operates a development and sales office in Alanya.

Britain’s international property sales agent Parador Properties of Redhill, Surrey, in May 2006 opened a “real estate supermarket” in the up and coming coastal resort town of Güllük, south of Didim, to sell freehold residential properties to purchasers in mainly in the United Kingdom, Germany and Ireland.

France’s La Foret Real Estate marketing network was also planning to open an office in İstanbul, the Turkish real estate trade magazines reported.

## **TURKISH CONTRACTORS ABROAD**

The Turkish construction sector has accumulated the technological capacity and know-how over the years to meet domestic demand. Starting in the 1970s, it has also built up a significant presence outside the country. This offers great opportunities for joint ventures between Turkish American and Canadian companies.

From 1972 to 2010, Turkish contractors have undertaken over 5,977 construction projects in 90 countries abroad, worth an ultimate \$190.200 billion, becoming the second biggest national group winner in overseas contracts, according to the Undersecretariat of Foreign Trade.

The bulk of Turkey’s construction business abroad from 1972 to 2010 was in Russia, where Turkish firms have completed \$32.132 billion in contracts, followed by Libya \$26.427 billion, Turkmenistan with \$21.197 billion, Kazakhstan with \$13.096 billion, Iraq with \$10.689 billion, Saudi Arabia \$9.294 billion, Qatar with \$7.438 billion, the United Arab Emirates with \$7.387 billion, Romania with \$6.113 billion and Algeria with \$5.201 billion.

## TURKISH CONTRACTOR'S BUSINESS BY MAIN COUNTRIES 1972 - 2010

Country	Total Project Value (Dollar)	Share (%)
Russia	34,132,744,118	17.9%
Libya	26,427,390,073	13.9%
Turkmenistan	21,197,801,474	11.1%
Kazakhstan	13,096,033,892	6.9%
Iraq	10,689,065,437	5.6%
Saudi Arabia	9,294,205,304	4.9%
Qatar	7,438,369,331	3.9%
United Arab Emirates	7,387,151,618	3.9%
Romania	6,113,823,739	3.2%
Algeria	5,201,921,233	2.7%
<b>TOTAL</b>	<b>190,245,665,016</b>	

Source: Undersecretariat of Foreign Trade

Turkish firms are carrying out construction projects in dozens of countries in a wide geography extending from Ireland to Sakhalin Island in the Pacific Ocean and from the Africam countries of Ghana, Mali, Sierra Leone and Cameroon to India and Pakistan.

Turkish firms have built highways, government buildings, military installations, subway systems, airports, hotels, hospitals, new residential cities, hydroelectric dams, thermal power plants, drinking water and sewerage systems, ports and industrial complexes abroad.

Some 33 Turkish companies were ranked among the world's top 225 contractors in 2010 by the trade magazine Engineering News Record (ENR). The magazine noted that only China had more companies among the world's leading contractors.

The Turkish companies in the list were: Enka, Gama, Ant Yapı, Tekfen, Rönesans, TAV, Nurol, Li-mak, Yüksel, STFA, Polimeks, Mak-Yol, Cengiz, Alarko, Kayi, Onur, Yapı Merkezi, Baytur, Güriş, Doğuş, Yaşar Özkan, GAP, Betatek, Çukurova, Yenigün, Rasen, Summa, Atlas, Metag, IC İbrahim Çeçen, Eser Taahhüt, TML and Öztaş.

Turkish companies, the Undersecretariat of Foreign Trade reported, carried \$20.472 billion in contracts from 529 projects outside the country in 2010, down 8% from 2009. The average project value of a single contract abroad carried out by Turkish companies stood at \$38.7 million in 2010.

Some 20.8% of the contracts in 2010, worth an ultimate \$4.252 billion, were in natural-gas rich Turkmenistan, followed by Libya \$2.460 billion, and Iraq with \$2.191 billion.

### CONSTRUCTION PROJECTS CARRIED OUT BY TURKISH CONTRACTORS ABROAD 2002 - 2010

Years	Number of Projects	Number of Countries	Total Project Values (\$)	Average Project Value (\$)
2002	128	32	2,438,175,790	19,048,248
2003	281	36	4,232,000,888	15,060,501
2004	407	37	11,291,261,856	27,742,658
2005	405	34	11,570,192,924	28,568,378
2006	512	36	20,990,328,795	40,996,736
2007	568	44	24,654,114,275	43,405,131
2008	585	39	23,819,928,892	40,717,827
2009	468	43	22,230,821,460	47,501,755
2010	529	48	20,472,770,916	38,700,890

Source: Undersecretariat of Foreign Trade

## LIBYAN MARKET WOES

The Libyan construction market, a major source of income for Turkish contractors, was shut in 2011 following internal strife in the country aimed at ousting Libyan strongman Col. Muammar al-Qaddafi. Some of Turkey's leading contractors were carrying out projects in the country at the time. Their losses in construction equipment due the fighting in and around the cities of Tripoli, Benghazi, and Misurata reached \$100 million, as many work sites were ransacked and burned down by demonstrators. The Turkish companies were unlikely to be compensated by insurance companies.

Some 25,000 Turkish workers and engineers stationed in Libya were also evacuated.

Turkish contractors were saying that it would take at least a year for stability to return to the North African country.

### TURKISH CONTRACTORS' WORK ABROAD IN 2010 BASED ON PROJECT'S HOME COUNTRY 2010

Country	Total Project Value (Dollar)	Share (%)
Turkmenistan	4,252,048,273	20.8%
Libya	2,460,471,259	12.0%
Iraq	2,191,887,977	10.7%
Russia	1,715,424,510	8.4%
Iran	1,111,767,635	5.4%
Oman	979,245,366	4.8%
Georgia	939,634,462	4.6%
Qatar	907,494,593	4.4%
Morocco	745,010,740	3.6%
Azerbaijan	714,872,808	3.5%
Others	4,454,913,293	21.8%
<b>Total</b>	<b>20,472,770,916</b>	

Source: Undersecretariat of Foreign Trade

## TURKISH CONSTRUCTION WORKERS ABROAD

Construction work abroad provided jobs for 1,255,095 Turks from 1972 to 2000, the Undersecretariat of Foreign Trade reported.

In 2010, the number of Turkish construction workers employed abroad stood at 54,847.

## 3.6 ENERGY

Turkey's production of primary energy supplies increased in 2009 to 30.125 million tons oil equivalent from 23.7 million tons in 2003, as a crash program in production of hard and lignite coal, natural gas, crude oil, wind and geothermal electricity and solar energy was underway.

But the country faces a rapid depletion of its oil and natural gas reserves, due to insufficient investments and repairs on existing facilities and lack of new offshore oil fields. Additionally, low rainfall resulted in a sharp drop in hydroelectricity output. These developments have forced the country to become more dependent on imported crude oil and natural gas for its energy requirements.

**PRIMARY ENERGY PRODUCTION OF TURKEY BY SELECTED PRODUCTS  
(IN ORGINAL UNITS) 1990 - 2010**

Years	Hard Coal (1000 Tons)	Lignite (1000 Tons)	Asphaltite (1000 Tons)	Natural Gas (In Million Cubic Meters)	Crude Oil (1000 Tons)	Hydro- Electric Power (GWh)	Geothermal Electricity (1,000 TOE*)	Wood (1000 Tons)	Biomass (1000 Tons)	Solar Energy (1000 TOE)	Total
1990	2,745	44,407	276	212	3,717	23,146	364	17,87	8,03	28	25,478
1995	2,248	52,758	67	182	3,516	35,541	437	18,374	6,765	143	26,719
2000	2,392	60,854	22	639	2,749	30,879	648	13,938	5,981	262	26,047
2001	2,494	59,572	31	312	2,551	24,01	687	16,263	5,79	287	24,676
2002	2,319	51,66	5	378	2,42	33,684	730	15,614	5,609	318	24,259
2003	2,059	46,168	336	561	2,375	35,33	784	14,991	5,439	350	23,783
2004	1,946	43,709	722	708	2,276	46,084	811	14,393	5,278	375	24,332
2005	2,17	57,708	888	897	2,281	39,714	926	13,819	ua***	385	ua
2006	2,319	61,484	452	907	2,284	44,465	1,081	13,268	Ua	403	26,8
2007	2,462	72,121	782	893	2,134	36,007	914	12,932	Ua	420	27,5
2008	2,601	76,171	630	1,017	2,2	33,27	ua	12,264	ua	420	28,08
2009	2,863	75,577	1,058	685	2,237	35,959	436	11,766	ua	429	30,125
2010	ua	ua	ua	726	2,5	ua	ua	ua	ua	ua	ua

\* Tons Oil Equivalent (TOE)

\*\* Includes Wind Energy, which stood at 1,415 GWH in 2009.

\*\*\* Unavailable (ua)

Source: Ministry of Energy and Natural Resources

While its energy consumption rose four percent annually in the past decade, the percentage of the country's primary energy imports is expected increase to 80% by 2020, alarming economic planners, the country's traditional bureaucracy and nationalists in the government and the military.

Turkey's energy imports in 2010 stood at \$38.488, or 21% of the nation's import bill, according to the Turkish Statistical Institute (TÜİK). Energy imports in 2011 were expected hit a record high. The previous record in energy imports was in 2008 with \$48.221 billion.

In 2010, Turkey spent \$21.029 billion on the imports of crude oil and oil products, \$14.158 billion on natural gas and liquefied petroleum gas (LPG), \$3.279 billion on bituminous coal and \$20.6 million on electricity

The country's energy exports, mainly refined oil products and electricity, rose to \$4.511 billion in 2010 from \$3.902 billion in 2009. Turkey exported a record \$7.532 billion in energy products in 2008.

Turkey is attempting to diversify its sources of primary energy and supplies by expanding oil and natural gas exploration and hydroelectric production and output in other renewable energy sources as well as intending to build new coal-fired power plants to achieve sustainable growth in energy. Privatization is viewed as the key for Turkey's future energy development.

The government is also encouraging private companies to build power plants (auto producers) to meet their own needs, and construct larger power plants to sell electricity to other neighboring companies and to the state and to take over existing government-run facilities to help maintain growth in energy.

#### **TURKEY'S ENERGY IMPORT BILL 2001 - 2010**

<b>Year</b>	<b>Amount in Million U.S. Dollars</b>
2001	8,339
2002	9,204
2003	11,576
2004	14,407
2005	21,256
2006	28,859
2007	33,900
2008	48,281
2009	29,896
2010	38,488

Source: Turkish Statistical Institute (TÜİK)

#### **TURKEY'S ENERGY EXPORTS 2002 - 2010**

<b>Year</b>	<b>Amount in Million U.S. Dollars</b>
2002	692
2003	980
2004	1,429
2005	2,641
2006	3,567
2007	5,148
2008	7,531
2009	3,921
2010	4,511

Source: TÜİK, Enerji Magazine, Dünya Newspaper

## PRIVATIZATION IN ENERGY

Energy, in fact, is drawing the largest amount of private domestic and foreign investment in Turkey.

Foreign and Turkish companies are investing a total \$9.690 billion in thermal, hydroelectric and wind energy projects in Turkey in 2010 and 2011, the Ankara-based Strategic Technical Economic Research Center (STEAM) reported. It said that \$6.860 billion was being invested in thermal energy power plants, while \$1.610 billion was being invested in hydroelectric power plants and \$1.260 billion in wind energy projects.

Some of the major foreign companies involved in Turkish power projects include AES and General Electric (U.S.), CEZ Group (Czech Republic), OMV (Austria), Italgen (Italy), EDF (England), Verbud and RWE Holding (Germany).

Turkey privatized the first 12 of 20 regional electricity distribution companies in 2009 and 2010 and 2011 (**See section 3.2 on Privatization for details**).

Contracts on most of the other power distribution companies, each representing a region of the country, will be signed after the winners can line up financing.

The Privatization Administration (ÖİB) also concluded tenders in April and May 2010 received for 52 small hydroelectric river power plants (HEPPs) that have completed their economic life span. Many of these power plants have been privatized. (**See section 3.2 on privatization for details**.)

## OPPOSITION RISES TO HYDROELECTRIC POWER PLANTS

The government has assigned the private sector also to build around 1,700 small hydroelectric power plants (HEPPs) around the country, despite growing opposition from local residents, non-governmental organizations and environmentalist groups.

The plan is part of the government's crash program on power generation that calls for wider use of the country's renewable energy resources, including hydroelectricity, wind energy and nuclear power, and the enlistment of the private sector.

*"Turkey imports 73% of the energy it uses. It is country dependent on energy imports because it doesn't have enough oil, natural gas or quality coal,"* Environment and Waterworks Minister Veysel Eroğlu told a parliamentary budget commission meeting in November 2010. *"For this reason it needs (to develop) hydroelectricity. Dams and dam reservoirs are not being constructed for pleasure. They are being built out of necessity."*

The HEPPs are in various stages of construction or planning throughout Turkey, the bulk of which will be located in the lush, verdant river valleys of northern Anatolia, particularly in the eastern Black Sea provinces of Giresun, Trabzon, Rize and Artvin. Many of the projects are being contested



in the courts on allegations that they will ruin the ecological balances in the valleys, cause irreparable environmental damage and result in the loss of water supplies to local towns and villages.

Several of the projects have been halted in the courts, setting back the government's grandiose plan.

*"The court cases are slowing down Turkey's investments in renewable energy,"* Energy and Natural Resources Minister Taner Yıldız told the semi-official Anatolian News Agency on May 29.

A major blow came in January 2011, when an administrative court ordered an injunction into the construction of a Cide HEPP project in Loç Valley, in northern Turkey, effectively stopping the project, on grounds that the contractor didn't have proper work permits. The contractor, Orya Energy-Umran Boru, withdrew all construction equipment and workers from the site

A 28-day sit-in in front of the İstanbul headquarters of Orya Energy-Umran Boru also came to an end on New Year's Eve after construction work at Loç Valley, on the Devrekani River in Kastamonu province, 25 km south of the Black Sea coastal town of Cide, came to an end.

The project shook the centuries old placid, pastoral existence of Loç's inhabitants, ignited protests against the undertaking and brought local residents and environmentalists into open conflict with the country's national economic interests.

Since construction of the 20 MW Cide HEPP on the Devrekani River that runs through this little-known paradise, began in fall 2010, opponents to the project clashed with workers of the company building the site, staged demonstrations in various cities across Turkey, and began a slick Internet campaign against the builders. Loç residents have also proselytized in other villages upstream where six other dams are planned.

Most of private sector dams and power plants projects planned across Turkey are small -- less than 50 MW -- and don't require environmental assessment projects, according to some government officials.

The builder of the HEPP's have 49-year contracts with the government to use the waters of the rivers.

Loç Valley has unique vegetation, combining the rich forests of the Black Sea with the flora of the Mediterranean. Damming up the river and control of its waters will charge the valley's ecosystem, environmentalists said.

Prime Minister Erdogan says Turkey needs to triple current electricity output by 2030 from around 209 billion kilowatt hours (kWh) in 2010 to meet economic growth targets and accommodate the introduction of electrical automobiles that will phase out cars running on gasoline, diesel and liquefied petroleum gas. Turkish car maker Oyak Renault and Tofaş have reportedly begun mass production of electrical vehicles.

The state must spend \$4 billion a year on the development of new electricity generation projects, but can only spare \$500 million. To meet the expected shortfall in electricity, the government has enlisted the private sector to build and operate the small hydroelectric dams and power plants, wind farms and thermal energy plants across the nation.

As Loç Valley is one of the closest sites to Turkey's major cities in the west among the contested hydroelectric power projects, it drew the largest number of activists and dissidents from urban areas. Mountaineers, members of cycling clubs and naturalist associations and other environmentalists camped in the valley in fall 2010 and physically blocked bulldozers and earth movers from entering the construction site. Gendarmes had to be called in to protect the company's workers and equipment.

Loç means "hidden garden" in an ancient language, possibly Phrygian, and it is living up to its name as an earthly Shangri-La with its lush oak, beech, chestnut, birch and juniper forests.

Clusters of old hand-built chalets cling to the slopes of Loç Valley, surrounded by dark mountain ranges. One must climb a 1,000-meter mountain pass from Cide, before descending into the valley, negotiating hairpin turns.

Only 90 persons live year round in Loç, tending cattle and growing corn along the Devrekani River and making homemade helva, a kind of candy. Nearly 4,000 residents live and work in İstanbul. But when summer comes, all the families return to the valley.

The 160 km Devrekani River, which rises in the mountains of Kastamonu and snakes through the province, gives life to the valley. It forms inaccessible gorges and sweeps through Loç Valley before emptying into the Black Sea near the town of Cide.

## **NEW TENDER FOR BAŞKENT DOĞALGAZ**

The ÖİB was also likely to launch a new tender in 2011 for the privatization of an 80% stake in Başkent Doğalgaz, the natural gas distribution company for Turkey's capital city, Ankara, after two previous efforts to sell the enterprise failed.

The government also announced it would sell 45 major thermal energy and hydroelectric dams owned by the state Electricity Generation A.Ş. to raise \$15 billion. Four of the thermal power plants, located in western Turkey, would be sold individually – the 1,120 MW Hamitabat, the 1,034 Soma A and B, the 320 MW Çan and the 600 MW Seyitömer. The remaining 41, including the gigantic lignite-fired 1,440 MW Elbistan A and the 1,356 MW Elbistan B Power Plants, will be sold in nine batches. The tender for the Hamitabat Thermal Power Plant was launched in April 2011.

The Turkish government is also encouraging private companies to build and operate new natural gas-fired power plants, operate state coal mines and geothermal facilities. It privatized natural gas distribution rights in more than 154 cities, and has begun to transfer the multi-billion dollar natural gas import contracts of the state petroleum pipeline corporation BOTAŞ to private operators.

Turkey also plans to privatize oil pipelines operator BOTAŞ, coal mining concern Türkiye Kömür İşletmeleri (TKİ) and Turkish Petroleum Corporation (TPAO).

In January 2009, the Municipality of Greater Kocaeli in western Turkey sold the operational rights of the natural gas distribution company for the city of İzmit, İZGAZ, for a 25-year period.

The Municipality of Greater İstanbul also began work on the privatization of the İstanbul Natural Gas Distribution Company (İGDAŞ).

Turkey also wants private companies to build new oil refineries.

Turkey also plans to construct four nuclear power plants by 2020, and has signed an agreement with Russia on the first plant to be built by a Russian-led consortium at Akkuyu on the Mediterranean Coast. It was holding talks with Japanese companies for the construction of a second nuclear power plant in Sinop on the Black Sea Coast.

The country needs to spend \$128 billion on energy investments by the end of 2020, including \$91.276 billion on new power generation facilities, to keep pace with its rapid-growth economy, but the government can only set aside \$500 million a year from its tight budgets, according to the Energy and Natural Resources Ministry. The total budget for the ministry in 2011 was a mere \$2.454 billion. The budget of the General Directorate of State Hydraulics Works (DSİ), which is responsible for dam building and is under the Ministry of Environment and Forestry, had a bigger budget of \$4.758 billion in 2011.

*“The state doesn’t have the funds to sustain such a massive energy investment program,”* former Energy and Natural Resources Minister Hilmi Güler told a meeting of the Economic Journalists’ Association in İstanbul in September 2006. *“The investments will have to be carried out by the Turkish private sector and foreign investors.”*

The companies acquiring the 20 power distribution companies, which have a total 29 million subscribers, will be required to carry out a total \$1.909 billion in investments in new lines and in upgrading of existing power facilities by 2010.

#### INVESTMENT NEEDS OF THE TURKISH ENERGY SECTOR, 2005 - 2020

Sector	Investment, \$ Mn
Coal exploration & extraction	5,109
Oil	16,000
Natural resources	2,700
Water (DSİ)	6,093
Generation (EUAŞ)	458
New generation facilities	91,276
Transmission	938
Distribution	6,000
<b>Total</b>	<b>128,574</b>

Source: Ministry of Energy (MENR)

## OIL AND NATURAL GAS

Turkey, which isn't self-sufficient in oil, at the end of 2010 had only 43.14 million tons of recoverable oil reserves, an amount that could meet only 1.5 years the nation's demand for crude oil, forcing the state-owned Turkish Petroleum Corporation (TPAO) to carry out deep sea and tough, mountainous terrain exploration and drilling, energy officials said.

Natural gas reserves at the end of 2010 stood at 6.2 billion cubic meters, about one-fifth of Turkey's annual demand,

But it is believed that the Black Sea Coast of Turkey contains 10 billion barrels (1.370 billion tons) of oil reserves and 1.5 trillion cubic meters of natural gas that could meet 40 years of the country's requirement, TPAO officials said. But the oil and gas are said to be trapped 3,000 meters under the ocean floor and that drilling would have to take place where the sea is 2,000 meters deep, often in stormy weather.

The Turkish Petroleum Corporation (TPAO), slated for privatization possibly in 2011, is spending \$4 billion on oil exploration along the Black Sea Coast.

In January 2010, TPAO began oil exploration off the coast of Sinop, Turkey's northernmost city, with Brazil's state Petroleo Brasileiro S.A. (Petrobras), using the world's second biggest petroleum platform *Leiv Eriksson*. Petrobras said it would invest \$400 million on oil drilling in the Black Sea.

Drilling for oil in the south eastern Black Sea, TPAO announced on April 10, 2011, that it had discovered quality oil at a well in Turkish territorial waters off the coastal town of Surmene, Trabzon province.

TPAO's Chief Executive Officer Mehmet Uysal said that the oil had been discovered at 4.800 meters underground, and that the oil was of the same quality as that produced in the Azeri Çıralı and Güneşli sites in the Caspian Sea.

Uysal said that pressure problems were forcing **TPAO** to bring in new equipment to further carry out drilling.

TPAO in 2008 also began drilling for oil and natural gas in Saros Bay, in the Aegean, north of the Dardanelles.

Turkey was also drilling for oil in areas along its borders with Syria, Iraq, and Iran, with some success.

Uysal said that the state company would explore for oil and natural gas in southeast Turkey with Exxon Mobile of Irving, Texas, and EOG Resources of Houston, Texas.

Crude oil production in Turkey in 2010 stood at a mere 2.5 million tons, the highest amount since 2001. TPAO and Shell's Perenco produced almost the entire amount. TPAO also produces around 20.075 million barrels (2.75 million tons) abroad, mainly in the Azeri Caspian.

Local production meets less than 1/10th of Turkey's oil demand. The rest is imported.

Yet oil officials believe that Turkey, which lies between the Romanian and Iraqi oil fields, has rich, but unproven, oil reserves, particularly in the mountainous southeast. But oil in the region, broken up by rugged terrain, high, jagged mountain ranges, and tectonic faults, would require drilling many wells as deep as 6,000 meters, and may be currently uneconomic.

Turkish natural gas production in 2010 was 726 million cubic meters, down from a peak of 1.017 billion cubic meters in 2008.

State-owned Turkish Petroleum Corp. (TPAO) is Turkey's biggest producer of crude oil, accounting for 71% of the country's output, followed by Shell (Perenco) with 24%. Mobil - Dorchester produced about four percent. A host of smaller companies also produce oil.

Between 1934, when oil exploration and extraction began, and 2009, Turkish and foreign companies have opened 3,727 wells, totalling 7.025 million meters of drilling.

The Petroleum Law of 2007 is expected to increase exploration and production activities considerably.

TPAO is also drilling for offshore natural gas with Dallas, Texas-based Treador Resources and its subsidiary Madison along the western Black Sea Coast of Turkey. TPAO believes it can produce 10 billion cubic meters of natural gas at this site each year. It currently produces 435,000 cubic meters of natural gas a day (158 million cubic meters a year) at three sites on the western Black Sea Coast near Akçakoca, but plans to increase production to 2 million cubic meters a day (730 million cubic meters a year).

Calgary, Alberta-based Stratic Energy Co. has a 12% share in the Akbaya and Ayazlı offshore natural gas fields operated by TPAO on the western Black Sea coast.

TPAO is also drilling for oil in Isparta, western Turkey, Mt. Cudi in Şırnak, Pervari in Siirt, along the Syrian and Iraqi borders, at Tuz Gölü (Niğde) in central Turkey and Thrace, and has had some successful strikes.

Amity Oil Company announced discoveries of natural gas in several locations in Thrace in 2007. Although the strikes are economically viable, the reserves are of modest amounts.

Natural Gas has grown rapidly as a percentage of total primary energy supply in the past decade, now reaching 36%, which however is still lower than in EU and OECD countries. This growth is expected to sustain in the medium term primarily due to growing urbanization, increased dependence on natural gas for heating and greater use of natural gas in electricity generation.

Other Canadian investments in Turkish oil and gas exploration are as follows:

Euromax Resources Ltd. of Vancouver, British Columbia, acquired 33.3% interest in the İskenderun and Adana oil and gas exploration properties for a net holding of about 127,000 hectares.

Turkish oil and gas exploration company Genel Enerji and Canadian Addax Petroleum found oil in a second well drilled at Taq Taq field in Iraq. The well is expected to contribute with an annual gain of \$605 million.

**TURKEY'S NATURAL GAS DEMAND**  
(In Million Cubic Meters)

Year	Amount
2006	29,500
2007	31,400
2008	33,400
2010	41,200
2015	52,200
2020	61,000

Source: BOTAŞ Petroleum Pipeline Corp.

Consumption of natural gas and liquefied natural gas in Turkey grew at 14.8% per year in the last decade, reaching 41.2 billion cubic meters in 2010. The state Petroleum Pipeline Corporation (BOTAŞ) estimated that gas consumption will be 53 billion cubic meters in 2015 and 61 billion cubic in 2020.

Turkey does not have sufficient natural gas reserves, and is supplied primarily from Russia through two pipelines, one through Bulgaria (Tursugaz) and one under the Black Sea (Blue Stream) to the port city of Samsun. It also receives natural gas by pipeline from Azerbaijan's (Şahdeniz) fields and from Iran. Other major suppliers are Algeria and Nigeria (in the form of liquefied natural gas - LNG).

In 2010, Turkey imported 40.4 billion cubic meters of natural gas and liquefied natural gas from six countries.

Turkey uses natural gas for both power generation and as an environmentally friendly, alternative energy source for heating purposes in the cities, where air pollution reached levels endangering public health during the 1970s and 1980s. The country had been using mainly lignite, a low-calorific, high-sulphur content coal which is in abundant supply locally, for heating purposes but this has been the chief cause of air pollution.

The Energy Market Regulatory Agency (EPDK) concluded contracts for natural gas distribution rights in 154 cities and towns with private Turkish companies. BOTAŞ laid 11,332 km of pipelines to date crisscrossing the nation and plans to supply natural gas to all 81 provinces by end 2010.

## **TURKEY AS AN ENERGY CONDUIT**

Due to its unique geographical location, Turkey is becoming a major natural gas and oil conduit from the Caspian into mainland Europe. Turkey is currently proceeding towards construction of large pipelines reaching countries in continental Europe.

In addition to its growing domestic demand for natural gas, the role of Turkey as a transit country is likely to drive the economics of the natural gas market in the medium term. Turkey currently has long-term contracts for supplies significantly larger than its current domestic demand, and it is unlikely that in the foreseeable future, the demand will cross available supply.

On April 25, 2011, BOTAŞ signed an agreement with Turkey's Demirören Group and Switzerland's EGL to transport natural gas from the Caspian region and the Middle East to Europe.

## **PRIVATIZATION OF NATURAL GAS**

The liberalization of the sector has led to the privatization of distribution in scores of cities, while BOTAŞ, the state pipeline company, is set to be unbundled by 2011.

In 2007, BOTAŞ privatized 16 lots (4 billion cubic meters) of its 64 lots (16 billion cubic meters) of natural gas import contracts to six companies: Eurasia, Shell Energy, Bosphorus Gas (a joint venture between Turkish businessman Ali Şen and Gazprom of Russia), Enerco (a joint venture between the Akfel Group of Turkey and OMV of Austria), Avrasya Gaz, a unit of the Tahincioglu Holding, and AKSA Doğal Gaz. Further privatization of its natural gas import contracts were expected in 2011.

## **OIL REFINING**

Demand for petroleum products is rapidly rising in Turkey. The country's sole oil refineries' operator is Tüpraş. With four refineries, Tüpraş has a total annual refining capacity of 27.6 million tons. But demand for petroleum products rose to 29.5 million tons in 2006 and is expected to increase to 34.1 million tons in 2015 and 39.3 million tons by 2020, according to Tüpraş.

A former state company, Tüpraş processed 19.6 million tons of crude oil and 2.1 million tons of semi-finished products in 2010, and had a net income of \$646 million on a turnover of \$16.903 billion.

Petkim, the former state petrochemical concern, also produces small amounts of liquefied petroleum gas (LPG), diesel oil and normal gasoline, as by-products of its chemicals output. Tüpraş produces a wide range of products, including fuel oil, diesel oil, jet fuel, gasoline, naphtha and asphalt.

Turkey is a net importer of refined oil products.

To meet the soaring domestic demand, it will be necessary to expand existing capacities and to construct new refineries.

Four groups have applied to the Energy Market Regulation Authority (EPDK) to build and operate oil refineries in Ceyhan, in Adana, on the Mediterranean Coast, near the terminal of the Baku-Tbilisi-Ceyhan Oil Pipeline and Iraq-Turkey Crude Oil Pipelines. Two have gotten their licenses:

- The Azeri-Turkish Socar-Turcas Joint Venture received a license to build and operate a \$4 million, oil refinery, with a 10 million-ton a year production capacity.
- The EPDK in May 2007 approved Çalık Enerji-Indian Oil Company's received a license to build an oil refinery and petrochemical complex for \$4.9 billion in Ceyhan.

Oil products distributor Petrol Ofisi Akdeniz Rafineri A.Ş. in June 2007, applied to energy authorities to build a \$3 billion oil refinery year in Ceyhan, but has yet to get a license to construct and operate the complex.

The Cevahir Group, which owns 50% of the Cevahir Shopping Mall and the Grand Cevahir Hotel in İstanbul, also submitted an application to build an oil refinery. Its proposal is still under review.

Additionally, Turkish energy company AKSA in August 2009 formed a partnership with Russia Gazprom to construct and operate a liquefied natural gas plant in Ceyhan, the Turkish Mediterranean terminal of numerous existing and planned international gas and oil pipelines. AKSA officials also said that it would import natural gas from Gazprom.

In January 2010, the state-owned Turkish Petroleum Corporation (TPAO) announced it had acquired lands near the major oil terminal in Dörtyol, Adana province in southern Turkey, and planned to build an oil refinery there. The move would represent the Turkish state's return to oil refining after the privatization of Tüpraş four years ago. *"Western companies protect these strategic companies as if they are the pupils of their eyes,"* Galip Ozbek, chairman of the Turkish Petroleum International Company (TPIC), a subsidiary of TPAO, told the semi-official Anatolian News Agency. *"TPAO must complete its vertical integration to become a strong corporation like BP, Shell, or Exxon."*



## TURKEY AS AN EAST-WEST ENERGY CORRIDOR

With the completion of numerous oil and gas pipelines running through Turkish territory, five percent of the world's energy resources will transit Turkey by the end of 2012, energy experts say. Projects are at various stages of planning, construction and completion for the transit of natural gas and oil across Turkey from suppliers in the Caspian region, Central Asia and the Middle East to southern and central Europe.

**Baku-Tbilisi-Ceyhan (BTC) Oil Pipeline (\$4 billion).** Hailed as the “New Silk Road for Oil,” the 1,180 mile pipeline began operating in May 2006. It will transport 365 million barrels of Azeri crude annually to the Turkish Mediterranean terminal in Ceyhan for transshipment to Europe by tanker once in full operational strength. Turks say the terminal port of Ceyhan will become the “Rotterdam of the Mediterranean.”

**Iraq-Turkey Natural Gas Pipeline – 10 bcm/year to Turkey.** The twin pipelines have been operational since 1976. Feasibility studies are being carried out for a parallel natural gas pipeline. The twin Iraq-Turkey Oil Pipeline has been in existence since 1976. One is 986-km long and the other is 890-km long.

**Turkey-Greece Natural Gas Pipeline.** Completed in August 2007, the \$300 million pipeline transports natural gas produced in Azerbaijan's Shah Deniz fields to western market. The 171-mile pipeline runs from Karacabey, in northwest Anatolia, to Komitini, in the Greek province of Western Thrace. Greece will acquire 3 billion cubic meters (bcm) of natural gas annually. Spurs from Greece will take the gas further west. Italy will acquire 8 bcm of natural gas each year from the pipeline.

Enlarging the 745-mile **Blue Stream Natural Gas Pipeline** from 16 bcm to 32 bcm a year is being considered. The Blue Stream, which runs from Beregovaya in Russia to Samsun on the Turkish Black Sea Coast has been in operation since 2003; The Samsun-Ceyhan crude oil pipeline. Ground-breaking ceremonies were held in 2007. The pipeline is expected to pump Kazakh crude oil, shipped to Samsun, to the Ceyhan, and relieve pressure on the Turkish Straits, but Kazakhstan hasn't been forthcoming, leaving the project in a lurch.

**Caspian -Turkey -Europe Shah Deniz natural gas pipeline:** 6.6 bcm/year to Turkey.

**Nabucco Natural Gas Pipeline** project from Turkey to Austria, valued at €15 billion. Construction of the 3,900 km pipeline is slated to begin in 2013 and is due for completion in 2017. The pipeline, named after a Verdi opera, will transport natural gas from the Middle East and Caspian region, including Iran, Azerbaijan and Turkmenistan, to Western Europe and to the countries long its path. The western end of the pipeline will be Baumgarten an der March, a major natural gas hub in Austria. The shareholders of the project are: OMV (Austria) MOL (Hungary), Transgaz (Romania), Bulgargaz (Bulgaria), BOTAŞ (Turkey) and Germany's RWE. The Nabuco Project is competing with the South Stream Project, a pipeline that will run under the Black Sea from Russia along Turkish territorial waters to Western Europe.

**Turkey – Egypt Natural Gas Pipeline:** The pipeline will pump 2-4 bcm/year of gas from Egypt to Turkey and 2-6 bcm/year of gas from Turkey to Europe. A pipeline from Aleppo, Syria, to southern Turkey will deliver the Egyptian natural gas that is being pumped to Syria by sea from Egypt's El Arish township, in the Sinai Peninsula. Turkey and Egypt also signed the agreement for the pipeline in 2007 and set up a joint venture to market Egyptian natural gas in Europe.

**TOP 16 TURKISH ENERGY COMPANIES IN 2010 IN TERM OF SALES**  
(In Million U.S. Dollars)

Name of Company	Net Sales	Business
1 Tüpraş	18,229	Oil refining
2 Türkiye Elektrik Dağıtım	11,666	Electricity Distribution
3 BOTAŞ	10,988	Oil, Natural Gas Pipelines Operations; Importation, Distribution
4 Petrol Ofisi	10,426	Oil products retailing
5 EÜAŞ Elektrik Üretim A.Ş.	8,018	Electricity production
6 Opet Petrolcülük	6,840	Oil Products retailing
7 Shell & Turcas Petrol A.Ş.	6,069	Oil products retailing
8 Enka İnşaat	4,512	Electricity production, contracting
9 Aygaz	3,009	LPG Distribution
10 Türkiye Kömür İşletmeleri	1,393	Coal Mining
11 İpragaz	1,222	LPG Distribution
12 Turkish Petroleum Corp (TPAO)	1,208	Oil and Gas Exploration, Extraction
13 AKSA Enerji Üretim	589	Electricity production
14 Shell Gaz Ticaret	528	Liquefied Propane Gas Trade
15 Enerjisa	468	Electricity production, Distribution
16 Enerji Petrol Ürünleri Pazarlama	304	Oil Products production, sales

Source: Fortune Magazine Turkey

## OIL PRODUCTS RETAILING

As of the end of 2010, Turkey had 49 oil products retailers with 12,411 service stations and 2.405 fuel stations, according to the Energy Market Regulation Agency (EPDK). The country had only 17 retailers in 2002 with 9,800 service stations.

Turkey witnessed a boom in the opening of retailers and service stations after the government lifted restrictions on building in 1989 to help meet a growing demand for gasoline, caused by rising automobile ownership.

In the past, a distance of 5 km (3 miles) had to separate each station, a measure that was lifted in 1989 as part of the liberalization of distribution and importation of petroleum products.

“Now we have service stations at every step,” said an analyst of petroleum markets with TABGİS, an İstanbul-based association of domestic petroleum products’ sellers.

The former state-owned Petrol Ofisi with its subsidiary Erk is Turkey’s biggest operator of service stations and has a 24% share in the sale of gasoline and other products. Major multinationals in the sector include Shell, BP, Total, Elf and Lukoil. The top 11 service station operators control 67 % of all the nation’s service and fuel stations.

#### **TURKEY’S LEADING SERVICE AND FUEL OIL STATION OPERATORS** (In Terms of Market Share in 2010)

<b>Company</b>	<b>% Market Share</b>
1 Petrol Ofisi + Erk	24.7
2 Shell+Turcas	19.1
3 Opet + Sunpet	16.6
4 BP	10.8
5 Total	5.6
6 Altınbaş (Alpet)	3.0
7 Lukoil+ Akpet	2.3
8 TP Petrol	1.9
9 Bölünmez Petrol	1.4
10 Lukoil Eurasia	1.4
39 Others	15.5

Source: Energy Market Regulation Agency (EPDK)

The market size for gasoline and other oil products in Turkey in 2010 was around \$48.4 billion, up from \$42.1 billion in 2008, but still short of the record and \$53 billion in 2007, according to PET-DER, a trade group. The rise was due to result of the recovery of Turkey’s economy from the global recession and rising prices of oil products, PET-DER said.

The past boom led to increased franchising of popular local and foreign brand name retailers.

But the opening of service stations, particularly in western Anatolia and Thrace, outpaced demand. Scores of service stations, providing only gasoline and diesel oil, are facing financial difficulties and are unable to pay their debts to large Turkish and foreign-owned retailers.

Major oil products retailers, represented by PET-DER, called for a consolidation in the business.

*“There is an inflation of two things in Turkey,” said Melih Türker, chief executive officer of Petrol Ofisi and former president of PET-DER. “One is the number of service stations and the other is the number of pharmacies.”*

This has led many service stations owners to provide additional services, such as opening markets, coffee houses, fast food restaurants, gift shops and shopping malls to attract customers, particularly buses carrying large numbers of passengers. These station owners are also providing a wide range of other petroleum products for sale and giving repair work and other services to motor vehicle owners.

## LPG MARKET

In addition to the service stations, about 67 companies with 4,000 outlets distribute liquefied petroleum gas (LPG) for cooking and water heating throughout Turkey.

Tupraş is Turkey’s sole producer of LPG. Around 80 percent of the country’s LPG requirement is imported.

Most of the imported LPG comes from Algeria, Norway, Libya and Kazakhstan.

Turkey consumed 3.700 million tons of (LPG) in 2010, a 2.8% increase from 2009, the bulk in autogas, Aygaz, Turkey’s number one LPG distributor, reported. Turkey consumed 3.840 million tons of LPG in 2001. The drop in consumption of LPG has been due to the increased availability of imported natural gas.

Turkey is the Europe’s biggest and the world’s second largest market for LPG, Aygaz said. The country has 50,000 LPG trucks in a country where 15 million households and work sites use LPG.

### TURKEY’S LPG DEMAND (CONSUMPTION) 2001 - 2010

(In Tons)

	2001	2006*	2009*	2010*
Picnic Tubes	1,800,175	1,491,000	1,126,800	1,073,000
Bulk	805,975	475,000	180,000	110,000
Auto	1,233,864	1,550,000	2,293,200	2,517,000
<b>Total</b>	<b>3,840,014</b>	<b>3,580,000</b>	<b>3,600,000</b>	<b>3,700,000</b>

\* Figures have been rounded off

Source: Aygaz

## **PETROLEUM MARKETS LAW**

Turkey's **Petroleum Markets Law** aims at liberalizing the petroleum market by rescinding the state monopoly in the sector and banning of low-quality contraband gasoline from entering Turkey from Iraq and other neighboring countries.

The law brings the sector under the control of the nine-member Energy Market Regulatory Authority (EPDK). All players, distributors, dealers and storage holders are required to receive licenses from the EPDK to operate. It requires all fuel (service) stations to be part of a distribution network, and not buy products from all sources.

A national marker, or chemical dye, was introduced on January 1, 2007, to gasoline and other products at refineries or at customs controls for registered products to prevent smuggled oil and gasoline from entering the country. EPDK inspectors carry out periodic checks of oil products at service stations throughout the country. Service stations selling contraband products are heavily fined and owners face up to five years imprisonment, and their operations can be permanently shut down.

## **ELECTRICITY**

A crash program to develop power plants, with an increased role for private and foreign investors, is key to Turkey's continued economic growth, energy planners say.

Turkey will need a large infusion of foreign capital to double its generating capacity to 96,348 MW by the year 2020.

As of December 9, 2010, Turkey's total installed power production capacity reached and estimated 48,435.7 MW, according to the Ministry of Energy and Natural Resources.

Turkey's electricity consumption was expected to rise from around 206 billion kilowatt hours (kWh) in 2010 to 546 billion kWh by 2020, according to state energy planners. Consumption fell to 193.323 billion kWh in 2009 from 198.083 billion kWh in 2008 to because of the global economic meltdown.

### TURKEY'S ELECTRICITY PRODUCTION CAPACITY FROM 1990 TO 2010 (In Selected Years In Mw)

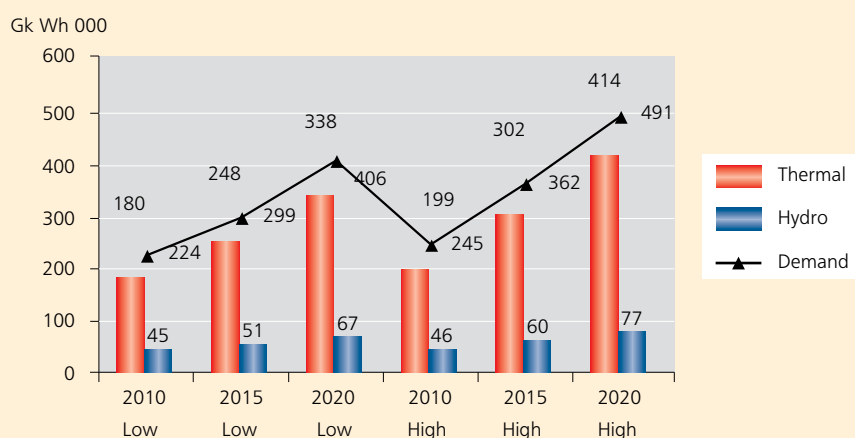
Year	MW	Year	MW
1990	16,315	2005	38,820
1995	20,952	2006	40,502
2000	27,264	2008	41,517
2002	31,846	2009	44,559
2003	35,820	2010	48,435*

\* As of December 10, 2011

Source: TEİAŞ

Nevertheless, additional generation capacity will be required beyond 2010-2011 under most demand and supply scenarios made by the Ministry of Energy. The government is exploring alternatives for adding significant amounts of capacity in order to meet the probable shortage of supply in the medium term. Considering the projects under construction, an additional capacity requirement of about 52,000 MW will be needed. State Planning Organization economists calculate that this will require a total investment amount of \$84 billion. Investment requirement would be, \$20 billion during 2011-15 and \$51 billion during 2016-20. Deloitte breaks down the financing needed by 2015 for an additional capacity generation of 23,981 MW as \$31.9 billion.

### ELECTRICITY PRODUCTION AND DEMAND, 2020



Source: State Planning Organization (SPO)

Electricity demand in Turkey increased eight percent annually from 1990 to 2008, the world's second highest growth rate after China, confounding the nation's energy planners, who had projected lower rates, and forcing them to make new long-term power consumption forecasts.

The government must spend about \$4.5 billion annually on new power projects and \$1 billion annually for power transmission to avoid an energy crisis. But it can only spare only \$500 million.

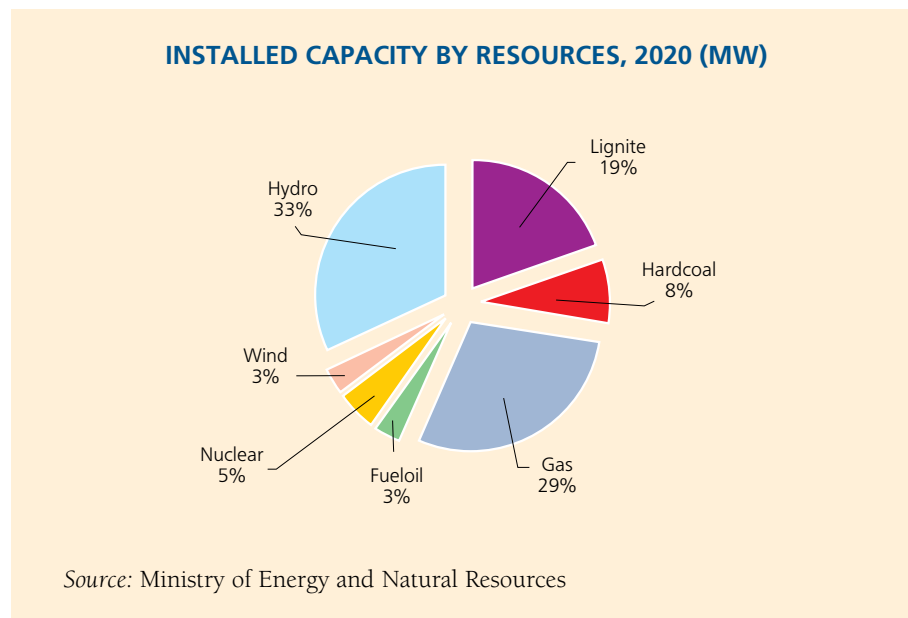
"This situation, together with expenses for transmission lines, results in an investment profile that can't be met by public resources," former Energy and Natural Resources Minister Cumhuri Ersümer declared.

The volatile market is growing so fast that energy authorities are planning to establish an electricity exchange that would operate within the confines of the İzmir-based derivatives exchange to reduce instability and unknowns.

The government wants private and foreign investors to build the third and fourth thermal energy plants in Afşin Elbistan, in southern Turkey, with eight units of 300 MW and a total capacity of 2,400 MW

Blackouts are becoming a way of life in Turkey's big cities, forcing industry and businesses to install expensive power generators.

Failure of Turkey to build enough power plants from 1990 to 2007 and insufficient rainfall to feed the major hydroelectric dam reservoirs are generally cited as the reasons for the country's present energy bottleneck. Electricity output from hydroelectric dams plunged 20% in 2001 from 2000 to 24.8 billion kWh due to the lack of sufficient rainfall, according to the Turkish Statistical Institute (TÜİK).



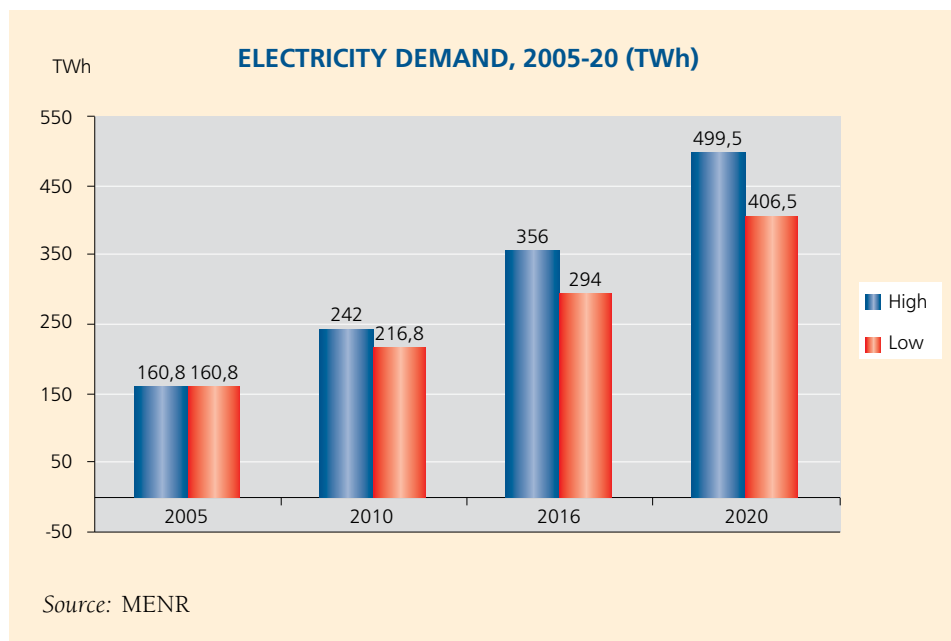
To meet the shortfall, the government is seeking private investors to build and operate new hydroelectric dams, thermal energy power plants and rehabilitate existing ones.

The government plans the sale of 16,000 MW of state generating plants, including 12,200 MW thermal plants and 3,800 MW of hydroelectric dams. The government also wants the private sector to build 16 large hydroelectric dams in mainly eastern Anatolia

Additionally, many of the 1,700 private sector hydroelectric power projects, which the State Hydraulic Works Administration (DSİ) endorsed, have received licenses from the Energy Market Regulation Agency (EPDK) in 2008 and 2009. Most of these are small to mid-sized river dams (with an under 50 MW power generating capacity). (See pages 157-158). Construction on 521 of these HEPPs that will boost Turkey's power generating capacity by 14,050.2 are underway.

Special emphasis has been placed on the quick construction of power plants using imported, low-cost natural gas or liquefied natural gas. Industrial companies are being encouraged to produce their own electricity and heating through the development of gas-fired, co-generation power plants (autoproducers) that turn out both electricity and steam.

*“With Turkey facing an energy shortage, Turkey has opted for the quick-delivery natural gas power plants,”* stressed one executive with Entes Industrial Plants Construction and Erection Contracting Co., a Turkish contractor that built the Unimar power plant in Marmara Ereğlisi. *“These are easier to build than costly, coal-fired power plants or hydroelectric dams.”*



The administration is also offering incentives, such as land grants and tax exemptions to companies investing in renewable energy sources, such as biomass, wind, solar and geothermal energy.

Several foreign companies, including Indian company GMR, which is a 40 percent shareholder in the company that acquired the operating rights to the Sabiha Gökçen International Airport in İstanbul, plan investments in thermal power plants in Turkey. GMR intends to build a 1,000 MW gas-fired power plant.



Germany's RWE Holding A.Ş. and Turcas Elektrik Üretim signed a joint venture agreement and began the construction of a 800MW combined cycle gas turbine (CCGT) power plant near the city of Denizli, Turkey.

The government hopes to carry out many of the projects under Build-Operate-Transfer (BOT) or Build-Operate (BO) models, where contractors would line up financing for power plants, and build and operate them as concessions for certain amount of time, such as 15 years, after which they would turn them over to the Turkish state. Some 22 BOT power projects with a total installed capacity of 2,288,000 MW are already in operation. Five BO projects have also begun to operate. The management of two existing state-owned power plants has been transferred to private companies.

Turkey does not provide sovereign guarantees under BOT projects, but offers to buy all the electricity produced. The late President Turgut Özal and his lieutenants first introduced the BOT concept in the early 1980s, but the country failed to liberalize its laws on concessions to allow foreign investment in energy projects.

#### HYDROELECTRIC DAMS TO BE BUILT AND OPERATED BY PRIVATE TURKISH AND FOREIGN COMPANIES

Name of Hydroelectric Dam	Capacity in MW	Location
Bayram	81 MW	Şavşat, Artvin
Bağlık	67 MW	Artvin
Artvin	332 MW	Artvin
Gürsügüt	279 MW	Mihalcık, Eskisehir
Kargı	214 MW	Mihalcık, Eskisehir
Alpaslan 2	200 MW	Muş
Hakkari	208 MW	Hakkari
Konaktepe 1-2	138 MW	Tunceli
Beyhani	300 MW	Palu, Elazığ
Doganli	462 MW	Hakkari
Kaleköy	293 MW	Solhan, Bingöl
Çukurca	245 MW	Cukurca, Hakkari
Eriç	170 MW	Kemah, Erzincan
Pervari	192 MW	Pervari, Siirt
Durak	120	Camlihemsin, Rize
Mut	91	Mut, İçel

Source: Dünya Newspaper, State Hydraulics Works Administration (DSI)

Many other developing countries in the Far East and Latin America adopted the Turkish model and attracted away large-scale foreign investment that could have come in Turkey's way.

#### TURKEY'S TOP 20 ELECTRICITY PRODUCERS IN TERMS OF POWER GENERATION CAPACITY

Ranking	Name of Company	Installed Capacity (in MW)
1	Elektrik Üretim A.Ş.	24,199.0*
2	Enka İnşaat	3,938.8
3	Enerjisa	1,557.0
4	Aksa Energy	1,500.0
5	İsken	1,320.0
6	Cengiz İnşaat	879.0
7	Zorlu Enerji Group	873.0
8	Ciner Holding	807.0
9	Baymina	798.0
10	Eraen Holding	760.0
11	Birecik	672.0
12	Akenerji	658.2
13	Çolakoglu Holding	571.8
14	Uni-Mar	571.0
15	Sanko Energy	512.0
16	Trakya Elektrik	498.7
17	Limak Energy	428.5
18	Bilgin Energy	424.6
19	BİS Energy	410.0
<b>Installed capacity of Top 20</b>		<b>41,388.6</b>
<b>Turkey's total installed capacity</b>		<b>48,435.7**</b>

\* As of November 30, 2010

\*\* As of December 9, 2010

Source: Ministry of Energy and Natural Resources, Company reports, Dünya Newspaper

## INVESTMENT NEEDS OF THE POWER SECTOR, 2005 - 2015

Source	Capacity MW	Cost per unit \$ Mn/MW	Total cost \$ Bn
Hydro	6,811	1,500	10,217
Wind & other renewables	1,125	1,400	1,575
Nuclear	4,500	2,000	9,000
Lignite	4,520	1,300	5,876
Natural Gas	7,025	0,750	5,269
<b>Total</b>	<b>23,981</b>	<b>1,332</b>	<b>31,937</b>

Source: Türkiye Elektrik Enerjisi Piyasası 2007, Deloitte

Seven major BO or BOT projects involving partial or full foreign ownership have been built and are running:

- A Turkish, Belgian, German, French and Austrian contractors' consortium is operating the 672 MW Birecik Hydroelectric Dam, one of the country's biggest foreign investments to date, on the Euphrates River. The dam is part of the giant Southeastern Anatolia Project (GAP), Turkey's most ambitious development undertaking. Construction of the \$1.4 billion Birecik was completed in 2001. A company formed by the contractors is operating the hydroelectric dam, and will eventually transfer it to the government after 15-year. The Turkish state-owned EÜAŞ has a 30% stake, Gama Endüstri A.Ş. of Turkey 19.4% and Germany's Philip Holzmann AG 16.4%, with smaller shares for other firms.
- Doğa Enerji A.Ş. operates a 180-MW natural gas power plant in Esenyurt, 30 km west of İstanbul, to provide electricity and hot water for new housing complexes under construction. Doğa Enerji, which built the plant, Turkish developers have a share in the joint venture company, 80% owned by Edison Mission Energy of Irvine, California. The power plant uses a combined cycle technology in a cogeneration mode. It cost \$45.6 million in equity contributions from shareholders and \$136.8 million in project financing and cover provided by the U.S. Overseas Private Investment Corp. (OPIC), a European government agency and bank loans. The consortium Enka and Interger constructed a 700-MW natural gas-fired power plant at Adapazarı in northwestern Anatolia, a 700-MW natural gas power plant in Gebze, about 50 Km (30 miles) east of İstanbul, for \$2.2 billion, and a 700-MW gas-fired power plant in İzmir in November 2003. Enka now fully owns and operates the three power stations.
- An American-led consortium established a company that built and is now operating a \$600 million, 448-MW Liquefied Natural Gas combined cycle power plant at Marmara Ereğlisi, on the western shores of the Sea of Marmara, west of İstanbul. Trakya Elektrik, a joint venture

involving Enron and Wing Corp., both of Houston, Texas; Midlands Generation of Britain; and Gama Endüstri of Turkey, operates the plant.

- A second 480 MW LNG power plant is also operating at Marmara Ereğlisi under a BOT contract. The company UNI-MAR, a joint venture between Belgium's Unit and Japan's Marubeni, developed the \$600 million project.
- Mimag-Tractabel built and is now operating the 770 MW natural gas power plant Baymina Power Plant in Ankara. Baymina is 95% held by Belgium's Tractabel and 5% by Turkish Mimag.
- German contractors Steag AG and Power AG constructed the \$1.5 billion Sugözü Thermal Energy Plant in Yumurtalık, near the Mediterranean port of İskenderun, under a Build-Operate (BO) contract. It is the largest German investment and one of the biggest foreign investments in Turkey to date. The company, İsken İskenderun Enerji Üretim A.Ş., which Steag has a 51% share and Armed Forces Pension Organization (Oyak) of Turkey with a 49 % share, own and operate the 1,200 MW plant, which produces 9 billion kWh of electricity every year – 4.5% of Turkey's national output. The plant uses high-calorific imported coal.

Some 651 energy projects that will bolster electricity production capacity by 30,914.2 MW are under construction, the Energy Market Supervision Agency (EPDK) reported. Some of these are:

- Turkey's Anadolu Termik Santralleri is investing €1 billion in a 1,000 MW coal-fired thermal energy plant near the scenic Black Sea city of Sinop, despite protests from environmentalists who say it will ruin the picturesque town and pollute its air.
- Chinese companies will build a 135 MW coal fired power plant in Bandırma in western Turkey with a €40 million investment and a coal fired 330 MW power plant with Turkey's Colakoğlu Metaurji in Dilova as well as an oil refinery in Turkey. The projects were signed during President Abdullah Gül's six-day state visit to China June 24-30, 2009. Turkish-Chinese companies will also cooperate in the construction of an oil refinery in Lithuania.
- Austrian energy giant OMV plans to construct an 875 MW natural gas-fired power plant in Samsun, on the Black Sea coast of Turkey with a \$500 million investment.
- Turkey's İçdaş is building three-coal fired power plants with a total 1,342 MW capacity.
- Turkey's Aksa Enerji. is erecting 13 power station with a total 928 MW capacity.
- Yeni Elektrik is constructing a 900 MW gas-fired 900 MW power plant.
- Egemer Elektrik is is building an 882 MW gas-fired power plant.
- Turkish contractor and energy conglomerate Gama Holding plans to invest \$4 billion in energy projects with a 3,000 MW capacity, including 11 separate 313 MW hydroelectric plants and a 432 MW combined cycle natural gas power plant and a 625 MW coal-fired power plant. The group intends to sell shares of its energy company in a public offering, possibly in 2010.

- Turkey's Hema Endustri A.Ş. is building a 200 MW coal-fired power plant near the Black Sea resort town of Amasra, in Bartın province, despite protests from the townsmen and environmentalists who claim it will ruin the pristine coastline and cause a buildup of smog. Hema said the development would create 11,000 jobs in the high-unemployment region. It was also constructing another 950 MW coal-fired power plant in northern Turkey.
- Turkey's Eren Holding is building a 1,360 MW coal-fired power plant in Çatalağzı, Zonguldak, in northwest Turkey, with a \$1.5 billion investment.
- OMV Samsun Elektrik is constructing an 868.6MW gas-fired power plant in Samsun.
- Ayas Enerji is building a 800 MV thermal energy power plant.

## RENEWABLE ENERGY

Turkey has been late in developing renewable energy projects. It was one of the very last countries to adopt the Kyoto Protocol, under which nations aim to reduce greenhouse gas emissions voluntarily to prevent global warming. President Gül approved the protocol on February 16, 2009.

Nevertheless major steps are being taken in various renewable energy fields in Turkey, including wind, solar, hydro, geothermal, and nuclear and hydrogen energy for electricity and for space and water heating, as viable environmentally friendly alternatives to fossil fuels, which cause no pollution and produce no greenhouse gasses.

A major international hydrogen energy research center was established in İstanbul in 2004, under an agreement signed by then Energy and Natural Resources Minister Mehmet Hilmi Güler and the United Nations Industrial Development Organization (UNIDO) in Vienna, in November 2003.

The International Center for Hydrogen Energy Technologies (UNIDO-ICHET) is helping to convert the world to the hydrogen energy system by financing research projects and applications in Turkey and throughout the world.

Scores of American and European companies have formed joint ventures with domestic companies to invest in renewable energy projects in Turkey:

- France's Perfect Wind Co. is building Turkey's biggest wind farm in Kırşehir province in central Turkey. The 150 MW windfarm will cost €210 million. Perfect Wind Co. is planning €550 million investments in wind energy projects in Turkey totaling 400 MW by 2011.
- In 2007, İzmir-based ALKE Construction and German SSC Montage formed a joint venture, AESSC Ltd., which installs wind farms throughout Turkey and Europe. Another company was established for maintenance of wind turbines and rotor blades called AESH Ltd. In 2008, ALKE's factory began producing composite rotor blades and steel towers for wind farms.
- Model Enerji announced it will begin producing wind tower and wind blades in 2009 under a license from American Superconductor Corp. A separate factory producing wind turbines

is being constructed in Adapazari, in northwest Anatolia Nett Enerji Elektrik Üretim A.Ş. is establishing the factory.

- France's Areva is investing €66 million to produce power transformers in a plant in Gebze, 40 km east of İstanbul.
- The Turkish company Tunçmatik and Japan's Kyocera announced that they will co-produce solar energy systems for homes.
- Italy's Saif Enerji Kaynakları A.Ş. has begun production of organic fuels from waste edible oils in a plant in Mersin's Organized Industrial Zone, the newspaper Dünya reported on February 18.
- Norway's Statkraft acquired 95% of Turkish energy company Yeşil Enerji from Global Investment Holding of İstanbul for an undisclosed sum. Yeşil Enerji owns the majority shares of seven hydroelectric dams with a total 630MW capacity.
- Turkey's Saran Group and Spain's Fersa Group signed an agreement in Ankara on November 13, 2009, to invest \$1 billion in renewable energy projects in the eastern and southern Turkey.
- Turkey's Borusan Group and Germany's EnBW AG in April 2009 formed a partnership to invest in €2.5 billion in energy projects in Turkey.

All these developments provide opportunities for American companies to cooperate and develop renewable energy technology with Turkey.

## WIND ENERGY

Turkey intends to increase its wind energy capacity 16-fold to 20,000 MW by 2020 from 1,265.5 MW in 2010, despite some concerns over the inconsistency of power generation intensity, Turkey's Wind Power and Hydropower Plants Businessmen's Association said.

### WIND ENERGY PRODUCTION CAPACITY BY COUNTRIES IN 2010

(In Mw)

Country	MW Production Capacity
1 China	42,227
2 United States	40,100
3 Germany	27,214
4 Spain	20,676
5 India	13,065
6 Italy	5,660

7	France	5,660
8	United Kingdom	5,204
9	Canada	4,009
10	Portugal	3,870
11	Denmark	3,752
12	Japan	2,304
13	Netherlands	2,237
14	Sweden	2,153
15	Japan	2,056
16	Australia	2,020
17	Ireland	1,748
18	Turkey	1,256
19	Greece	1,208
20	Poland	1,107
21	Austria	1,011
22	Brazil	932
23	Belgium	911
24	Mexico	732
25	New Zealand	532
26	Taiwan	436
<b>Total World (Includes Others)</b>		<b>194,000</b>

Source: World Wind Energy Association

As of December 31, 2010, Turkey ranked 17<sup>th</sup> in the world and 11<sup>th</sup> in Europe in wind energy production capacity, according to the World Wind Energy Association. Turkey's biggest wind farm in Osmaniye, in southern Turkey, went into operation in 2010. The 135MW complex was constructed by Zorlu Energy's Rotor A.Ş. Construction is also continuing on 66 other wind farms in 2011 with a 2,214 MW production capacity, the Energy Market Regulation Agency (EPDK) reported. By 2013, Turkey will have a power generating capacity of 2,163 MW from wind energy, meeting 4.1% of Turkey's total energy demand from wind power, according to the State Planning Organization.

A half a dozen foreign companies are selling wind energy technology to Turkey, including General Electric, Venisys (Costa Rica), Furlander, Conergy, Nordex and Enercom of Germany and Vestas of Denmark. Turkey's Demirer Group, which constructed the country's first two wind farms in Alaçatı, near the resort town of Çeşme in western Turkey, and in the Aegean island of Bozcaada, says it plans to invest in wind blades in Turkey, possibly with European partners.

The Ministry of Energy and Natural Resources in 2007 produced the country's first wind energy map, showing areas of Turkey that are suitable for wind energy development. The provinces of Balıkesir, Çanakkale, İzmir, and Manisa in northwest Turkey, and Hatay on the Mediterranean Coast have the strongest and most consistent winds needed for the development of wind farms.

In 2007, hundreds of private companies applied for licenses to build and operate wind farms with a total capacity of 78,000 MW, nearly double Turkey's present total power generating capacity. The government decided to hold tenders for projects in areas where there was more than one application.

The İzmir-based Aegean Technology Association said that Turkey could install 40,000 MW of renewable energy power generating capacity by 2023, including 30,000 MWs of wind farms. This would represent 40% of all generating capacity to be added to the Turkish power grid in the next 15 years, it said, urging the government to give greater backing for renewables than it presently does.

The Association on its web site said that 77,481 wind turbines could be installed in Turkey, bringing about a "theoretical capacity of 116,000 MW. This is equivalent to a capacity of over 60 nuclear plants of 1,000 MW each."

Major developments in wind energy included:

- Turkey's Albe Group announced plans to invest \$395 million in renewable energy projects in the next seven years.
- Enda Enerji Holding, formed by a group of 165 businessmen from the Aegean region of Turkey, said it will invest \$240 million in energy projects by 2012, including five wind farms and three small hydroelectric plants. The group is slated to open a 28MW wind farm in Akçay, and a 7.5MW wind farm in Çanakkale, both on the Aegean Coast in 2010. It is also awaiting the government to complete infrastructure to begin construction on five wind farms on the Çeşme Peninsula, 90 km west of İzmir, and is constructing a 25MW Manavgat Hydroelectric Plant on the Mediterranean Coast. It operates hydroelectric dams in Tarsus (94MW) in southern Turkey, Sındırgı (10MW) in Balıkesir province, and a geothermal plant in Çanakkale (7.5 MW) in northwest Turkey. It also plans to build the 36MW Eglence 1 and the 27 MW Eglence 2 Hydroelectric Plants.
- The energy company Boreas is investing €22 million in a 15MW wind farm in frontier town of Enez, near the Turkish-Greek border.
- Galata Enerji is building a coal fired power plant and a wind farm with a total 363 MW capacity.
- Britain's Renewable Energy Systems Holdings (RES) on October 9, 2009, announced that would invest €750 million over the next three to four years in wind farms in Turkey. Company officials said the group's total annual wind energy capacity would be 500 MW.
- German conglomerate Siemens opened a research and development center in the Gebze Technology City, near İstanbul, to develop new energy and technology products for global markets.



## SOLAR ENERGY

With an average 2,640 hours of sunny weather throughout the year, or 7.2 hours a day, “Turkey is luckier than many countries because of its location and its higher potential for solar energy,” the state Electricity Affairs Research Administration (EİEİ) reported.

Turkey has been increasing its solar energy output every year since 1998. In 2009, it produced 429 tons oil equivalent of solar energy, an increase of 12% from 2004 and 110% more than in 1998.

Solar energy panels (collectors) are widely used in the Aegean and Mediterranean regions of Turkey, which have the most sunshine in the country.

### TRUKISH SOLAR ENERGY OUTPUT IN TONS OIL EQUIVALENT (TOE)

Year	Amount
1998	200
1999	236
2000	262
2001	290
2004	375
2008	420
2009	429

Source: EİEİ

Notable developments in solar energy in Turkey in 2009 and 2010 were:

- The Anel Group announced plans to build a solar power plant in the Turkish Republic of Northern Cyprus.
- French Data Solar Panel company began producing solar energy panels in İzmir. Company Chairman Pierre Yves Torrent said that Data Solar had produced only 1,000 solar panels in 2009, but would turn out 100,000 panels in 2010 and 200,000 in 2011 with new investments.

## GEOTHERMAL ENERGY

Turkey has the richest geothermal resources in Europe and seventh biggest in the world, with the “theoretical potential” for 31,000 MW of electricity generation capacity a year, according to the state Mineral Technical Exploration Agency (MTA).

Turkey has 1,000 known geothermal wells and mineral springs. Of these 184 have temperatures of over 104 degrees Fahrenheit. Some 13 have temperatures averaging anywhere between 266 degrees Fahrenheit and 467.6 degrees Fahrenheit and are suitable for electricity production, the EİEİ reported.

Some 77.94% of the country's geothermal resources are located in the Aegean region, while 8.52% and 7.43% are situated in Central Anatolia and the Marmara regions of the country while 4.77% are in Eastern Anatolia. Other areas of the country have insignificant geothermal resources.

Central heating from geothermal energy currently is used in some 103,000 homes and 215 SPAs in Turkey, the EİEİ said. It said six percent of the country's geothermal energy is used to produce electricity, 55% for heating homes and 39% for other usage, including heating of SPAs and electricity for industrial usage.

Currently, geothermal energy is harnessed in producing electricity in Kızıldere, Denizli (20 MWe) and Salavatlı, Aydın (7.9 MWe). The Energy Market regulatory Agency issued production licenses for another 5.5 MW geothermal plant in Kızıldere and a 7.5 MW plant in Tuzla, Çanakkale. A 10 MW geothermal plant in a project phase in Simav, Afyon, in western Anatolia is also in the pipeline. MTA wants to transfer the operating rights of 65 high temperature geothermal fields and three provinces.

#### GEOTHERMAL ELECTRICITY PRODUCTION PROJECTION

Name of Field	Temperature (°C)	2010 Estimated (MWe)	2013 Estimated (MWe)
Denizli-Kızıldere	200-242	75	80
Aydın-Germencik	200-232	100	130
Manisa-Alaşehir-Kavaklıdere	213	10	15
Manisa-Salihli-Göbekli	182	10	15
Çanakkale-Tuzla	174	75	80
Aydın-Salavatlı	171	60	65
Kütahya-Simav	162	30	35
İzmir-Seferihisar	153	30	35
Manisa-Salihli-Caferbey	150	10	20
Aydın-Sultanhisar	145	10	20
Aydın-Yılmazköy	142	10	20
İzmir-Balçova	136	5	5
İzmir-Dikili	130	30	30
<b>Total</b>		<b>455</b>	<b>550</b>

Source: EİEİ

## NUCLEAR ENERGY

Turkey is going ahead with a plan to build four nuclear power plants by 2020, despite the melt-down of the Fukushima nuclear site in February 2011 following an earthquake and tsunami, and Germany's decision to shut down its 17 atomic power plants.

A Russian-led consortium will build Turkey's first of four nuclear power plants under an agreement signed by Turkish Prime Minister Recep Tayyip Erdoğan and Russian Prime Minister Vladimir Putin in Moscow on January 13, 2010. JSC Atomstroyexport-JSC Inter RAO Uses -- Park Teknik Consortium, is expected to begin construction of the nuclear plant in Akkuyu, in İçel province, on the Mediterranean Coast in November 2011. The Russian company would invest \$10 billion in the power plant.

Prime Minister Recep Tayyip Erdoğan pledged that the Russian-led project would be "super safe," and a Russian official said that the plant "would be safe against everything except for a hit by a meteorite."

Turkey also plans to construct nuclear power plants also in Sinop, on the Black Sea Coast, Konya in central Turkey and İğneada, on the Black Sea Coast near the Bulgarian frontier, by 2020. The four sites will have a total capacity of 5,000 MW.

The nuclear plants are needed for massive electricity production when electrically charged motor vehicles begin entering the market over the next two decades and phasing out vehicles running on gasoline and other fossil fuels.

The State Planning Organization has also approved plans for the establishment of a large particle physics laboratory, similar to Switzerland-based European Organization for Nuclear Research (CERN), with a TL 350 million investment.

The Turkish Accelerator Center is to be located on the grounds of Ankara University's Gölbaşı Campus and will include a particle accelerator, or super proton synchrotron, to be used to develop nuclear technology and enrichment programs for Turkey and its allies in the Middle East, North Africa, and Central Asia.

The government wants the private sector to construct and operate the nuclear power plants, despite strong opposition from Greenpeace and Turkish environmental groups, who fear the sites would be endangered by earthquakes. The country is crisscrossed by tectonic faults, including the Anatolian fault, one of the most active in the world.

Akkuyu, Sinop, Konya and İğneada, where the plants will be located, are areas of the country least susceptible to land tremors.

The only drawback in developing nuclear power plants in Turkey is how to handle wastes. The danger exists, energy experts said, that Turkey could become a junk yard for nuclear wastes, which would have to be stored in barrels deep inside caves of mountains. A spill could contaminate underground aquifers and spring waters with radioactive nuclear wastes.

## MINING

The Turkish government is attempting to revive mining, long dominated by state-owned Eti Maden İşletmeleri Genel Müdürlüğü (Eti Maden), formerly known as Eti Holding, by encouraging private and foreign investment.

It has privatized or leased out most of the mines and mineral processing plants owned by Eti Maden, including chromate mines in Elazığ, in eastern Turkey, and Muğla, on the Aegean Coast and a modern ferrochromium complex in the Mediterranean resort city of Antalya. It also sold its interests in an aluminum complex in Seydişehir, central Turkey. Only the country's boron mines and processing plants and phosphate mines remain under Eti Maden.

Established in 1935 as Etibank, a bank, to finance Turkey's mining industry and exploit Turkey's mineral resources, the sprawling conglomerate once carried out 60% of the country's mineral extraction and processing.

Although Turkey ranks 10<sup>th</sup> in the world in terms of mineral wealth, it stands in 28<sup>th</sup> place in the world mineral production. Turkey is richly endowed in mineral resources, but the importance of mining in the country's economic life has steadily declined since the 1940s, when it accounted for 40% of the Gross Domestic Product (GDP). In 2008, it accounted for only 1.37% of the GDP. The market size for Turkey's mining sector is reestimated at around \$5.892 billion.

Turkey is the world's biggest producer of boron, borax and boric acid, and trona (natural soda), and second largest producer and processor of chromite and chromium. The country has the highest quality chrome ore deposits in the world. It is also a leading producer of sulfur and sulfuric acid and tincal concentrate, aluminum, phosphate, colemanite, lead, zinc and copper, which are used in various industries in Turkey and abroad.

Chromite and chromium are corrosion resistant metals used in the production of motor vehicles, aircraft and household appliances. Some 710 known chromite deposits exist in Turkey. Güleman-Elazığ is the major chromate mine of eastern Turkey. Main regions in western and southern Turkey for chromite mining are Fethiye-Köyceyiz, Denizli, Bursa, Eskişehir, Kayseri, Adana, Kopdağ and İskenderun.

Boron, a chemical element, is used in the metal industries. Boron compounds are also used in the manufacture of glass, detergent, ceramics, paper, plastics and leather. Some Turkish researchers are experimenting with boron compounds to produce zero emission hydrogen energy, the energy of the 21<sup>st</sup> century which will eventually replace fossil fuels.

Turkey is also one of the world's leading producers of marble, granite, travertine and other natural stones.

The country also has large reserves of iron ore, bauxite, meerschaum, wolfram, manganese, mercury, zinc, magnesite, perlite, cinnabar and emery.

Excluding oil and coal resources, the country had about 4,400 mineral deposits. Some 53 different kinds of minerals and rocks are commercially mined in Turkey.

The nation exports mainly boron minerals, natural stone (marble, travertine, granite), magnesite, chromium ores and concentrates, copper and concentrates, feldspar, zinc ores, pumice stone, kaolin, barite, and other clays and perlite.

In 2010, Turkey's total mineral and metal exports stood at \$3.608 billion, accounting for 3.2% of the nation's total foreign sales, according to the Turkish Exporters' Assembly (TİM), a trade group.

The biggest importers of Turkish mineral and metals are the United States, Italy, Japan, Austria, China, Germany, Belgium, England, Holland, Spain, Norway, France, Russia, South Korea and Ukraine.

As part of the privatization drive, the banking operations of Eti Maden (Etibank) were split off into three separate banks during the early 1990s and completely privatized in 1997 and 1998.

Eti Maden also turned the various mining operations and mineral processing plants into separate corporations, and attempted to rehabilitate them. Many of these companies were either shut down or turned over to the Privatization Administration and sold off or leased.

In addition to Eti Maden, state-owned Türkiye Kömür İşletmeleri (Turkish Coal Enterprise- TKİ), slated for privatization possibly in 2011, operates the country's big lignite mines, increasing lignite coal production every year. The government turned over the Çöllolar lignite mine, the country's biggest lignite coal mine, to the private Çiner Group in 2007. Turkish state and private companies also mine bituminous coal mainly in a 3,000 square km strip of land in northwest Turkey, along the Black Sea Coast, from Zonguldak to Amasra. Lignite is also mined along the Black Sea coast west of the Bosphorus.

Dedeman Holding is the largest private producer and exporter of chromite in Turkey. Other large private mining companies are the Turkish firms Birlik Madencilik and Bilfer Madencilik. Hundreds of small private companies are also involved in mining various metals and minerals including meerschaum, tungsten, manganese, iron ore, cinnabar, coal and emery.

Türk Maadin Şirketi, a German-owned group, produces and exports chromium in western Turkey.

Koza Madencilik of Turkey operates a gold mine in Ovacık, near the ancient ruins of Pergamum in western Turkey, and is prospecting in several others which it acquired from Australia's Normandy Group, and has begun producing gold. (See section on gold mining on pages 56-57)

Some 23 foreign companies were involved in mining in Turkey in 2007.

In 2008, Greece's Halcor acquired copper mining company Segla Bakır for an undisclosed sum.

In 2009, China's Taiyuan Iron and Steel Group acquired the chrome ore mines Krom Maden, Krom Krom and Güney Krom for \$300 million, becoming the biggest Chinese investment in Turkey.

In 2011, a subsidiary of London-based European Nickel PLC has begun to establish the world's first commercial nickel laterite heap leach operation, the Çalıdağ project, in Turgutlu, Manisa

province, using the company's simple, low cost heap leach technology, despite protests from local residents and environmentalists saying that it will ruin adjacent agricultural lands. The \$428 million Caldağ nickel recovery mine represents the largest foreign direct investment in Turkey's mining industry.

Vancouver, British Columbia-based El Dorado Gold Mining Company, through its subsidiary Tüprag, has invested \$50 million in the gold mine in Kışladağ, Uşak province, in western Turkey, and plans a total investment of \$167 million. The gold mine is the biggest in Europe and one of the biggest reserves found in the last ten years in the world. Tüprag plans to produce 95.8 tons of gold at the mine, which has a 15-year economic life span. The company has located 600 tons of gold reserve in various parts of the country and obtained operation licenses for four of these.

Anatolia Mineral Developments has increased its interest in the Copper inferred gold resource to 100%. The company also controls 1.1 million hectares in Turkey, including five properties (gold and copper mainly) under joint exploration with Rio Tinto.

Odyssey Resources Ltd. of Toronto, Ontario, which acquired mining license, entered into an agreement with Teck Cominco Mining to acquire a 100% interest in the Tavsan Gold property, in western Turkey, an advanced epithermal gold project. The mine is believed to hold 11,728 tons of gold reserves.

In January 2010, Toronto-based Alamos Gold Inc. acquired 100% of the Ağı Dağı and Kirazlı gold projects through the purchase of certain Turkish subsidiaries held by Fronteer Development Group Inc. and Teck Resources Limited. Alamos paid a total of US\$40 million and has issued an aggregate of 4 million Alamos common shares to Teck (as to 60%) and Fronteer (as to 40%) in total consideration for acquiring these two projects. Ağı Dağı and Kirazlı are advanced-stage gold exploration projects that form part of the Biga Mineral District, an established gold-copper mineral district, which is located in the Biga Peninsula of northwestern Turkey. The Biga Mineral District features a growing number of high-sulfidation epithermal gold and associated porphyry copper-gold deposits, drawing comparisons to world-class districts such as Yanacocha, Pierina, and Alto Chicama in Peru. In 2010, Alamos expects to spend approximately US\$12.8 million in Turkey on development and exploration activities related to Kirazlı and the Deli, Baba, and Camyurt zones at Ağı Dağı. The Company expects that the majority of its 2010 exploration and development costs in Turkey will be capitalized.

Teck Cominco Mining of Vancouver, British Columbia, together with Çayeli Copper, has been operating the Cerattepe gold and copper ore reserves.

Silvermet of Toronto, Ontario, produces zinc and lead from recycling electric arc furnace dust in Iskenderun, on the Mediterranean Coast of Turkey. Current planning is evolving into the project having two parallel Waelz kilns with total production capacity of 150 million pounds per year of zinc metal as 65% zinc in oxide condensate. Silvermet and SNC Lavalin engineers have cooperated in conducting the tests.

### ÇAYELİ COPPER - ZINC MINE

The Çayeli Copper-zinc mine, owned by Inmet Mining of Toronto, Ontario, has been one of the most successful foreign investments in Turkey in recent years. Inmet Mining, which owned a 55% stake in the underground Çayeli copper-zinc mine, in Rize province, in northeast Turkey, bought out the state's 45% stake for \$49.2 million in 2004, taking full control. This increased the company's base metal production from the Çayeli mine as well as increased their interest in the Cerattepe development property in neighboring Artvin province. The Çayeli mine, which will operate until at least 2017, employs 451 persons. In 2010, it produced 28,200 tons of copper and 51,300 tons of zinc.

## 3.7 HEALTHCARE

### HEALTH INDICATORS

Although per capita healthcare expenditure has increased four-fold since 2002, health indicators show that there is much room for growth in Turkey. Public health expenditures, totaled \$38 billion in 2009, representing 6.2% of Gross Domestic Product (GDP), compared to 8-18% for the European Union (EU), the Economic Intelligence Unit reported. Deloitte Turkey projected healthcare spending to rise to about \$44.568 billion in 2010. About one-third of health spending is related to drug expenditures. Total annual healthcare spending in Turkey, according to Deloitte Turkey's forecast, will reach \$63 billion by 2014.

Turkey's health indicators are not satisfactory considering its level of socioeconomic development. Though improving over the years, the health status of the population is poor, both in absolute terms as well as in comparison with other countries at the same income level. Life expectancy is nearly 10 years below the OECD average and infant and maternal mortality rates are very high. The country suffers inequality with regards to access to healthcare services, particularly in areas in eastern Turkey.

Per capita health expenditure on purchasing power parity basis stands at \$818 in Turkey, while this is \$5,635 in the U.S., \$3,003 in Canada, \$2,258 in Italy and \$1,835 in Spain, according to Deloitte Turkey. The State Planning Organization foresees 3.8% annual growth in health spending until 2023 and the share of health expenditures in GDP is expected to gradually converge at the low end of the EU range, at eight percent. Bed capacity is quite low compared to the OECD countries.

### TURKEY'S HEALTH STATISTICS 2006 - 2013

Indicators	2006	2010	2013
Population growth rate, per thousand	12.4	16.00	10.10
Crude birth rate	18.4	17.30	ua
Infant mortality rate, per thousand	22.6	20.50	18.50
Life expectancy at birth, years	71.5	73.70	79.00

Source: State Planning Organization, Ministry Health, Turkish Statistical Institute

## PRIVATE HOSPITALS

The private sector, taking a 26% share in total health expenditure compared to an average of 38% in OECD countries, still has room for growth. A substantial portion of healthcare services is provided by the public sector. As of May 2011, The Ministry of Health operated 842 of Turkey's 1,439 hospitals with 120,535 of 200,678 total beds.

Turkey has a generous incentive system for health investments. Hospitals can import all required machinery and equipment listed on their incentive certificate free of customs duty and related charges, and can make deferred payments on value-added tax. The private sector began to take advantage of the incentive system in recent years. Supported by the increasing demand for private healthcare services, the number of private hospitals increased from 1993 onwards, rising from 141 in 1995 to 365 in 2007 and 490 in spring 2011. The private sector operates 34.1% of Turkey's hospitals and accounts for 14% of its beds.

### MEDICAL HOSPITALS AND BED CAPACITIES IN TURKEY IN 2011\*

Organization	Number of Hospitals	Number of Beds
Ministry of Health	842	120,535
Private	490	28,147
Universities	62	35,001
Ministry of Defense	42	15,900
Municipalities	3	1,095
<b>Total</b>	<b>1,439</b>	<b>200,678</b>

\* As of May 30

Source: İstanbul Health Administrators' Association, Ministry of Health, TÜİK



As of May 2011, The Ministry of Defense ran 42 hospitals with 15,900 beds and municipalities had three hospitals with 1,095 beds.

In the past decade, investment in healthcare in Turkey has averaged around \$5 billion a year, with around 75 percent carried out by the private sector, İstanbul Health Administrators' Association, a trade group, reported.

With 611 beds, the Sani Konukoğlu Medical Center in Gaziantep, in southern Anatolia, is by far Turkey's biggest private hospital. The Vehbi Koç Foundation-operated private Amerikan Hospital in İstanbul with 324 beds is Turkey's second biggest private hospital.

Several healthcare groups own multiple hospitals around Turkey. The Acıbadem Health Group, which is listed on the İstanbul Stock Exchange, operates 11 general hospitals and seven medical centers with 1,400 beds and also clinical genetics, pathology, food and hygiene laboratories. Universal Hospitals runs 11 hospitals in Turkey and one in Albania. The Medicana Health Group operates seven hospitals with 1,170 beds.

Other major private hospital groups in Turkey with multiple facilities are Bayındır Healthcare, the Florence Nightingale Group, and the Memorial Hospital Group. Many private medical operations are mainly small clinics with only 40 to 50 beds each.

As of the end of 2010, some 66 of Turkey's 81 provinces had private hospitals. Provinces without any private hospitals were Adıyaman, Hakkâri, and Şırnak in the southeast; Bilecik, Kırıkkale and Amasya in the northwest; Tunceli and Bayburt in eastern Anatolia; Bartın, Sinop, and Artvin on the Black Sea coast; Kilis in southern Turkey; Ardahan, Gümüşhane and Kars in northeastern part of the country. Some 76% of the private hospitals and 80% of the beds of private healthcare institutions were concentrated in 20 provinces, led by İstanbul. with 55 private hospitals with over 10,000 beds. The booming resort province of Antalya, on the Mediterranean coast, alone had 24 private hospitals

## **FOREIGN INVESTMENT IN HEALTHCARE**

Numerous foreign companies and private equity funds have acquired interests in private Turkish healthcare concerns since 2004.

In 2006, Citibank Venture Capital Ltd bought Biopharma Pharmaceuticals Company for \$200 million. Bermuda-based Eastpharma Holding purchased a 96% stake in pharmaceuticals manufacturer Saba İlaç Sanayii ve Ticaret A.Ş. for \$10 million.

In 2007 and 2008, Abraaj Limited of the United Arab Emirates acquired a total 57.86% stake in Acıbadem Healthcare Services for \$605.3 million; the Global Environment Fund of the U.S. purchased dental care company Dentİstanbul for an undisclosed amount; Greece's Hygeia purchased 50% of the private Şafak Hospitals for \$48 million. In 2009, the U.S. Carlyle Group acquired a 40% stake in Medical Park Hospitals for \$100 million.

In 2010, Luxembourg-based Swan Holding bought a 30% stake in Dünya Göz Hastanesi for an undisclosed sum and United Kingdom-based Argus Capital Partners and the Qatar Investment Authority purchased a 40% interest in the Memorial Health Group for \$120 million. On January 2, 2011, U.S. equity fund Newcon acquired a 50% stake in Anadolu Hastaneleri, which operates four hospitals, for an undisclosed sum. On May 4, 2011, ADM Capital and ADM CEECAT Forum of Hong Kong, the International Finance Corporation and PGGM of Zeist, the Netherlands, acquired a 25% share in Universal Hospitals for an undisclosed sum.

Several Turkish hospitals have affiliate agreements with major U.S. healthcare groups that permit their doctors to consult with physicians of the American healthcare groups on patients. Acıbadem Healthcare Group and the International Hospital İstanbul are affiliated with Harvard Medical International. Anadolu Hastaneleri has an affiliate agreement with Johns Hopkins Medicine of Baltimore, Maryland. The Florence Nightingale Group is affiliated with the Methodist Hospital of Houston, Texas, the Memorial Sloan-Kettering of New York City and the Barbara Ann Karmonos Cancer Institute of Detroit, Michigan and the New York Presbyterian.

IFC recently provided long-term loans to the Acıbadem Healthcare Group in İstanbul and Mesa Group in Ankara to finance their expansion and construction of three new hospitals.

Developments in the healthcare policy will have further positive effects on the growth of private healthcare services. As a result of successive health reforms partly supported by the World Bank, the health sector has been undergoing a significant restructuring, whereby a greater reliance is being put on private sector funding. The International Monetary Fund (IMF)-backed Social Security and General Health Insurance Law, which was adopted by the Grand National Assembly, increased the retirement age, unified all social security beneficiaries under one umbrella and established a universal health insurance fund. State medical institutions now charge a nominal fee for health care services, and the government is now considering privatizing all state-run hospitals, in a move to slash budgetary deficits.

The new health policy expanded the base for private hospitals, allowing more people to benefit from private health services. Mehmet Ali Aydınlar, chairman of the Acıbadem Healthcare Group, which is associated with the Harvard Medical Foundation, said the new provision had already made a drastic impact on the private sector and private hospitals were under construction all over the country in anticipation of growing demand. Aydınlar said leading hospitals such as his are not developing fast enough to serve the number of patients who come to them for care.

## **PUBLIC-PRIVATE PARTNERSHIP**

In March 2006, the Ministry of Health unveiled a public-private partnership model hospital project. Accordingly, various medical centers will be built in three major cities and preliminary projects are being prepared for the construction of the health facilities in 13 separate regions throughout the country.

The project allows private companies to build campuses on predetermined state lands and to rent them to the state. The campus will include a hotel, cafeteria, bank and shopping center. Companies from the UK, Spain, Germany, Dubai and US have presented their proposals to the Ministry for this \$4 billion project.

## **PRIVATIZATION OF HEALTHCARE**

The Turkish government is examining the possibility of selling 900 state-owned hospitals, in a controversial move to privatize health services and cut a yawning social security and healthcare deficit that threatens to spin out of control and fan inflation. The move was expected to draw considerable public opposition.

Media reports said the government would privatize 842 hospitals run by the Ministry of Health and more than 50 hospitals run by state-owned universities.

State institutions, including those controlled by the Ministry of Health and the Ministry of Defense, account for around 66% of all hospitals and 83% of all hospital beds in Turkey.

The deficit spending for social security services expenditures, dominated by pensions and public health expenditures stood at \$35.297 billion, or 18.4% of Turkey's national budget for 2010. The deficit on health spending by the country's Social Security services, according to experts, is a huge "black hole" with such gravitational pull that it can suck in Turkey's entire national budget of \$201.874 billion for fiscal 2011.

"You have a system where only five million people pay into with cuts in their salaries, but 50 million people who are beneficiaries of its pensions and health services," Serdar Pazi, director of Ata Asset Management, a leading Turkish asset management company, told the Banker Magazine.

He said the government would have to increase the retirement age to over 65 (it is currently anywhere between 49 and 62 for men, and anywhere between 42 and 58 for women), as in many European countries, freeze pensions and increase the social security cuts from the salaries of the employed, and possibly privatize loss-making state-owned hospitals.

"All of these are suicidal and vote losing practices," he stressed.

## **FAMILY PHYSICIANS**

In early 2005, the Ministry of Health began introducing a family practitioner service aimed at reducing the work loads of state-owned hospitals and improving primary healthcare. Under the plan, every neighborhood and community will have a family general practitioner (GP), who will be able to prescribe medicine and direct only those in real need to hospitals. Due to the insufficient number of trained GPs, the system is being introduced slowly across the country.

## MEDICAL SUPPLIES

The medical equipment market has gained the status of an industry in the last two decades, in line with the increased investment in total health facilities, and the trend towards privatization. The market grew an estimated 12-14% annually in recent years, and reaching around \$2.1 billion in 2010. It was expected to reach \$3.12 billion by 2015. The growth has been mainly fuelled by the increase in imports rather than production.

Eighty-five percent of all medical equipment is still imported. Demand is especially strong in sophisticated laboratory and computerized equipment and items for nuclear medicine, cardiovascular surgery, X-ray equipment, anesthesia and intensive care, including ultrasonic scanning apparatus, magnetic resonance imaging apparatus, computed tomography apparatus and apparatus based on the use of alpha, beta, gamma radiation, according to the U.S. Department of Commerce.

Local production of medical equipment is now quite extensive. Thousands of products, ranging from the simplest of disposables to complicated medical equipment are now manufactured in Turkey. But local production is still negligible in terms of high-technology products.

Basic items such as utensils or syringes, which do not require high technology, are produced, both for domestic consumption and for export markets.

Major medical supplies and devices produced in Turkey and exported include:

- Medical textile products: nano technology and technical textiles, nonwovens, impregnated, coated or uncoated, covered or laminated.
- Instruments and appliances used in medical, surgical, dental, or veterinary sciences, including scintigraphic apparatus, other electro-mechanical apparatus and sight-testing instruments, catheters, fluid infusion equipment, drainage equipment, blood transfusion sets, and blood bags.
- Wadding, gauze, bandages and similar articles impregnated or coated with pharmaceutical sciences, surgical gloves and masks.
- Orthopedic appliances, including crutches, surgical bells, prosthetic limbs, and trusses.
- Medical, surgical dental or veterinary furniture, including tables, stretchers, hospital beds and dentistry units, lamps and couches.
- Mechano therapy appliances, massage apparatus, artificial respiration or other therapeutic respiration units.
- Sterile surgical catgut, similar sterile suture materials and blood-grouping reagents.
- Optical glasses, glass frames and cataract lenses.
- Hearing aids.
- Laboratory and sterilization technology.
- Autopsy tables, morgue units, premature birth incubator units.
- Medical gas systems.

- Patient monitoring systems.
- Serum sets.
- X-Ray bath chemical solutions.
- Blood storage cupboards.

Major local manufacturers are Bıçakçılar, Çağdaş Elektronik Medikal, Sesinoks, Paslanmaz and Tibset. Major multinationals with manufacturing facilities include GE Healthcare and Siemens. In June 2009, GE Healthcare Turkey said it would invest in a new plant in Ankara. Siemens opened a new production site in Gebze, 40 km east of İstanbul with a \$76 million investment.

The Turkish government is encouraging foreign companies to invest in this field. Germany's MAQUET, for instance, produces sophisticated surgical operating tables and cardiopulmonary equipment, including catheters, in the Antalya Free Zone, along the southwest Mediterranean coast of Turkey.

However, Turkey's local industry is beginning to move into production of electronic medical equipment, such as electroconvulsors, electrocardiograph (ECG) monitors. In 2008, Denmark's Alvimedica acquired 85% of medical equipment manufacturer Turkey's Nemed Tıbbi Ürünler for \$6.8 million.

The main suppliers of high-tech electro-diagnostic equipment are: GE Medical Systems, Picker International, DuPont, and Hewlett Packard of the U.S., Siemens of Germany, Philips of the Netherlands, Simatsu, Hitachi, Keymed Ltd. and Toshiba of Japan. South Korea, Taiwan and Hong Kong have been supplying a significant amount of equipment to Turkey, mainly for physical therapy. A French firm, Trophy, has a joint venture agreement to produce X-ray equipment in a plant in Bolu (western Anatolia - on the Ankara/İstanbul highway) with a capacity of 1500 units per year.

In the field of diagnostic imaging equipment, the United States is among the top four suppliers, with Germany, Japan, and the Netherlands. Germany has traditionally been Turkey's prime supplier, and is expected to continue to enjoy this position, because of the customs union with the European Union.

## PROSPECTS

The demand for health care services and equipment is expected to continue expanding in the next several years due to:

- The high population growth rate.
- An aging population.
- Increasing per capita income.
- Rapid urbanization.
- The increasing potential in health tourism, and
- Improvements in the health insurance system.

The trend toward privatization of health services coupled with increasing demand of private hospitals for advanced technology paves the way for modern and specialized health facilities and a larger healthcare market. Private sector healthcare services are expanding, with its share in total fixed capital health investments on the rise - from 48% in 1993 to over 75% in recent years.

As growth in the healthcare sector is expected to continue and restructuring of the health financing system is on the agenda, Turkey will remain an attractive market for investment in equipment and supplies, as well as medical consulting services and knowledge transfers

In addition to its growing internal market, Turkey also offers opportunities for healthcare services and equipment providers as a stepping-stone to the markets in the Central Asia and North Africa.

### HEALTH TOURISM AND INCOMING FOREIGN PATIENTS

Turkish hospitals enjoy costs one-third to one-fifth of those in the European Union and have been investing significant amounts in state-of-the-art medical equipment in recent years. Hence, an important trend is towards receiving incoming patients from European, North American, Middle Eastern, African and Central Asian countries and some arrangements have been made for patient exchanges from various European nations, including the Netherlands and Britain. *“The high cost of healthcare in the world is accounted as a major problem for individuals, employers, employee funds, insurance systems and governments. This fact has shaped the medical tourism industry within the last decade. At the crossroads between East and West, Turkey is on its way to become the next center of attraction for the global medical tourism market,”* says Dr. İ Rüşen Yıldırım, chairman of the DEİK/Turkish-American Business Council Health Tourism Council.

The Turkish Statistical Institute (TÜİK) recently estimated that 165,000 foreigners visit Turkey annually for healthcare purposes. The country, TÜİK said, earns \$360 million a year from health tourism.

“One of the biggest markets for Turkey’s medical tourism market is the UK. In a 2007 study, it was found that Britons rated Turkey as one of the top three medical tourism destinations along with India and Hungary,” researchers David G. Vequest IV and Başak Gürsoy said in a report on Turkish medical tourism.

Turkey had 28 facilities that have received Joint Commission Accreditation. Accredited facilities in Turkey were under the U.S. BlueCross BlueShield programs to cover medical travel costs.

The most promising areas of treatment include ophthalmic and plastic surgery, dentistry, orthopedics and traumatology, obstetrics and gynecology, genetics, bone marrow transplant, cancer treatment, stem cell transplants and test tube fertilization. For example, the new hospital, Dünya Göz Hastanesi (World Eye Hospital), which opened in 2004 as the world’s biggest eye hospital, attracts patients from more than 40 countries. In 2008, Acibadem Health Services, one of Turkey’s top operators of private hospitals, attracted 2,500 foreign patients. The health group’s new Maslak Hospital, for instance, is becoming a regional center in cancer treatment. In 2005, almost 165,000 foreign tourists out of 20 million, entered the country to take advantage of Turkey’s low-cost treatment centers. This represented a 23.7% increase from 2004.

By 2020, Turkey aims to attract 500,000 foreigner patients each year and earn \$10 billion from health tourism, according to Rifat Hisarcıklıoğlu, chairman of the Union of Chambers of Industry and Commerce (TOBB), Turkey’s largest business organization.

With the coming into force of the much-sought Social Security and General Health Insurance Law in 2008, private hospitals are under construction all over the country in anticipation of growing demand for medical care.

### 3.8 CHEMICAL PRODUCTS

Turkey has a thriving chemical products industry (CPI), but is heavily dependent on imports of chemical raw materials, many basic chemicals and finished products. Chemical imports are the second biggest import item of the country after fossil fuels. Imports exceed exports by three times.

The foreign trade in chemical products has increased threefold in the past four years.

The country's CPI is roughly divided into manufacturers of petrochemicals and basic chemicals, synthetic fibers, plastic products, agricultural chemicals, industrial gases, abrasives, explosives, chemical fertilizers, textile chemicals, pharmaceuticals, paint, soda, rubber, adhesives, chromium chemicals, boron chemicals, sodium sulfate, personal care products, soap and detergent, essential oils and cosmetics.

Turkey has over 13,118 registered companies manufacturing and trading various chemicals and employing 765,800 people. Around 160 of these firms are large-scale producers in terms of Turkey with annual sales of over \$30 million and more than 150 employees. Some of the larger firms are either multinationals or have foreign capital participation. The rest are small, and medium-scale, family-owned firms. (Medium scale: 51 to 149 employees. Small scale: 1 to 50 employees). Most of the firms are undercapitalized.

Foreign investment exists in 314 Turkish chemical companies, mainly petrochemicals, pharmaceuticals and plastics.

In May 2010, Astra Polymers Compounding Industry of Saudi Arabia bought into Constab Middle East Polymer for \$7 million. In 2009, Bancroft Private Equity LLP of the UK acquired a stake in undisclosed stake in Kayalar Kimya for \$17 million. Saint Gobain Products pour la Construction SAS of France acquired a 99% stake in Saint Gobain Webber Yapı Kimya Sanayi ve Ticaret A.Ş. for an undisclosed sum.

In 2008, Luxembourg's Azelis purchased Tara Kimya for an undisclosed sum; Dyno Nobel Limited of Australia acquired a 50% share of Nitro Mak Makine Kimya for \$37.5 million and BASF Coatings of Germany bought a 50% interest in automotive dyes marketing company Yaşar BASF Otomotiv Boyaları Pazarlama for an undisclosed sum. Earlier BASF also acquired 75% of Meges Boya for an undisclosed sum.

In 2007, Japan's Kansai Paint Co. acquired a 5% stake in the Turkish pharmaceutical company Akzo Nobel for \$19 million; Eczacıbaşı Pharmaceuticals Manufacturing signed a share purchase agreement with Zentiva NV of the Czech Republic, transferring it a 75% stake in Eczacıbaşı Health Products and Eczacıbaşı Fine Chemical Products for \$601.8 million and establishing the generic products

manufacturing company Eczacıbaşı-Zentiva; and Sealed Air Corp of the U.S. purchased a 50% stake in plastics packaging company Teknik Plastik Ambalaj for an undisclosed sum. Turcas-Socar-Energy acquired a 51% share in Petkim Holding A.Ş., the petrochemical giant, for \$2.040 billion.

The industry has been neglected by the government in the past two decades, probably because it has been heavily import-dependent and hasn't been able to generate as much foreign exchange as other industries and services, such as clothing, textiles, motor vehicles, processed food, iron and steel, cement and tourism.

The Turkish government earmarked the chemical industry for extensive incentives in the coming years to allow companies to make new investments and make the industry competitive. With Turkey now a candidate for full membership in European Union, small and medium-size Turkish chemical companies stand to benefit from EU funds to develop research and development programs, officials say.

In 2010, Turkey's chemical products industry (CPI) imports, excluding mineral fuel, petroleum products and synthetic fibers, stood at an estimated \$28,940 billion, while exports reached \$10.057 billion, according to the Turkish Statistical Institute (TÜİK). The government aims to reach \$50 billion in CPI exports annually by 2023, the 100<sup>th</sup> anniversary of the republic.

Turkey imports chemicals mainly from Italy, France, Germany, Russia and the U.S. Turkey exports to 180 nations with the European Union as the main market, followed by the former Soviet Union, Eastern Europe and the Middle East.

Plastics and plastic products combined was the biggest export item with a 37% share. Flexible intermediate bulk containers, sacks and bags made polyethylene or polypropylene traps and bags made of ethylene polymers, plates, sheets, film foil and plastic packaging materials lead these. Rubber products, including tires and tire tubes, are Turkey's second largest chemical products exports, accounting for about 19% of CPI exports.

Other major CPI exports include soap, detergent, organic and inorganic chemicals, pharmaceuticals, dyes, pigments, synthetic fibers, essential oils and cosmetics.

Raw materials and semi-finished products accounted for almost 90% of Turkey's chemical imports.

Under a government plan, Turkey aims to bolster CPI exports to \$50 billion a year by 2023, the centennial of the republic.

## **PETROCHEMICALS**

Demand for petrochemicals is steadily rising in Turkey, increasing an average 11% a year. Total local demand for petrochemicals, which was 2 million tons in 1991, doubled to an 4.100 million tons in the year 2003 and increased more than five-fold to an estimated 9.500 million tons in 2009, industry officials said.



In 2006, Turkey produced 873,392 tons of thermoplastics -- low and high density polyethylene, linear low density polyethylene, polyvinyl chloride, polypropylene, polystyrene, acrylonitrile butadiene styrene -- but imported an estimated 5 million tons, according to industry experts.

Demand for thermoplastics is expected to exceed Turkey's production capacity seven-fold by 2015, leading to a boom in imports, the İstanbul Chamber of Industry (İSO) said in a report on the chemical industry. A supply shortage of tire raw materials was around 272,000 tons a year in 2010, industry officials said.

Since the economic life span of existing facilities will come to an end in 2015, thermoplastic production will cease to exist in Turkey, and major new investments will be needed, the İSO report said.

**CHEMICAL IMPORTS OF TURKEY 2001 - 2010**  
(In Million U.S. Dollars)

	2001	2009	2010
Plastics and plastic products	1,733	6,935	9,710
Organic chemicals	1,625	3,338	4,400
Pharmaceuticals	1,087	4,076	4,410
Rubber and rubber products	ua	1,553	2,322
Miscellaneous	ua	1,471	2,292
Inorganic chemicals	356	1,091	1,423
Fertilizers	266	1,057	1,016
Essential oils and cosmetics	237	839	984
Cleaning materials	150	520	626
Tanning and Dyeing Extracts	ua	1,274	1,545
Products related to photography	120	234	223
Other chemicals	ua	ua	496
<b>Total</b>	<b>6,635</b>	<b>22,387</b>	<b>28,940</b>

Source: Turkish Statistical Institute

*“The thermoplastics demand of Turkey in 2010 will require building of a new ethylene plant with a capacity of 1 to 1.5 million tons a year, and its downstream units. If petrochemical production remains at the current level, the petrochemicals imports (of Turkey) will amount to about \$11-12 billion in 2015,”* a top executive with Petkim, the petrochemical concern, declared.

As the extensions on the petrochemical concern Petkim's capacities have fallen far behind demand, Petkim's market shares in petrochemicals, thermoplastics and basic chemicals have plunged.

Petkim has wanted to build a third petrochemical complex on the Mediterranean Coast since the late 1970. But the privatization of Petkim and lack of financing kept the \$2.5 billion project on paper only.

**CHEMICAL EXPORTS OF TURKEY 2001 - 2010**  
(In Million U.S. Dollars)

Chemical Groups	2001	2009	2010
Plastics and plastic products	610	3,093	3,717
Rubber and rubber products	ua	1,409	1,895
Inorganic chemicals	211	612	931
Cleaning materials	233	648	678
Organic chemicals	155	348	520
Essential oil and cosmetics	83	418	492
Pharmaceuticals	127	429	558
Tanning or dyeing extracts	ua	428	532
Other chemicals	64	ua	502
Fertilizers	18	ua	206
<b>Total</b>	<b>1,617</b>	<b>7,441</b>	<b>10,057</b>

Source: Turkish Statistics Institutes

Tüpraş, the oil refineries concern, operates Turkey's second biggest petrochemical products refinery in Yarımca, along the Sea of Marmara, having acquired it from Petkim in 2002.

Turkey has become a big importer of petrochemicals since its entry into a customs union with the European Union in 1996. Producers in the EU meet shortages in ethylene, caprolactum, and polyvinyl chloride, polypropylene, low-density polyethylene and other products, for which demand is rapidly rising in Turkey.

The only other major producer is Başer Kimya which produces polystyrene. AKSA, SASA and Korteks are major producers of synthetic fibers mainly for the textile industry.

## PHARMACEUTICALS

Turkey's foreign-dominated pharmaceuticals industry accounts for about 10% of the chemical industry's production. Some 300 companies operate in the sector, including 43 manufacturers of pharmaceuticals and of pharmaceutical raw materials. Sixty-seven multinationals have investments in the Turkish pharmaceuticals industry, with 13 having their own production facilities.

Leading local pharmaceutical producers are Abdi İbrahim, Bilim İlaç, Eczacıbaşı Pharmaceuticals (now owned by Zentiva), İbrahim Ethem Ulugay (now owned by Menarini), Mustafa Nevzat, Fako (now owned by Actavis) and Deva (now part of EastPharma).

Major multinational pharmaceutical companies with investments in Turkey include Roche, GlaxoSmithKline, Novartis, Bayer, Hoechst Marion Roussel, Sanofi-Aventis, Boehringer Ingelheim, Johnson and Johnson, Baxter and Pfizer.

National expenditure on pharmaceuticals in 2010 stood at €6.960 billion, according to the Pharmaceutical Manufacturers' Association (İEİS).

The Turkish market had 7,672 pharmaceutical products in 2010, of which 61.7% were locally manufactured and 38.3% imported, the İEİS reported. The association promotes use of generic medicines and represents 48 of the country's biggest drug companies. Twenty companies account for 74.3% of sales in pharmaceuticals in Turkey. The industry employs 25,000 persons.

In 2010, Turkish pharmaceutical imports totaled \$4.410 billion. About 47% of the imports were for raw materials and 53% for finished products, the Turkish Statistics Institute reported. Exports in 2010 reached a record high of \$558.2 million, with about 20% in raw materials and 80% in finished products.

Major suppliers of pharmaceuticals include England, Germany, France, Switzerland, the U.S., and Italy. Germany is the main recipient of Turkish pharmaceutical exports, followed by Spain, Switzerland, the U.S., Poland and England.

The country had Turkey had an estimated 24,000 pharmacies at the end of 2008. The country had 434 registered wholesalers, although fewer than 100 are currently operational.

In contrast to the European and North American markets, where cardiovascular drugs lead consumption, antibiotics, cardiovascular, antirheumatic drugs, nervous systemics and oncological preparations are the most widely consumed drugs in Turkey, accounting for about 47.4% of the total market in 2008, the İEİS reported. Cardiovascular drugs totaled only 11.4% of total consumption in the Turkish market.

In 2009, per capita consumption of medicines in Turkey declined to \$132 from \$136 in 2007 because of the the global economic crisis which hit Turkish consumers of medicines. Turkey has one the lowest per capita consumption figures among European countries, the European Federation of Pharmaceutical Industries' Associations reported. Per capita consumption of medicines stood at \$651 in Spain and \$560 in neighboring Greece, but only \$165 in Poland.

The market though was expected to rapidly grow, driven by rising income levels and population growth and greater importance given to healthcare.

The pharmaceutical industry is one of the few sectors in Turkey where the government has significant control over prices. All drugs have to be registered with the Ministry of Health, which determines the rates by which pharmaceutical companies can increase their prices - often lower than increases in the wholesale and consumer price indexes.

The Ministry of Health's policy is of purchasing the cheapest alternative among pharmaceuticals comprising of the same molecular structure.

**PER CAPITA PHARMACEUTICALS CONSUMPTION IN TURKEY BY YEARS**  
(In U.S. Dollar)

Year	Per Capita Consumption
1990	17
1995	25
1996	26
1997	32
1998	35
1999	38
2000	42
2001	38
2002	68.6
2003	85
2006	81.4*
2007	136
2009	132

\* in euros

Source: Pharmaceutical Industry Employers' Association, İstanbul Chamber of Industry

## PATENTS AND INTELLECTUAL PROPERTY RIGHTS

Despite aspiring for membership in the European Union, Turkish compliance with patent protection and intellectual property rights, particularly in pharmaceuticals, remains an issue of contention. Major foreign drug manufacturers producing patented medicines say the Turkish government has turned a blind eye to many domestic manufacturers turning out illegal, cheap, generic pharmaceuticals, similar to patented drugs, to cut down costs of government agencies for drug purchases. Such a move they say comes at the expense of major manufacturers that have spent fortunes to develop drugs.

*“Laboratory and clinical tests to develop an original molecule drug cost \$700 million to \$800 million,”* Bülent Eczacıbaşı, former president of the Pharmaceutical Industry Employers' Association (İEİS), told a seminar on Turkish-EU relations. *“Rising costs for drugs caused by high costs for research are*

*putting serious pressure on health spending.*” He predicted that there would be a big increase in the manufacture of generic products in the coming years in Turkey, as in other European countries combating high health costs.

A recent government decree allows for data protection and data exclusivity. Under this decree, set up in compliance with the World Trade Organization’s TRIPS agreement, generic drugs similar to patented medicines can only be produced six to 10 years after the original product has been introduced on the market. Patents are protected for 20 years.

*“Data exclusivity brings market exclusivity,”* Eczacıbaşı warned.

## **PLASTICS**

Domestic production of basic plastic raw materials has resulted in a strong plastic processing industry. Some 6,000 companies, including 113 foreign firms, are involved in processing of plastics, of which most are small and medium size operations.

One-third of the demand for thermoplastics, the raw material of the industry, is met by the privately-owned petrochemical company, Petkim.

Plastics processing, along with rubber processing, account for a total six percent of the manufacturing industry, according to the Export Promotion Board (İGEME). Turkey manufactures all kinds of plastic products, ranging from plastic building materials (Polyvinyl Chloride -- PVC -- window panes, pipes, doors, rain water downspouts), irrigation products (hoes), auto parts, tables, chairs and kitchenware, plastic parts of electronic, electrical household items and plastic packaging products.

Turkey’s exports of plastics in 2010 stood at \$3.717 billion. Finished products, accounted for 75% of plastic exports. Italy, Germany, Russia, England, France, the U.S, Holland. Ukraine, Iran, Israel and Italy are the main importers.

In 2010, the nation imported \$9.710 billion in semi-finished and finished products. Most of the imports come from the European Union.

## **3.9 INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)**

### **MARKET REVIVAL**

Turkey’s information and communication technologies (ICT) market reached a size of \$27.3 billion in 2010, an increase of 3.8% from 2009, as the industry pulled out of the global recession,

according to InterPro Marketing Services and Research Group. The market, which more than doubled from 2003, had 14% compound annual growth rate (CAGR) between 2005 and 2009, in contrast to the single digit expansion in the U.S. and the European Union. Telecommunications accounted for \$20.0 billion of the market, while information technologies (IT) corresponded to \$7.3 billion.

**BREAKDOWN OF THE ICT MARKET IN TURKEY 2007 - 2010**  
(In Billion \$)

Market	2007	2008	2009	2010
Telecommunications	19.3	20.9	19.6	20.0
IT	6.5	7.2	5.7	7.3
ICT total	25.7	28.1	26.3	27.3

*Source:* Turkish Informatics Industrialists' Association (TUBISAD) and InterPro Marketing Services and Research Group

Over the past decade, Turkey's telecommunication industry has been booming, driven by the market liberalization designed to enhance competition. As the new fixed-line backbone companies and ADSL systems are extended and 3G established, the telecommunications market is expected to grow.

Although great momentum has been gained in recent years, the share of ICT in GDP remains around 4.2% compared with eight percent to 10% in the European Union. ICT imports widely exceed exports and average spending per person on ICT is around \$40 compared to \$500 in Western Europe and \$1,200 in the USA.

## TELECOMMUNICATIONS

On January 1, 2005, authorities lifted Türk Telekom's monopoly on telephony. Türk Telekom itself was partially privatized at the end of 2005 through sale of 55% shares to Oger Telecoms, owned by the family of the slain former Lebanese Prime Minister Rafiq Al-Hariri, for \$6.5 billion. Now Türk Telekom owns 55.8% of the shares, where as The Turkish government owns 31.7% and the remaining 12.5% is floated in the Istanbul Stock Exchange (ISE).

Key players, which merged with the world's leading mobile operators, are now closely watching the competition and appraising the quality of their services. With the entry of giant global players, the market is expected to continue to grow through introduction of new services and products. Recent mergers and acquisitions (M&As) pose significant growth opportunities in almost all seg-

ments of the market over the next 10 years. Much of the past infrastructure upgrade has been in network digitalization and modernization. Future upgrades are expected to focus on increasing bandwidth and introduction of next generation networks to cater for growing broadband usage and broadband services. With number portability launched in 2008, 3G licenses awarded in April 2009, new legislation regarding mobile virtual network operator (MVNO) and new Electronic Communications Law are hot topics on the Telecommunications Authority's agenda.

#### LEADING TECHNOLOGY AND CONSUMER ELECTRONICS MARKET COMPANIES IN TURKEY AS OF APRIL 30, 2011

Company	Number of stores
Teknosa	260
Gold Bilgisayar	64
Bimeks	36
Darty	20
Elektro World	18
Vatan Bilgisayar	17
Media Market	16
Saturn	3
Others	51

Source: Hürriyet Newspaper

Within the liberalization efforts, telecommunications players are entering into different segments of the market. As of March 12, 2010, the operators licensed by the Information and Communication Technologies Authority (Telecommunications Authority) -- all of which have not necessarily launched service provision -- totaled 373. These included:

- **Authorization agreement:**

- Satellite and cable TV services	1
- Maritime communication and course	1

- **Concession agreement:**

- GSM services	3
- IMT-2000/UMTS	3
- Various telecommunication services	1

- **Notification Licenses:**

- Satellite Communications	23
- Satellite Platform	3
- Infrastructure Operation Services	75
- Internet Service Providers	142
- Fixed telephone services	119
- Wired Broadcasting Services	15
- GMPCS Mobile Telephony	3
- Mobile Virtual Network Operator Services	38

- **Right of Use Licenses:**

- GMPCS Mobile Telephony Services	2
- PMR/PAMR Service License	64
- Infrastructure Operation Services	5
- Fixed Telephone Services	47
- Directory Information Services Providers	13

**Total** **558**

#### TURKEY'S TOP INFORMATION AND COMMUNICATIONS TECHNOLOGY COMPANIES IN 2010 IN TERMS OF SALES

Name of Company	Sales Revenues in Million Dollars
1 Turk Telekom	6,976
2 Turkcell	6,008
3 Vodafone	2,390
4 Avea	1,809
5 KVK Teknoloji	1,291
6 Genpa	1,098
7 İndeks Bilgisayar	775
8 Teknosa	710
9 Hewlett-Packard	633
10 Digital Platform (Digiturk)	537

Source: Interpromedya. Fortune Turkey



## MOBILE VERSUS FIXED

As opposed to the decline in fixed-line services, the mobile sector has grown dramatically in the past decade. The number of mobile phone subscribers, which stood at 15.1 million in 2000, rose to 61.8 million in 2010. Some 7.06 million Turks subscribed to third generation (3G) services. The incumbent telecom operator Turk Telekom has gradually lost ground to mobile operators with increasing GSM penetration. But Turk Telekom has been aggressively marketing ADSL, which reached 6.7 million subscribers at the end of 2009. The mobile market is poised for substantial growth over the next five years, with penetration reaching over 83.8% at the end of 2010.

### TURKEY'S GSM MARKET AS OF DECEMBER 31, 2010

Name of Operator	Number of Subscribers (in Millions)*	% Market Share*
Turkcell	34.36	55.60
Vodafone	15.79	25.55
Avea	11.65	18.85
<b>Total</b>	<b>61.80</b>	<b>100.00</b>

\* Estimated

Source: Turk Telekom, Telecommunications Authority, ISI Emerging Markets

Turkey has three main cellular phone service operators:

- **Turkcell:** Turkey's number one cellular phone services operator, Turkcell is a joint venture between Sweden's TeliaSonera, Turkey's Çukurova Holding and Russia's Alfa Group and businessman Murat Vargı. Listed on the İstanbul Stock Exchange, Turkcell had 34.36 million subscribers at the end of 2010 and a 55.60 share of the GSM market. Turkcell also provides cellular phone infrastructure services in Azerbaijan, Kazakhstan and Georgia and the Turkish Republic of Northern Cyprus, and Moldova and Ukraine either on its own or through subsidiaries and local partners.
- **Vodafone:** The British mobile phone services company acquired Telsim, the country's second biggest GSM company in 2006 from a state banking receivership fund for \$4.5 billion. The company's name was changed to Vodafone Telsim and the last name was dropped altogether in April 2007. Vodafone had 15.79 million subscribers at the end of 2010, and a 25.55% market share.
- **Avea:** Turkey's third GSM network operator was founded on February 19th, 2004 as a consequence of the merger between Aycell, Türk Telekom's GSM Operator and İş-TİM's Aria which has been established through the partnership of İş Bankası Group with a share of 51% and TİM with a share of 49%. Following the merger, for a period Aria and Aycell brands existed

under TT&TİM. A totally new brand “Avea”, reflecting the synergy from the merger was introduced into the market on June 23rd, 2004. The privatization of 55% of Türk Telekom’s shares was completed in November 2005, by Oger Telecom’s acquisition 55% of Türk Telekom’s shares. In September 2006, Türk Telekom acquired Telecom Italia’s shares of 40.6% in Avea. Turk Telekom now holds 81.37% of the shares in Avea. The remaining 18.63% belongs to İş Bankası and its affiliates. Avea had 11.65 (estimated) million subscribers as of end of 2010 with a market share of 18.85% (estimated).

One noteworthy development in 2010 was Huawei’s opening in İstanbul of a major research and development center. A Chinese company, Huawei is a leader in providing next-generation telecommunications solutions for operators around the world.

News reports also said that U.S. General Mobile plans to produce one million mobile phones in Turkey.

The newspaper Dünya reported that two “Turkish Silicon Valleys” would be established in İstanbul for research and development in information and communications technologies. One of the sites would be in Kağıthane Cendere district on the European side of the city, and the other would be located in Kartal county, on the Asian side.

Canada’s RIM, the producer of smart phones, said it sold 400,000 Blackberry mobile phones in Turkey since they were introduced in 2007.

## **IT MARKET**

Though relatively small with a \$7.3 billion market size in 2010, Turkey has one of the fastest growing IT markets of the world. The IT market is dominated by hardware sales, with over 50% of the market.

Some 3.604 million computers were sold in Turkey in 2010, a 20 percent increase from 2009 and a six-fold rise from 2002, when only 600,000 PCs were sold, industry officials said. around 70 percent of the sales are in notebook computers.

There has been a remarkable increase in notebook sales in recent years due to the high interest in use of wireless internet, and third generation telecommunications (3G) services and sustained growth of the economy. When compared to developed countries, Turkey still has a internet users ratio of around 49%, bringing it close to rates in other countries, such as Italy, Bulgaria and Romania, the Economic Intelligence Unit reported. The population segment ages 15 to 44 offers a high potential in terms of consumption of technology products and accessories. Accordingly, growth of computer sales in Anatolian cities has been remarkable over the recent years.

The IT market is expected to continue its expansion after 2010 as well, triggered by investments both in public and private sector. Currently, finance and public sectors are top two main sectors in terms of IT services expenditures.

Turkey's IT equipment manufacturing capability is modest and software is largely imported. Local manufacturing activity is limited to assembly. The current share of software in total market is 15%, which is far below worldwide averages. The IT sector views software as its strategic growth segment for exports and, Turkish software companies have started to direct their expertise to exports, to almost 90 countries.

In 2008, the total value of registered software exports stood at around \$250 million. This figure, however, does not reflect the real value of sector exports, because software products are often a part of other products and services such as machinery, electronics, electronic machinery, engineering, medical equipment, etc. The main export markets for Turkish-made software are the USA, Germany, Iraq, Kazakhstan, the Netherlands, Ukraine and Greece.

One major development was the August 6, 2010, opening in western Turkey of a Foxconn factory to turn out 2.4 desk top computers a year. A Hewlet-Packard (HP) affiliate based in China, Foxconn opened the factory in the industrial town of Corlu, in Thrace, 200 km west of İstanbul, with a \$60 million investment. The products are for both the domestic market and for exports.

In 2009, San Jose, California-based secure electronic payments systems company Verifone acquired the Turkish ICT companies Teknosis and Lipman Elektronik for an undisclosed sum.

#### INTERNET SERVICE USERS IN TURKEY BY YEARS

Years	Number of Subscribers
1999	2,000,000
2000	2,500,000
2001	3,500,000
2002	4,000,000
2003	6,000,000
2004	11,279,000
2005	14,844,000
2006	16,406,000*
2007	17,851,000*
2008	19,052,000*
2009	20,104,000*
2010	20,957,000*

\* Estimated

Source: Ministry of Transportation and Telecommunications, SPO and Pyramid Research, and Economist Intelligence Unit

## OPPORTUNITIES

- The Turkish ICT market will be shaped by stronger and more global players in the coming periods. All the new entrants in 2005 including Oger Telecoms and Vodafone as well as Turk Telekom, which is aggressively pushing ADSL investments, unveiled significant amount of investment plans for the next few years. This suggests that the new era will be one where quality of services and new infrastructure, rather than price-cutting, will be the main drivers on the market.
- The sector is far from being saturated. The penetration rate of 26% in fixed line telephony services in Turkey is one of the lowest in Europe. The Internet penetration rate as of end-2007 is a low 25.3%. Although Turkey shows a doubling of broadband lines from 2003 to 2004 and further on, it is still well behind most European countries. Mobile penetration rate is 87.9%, which is also quite below the European average of 126%. With the introduction of 3G, in 2009, the range of telecommunication services is diversifying to a great extent to include broadband communications services, WiFi, Wimax and value added services. Given the continuing progress in commercialization activities, the Turkish wireless market provides plenty of room for growth, offering opportunities for exporters and existing and new players on the condition that a level playing field is ensured in the market.
- Many issues including 3G, WiMax, WiFi, the authorization of broadband wireless access services and of mobile virtual network services will attract greater local and foreign investments into the sector in various capacities.
- As the voice market becomes saturated, value-added services will be the main way for operators to maintain competitiveness. There is room in all segments of the services market, including software and application development, hosting, system integration, content aggregation, content creation and creation of mobile community sites.
- E-Transformation Turkey and e-government projects, which are being executed as part of the convergence with the European Union (EU), will create a lucrative demand for ICT companies, paving the way for large e-Government projects with large amounts of public funding and fueling internet use and content creation. The enactment of the Law on Electronic Signature, which took effect in July 2004, and the draft Law on the Electronic Communications will further enhance e-government as well as e-commerce applications. Cisco's investment plans worth \$275 million, which was announced in September 2006, involves supporting Turkey's e-transformation agenda by providing networking technology and prototypes to support pilot programs targeted towards rural broadband for education, as well as connectivity for small and medium businesses, municipalities and local communities.
- There are long-term prospects for Turkey becoming strong in software exports. The IT sector views software as its strategic growth segment for exports and a great deal of Turkish software companies is on the way to obtain CMMI, SPICE: ISO 15504, ITIL, and COBIT. The Silicon Valley Project, which started under the auspices of the Ministry of Industry, is expected to give a push to these efforts. Meanwhile, Oracle opened its "İstanbul ISV Migration Center" in mid

2006 to meet the software requirements of the Europe Middle East and Africa region. YASAD (Software Industrialists Association) has set its target as software exports worth \$2 billion during the next five years.

- In addition to the mounting demand from local companies, Turkey has substantial strengths to be the location for offshore outsourcing services, including European calls.
- Growth of technology supermarkets, such as Smile, Darty, Bimeks, Vatan Bilgisayar and Teknosa are also fueling retail sales.

## **TELECOMMUNICATIONS EQUIPMENT MANUFACTURERS**

The country has 33 big telecommunications equipment manufacturers, producing a wide range of products, including PTT type and private office telephone exchanges, serial telephone systems, analog and digital multiplex systems, telephone sets, telephone machines, radio link systems, optical fiber line equipment, data modems, mobile and fixed wireless phones, copper and fiber optic telecom cables, telephone change analyzers, and analog, digital and multiplex equipment.

Three major foreign-controlled manufacturers dominate Turkey's telecommunications equipment market:

- Siemens Sanayi manufactures telecommunications equipment and cables, IT and software and unlimited power supplies (UPS).
- Netaş, a joint venture of OEP Rhea Turkey Tech and the Armed Forces Foundation and private shareholders, produces systems integration, GSM-R technologies, software for telecommunications. OEP Rhea Turkey is a joint venture between private equity company One Equity Partners of New York City and Turkish private equity company Rhea. Turkey.
- Alcatel Lucent Teletaş is the Turkish subsidiary of Paris, France-based Alcatel Lucent. It produces fixed, mobile and converged broadband networking, IP and optics technologies, applications and services.

## **3.10 CONSUMER ELECTRONICS**

### **RECOVERY CONTINUES**

Turkey's consumer electronics industry began a slow recovery after four consecutive years of declining output, as domestic producers continued phasing out production of cathode ray tube (CRT) television sets in favor of hot-selling liquid crystal display (LCD), plasma and other flat panel television sets.

Color television set production, which increased three-fold from 6.997 million in 1999 to 20.457 million in 2004, as Turkey became the main producer for European markets, fell to 12.823 million in 2007 and 9.303 million in 2008, according to the Electronic Equipment Manufacturers' Association. Production of color television sets stood at 7,381 million in the first 10 months of 2009, and industry executives were saying production would top 10 million by the end of the year.

Turkey's number one producer of color television sets Vestel Elektronik urged the other two producers, Beko Elektronik and Profilo Telra, and Turkish glass manufacturing giant Şişecam, to join forces to invest \$3 billion in LCD and plasma technologies.

Turkey is also a major manufacturer and exporter of household appliances, including refrigerators, washing machines, dryers, air conditioners, space and water heaters, vacuum cleaners, respirators, electrical ovens and kitchen appliances. Leading producers of household appliances are Arçelik, Vestel White Furniture, and Bosch-Siemens. Arçelik-LG, Alarko Carrier and E.C.A. are the leading producers of air conditioners and space and water heaters.

Turkey produced 6.094 million refrigerators, 5.015 million washing machines, 2.207 million dishwashers and 2.680 electrical ovens in 2009, the Turkish White Furniture Manufacturers' Association reported.

#### **TURKISH COLOR TV PRODUCTION 1999 - 2009** (In Million Units)

<b>Year</b>	<b>Amount</b>
1999	6.997
2000	8.878
2001	8.113
2002	12.535
2003	15.278
2004	20.457
2005	19.571
2006	16.759
2007	12.823
2008	9,303
2009*	7,381

\* January - October

Source: Turkish Electronic Industrialists' Association (TESİD)

### 3.11 FOOD AND AGRICULTURE

#### AGRICULTURAL ASSETS

- Turkey's agricultural production is equivalent to 40% and 20% of EU-25 production of fruits and vegetables respectively.
- In arable crops, it is a major producer (in EU terms), while in other crops it is a competitive producer (in EU and world terms) of certain grain legumes such as chickpeas and lentils, of cotton, and of some qualities of tobacco and olive oil.
- About 39 million hectares devoted to agriculture represents 23% of the EU-25 agricultural area. Turkey has a far richer endowment of agricultural resources in terms of cultivable land and availability of water than any Middle Eastern country.
- Turkey boasts the largest land mass devoted to organically grown agricultural products in the Mediterranean region.
- The country exports 1,530 agricultural and food products to 177 nations.
- Turkey has the seventh biggest agricultural economy in the world.
- Although the Turkish agricultural sector employed 5.2 million people as of March 2010, or 24 percent of the country's workforce, agricultural output constituted only 8.3% of the GDP.
- The Turkish agricultural sector is characterized by small holdings with farms of average size under five hectares compared to 15 hectares in the European Union.

#### MARKET TRENDS

Turkey is a significant agricultural exporter. In fruit and vegetables in particular, it is a major world producer and net exporter. Its levels of production currently amount to around 40% and 20% of European Union (EU-27) production of fruit and vegetables respectively. In the arable crops it is a major producer (in EU terms) and for other crops. It is a competitive producer (in EU and world terms) of certain grain legumes such as chickpeas and lentils, of cotton, and of some varieties of tobacco and qualities of olive oil.

During the global recession, triggered by the collapse of the U.S. housing market, agriculture emerged as one of Turkey's strongest sectors, despite lower government support programs for farmers. The country witnessed increasing production in 2008 and 2009 in most major crops, except for some selected items, such as red lentils, as the nation's farm economy began gradually recovering from the drought and global warming that hampered output in 2007. Production dropped off 2.2% in 2010. in most categories.

The government earmarked TL6 billion (\$3.876 billion) for agricultural subsidies in 2011, including support for purchases of diesel for tractors, seeds for farming, animal husbandry and certain crop purchases, Agriculture and Rural Affairs Minister Mehdi Eker told a parliamentary committee in November 2010

Agricultural output has ranged between \$50 billion to \$55 billion in recent years. The bulk is accounted by plant products. According to the Food and Agriculture Organization of the United Nations, Turkey ranks among the top 10 countries in terms of vegetable and fruit production per capita as well as in total output. Turkey's great advantage is the conjunction of ample land with a variety of climatic conditions. All temperate-zone and Mediterranean climate crops can be grown in the country, as can a number of subtropical crops.

In 2010, Turkey's most important agricultural products were cereals (32.7 million tons), followed by various types of vegetables (26 million tons) and fruit (16.6 million tons). The bulk of cereals is wheat with 19.6 million tons and barley (7.2 million tons), while grapes ranked first in fruits (4.103 million tons), followed by citrus fruits and apples.

Overall agricultural production decreased in 2010. The sharpest drop was seen in vegetables output, which fell 2.9% over 2009. Cereals output was down 2.5%, and production of fruit slid 2.5%.

With ample rainfall in the fourth quarter of 2010 and first quarter of 2011 throughout Turkey, agricultural output was expected to expand in 2011.

Main export items are fresh fruit and vegetables, which account for around 46% of all Turkey's processed food and agricultural exports. The shares of vegetable oils and confectionary and chocolate products are increasing in total exports.

In 2010, Turkish agricultural and processed food exports stood at \$12.055 billion, the Turkish Exporters Assembly reported. A large part of its food and agricultural exports go to the European Union countries. Food and agricultural imports, including residues and wastes from the food industry, stood at an estimated \$7.2 billion in 2010. Oil seeds, fruit, animal fats and vegetable oils were the biggest import items, accounting for 34% of imports.

The government aims to raise agricultural and food exports to \$39.9 billion by 2023, the 100<sup>th</sup> anniversary of the Turkish Republic.

The size of the Turkish agro industry market, as a combination of demand for food, beverages and tobacco, is estimated around \$51 billion, according to the Turkish Statistical Institute (TÜİK). Cereals and cereal-based products accounted for 8% of food production according to the latest analysis by the State Planning Organization. Turkey is also an important producer in the following areas: It ranks 5<sup>th</sup> in olive oil production just after Spain, Italy, Greece and Tunisia, while it is a top contender in dairy production with a milk market of about 11 million tons.

Official estimations foresee that the food market alone will be \$35.4 billion, food exports \$4.4 billion and food imports \$2.3 billion by 2013.



## AGRICULTURAL PRODUCTION 2007 - 2010

Production	2008 000 tons	2009 000 tons	2010 000 tons
<b>CEREALS</b>	<b>31,132</b>	<b>33,553</b>	<b>32,700</b>
Wheat	17,782	20,600	19,600
Barley	5,923	7,300	7,200
Maize	4,274	4,250	4,300
Rice	753	750	860
Others	1,200	653	800
<b>PULSES</b>	<b>ua</b>	<b>ua</b>	<b>ua</b>
Cotton	1,820	1,725	2,100
Tobacco	100	85	55
Sugar beet	15,488	17,274	17,996
Potatoes	4,225	4,425	5,751
Sunflower Seeds	854	992	1,058
<b>FRUITS</b>	<b>15,600</b>	<b>16,600</b>	<b>16,600</b>
Grapes	3,918	4,264	4,260
Olives	1,464	1,290	1,410
Hazelnuts	800	500	630
Tea	1,100	1,103	1,300
<b>VEGETABLES</b>	<b>27,200</b>	<b>26,400</b>	<b>26,000</b>

Source: Turkish Statistics Institute

## LIVESTOCKS AND POULTRY

Turkey has also one of Europe's largest populations of farm animals and poultry, though there has been a steady decline in numbers in the past two decades, due to migration people from rural areas to cities. A major reform package is needed to rebuild livestock, which would include importing new breeds and developing farms for animal husbandry of cattle, sheep and goats. Heads of cattle in 2009 fell to 10.723,958 from 10,859,942 in 2008. TÜİK reported. The country's buffalo population stood at 87,207 in 2009, down from 104,965 in 2005. The nation's population of sheep plummeted to 21,748,508 in 2009 from 25.304,325 in 2005. The country's goat, horse, donkey and mule and poultry populations have also dropped, while only its camel and swine populations have grown.

Nevertheless, poultry is the meat type most extensively produced in Turkey, particularly chicken, which is one of the most popular meats in the country. There are dozens of integrated poultry meat producers across the country.

Although the industry was severely hurt by the economic crises in 2001, the Avian Flu scare in 2007 and the global recession in 2009, Turkey's poultry meat output increased to an estimated 1.150 million tons in 2010 from 979,000 tons in 2005, according to the Turkish Statistical Institute. A BMI Research forecast said that Turkish poultry meat production would reach 1.386 million tons by 2014.

### **TURKEY: THE SLEEPING GIANT AWAKENS**

I first visited the cherry production regions of Turkey in 1995. At that time I found evidence of generally high quality fruit being produced with little understanding of sound horticultural principles. When I returned in 2005, much had changed in the 10 years since I was there last. In 1995 Turkey was just starting to impact the European market in such a way that European cherry growers were fearful of the competition. Due to very low wages, they knew that Turkish growers could produce cherries at a fraction of the European cost. In an article that I wrote on Turkey for Good Fruit Grower magazine in the June 1996 issue, I predicted that within a few years Turkey would overtake the United States as the largest cherry producer in the world. That prediction came true within a few short years.

By 1996-1999, the average cherry production in Turkey was 215,000 tons surpassing the 180,000 ton U.S. average. Good soils, a perfect climate and the fact that sweet cherries are native to this area means that Turkey has perfect conditions to grow sweet cherries throughout the country. Although Turkey is, for the most part, a one variety producer, their production region extends over such a vast area, through changing climate and elevation that their production season continues for 60 to 70 days. With the introduction of new early varieties from California and late varieties from Canada, the potential is an April through August harvest.

The most impressive thing about the orchards was that some of these were EUREP GAP certified, meaning that they had met strict environmental, labor and safety standards, allowing the fruit to be imported to Europe unimpeded.

*Source: Lynn E. Long, Oregon State University Extension Horticulturist*

The European Commission bolstered Turkish producers when it gave permission for Turkish poultry meat to enter the European Union starting from March 29, 2009. Turkish poultry meat exports reached \$66 million in the first six months of 2009, more than double the value of poultry exports from the first half of 2008, TUIK said.

Major beef producers have also emerged in the past three decades, led by Pınar Et based in İzmir and Tat Gıda in İstanbul. But the decline in the number of cattle and sheep has forced the government to import frozen carcass meat frequently to reduce shortages and drive down meat prices. In 2010, the country allowed imports of Angus cattle from Uruguay, Australia and Argentina to reduce meat shortages ahead of the Sacrifice Holidays.

## FOREIGN INVESTMENT IN AGRICULTURE

Turkey attracted \$43 million in foreign direct investment (FDI) in its agriculture, hunting, forestry and fisheries industries in 2009, a mere 0.8% of total FDI inflows to the country in the year, the Undersecretariat of Treasury reported. This was because of “*continued structural problems, risks and uncertainties in the sector and the faster growth in the service sector,*” Deloitte Turkey said.

## IMPACT OF EU HARMONIZATION PROCESS

Turkey is reshaping its agriculture in preparation for European Union (EU) membership as well as in line with its commitments to the IMF, and the sector holds the promise of making Turkey a major player in EU and world terms. The comprehensive agricultural reform being executed since 2000 creates a more competitive agricultural sector and reduces state involvement. The World Bank contributes to these projects with \$600 million in loans.

The agricultural reform program puts emphasis on the creation of a rural development strategy aimed at modernization of subsistence and semi-subsistence farming, leading the way to commercially viable entities, while its pre-accession economic programs set the following targets for the agriculture:

- Short-range: Modernization of land registry system, food controls, and animal and plant health services.
- Middle range: Setting agricultural and rural development projects, increasing food processing institutions, hygiene, public health and food health test institutions.
- Long range: Determining quotas and credits and donations from the European Union budget.

The issue of food safety has been a priority area since the launching of the customs union with the EU in 1996. Harmonization of Turkey’s food legislation with the EU *acquis* started in 1995. The pursuit of these reforms and alignment works will create profitable opportunities for the initiation of new projects for foreign as well as local investors.

### EUROPEAN UNION HARMONIZATION IN FOOD

Safety and quality measures constitute an area of major importance. State Planning Organization 9th Development Plan (2007-2013), expects yearly 3.1% growth in agro industry production, 3.8% in exports and 3.5% in imports. The most important developments are those foreseen in hygiene, quality and standards. The 9th Plan expects that out of 19,021 registered companies around 17,000 will make technology investments to improve hygiene standards and quality level.

Feyhan Kalpakçioğlu, former chairperson of the Yaşar Group, regards the impact of the EU on the Turkish agro industry very positive, drawing attention to the upgrading and managerial requirements of the industry: “*The integration process with the EU will force consumption of packaged food products subject to hygienic processes. Currently, only 15% of production is packed.*”

## TRENDS & OPPORTUNITIES

- The sector is developing fast in volume as well as in product variety and quality. Domestic demand is driven by increasing income levels and the changing demand patterns of the new generations. Integration with the EU as well as Turkey's increasing globalization are spurring exports. In the longer term Turkish accession can be expected to lead to an increase of trade in both directions as the EU membership would mean an end to the protectionist measures against EU products.
- Foreign investors' success with merchandising the same products that dominate Turkish agricultural output means that there are major opportunities for companies interested in the low-cost output possible in Turkey. Opportunities exist in animal products (meat and milk), fishery products, fruit and vegetable processing, confectionery products, pasta and pastry production, herbal foods, processed organic foods as well as vegetable oil (especially olive oil) and viticulture. There is a new focus on organic farming techniques and the government is especially very supportive of organic food manufacturing projects. Turkey boasts the largest organically grown area in the Mediterranean region. The impressive advantage it has is that organic agriculture can easily be applied with low cost in the country.
- As a consequence of the trend to more commercial and capital-based production, major Turkish companies have been investing in animal husbandry projects and fruit and vegetable production. Foreign companies have the know-how and experience to improve processing techniques and create value by stimulating the integration of Turkey's rich agricultural base into the EU. As the quality and safety problems are solved, integration and mergers between agriculture and industry will increase and the sector will achieve rapid growth.
- The Southeastern Anatolia Project (GAP), Turkey's largest regional development scheme, offers much to the investors. It is a gateway to the Middle East which represents an import market of over \$200 billion. The GAP region, with its 210.3 million sqm area particularly available for organic farming, presents unprecedented advantages for organic agriculture and hence for organic textile and an excellent location for the food and beverages manufacturing industries.
- Turkey's import regulations on genetically modified organisms (GMOs) are in line with European Union standards. Companies can't import GMOs that don't meet EU standards.

## VIEWS ON AGRO INDUSTRY OPPORTUNITIES IN TURKEY

The views of Feyhan Kalpakçioğlu, former chairperson of the Yaşar Group, include the following:

- In the dairy and meat sector, the major issue is to improve the quality and quantity of raw material. The upgrading requirement in the dairy sector will lead small dairies to possible partnerships with other companies. Foreign direct investment could play an important role in diffusing new technologies in rural areas.
- Leasing of the state farms could be another opportunity for further co-operation with foreign companies. The total size of the 22 farms slated for private involvement is 491 million sqm. Ceylanpınar in particular is unique in both size and product variety wise with its 180,000 ha.

Ethem Sancak, CEO of the Sancak Group, which controls over half of the pharmaceutical wholesale activities with its 50% stake in Hedef Alliance, and is a major player in animal husbandry, puts emphasis on the timing: *“When the prices decline with the EU accession, only those with lower cost will survive and there will be ample opportunity for them to exploit”*. He added: *“Dairy and meat markets are untapped to a great extent. The dairy industry, with 20% net profit rate, and meat industry, with sale prices two fold of that in the EU – €3.0 /kg, poses great opportunities for investors.”* He sees other promising areas for co-operation as land and animal registration, environment and animal health protection and food safety.

Flemming Morgan, Danone’s Middle East and Africa regional director, said that Turkey is among Danone’s first five priority markets for investment purposes. The company, he said, expected the market to grow 60% by 2010.

## TURKISH ORGANIC JUICES SPLASH INTO US MARKET

New York-based **Organic Juice USA, Inc.** has been extremely successful in the United States with Turkish organic fruit juices. Having attained almost \$1.5 million in revenue in 15 months, the company has recently entered the largest organic food chain store in the United States, Whole Foods Market.

Established a year-and-a-half ago, the company acquired the United States distribution representation from **Elite Naturel**, an organic fruit juice producer in Turkey. Then, they started introducing additive-free and sugar-free pomegranate, melon, mulberry, quince, grape, pear and rose juices into the United States market.

At first, **Organic Juice USA** entered **Fairway**, then to a more middle-income chain store in New York, Key Food, and has quickly attracted U.S. media attention. The company’s products are sold in 150 markets in New York, New Jersey, Florida, Connecticut and Illinois. Its latest accomplishment is that it entered the organic foods giant **Whole Foods Market**.

*“We intend to expand our sales to the east also and reach \$4-5 million in revenue in the next three years,”* says Ali Rıza Süman, one of the two partners, reflecting their ambition in the market. Another important goal the two partners have set for themselves is for **Organic Juice USA** products to enter the school system in the United States.

**Organic Juice USA’s** fruit juices sell for between \$7-10. This is quite a high price even by U.S. standards. *“While selling fruit juice at these prices, our duty is to educate our consumers about the benefits of organic fruit juices,”* says Süman.

Source: Turkish Daily News, February 22, 2007

### 3.12 EDUCATION

#### EDUCATIONAL PROFILE

Reforms and increased spending on education in Turkey are generating some positive impact on educational attainment, but weaknesses in quality and accessibility of higher education remain significant.

The U.S. is the number one destination for the Turkish overseas university students. Some 23% or 12,397, of 55,000 Turkish overseas students went to the US in the academic year 2009-2010 for university education, according to the İstanbul-based Association of International Educational Consulars Turkey (UED), an educational consultancy group. Turkish students represented the 10th biggest national group studying at American universities, Open Doors, an American educational data bank, reported. Only India, China, South Korea, Canada, Taiwan, Japan, Saudi Arabia, Mexico and Vietnam sent more university students to the U.S. in the academic year than Turkey, Open Doors said. India, China and South Korea combined held 45% of the 690,923 foreigners studying in American universities. Turkish students preferred studying in Los Angeles, Boston, New York City and Washington, D.C. The bulk of the students went for English language training and graduate studies.

Around 1,500 Turks were registered in Canadian universities in the 2009-2010 academic year, preferring to study mainly in Toronto, Ottawa and Vancouver, UED said.

Some 18,158 students from 127 countries were studying at Turkish universities.

Both the public and the private sectors offer education at the pre-school, primary, Lycée/high school and higher levels, as well as vocational education. State education is free, but suffers from a lack of resources, both human and physical. Turkey's education reform program aims to correct these weaknesses, but its successful execution will require major levels of funding, as well as consistency in planning. The private sector is expensive. The cost varies from \$5,000 to \$15,000 for high schools and is higher for the respected universities with grades comparable to quality overseas education. The costs of high-profiled Turkish private high schools and universities are almost the same as overseas education.

The total number of students during the 2009-2010 school year was 19,459,995 at all levels of formal education in Turkey, including 10,916,643 enrolled in primary schools. There were 3,332,559 students enrolled in universities and the number of students enrolled at private institutions is rising. There are 157 universities, of which 52 are private. Five military academies, including a medical school, one police academy, provide higher education in Turkey for students in the military and security forces. The former Soviet Central Asian Republics of Kazakhstan and Kyrgyzstan each have one Turkish university and five universities exist in the Turkish Republic of Northern Cyprus affiliated with Turkish universities.

As of the end of 2010, all 81 provinces of Turkey had at least one university or institution of higher education, but the older universities in western Turkey continue to attract the best and

brightest students and teaching staff. The city of İstanbul alone had 44 universities, dominated by the sprawling University of İstanbul, where some 69,719 students are enrolled.

#### BREAKDOWN OF STUDENTS IN FORMAL EDUCATION IN TURKEY 2009 - 2010

Academic Level	Number of Institutions	Number of Students
Pre-school	26,681	980,654
Primary Education	33,310	10,916,643
General High Schools	4,067	2,420,691
Vocational and Technical		
High Schools	4,846	1,819,448
Universities	157	3,332,559
<b>Total</b>	<b>69,511</b>	<b>19,459,995</b>

Source: Ministry of National Education, Council of Higher Education

## DRAWBACKS IN THE TERTIARY EDUCATION

- Entrance to graduate and postgraduate courses is handled through a single national university entrance examination. Competition for university admission is fierce. Around 1,502,605 students took the exam in 2011.
- The schooling rate at tertiary level is 30.42% in Turkey. The number of candidates taking the university entrance examinations (ÖSS) has been rising every year. Students require a minimum grade to pass the exam. Generally, no more than 30-35% of applicants pass the multiple choice exams. University enrollment rates in Turkey have increased during recent years, but are still below those of most European countries. This rate is 53% in Portugal, 59% in Spain, 44% in Hungary and 60% in Poland.

#### SCHOOLING RATES IN TURKEY 2009 - 2010

	No of pupils, 000	Schooling rate, %
Primary	10,916	98.2
High Schools	4,240	65.0
Universities, total	3,332	30.4

Source: Ministry of Education, YÖK, TÜİK

- The number of students eager to attend universities far exceeds capacity in both public and private institutions and a great majority of the students who pass the examination can't be assigned places because of a lack of space. Those who pass the examination, but with lower scores, can only attend two-year colleges. Students with the highest scores are admitted to universities and faculties of their choice. Other less successful applicants must settle for one of their alternate choices.
- The skills of university graduates also often don't meet the needs of the private sector, requiring excessive on-the-job training. Tertiary education in Turkey encompasses all post-secondary programs of at least two years.
- Turkey needs 70,000 information technology (IT) graduates annually, and this requirement will add up to 213,000 by 2013, according to a study of Turkey by the IT Foundation.
- Turkish business executives and entrepreneurs consider the quality of science and engineering schools rather low. The university entrance examination drives what most young people study and learn.
- Other critical issues for the Turkish tertiary education system include the administrative and financial rigidity of the public university system, inadequate communication between universities and the private sector and lack of specialized technical or professionally oriented undergraduate degrees.

## **IMPLICATIONS AND OPPORTUNITIES**

As a fast-growing and converging country, Turkey needs to improve its higher education and offer increasing opportunities for investors and service providers. All indications point to the government welcoming financial and advisory resources in all areas.

- With the economy continuing to grow, Turks will have more money to invest in private education. Some of the private universities, which are founded by Turkey's wealthiest families, are very prestigious and their success shows the dynamism of this section of the educational market place.
- In recent years increasing number of Turkish universities, both public and private, have formed close links with universities abroad. Such collaboration has upgraded their curriculum and teaching methods and facilitated academic exchanges.
- Turkey is a target for overseas education with an average 1.5 million students taking the examination for university entrance and only one-third of them passing the examination. Turkey ranks sixth in the number of its students abroad.
- The overall ratio of foreign-language speaking population is a low 1.5% of the total inhabitants and there is still room in Turkey for foreign language education as Turkey's business world gives



high importance to knowledge of foreign languages. Today, a few state universities are entirely English, or French-medium, and a German-medium university is about to be established.

- Employers in Turkey, like their international peers, are increasingly concerned about problem solving, creativity, confidence and communication skills than about specific technical skills. Turkey needs higher education institutions to develop differential missions and strategies, with a different balance of effort across the functions of teaching, research and service provision.
- The weaknesses in high school education and the intensely competitive university entrance examinations have spawned more than 4,000 private cram schools (dershane) that prepare students for the exams. These schools are located all over the country and often offer better education than existing secondary schools. Additionally, hundreds of private foreign language schools have opened in the cities to train students, adults and professionals in foreign languages, particularly in English, as Turkey links to the global economy.
- Turkven, an international equity capital company in which the World Bank, the International Finance Corporation, the European Investment Bank, the Dutch Development Bank (FMO) and the German Development Bank (DEG) are shareholders, on March 18, 2011, acquired a 50% stake in Doğa Koleji, a private Turkish educational group that runs primary and secondary schools. Doğa Koleji aims to expand the number of its students from 14,000 in 2010 to 100,000 with new investments with its Turkven partner.

### 3.13 ENTERTAINMENT AND MEDIA

#### ENTERTAINMENT SECTOR BOOMS IN TURKEY

The entertainment and media sector in Turkey has been expanding rapidly since 2001. The gross volume was estimated at around \$6.2 billion in 2010. According to the research of Price WaterhouseCoopers, this will reach \$9.7 billion by 2014. The size of the sector was only \$1.5 billion in 2001.

##### MEDIA & ENTERTAINMENT MARKET 2001 - 2014

	2001	2005	2006	2010	2014
Market size, \$ billion	1.51	3.20	3.76	6.01	9.70
Broadband subscribers (000)	10	-	2,130 (1)	4,000	ua

(1) As of June

Source: Price Waterhouse Coopers, "Global Entertainment and Media Outlook 2010 - 2014, Turk Telecom

## **DIGITAL TECHNOLOGIES PAVING THE WAY**

The boom in the sector is mainly driven by the fast moving digital technologies. The availability of legal digital alternatives coupled with rising incomes serves to expand the market. Digital distribution technologies are becoming established and are changing the way consumers acquire entertainment and media content. Broadband penetration, which is currently 3%, is projected to reach 20% in 2010 and Internet penetration, currently 25.3% is expected to grow in the mid-term. In parallel to the increases in penetration rates, digital platforms, IPTV and video-on-demand mechanisms will expand the TV market through their impact on content provision. MÜYAP, the music sector association, stated that mobile music market is currently about \$60 million.

The developments in the Turkish wireless market will continue to have positive impacts on the media and entertainment market. In recent years, mobile operators have launched additional value-added services aimed at a young population receptive to new and emerging technologies. Value added services currently account for 3% of total GSM services. Mobile music and mobile video download services were launched a few years ago over WAP and SMS channels. Turkcell offered consumers full-track downloads from EMI's catalogue in Europe in 2006.

Given low penetration rates and continuing deregulation and commercialization in telecommunications and the expected launch of 3G in 2007, there is plenty of room for rapid growth for the entertainment sector. Mobile TV, music, video services appear to have the highest potential to grow and improve with the launch of 3G. Recent deals concluded between foreign and local companies geared towards launching new value added services in 2006 and early 2007 included those between Digiturk and WiderThan Co. for video-on-demand services and Skype and the local Internet firm e-kolay.

## **FOREIGN INVESTMENT POURS IN**

The media and entertainment markets offer major opportunities for foreign investors. Long-term growth prospects on the back of low ad spending/GDP ratios are seen among the main reasons to attract the foreigners in. Annual advertisement growth stood at 25% in 2005 and 22% in 2006, and reached an estimated \$2 billion in 2007 with an increase of 17%. Advertising has grown at 3-4 times more than GDP growth in the past and is expected to grow at a 9% compound average growth rate (CAGR) in the period 2005-15. Media companies continue to benefit from the promising advertisement market in Turkey, which is still relatively underdeveloped.

Foreign investors are buying up media companies in Turkish broadcasting, entertainment and public relations companies, or forming joint ventures with Turkish companies:

- CNN and CNBC of the U.S. were the first companies to enter the Turkish broadcasting sector forming joint venture news channels with Turkey's Doğan Group and the Doğuş Group respectively in the early 2000s.

- CanWest of Canada entered the Turkish broadcasting sector with three radio acquisitions in 2005 and 2006.
- Australian media mogul Robert Murdoch's NewsCorp acquired TGRT TV and Germany's Axel Springer purchased a 25% stake in Doğan TV for \$480 million.
- Nielsen Media Research acquired Bilişim, which measures ad spending in the media.
- Deutsche Bank acquired a 22% share in Doğan Gazetecilik A.Ş., publisher of four daily newspapers including the mass-selling Milliyet and shareholder of two news agencies, and an advertising company and an Internet publishing company, from the Doğan Group for \$88 million.
- Germany's advertising giant Wall AG acquired a majority stake in outdoor advertiser ERA Outdoor from the Kamicili family for an undisclosed sum.
- Italy's Seat Pagine Gialle acquired a 50% stake in Katalog Yayın ve Tanıtım from the Doğan Group for \$7.6 million. The Doğan Group said the company would produce telephone directories in Turkey with its new partner.
- Los Angeles-based private real estate investment company Colony Capital acquired a 55% stake in Mars Entertainment Group, an operator of cinema houses and fitness centers.
- British advertising and public relations company Wire and Plastic Products in January 2011 acquired a majority share in Turkish-Greek public relations firm Global Tanıtım for an undisclosed sum. Wire and Plastic Products' public relations company Hill and Knowlton will reportedly take over management of İstanbul-based Global Tanıtım.
- German media giant Axel Springer in November 2009 acquired a 29% stake in Doğan Media Holding, Turkey's leading publishing and broadcasting group for TL 356.7 million.
- Mars Entertainment Group acquired an 88.1% interest in cinema houses operator AFM from Turkey's Esas Holding for \$82 million. AFM owns 200 cinema houses out of 1.800 operating in Turkey.

### 3.14 DEFENSE

#### **TURKISH DEFENSE INDUSTRY BECOMES REGIONAL POWERHOUSE**

In the town of Tuzla in July 2011, private Turkish shipyard RMK Marine lowered the third of four big search and rescue vessels for sea acceptance tests. The Italian-designed TGSG Umut is 240 feet long, 33 feet wide and capable of 22 knots an hour. The four vessels, the TGSG Umut, Dost, Güven and Yaşar will be delivered to the Turkish Coast Guard in 2012.

Nearby, another shipbuilder, Yonca-Onuk, has developed high speed boats for the Turkish Navy and Coast Guard. It has already delivered more than 70 fast intervention vessels to the coast

guards and navies of Turkey, Pakistan, Malaysia, Georgia, the United Emirates and the Turkish Republic of Northern Cyprus. Capable of speeds up to 60 knots, the boats are designed to protect the littoral of the six states.

RMK Marine and Yonca-Onuk are just two of hundreds of Turkish defense contractors that have emerged since the mid-1980s, producing military hardware for the Turkish armed forces and for export markets. Turkish defense products range from modern jet fighters and complex components for anti-aircraft missiles to high speed patrol boats and frigates to armored vehicles and sophisticated air defense and electronic command and control systems.

Heavy investments in defense industries in the past two decades have helped modernize Turkey's military into a crack fighting force while reducing the country's dependence on costly imported weapons. Its investments in defense also reflect Turkey's growing military might in a conflict-prone region stretching from the Balkans to the Caucasus and the Middle East. With 1,043,000 men under arms as of April 25, 2009, Turkey has the second biggest army in Europe after Russia.

Turkey's new defense procurement strategy, announced in 2004 and reaffirmed in 2007, seeks a greater contribution from Turkish firms in defense projects and aims to increase the rate of domestic inputs into defense purchases, presently 52.5%, to 75% by 2020. Defense Industry Undersecretary Murat Bayar, said: *"In recent years, \$20 billion in modernization projects have taken place. Ninety percent of these have been carried out by Turkish defense industry companies."*

The turnover of the members of the Defense Industry Manufacturers' Association of Turkey stood at \$2.732 billion in 2010, up from \$2.319 billion in 2009, but exports dropped to \$634 million from \$669 million. The country exports its products to a wide range of regions from the Middle East to Africa and from Europe to the Far East. Research spending of the Turkish defense manufacturers stood at \$666 million in 2010, up from \$505 million in 2009.

#### **TURKISH DEFENCE INDUSTRY 2004 - 2010** (In U.S. Dollars)

<b>Year</b>	<b>Sales</b>	<b>Exports</b>	<b>Research &amp; Development</b>
2004	1,337,120,000	196,341,000	63,860,000
2005	1,591,162,692	337,422,986	78,511,203
2006	1,720,405,000	351,989,000	80,089,000
2007	2,010,604,165	420,408,813	367,124,476
2008	2,317,000,000	576,000,000	509,583,013
2009	2,319,000,000	669,000,000	505,271,185
2010	2,732,933,353	634,189,656	666,019,607

Source: Turkish Defence Industry Manufacturers' Association

An estimated 200 private and state companies, plus around 6.000 suppliers of parts and components, operate in Turkey's defense industry. Most of the companies turn out products mainly for civilian use. But about 30 companies manufacture solely for the armed forces. A number of foreign defense contractors, including Sikorsky Corp., General Electric, United Defense LP and Loral Corp. of the U.S., have direct investments in Turkey. Pratt & Whitney Canada has long been active in providing aircraft engines to the Turkish military as well as to civil aviation.

The Undersecretariat of Defense Industries and the İstanbul Chamber are developing a defense industry research technopark that will be located next to the Sabiha Gökçen International Airport in İstanbul

The need to develop a domestic defense industry came to a head during 1975 to 1979 American Congressional embargo on sales of military equipment to Turkey, the nadir in Turkish-U.S. relations. The U.S. slapped the arms embargo on Turkey, a NATO ally, because it used American weapons in its occupation of Northern Cyprus in 1974. During the arms embargo, half of Turkey's military aircraft were grounded due to the lack of spare parts.

Turkey actually has a long tradition in defense industries.

The Taşkızak Naval Shipyard along the shores of İstanbul's Golden Horn has been producing warships since 1455. Galleons constructed at the shipyard in the 16<sup>th</sup> century helped fleets commanded by Ottoman Grand Admirals Hayruddin Barbarossa and Turgut Reis (Dragut) to turn the Mediterranean into a Turkish sea. The Taşkızak Shipyard built the Ottoman Empire's first steamboat in 1828 and first submarine in 1886. The shipyard has constructed more than 2,500 ships since its founding and 140 naval vessels since 1941, including landing craft, patrol boats, coast guard vessels, tankers and coasters. It also turns out cargo ships and small oil tankers for civilian use.

When Turkey launched its major military modernization plans in the mid-1980s, the task of developing indigenous defense industries was given to the Undersecretariat of Defense Industries (SSM).

Since its founding the SSM has started up two dozen defense manufacturers and more than 50 projects. It has financed projects through fixed levies paid by consumers on a variety of imported goods, cigarettes, alcohol and legal gambling.

Many of the industries have been established under government-to-government offset agreements, under which defense import procurements have been paid for by exports of domestically manufactured military and civilian products.

The SSM has insisted that large-scale exporters of defense products manufacture their goods in country Turkey if they want to continue selling to the nation. Some of the investment projects it has encouraged are linked to all-NATO defense programs with the Turkish companies producing key components for assembly in other countries.

The country's defense budget for fiscal 2011 is \$14.121 billion (including \$10.966 billion for the Ministry of National Defense, \$2.951 billion for the Gendarmerie Command and \$204 million for

the Coast Guard), representing 6.4% of the national budget.

Turkey ranks the seventh largest country in Europe and second biggest in the Middle East in defense spending, according to the latest data of Stockholm International Peace Research Institute (SIPRI).

Among major players are Turkish Aviation Industry (TAI), and defense electronics and telecommunications equipment manufacturers Havelsan and Aselsan, the world's 86<sup>th</sup> biggest defense contractor; Makina Kimya Sanayi Kurumu (MKEK), Turkey's largest producer of munitions and light weaponry which is slated for privatization; armored vehicle manufacturers FNSS, Otokar and BMC.

Some of the recent achievements of local producers include the following:

- Havelsan realized the first-ever CN-235 simulator export of Turkey. This was worth \$30 million and destined to South Korea.
- Vestel and SSM agreed on the production of a €25.3 million simulator for radars.
- Eurofighter offered Turkey a \$9 billion industrial contribution contract for 120 aircraft.
- Electrical design of the Patrol and Anti Submarine Warfare Ships Acquisition Project is being carried out by Anel. The program comprises up to 12 vessels, with the first 8 to be completed by 2008 at a cost of \$1.6 billion.
- Kalekalıp signed a contract to realize the Mini Manless Air Vehicle Project.
- TAI agreed with Northrop to produce aircraft bodies under a 20-year industrial participation worth \$4.3 billion.
- Commercial vehicle manufacturer and defense contractor Otokar signed a \$500 million contract to design and build national "Altay" battle tanks. The first Altay battle tank went on display at the 10<sup>th</sup> International Defense Industry Fair (IDEF11) May 10-May 13, 2011, in Istanbul.

The Turkish Armed Forces widely relies on the United States and NATO for equipment and technology. The rate of dependence is estimated to be 50-60% as far as the land forces is concerned. In the air forces, the rate goes up to as high as 80%.

Turkey has a growing involvement in the European aerospace sector. It has joined the Airbus A400M military transport consortium and has ordered 10 aircraft. Turkey is a partner in the US-led Joint Strike Fighter consortium, but a role in an alternative Eurofighter consortium is not ruled out.

Within this framework, the process of EU membership could lead to a cutback in the relatively high level of defense expenditure of Turkey. The reduction could be offset to some degree by Turkey's goal of a smaller but better-equipped professional army, which may result in a higher proportion of defense expenditures going on purchases of equipment.

## **24 MAJOR PROJECTS TO BE COMPLETED IN 10 YEARS**

The Defense Industry Undersecretariat targets to finalize a total 24 projects in the coming ten years. The main projects include the following:

- Phoenix II program (the depot level maintenance capabilities of 30 Eurocopter AS 532 UL/AL Cougars);
- Purchasing of 16 Sikorsky S-70B Seahawk helicopters;
- Helicopter Electronic Warfare Suite (HEWS) Upgrade for 145 new attack helicopters;
- A \$1.1 billion deal with Lockheed Martin in April 2005 to upgrade F-16 fighter jets;
- Plans to buy nearly 120 F-35s to replace aging F-4 and F-16s after 2010 (about an over \$10 billion deal);
- The upgrade of the second batch of 48 F-4 planes;
- Structural and avionic modernization of 50 NF / F-5 A/B;

Replacement of SF-260D and T-37C by a T-X single primary and basic trainer aircraft.

- Participation in the Military Transport Aircraft (A400M), taking a 9% stake.
- Procurement of 12 light –middle class reconnaissance observation helicopters.
- Procurement of long-distance air defense systems, which will include missiles. U.S. Raytheon-Lockheed Martin's "Patriot Advanced Capability 3," systems, Chinese Cpmiac Company's "FD-2000," Russia Rosoboronexport's S-400 and French-Italian models are competing for the contract that will cost anywhere between \$1 billion to \$7.8 billion.
- Procurement of s submarine rescue mother ship (MOSHIP).
- Procurement of the next generation TF2000 Air Defense frigate.
- Procurement of a Turkish-designed helicopter carrier. The vessel, Turkey's first aircraft carrier, would be capable of carrying four helicopters or four vertical takeoff jet fighter-bombers. A second carrier will be optional.

Major deals concluded from 2006 to 2011 included the following:

- Modernization of 216 F-16 at \$635 million – with Lockheed Martin.
- Procurement of 100 F-35 at \$4.3 billion from Lockheed Martin
- Italy's Agusta Westland and Turkish Aviation Industry (TAI) in 2007 signed \$2 billion contract with the SSM to produce 51 attack helicopters for the Turkish army. An option for 78 other helicopters is available. A prototype helicopter will be produced in 2013.

- Turkey's defense contractor and commercial vehicle manufacturer BMC signed a €300 million contract in December 2009 to deliver 859 mine resistant armored vehicles and tactical wheeled vehicles to the army.
- Turkey's Vestel won a \$20 million contract to build eight manless air vehicles for the Turkish Army.
- Procurement of 16 new patrol boats (NTPB). Dearsan Shipyard in Tuzla on April 9, 2010, launched the first 56-meter NTPB.
- Sikorsky in April 2011 won a \$3.5 billion contract to build 109 utility helicopters for the Turkish Armed Forces. The helicopters will be assembled at the Turkish Aviation Industry (TAI).
- Procurement of a large multipurpose landing platform dock. ADIK Shipyard is under contract to build eight fast landing craft (LLCT). It launched the first vessel in August 2010.
- The İstanbul Naval Shipyard in August 2010 launched the TGG Heybeliada, the first of a new class of corvettes under the MILGEM (National Warship) Project for sea acceptance trials. The second corvette, the Büyükada, will be built at the shipyard, while the construction of the remaining 10 vessels will be transferred to private shipyards. The ships are capable of advanced patrol and anti-submarine warfare.

## THE 2023 VISION

The 2023 Vision Study<sup>1</sup> of the Defense, Aeronautics and Space Industries Group recommends definition and implementation of programs under three main headings:

- Low altitude space vehicles and systems
- Manless land, marine and aircraft
- Technologies and components for joint use

A fund of \$700 million has recently been allocated for the National Aeronautics and Space Project which was designed under this program. The Defense, Aeronautics and Space Industries Group envisage the following targets for 2023:

---

1 The "Vision 2023: Strategies for Science and Technology" project involves the first-ever national foresight exercise of Turkey, together with three more sub-projects that aim at collecting and evaluating data on the current science, technology and innovation capacity of the country. It is an ongoing project, which aims to build an S&T vision of Turkey, and to develop S&T policies for a time period of 20 years.



## TARGETS FOR THE DEFENSE INDUSTRY

	2002	2023
Defense expenditure per capita (\$)	130	534
Defense spending (\$ billion)	9	48
Defense spending /GDP (%)	0.05	0.03
Ammunition, equipment spending (\$ billion)	5	14.4
Local equipment and R&D spending (\$ billion)	0.9	11.5
Production per employee in the sector (\$/ man year)	50,000	250,000
Exports per employee in the sector (\$/ man year)	10,000	58,500
Personnel employed in the sector	25,000	60,000
Defense R& D personnel	1,500	10,000

## NEW OFFSET GUIDELINE AND IMPLICATIONS FOR THE AMERICAN COMPANIES

SSM (The Defense Industry Undersecretariat) issued a new Offset Guideline with smart leverage tools for foreign contractors and local industry on February 14, 2007. Key provisions include the following:

- The Guideline supports the SME activities with increased multiplier for crediting.
- The investment in Turkey by the contractors with minimum of 10% share in the company will be credited temporarily for offset which will be conditionally subject to the export of goods from that investment.

There are increasing numbers of cluster/industrial zones for niche areas in several targeted sectors in Turkey. The Advanced Technology Park, owned by SSM and located in Sabiha Gökçen area, is promoted in the Offset Guideline with higher multiplier for investment there in high technology areas.

- The Guideline allows the bartering of offset liabilities in the foreign country with those of the local industry's liability arisen by the export of product in the contractor's country.
- The Guideline promotes exports of Turkish products with the highest multiplier.

Due to the availability of a full spectrum of supply chain with qualified small and medium sized enterprises, Turkey offers high level of competitiveness in the defense and aerospace areas compared to other emerging countries. The Government agencies, industries, universities, research institutes of Turkey are presenting and promoting the easy, profitable and less risky business environment to investors. The capabilities of the Turkish defense-aerospace industry including the MRO business comply with the requirements of US authorities. Therefore there is no barrier and weakness for Turkish industries to penetrate into the U.S. and, at the same time, for the U.S. companies to invest in Turkey.

Source: Muharrem Dörtkaşı, TAI

### 3.15 SHIPPING AND SHIPBUILDING

In 2009, sea transport accounted for \$139.862 billion in cargo carried to and from Turkey, or 58 % of Turkey's external trade, according to the state Directorate of Maritime Trade. Turkish ships carried only 21% of Turkey's imports and exports. Some 309,436,7067 tons of cargo were loaded or unloaded from Turkish ports, including 58,012,586 tons of transit cargo. Turkish-flagged freighters also carried 37,791,797 tons from port to port in Turkish territorial waters. (Around 30% of Turkey's imports and transit cargo – oil and natural gas -- is carried out by international pipelines that crisscross the country.) Turkish-flagged ships transported only 29.965 million tons of cargo of the nation's foreign trade.

The country's foreign trade volume is expected to increase to at least \$1 trillion by 2023, the centennial of the Turkish Republic from \$299.4 billion in 2010.

Turkey had the world's 11<sup>th</sup> biggest merchant fleet as of January 2010 with a total deadweight ton (dwt) of 18,985,165, the directorate reported, but only 7,846,936 dwt of shipping bore the Turkish flag. Some 11,140,119 dwt of Turkish-owned ships bore a flag-of-convenience, such as Malta, the Marshall Islands, or Panama, for tax purposes, the directorate said.

This represents an enormous change from 1980, when the Turkish merchant fleet had a dwt capacity of only 2 million tons.

According to the Turkish Chamber of Shipping, the Turkish fleet needs to build or acquire more container ships, chemical tankers, big oil and gas tankers.

New "Ro-Ro" or Roll On-Roll Off ships, refrigerated carriers and special purpose vessels, such as log carriers, will have to be added to the Turkish merchant fleet.

### SHIPBUILDING

Turkish private and state shipyards have a total annual capacity of around 3 million dwt of ships a year, but have been operating at less than 50 percent capacity because of the global economic crisis, according to the Turkish Shipbuilding and Shipyards Directorate. The industry began recovering in 2011.

Turkey's shipbuilding industry, now the world's fifth biggest, was neglected for decades.

The reason for this, industry officials say, was that Turkish private and state banks refused to provide soft loans to finance shipbuilding to avoid tying up large sums of money in Turkey's hyperinflationary economy. This forced shipowners and builders to use their own resources to finance construction.

But with inflation declining in Turkey and the European Union banning 15-year-old and older ships and single hull vessels from European ports for safety and environmental concerns, a re-

vival in the Turkish shipbuilding industry took place, as orders for new ships came pouring in. Year-on-year inflation has dropped from 125.5 percent in December 1995 to under 10 percent in November 2004.

**RANKING OF ACTIVE WORLD COMMERCIAL SHIPPING FLEETS BY  
NATIONS AS OF JANUARY 1, 2009 ACCORDING TO GROUP OWNERSHIP,  
SHIP MANAGEMENT AND OPERATIONS INCLUDES SHIPS  
BEARING FLAGS - OF - CONVENIENCE**

Flag	Number of Ships	Million DWT	% of Total
1 Japan	3,674	176,3	15.4
2 Greece	3,094	175.4	15.3
3 China*	3,762	123.8	10.8
4 Germany	3,476	104.8	9.1
5 United Kingdom	988	50.8	4.4
6 Norway	1,468	43.6	3.8
7 South Korea	1,083	38.0	3.3
8 United States	967	34.6	3.0
9 Taiwan	622	30.0	2.6
10 Singapore	761	27.4	2.3
11 Turkey**	2,595	18.9	1.6

\* Includes Hong Kong

\*\* Figures for Turkey are for January 2010

Source: Maritime Trade Directorate

In 2002 and 2003, the EU banned around 50 Turkish cargo ships and oil tankers from entering European ports because of age limits.

Turkey's main shipyards are located at Tuzla and in Yalova, along the Sea of Marmara east of İstanbul, but several also exist along the Aegean and Black Sea Coast and the Mediterranean. The country's naval shipyards are in İstanbul and in Gölcük, along the Sea of Marmara, east of İstanbul. Many of the Turkish shipyards have drydocks to carry out repairwork for Turkish and foreign vessels. The shipyards as of January 2010 employed 8,000 persons, down from a record 33,480 in August 2008, when the global recession hit the country.

The nation had 65 shipyards as of December 2009, and 60 new shipyards were under construction, mainly in Yalova, the Turkish. Shipbuilding and Shipyards Administration reported. The country also had 21 shipbreaking centers in Aliğa, a steel manufacturing center on the Aegean coast.

## HISTORY

For more than five centuries Turkey's main shipyards were located in cramped quarters on a narrow, twisting İstanbul inlet called the Golden Horn, where ships were built in tiny alleys, hemmed in on two sides by office and apartment buildings and slum dwellings. Such small work places inhibited the growth of the shipbuilding industry in Turkey.

Turkey's main private civilian shipyards moved to Tuzla, 25 km east of İstanbul, in the early 1980s, under a plan to bolster shipbuilding and cleanup the polluted inlet. But the naval and state shipyards, including the Haliç Shipyard and the 500-year-old Camialtı Shipyard, are still located in the Golden Horn.

Overcrowding of the Golden Horn starting in the 1950s, caused by rapid industrialization and the massive migration of rural peasantry to the city, reduced the effectiveness of the shipyards. In the past, a Turkish shipbuilder could fill orders only for small tonnage vessels, employ a handful of persons and work on one ship at a time.

Now, in Tuzla, each shipyard has space to build several ships simultaneously. The tonnage of the ships ordered have increased several-fold. The shipyards in Tuzla turn out small and medium-sized container ships, chemical tankers, naval vessels, and megayachts. RMK Marine, one of the biggest shipbuilders of Turkey, in 2009 launched a 153.6-meter long multi-purpose sea construction ship for Norway's Sawicon company.

But even the Tuzla Shipyards are now overcrowded, forcing the emergence of new sites, such as Yalova, further southeast, for shipbuilding.

The industry in 2009 received firm orders for 161 ships for a total 1.510 DWT, down from 260 ships with a total 4.340 million the Chamber of Shipping reported. In 2002, 20 ships were exported. Turkish-built ships went to Germany, Italy, Spain, Turkmenistan, Holland, the Caymen Islands and Denmark.

Turkey earned \$1.114 billion million from exports of commercial ships and yachts in 2010, while paying \$1.040 billion for imports in 2010. The country had a record \$2.646 billion in exports of commercial ships and yachts in 2008. The nation had only \$64.8 million in exports of ships and yachts in 1990.





TOBB Plaza, Harman Sokak No: 10 Kat: 5  
Esentepe - Şişli 34394 İstanbul - TURKEY

Phone: (90) (212) 339 50 00 (pbx)  
(90) (212) 270 41 90 (pbx)  
Fax: (90) (212) 270 35 92  
E-mail: [info@deik.org.tr](mailto:info@deik.org.tr)  
Web: [www.deik.org.tr](http://www.deik.org.tr)  
[www.turkey-now.org](http://www.turkey-now.org)



REPUBLIC OF TURKEY PRIME MINISTRY  
INVESTMENT SUPPORT AND  
PROMOTION AGENCY OF TURKEY



**invest.gov.tr**

**ANKARA (Headquarters):**

Kavaklıdere Mahallesi Akay Caddesi No: 5  
Çankaya 06640 TURKEY  
Phone: (90) (312) 413 89 00  
Fax: (90) (312) 413 89 01

**İSTANBUL:**

Dünya Ticaret Merkezi A1 Blok Kat: 8  
No: 296 - 297 Yeşilköy 34149 TURKEY  
Phone: (90) (212) 468 69 00  
Fax: (90) (212) 465 72 72