TURKEY BRIEF:

Turkish - U.S. Relations

DIŞ EKONOMİK İLİŞKİLER KURULU
DEİK FOREIGN ECONOMIC RELATIONS BOARD
TÜRK - AMERİKAN İŞ KONSEYİ
TAİK TURKISH - AMERICAN BUSINESS COUNCIL

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In the era of globalization, an irreversible fact of today, the volume of international trade and investment has been augmenting rapidly. Given this fact, new actors have shown up to be more effective in the global economy, the process of trade liberalization has initiated and the total world trade has increased 11 fold in the past 15 years.

In this context, it is explicitly observed that the shares of low and middle-income countries in global trade have increased; former eastern block countries and new Asian exporter countries such as China, South Korea, Hong Kong and India have joined the permanent exporters like Western countries and Japan. In line with this trend, share of Turkey in global trade has been increasing as well, despite the new challenges posed by increasing global competition.

In addition to developments in trade, Turkey has also been rapidly integrating into the global economy and has become an appealing country for investment in the process of integration into the European Union. 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).

Turkey has the most dynamic and most integrated private sector of the Balkans, Middle East, South Africa and Central Asia. Therefore, it is seen as a leader and taken as an economic model in these regions. Turkey's foreign trade increased 56-fold in the past 28 years from a mere $7 billion in 1979 to an estimated $332.9 billion in 2008, according to the Turkish Statistics Institute. Exports have risen from about $2 billion to $131.5 billion in 2008. Imports have increased from $5 billion to $201.4 billion in 2008.

Moreover, Turkey, as the biggest economy of Eastern Europe and Middle East has become 17th biggest economy of the world while 7th biggest economy of Europe. Turkey will achieve more successes hereafter.

Previously considered as a flank country, Turkey now stands as a central country in the zone on which the world intensively focuses. This unique position ascribes another aspect to Turkey and it increases the need for leader institutions to enable Turkey's integration to the world. Acting upon this consciousness, Union of Chambers and Commodity Exchanges of Turkey (TOBB takes part in every regional and international activity which will promote Turkey's relations. Accordingly, TOBB has undertaken various tasks in Eurochambers, International Chamber of Commerce (ICC), Islamic Chamber of Commerce and Industry, World Chambers Federation (WCF), Economic Cooperation Organization (ECO), Association of Balkan Chambers (ABC), Association of the Black Sea Zone Chambers of Commerce and Industry and the Business and Industry Advisory Committee (BIAC) which represents business world of OECD countries.

In cooperation with TOBB, Foreign Economic Relations Board of Turkey (DEİK) is a major organization that has undertaken the mission of pioneering the Turkish business world in its foreign relations. Having been restructured, DEİK whose founder institutions represent the whole Turkish private sector will continue to contribute improving Turkey's commercial and investment relations by a higher acceleration. DEİK has defined a new mission and vision in parallel to its new structure. Having completed the processes of foundation and enlargement, DEİK will now enrich and deepen its activities in order to increase present share of our industry in global market. Moreover it will introduce new services to Turkish business world, especially to Small and Medium Size Enterprises (SME) and will reach to unattainable geographies such as Latin America and Sub-Saharan Africa.

Turkey and the US relations based on a successful strategic partnership, has traditionally been dependent on military and political collaboration. Turkish private sector believes that it is important at this stage to extend this dimension to bilateral trade and investment. The improvement of trade relations enables development of relations in other areas as well. Therefore as the representatives of Turkish private sector, TOBB and DEİK put a lot of emphasis on the development of bilateral trade relations.

Turkey's share in U.S. trade is only 1.98 per thousand in American imports of $2.166 trillion in 2008. Turkey, as the world's 17th largest economy and 31st largest exporting country, deserves a greater share of the U.S. import market and a bigger expansion of trade. DEİK, as a leading private sector umbrella organization, having undertaken the mission of pioneering the Turkish business world in its international relations, paves the way to improve Turkey's economic, commercial, industrial and financial relations with the US. I hope that this economic report prepared by DEİK will serve this purpose.

M. Rifat Hisarcıklıoğlu
President
TOBB - DEİK

Dear Readers,

DEİK (Foreign Economic Relations Board of Turkey) was founded in 1988 to promote the economic and commercial relations of Turkish business community 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 1980's, Turkey became a prominent actor in international trade as well as an attractive destination for foreign direct investments. In fact, DEİK has earned considerable credit for this achievement as an institution that makes every effort to open the Turkish economy up to the world economy.

In 2008, DEİK was restructured to more effectively conduct and coordinate the foreign economic relations of the Turkish private sector. DEİK's ability to carry out its mandate has been strengthened with a new legal status, new founding institutions and new financial structure in place.

In the light of this restructuring process, the numbers of DEİK "Founding Institutions", operating throughout Turkey, has increased from 9 to 27, with the aim to represent a broader set of business sectors. Furthermore, all Business Councils operating under the umbrella of DEİK have been divided into 10 different regions and a "Coordinator Chairman" has been designated to each region to achieve more effective communication and coordination between the DEİK Board, Directorate and Business Councils. The newly established Board of Auditors monitoring DEİK budget and activities also constitutes one of the pillars of the restructuring process.

In the new era, the foremost priorities of DEİK will be to encourage the manufacturing of value added and highly competitive products and service. It will also be to secure easy access to large and diversified foreign markets, as well as to support Turkish firms in establishing and strengthening their brands, abroad. Furthermore, DEİK also makes an active effort to promote business opportunities in Turkey and to attract high-tech foreign investments.

Besides rendering the activities of DEİK Directorate and Core Administration more efficient, efforts continue to increase the number and broaden the sector spectrum of bilateral business councils. As a result, as of May 2009, the number of the business councils reached to 82. In this regard, Turkish companies which have international business activities can apply for DEİK membership and join the relevant business councils.

I hope DEİK / Turkish-U.S. Business Council's brief report on Turkish - U.S. relations will be instrumental in raising interest and awareness among readers and make a possitive effect on Turkish-U.S. bilateral relations.

Rona Yırcalı
Chairman of the Executive Board
DEİK

Dear Readers,

Turkey took its first steps toward becoming a part of the international economic community in the mid 1990s, when it joined the World Trade Organisation in 1995, and then entered into a Customs Union with the European Union in the following year. Albeit not immediate, and punctuated as it was by a major economic crisis in 2001, Turkey has been undergoing a significant transformation - politically, economically, and socially - ever since.

Sure, the crisis of 2001 was a terrible blow to the economy, but every cloud has a silver lining, because it led to an acceleration in Turkey's quest to become more competitive by creating an environment where previously unpopular reforms were carried out as the only way out. So, when the global economic crisis came knocking, we were prepared.

After 2001, strict adherence to an IMF programme brought unprecedented fiscal discipline to Turkey, which led to easier borrowing, and lower interest rates. The Central Bank was restructured into an independent entity, and a banking oversights body was set up to monitor the sector. Lower interest rates and stable foreign exchange rates, coupled with continuous growth, allowed companies to plan much further ahead, which, in the 1990's, would have been unthinkable.

This long-term perspective towards doing business in Turkey, both by local and foreign investors, finally ended Turkish economy's fragility towards short-term cycles. Average GDP growth over the past seven years has been close to 6%. Since 2002, the country's GDP has almost tripled from 3,300 USD per capita to nearly 10,000 USD in 2008.

Recently, there has been an increase in consumers' spending power, and exports, which have shown an annual increase of 25%, also started covering some of the most dynamic elements of the country's economy. More than 80% of Turkey's exports are comprised of industrial goods and approximately 60% of the country's exports are sent to the most developed and competitive markets in the world, such as the EU and the US.

Since Turkey's fundamentals are strong, investors, optimistic in the long-run, tend to disregard short term ups and downs. The current economic quagmire we are all going through has affected us all: that is a fact. But Turkey, having lived through its own devastating financial crisis at the turn of the century, is all the more resilient to external shocks.

For example: A global liquidity crisis similar to the one we have now took place in 2004, and May-June of 2006 due to increasing interest rates around the world. In spite of these tough conditions, the Turkish economy not only survived, but also became more powerful. Through it all, Turkey saw growth, the generation of new jobs, and increases in FDI, and in external trade.

It is true that the current global economic outlook is far from rosy. But Turkey still attracts investment, privatisation is on track, and efforts are underway to register more of the informal sector. More work is, of course, necessary - that's natural for a developing country such as Turkey. But the country remains a solid investment environment.

And in this regard, we are, once again, looking at our friends in the United States. Characterized for long as a security-dominated relationship, Turkish-American partnership has diversified over the last decade, and trade and investment volumes have been on the rise. President Obama's remarks during his historic visit to Turkey also provide further basis for renewed efforts to develop our bilateral trade and investment. One-third of the American firms doing business in Turkey started their economic activities after 2003. In recent years, companies like GE, Citibank and Cisco have shown their confidence in Turkey and have become partners with Turkish companies. Ford, Pfizer, Microsoft, Texas-Pacific Group, Procter and Gamble, Altria and HP are further examples of a vast number of U.S. corporations that operate in Turkey. But there's still a long way to go before we can say economic relations between our two countries are at their desired level.

The Turkish-American Business Council's (TAİK) primary objective is to help increase the volume of trade between Turkey and the United States. It is also our aim to be the main source of information and networking on bilateral business issues for both Turkish and U.S. companies and to assist U.S. companies in reaching Turkey as a key partner and destination for direct investments in the region.

Dear Readers,

Turkey is a hub. And that is the strongest message of this brief. Turkey is where continents meet, Turkey is where peoples meet. And now, Turkey is on the brink:

- We are on the brink of becoming a trillion dollar economy.
- We are attracting foreign investment.
- We are fully committed to the European Union, and all the reforms that we have to carry out to achieve that goal.
- We are a dynamic country moving forward, looking toward the future.
- Ours is an economy that is constantly changing with the world. Becoming something bigger. Something better.

In a world that is talking more and more about change, Turkey is the very definition of that word.

Yours sincerely,

Haluk Dinçer
Chairman
Turkish-American Business Council (TAİK) of DEİK

I. COUNTRY PROFILE: INTRODUCING TURKEY

1.1 HISTORY, GEOGRAPHY, POPULATION AND ECONOMIC DEVELOPMENTS

Turkey, strategically located in the Eurasian region, is a dynamic country with a robust economy and a young population, often described as the "China of Europe."

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 mountainous nation 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.

Conservative Sunni Muslims make up the large majority of the country's Muslim population. But about a sixth of Turkey's population is Alevi, an Anatolian offshoot of the Shiite branch of Islam.

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 passage 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 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 11th 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 more than one million men under arms. It is a member of the United Nations, the Organization for Economic Cooperation and Development and other international bodies.

THE FARMING NATION

Turkey 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 arid the Middle East.

The country is endowed with rich mineral resources. It is the world's largest producer and exporter of chromites, meerschaum and boron. 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 PEOPLE

Turkey is a nation of young people. More than half of its population is under the age 25. The country's population has grown from 13.6 million in 1927 to over 75 million in 2009. By the end of 2015, Turkey is expected to have 81.65 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 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 70% of Turkey's population lives in cities today, compared to only 25% in 1950. By the year 2015, 75% of Turkey's projected 81.65 million will be living in urban areas. Some 17.8% of Turkey's population already lives in İstanbul - a nightmare scenario for the city's urban planners.

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, trade and criminal codes adopted from Switzerland, Italy and Germany.

In 1925, the fez and the turban, symbols of Islamic backwardness, 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, 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. But growth 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 have 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.

In the past three decades, Turkish leaders have adopted free market policies designed to integrate Turkey with the world economy. Under the late President Turgut Özal and his successors, the government encouraged Turkish companies to do business abroad.

In 2008, Turkey exported motor vehicles and automotive parts and components to more than 187 countries and autonomous regions and 14 free zones on five continents.

Exports of textiles and apparel, iron and steel, chemical products, electrical appliances, color television sets, textiles and textile raw materials, nonferrous metals, mineral products, grains, pulses, oil seeds, cement, ceramic tiles and sanitary ware and jewelry, have also 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 56-fold in the past 28 years from a mere $7 billion in 1979 to an estimated $332.9 billion in 2008, according to the Turkish Statistics Institute. (TUİK). Exports have risen from about $2 billion to $131.5 billion in 2008. Imports have ballooned from $5 billion to $201.4 billion in 2008.

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 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 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).

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 12.930 million Turks were living under the poverty line, according to the Turkish Statistical Institute (TUİK).

The country in 2008 had a current account deficit of $41.416 billion; about 5.5% of the Gross National Product (GNP), a figure most economic analysts say can't be sustained. *"The external current account position is Turkey's Achilles' Heel,"* Lorenzo Georgianni, mission chief for Turkey of the **International Monetary Fund**, told an **IMF** meeting in Washington D.C.

At the end of February 2009, Turkey's unemployment rate stood at 16.1%, the highest in the 76-year history of the republic and the second largest percentage of jobless in Europe after Spain and third among 50 biggest economies of the world, as the impact of the global recession began to be felt throughout the country. 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, chairwoman of **Sabancı Holding**, one of Turkey's biggest industrial and trade conglomerates, told a news conference in İstanbul on April 17 2009 *"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 foreign debts stood at $276.8 billion at the end of 2008 -- and $185.1 billion of this stemmed from the private sector, the Undersecretariat of the Treasury reported. Central government domestic debt was $241.528 billion at the end of 2008.

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 48% of its exports went to the European Union and about 37% of its imports came from the 27 members of the Union in 2008.

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 State Ministry for EU Affairs and the appointment of Egemen Bağış, a close associate of Prime Minister Recep Tayyip Erdoğan, as chief negotiator and minister.

"It is understood that the Turkish government will take European Union affairs more seriously," according to a brief on the state of negotiations prepared **Bahçeşehir University** in March 2009 Turkey began negotiations on 10 of 35 chapters, or policy areas, but only concluded one -- science and research -- in June 2006. The other chapters, including enterprise and industrial policy, financial control, statistics, consumer and health protection, and Trans European networks opened in 2007, but may take years to complete.

By the beginning of 2009, Turkey had only two chapters to open in the next few months - social policy and taxation.

Turkey has submitted position papers on the chapters of education and culture, and economic and monetary policy, and EU positions were awaited.

The nation must complete reforms for negotiations to begin in 10 other chapters: public procurement, competition policy, social policy and employment, intellectual property law, food safety and veterinary and phytosanitary (plant health) policy, company law and the environment.

Screening reports are awaited on the other chapters.

Eight chapters have been blocked since the end of 2006 because of Turkey's refusal to open its ports and airports to ships and aircraft of EU member Greek Cyprus. These are: free movement of goods, right of establishment and freedom to provide services, financial services, agriculture and rural development, fisheries, transportation, customs union and external relations.

Turkey in return demanded that the Greek Cypriots open it ports to Turkish Cypriot ships and airplanes and urged the Union to end its 34-year embargo against the Turkish Republic of Northern Cyprus, the Turkish Cypriot ministate in the northern two-fifths of the divided Mediterranean island. Turkey refuses to recognize the Greek 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. The upheaval aimed at uniting the island with Greece.

"A likely solution in Cyprus can break the negotiation deadlock," the **Bahçeşehir University** brief, written by EU Department Head Cengiz Aktar and Research Assistant Barış Gencer Baykan, said.

Despite the obstacles, the European Union in 2007 provided ¤ 497 million in aid to Turkey in the form of grants, and this figure is expected to increase incrementally each year until reaching ¤ 653.7 million in 2010. But large-scale EU funding for Turkey's huge agricultural sector and underdeveloped eastern parts of the country aren't forthcoming until Turkey itself carries out massive rural reforms.

Nevertheless, the **European Investment Bank** provided ¤ 8.3 billion in loans to Turkey from 2004 to 2008, including financing of a natural gas pipeline from Turkey to Greece to carry energy supplies from the Caspian region to Western Europe. Matthias Kollatz-Ahnen, vice chairman of the bank, said the financial institution would provide over ¤ 1.2 billion in credits to small and mid-scale Turkish companies in 2009.

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 EU. 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. TURKEY-U.S. ECONOMIC RELATIONS

2.1 LEGAL FRAMEWORK

The U.S. and Turkey have had a Joint Economic Commission and a Trade and Investment Framework Agreement for several years. In 2002, the two countries indicated their joint intent to upgrade bilateral economic relations by launching an Economic Partnership Commission.

BILATERAL AGREEMENTS AND INITIATIVES

1929	Agreement on Trade and Navigation
1980	Agreement on Defense and Economic Cooperation
1985	Agreement on Reciprocal Encouragement and Protection of Investments (BIT) (Entered into force in May 1990)
1991	Main Donation Agreement
1994	Agreement on Science and Technical Cooperation
1995	MOU on Agricultural Cooperation
	Global Learning and Observations to Benefit the Environment Agreement
1996	Agreement on Avoidance of Double Taxation
	Customs Operation Agreement
	MOU on establishing the Turkey-U.S. Business Development Council
	Joint Communiqué on Turkey-U.S. Joint Economic Commission
1998	MOU on Establishing Commercial Consultations Mechanism between Turkey and the U.S.
	Council on Trade and Investment (TIFA) (Other meetings held in 2001, 2002 and 2003)
1999	Agreement Concerning the Development of Trade and Investment Relations
	Cooperation Agreement for the Peaceful Use of Nuclear Energy
	Joint Statement for Bilateral Cooperation with respect to the Successful Financing and Development of Irrigation Projects
	Agreement on the Activity of Alpha Station in Turkey and the Transfer of Management Rights from the U.S. Military Offices to Boğaziçi University's Kandilli Observatory and Earthquake Research Institute.
	Protocol of Intentions between the Federal Emergency Management Agency and the Ministry of Public Works and Settlement General Directorate of Disaster Affairs of the Republic of Turkey on Cooperation in Natural and Man-made Technological Emergency Prevention and Response
2001	Technical Assistance to Promote Trade, Anti-corruption Measures and for Other Purposes
2002	Economic Partnership Commission (EPC) (Other meetings held in 2003 and 2007)
	Business Partnership Initiative Project
	The Customs Mutual Assistance Agreement
2006	MOU on Strengthening of Turkey-US Business Partnership
	Agreement on Shared Vision and Structured Dialogue to Advance the Turkish-American Str Strategic Partnership

Source: U.S. Embassy, Undersecretariat of Foreign Trade

2.2 ORGANIZATIONS IN TURKEY

Turkey and the United States hold consultations on commercial and economic matters. Within this framework, the main platforms include the following:

- **Joint Economic Commission (1996):** Based on an agreement dated 1996, this commission meets once a year in Turkey and the U.S. alternately. The last meeting was held in 2000.
- **Council on Trade and Investment (1999):** This Council, which is based on the Trade and Investment Framework Agreement (TIFA) of September 1999, aims at opening a permanent dialogue and a negotiation forum on agricultural and industrial standards, intellectual property rights, customs procedures, services, investment, and other basic issues of trade. The sixth and last meeting was held in Ankara on January 13, 2009.
- **Economic Partnership Commission (2002):** The convening of the Economic Partnership Commission in February 2002 in Ankara was the first initiative to upgrade economic relations to the level of close strategic alliance. The second meeting was held in 2003 and the third in 2007. The fourth was held in Washington D.C., April 16-17, 2008.
- **Business Partnership Initiative (2002):** This is an initiative proposed by the U.S. Chamber of Commerce and carried out under the leadership of the Turkish Union of Chambers and Exchanges (TOBB), the Foreign Economic Relations Board, and the Turkish-American Business Council. In the first meeting, held in April 2002, it was resolved that small- and medium-sized enterprises (SME) in both countries would start a dialogue over the Internet.
- **Turkish-American Business Council (TAİK) and American-Turkish Council (ATC):** These two business associations are dedicated to enhancing the promotion of US-Turkish commercial, defense, technology and cultural relations. The annual conferences of TAİK and ATC create an opportunity for member companies to exchange views on economic and political issues introduced by experts. These joint conferences in Washington attract hundreds of business people as well as high-level government representatives from both countries addressing key issues in various sectors.
- **Turkish - American Business Association - TABA / AMCHAM TURKEY:** The Turkish - American Business Association (TABA) was founded in 1987 as a non-profit organization, with its head office in İstanbul and five branches in Turkey. It has over 650 members. As the representative of the American Chamber of Commerce in Turkey, its goal is to enhance trade relations between the USA and Turkey, encourage American investments into the country and assist its members by connecting them with potential strategic partners. It also helps solve trade-related issues and contributes to Turkey's promotion abroad. TABA/AmCham is a member of the Chamber of Commerce of the USA (COCUSA), member of the European Council of American Chambers of Commerce.
- **ABFT (American Business Forum in Turkey) (2004):** As an affiliate of the U.S. Chamber of Commerce, the ABFT represents approximately 70 American firms operating in Turkey. In the three years since its establishment, ABFT has held a variety of events, hosted numerous U.S. and Turkish government officials and conducted research on behalf of its members and to develop the bilateral commercial relationship.

2.3 MAJOR BUSINESS ACTIVITIES IN 2008 AND 2009

- January 2008: The **Turkish-American Clean Energy Technologies Conference** was held in İstanbul, covering a wide range of issues, including cooperation in clean coal, hydroelectric power, wind and solar energy, and bio-fuels and nuclear energy. The conference was sponsored by the U.S. **Department of Energy** and the Turkish **Ministry of Energy and Natural Resources (MENR)** and organized by the **ATC, TAİK of DEİK (Turkey's Foreign Economic Relations Board)**, and the **Turkish Scientific Technological Research Organization (TÜBİTAK).**

- March 2008: The **Annual Investment Conference** was held in New York City. Under the title "**Turkey: Beyond 2008**" the conference aimed at focusing on the future of Turkey as an investment site. **DEİK/TAİK** organized the conference, sponsored by **GE Money** and **Garanti Securities.**

- April 13-16, 2008: The **American-Turkish Council (ATC), the American Friends of Turkey (AFOT), and Turkish-American Business Council (TAİK)** held their **annual joint conference** in Washington, D.C. Business council chairmen Chairman Ferit F. Şahenk and General Brent Scowcroft opened the meeting with speeches, followed by talks by Lockheed Martin Chief Executive Officer Robert Stevens and Turkish State Minister for the Econmy Mehmet Şimşek. State Minister for Foreign Trade Kürşad Tüzmen, U.S. Secretary of State Condoleezza Rice also addressed the conference. Panel discussions were held on the issues of defense and security, commercial ties, agriculture and food, healthcare, European Union affairs, research and development, information and communication technology, construction, banking and finance.

- April 16, 2008: A new meeting of **the Turkey-United States Economic Partnership Commission (EPC)** was held in Washington, D.C. Sixty persons participated, including **State Department** and **Turkish Embassy** officials. The meeting was hosted by the **Business Council of International Understanding.** Alpaslan Korkmaz, chairman of the Investment Support and Promotion Agency of Turkey, gave a talk on foreign investment success stories in Turley since 2001 and described investment opportunities in the country.

- September 16, 2008: **DEİK/Turkish - American Region Business Councils General Assembly Meeting.** Haluk Dinçer, President of the Retailing Group of **Hacı Ömer Sabancı Holding**, was elected the new chairman of the Turkish-American Business Council.

- October 10, 2008: American Turkish Council Director James Holmes and DEİK/TAİK's Energy and Infrastructure Committee members hold meeting in Ankara on potential U.S.-Turkish cooperation in drinking water, sewage, electricity, transport, health and education projects in Iraq with the government in Baghdad.

- October 22, 2008: **DEİK/TAİK** and the **U.S. Consulate General** in İstanbul hold the joint "**Invest in America**" seminar in İstanbul.

- November 7, 2008: **DEİK/TAİK** gave a farewell dinner to departing U.S. Ambassador Ross Wilson.

- November 13-14, 2008: **DEİK/TAİK** took part in and provided support for the **İzmir Space and Aviation Conference.**

- November 14,2008: **DEİK/TAİK** held a work dinner with the visiting delegation of the **St. Lawrence Seaway Development Corporation.**
- November 17-19, 2008: **DEİK/TAİK** sponsored the **"Beyond Babylon: Art, Trade and Diplomacy in the 2nd Millenium B.C." exhibition** at the Metropolitan Museum of Arts in New York City. Some 400 artifacts went on display. At the opening of the exhibition, Project Curator Joan Aruz, TAİK Chairman Haluk Dinçer and Metropolitan Museum Director Philippe de Montebello gave opening speeches. A dinner was given for top businessmen and key individuals for art circles. On the evening of November 19, Texas A.M. University Professor Cemal Pulak, one of the world's most renowned underwater archaeologists, gave a seminar. Some 98 articfacts from the Uluburun Wreck, the world's oldest known shipwreck, went on display as well as 42 objects from different Turkish museums. The exhibition continued until March 15, 2008.
- November 19, 2008: **DEİK/TAİK** gave a briefing in İstanbul on the "**Turkish economy in the environment of the global crisis**" to a delegation hosted by the **German Marshall Fund.**
- November 25, 2008: **DEİK/TAİK** hosted a luncheonin honor of Ekrem Keskin, secretary general of the **Banks Association of Turkey.** January 23, 2009: **DEİK/TAİK** gave luncheon in İstanbul in honor of James Jeffrey, the newly appointed U.S. Ambassador **to Turkey.**
- February 19, 2009: "**DEİK/TAİK** and the U.S. Law firm **Arent Fox** organized a meeting in İstanbul on "**U.S. President Barack Obama's Trade Policies**" with 70 participants.
- February 20, 2009: **DEİK/TAİK** gave a reception at the **Metropolitan Museum** in New York City in honor of Nabi Şensoy, Turkey's Ambassador to the U.S.
- February 23, 2009: **DEİK/TAİK** hosted a reception for a delegation from the **University of Michigan Ross School of Business.**
- February 25, 2009: **DEİK/TAİK** gave a luncheon in İstanbul in honor of Turkish Foreign Minister Ali Babacan.
- March 15, 2009: **DEİK/TAİK** gave a briefing in İstanbul for 20 members of 12 U.S. environmental organizations attending the **5th World Water Forum**.
- March 19, 2009: DEİK holds meeting in İstanbul with the "**Turkish Coalition of America**".

BILATERAL TRADE AND INVESTMENTS

The U.S. is Turkey's seventh largest export market and the fifth biggest import market. The U.S. market represented only 3.3% of Turkey's exports and only 5.9% of its imports in 2008, according to the Undersecretariat of Foreign Trade (DTM). Turkey's share in U.S. trade is trivial, with 1.98 per thousand in American imports of $2.166 trillion in 2008. Business leaders say that Turkey, which ranks as the world's 17th largest economy and 31st largest exporting country, deserves a greater share of the U.S. import market and a bigger expansion of trade.

"Turkish-American economic ties in the past have been defense-based. As strategic partners, we have to enter other areas of business activity," Ali Koç, President of the corporate communications and information technologies group of **Koç Holding,** Turkey's biggest private conglomerate, told the Turkish-American Clean Energy Technologies Conference in İstanbul in January 2008.

Over the past four years, U.S. companies have been rushing headlong to acquire shares in Turkish banks, energy companies, brokerage houses, medical services and franchising to capture a greater share of Turkey's booming economy. In 2008, U.S. companies carried out $848 million in foreign direct investment (FDI), 5.87% of all the foreign investment that entered the country last year, DTM reported. A total of 929 American companies had invested over $10 billion in the Turkish economy since 1954, when the nation allowed foreign investors to enter the country for the first time. Major examples of American investment in Turkey in 2007-2009 included:

- In January 2007, **Citibank Overseas Investment Corp** acquired a 20% stake in **Akbank,** Turkey's second biggest private bank, from **Sabancı Holding** for $3.1 billion. Citibank in December also acquired **Opus Securities** from the Büyükhanlı family for an undisclosed sum.
- A unit of **General Electric Co.** will invest at least $3 billion to build power plants in Turkey and the Middle East with its Turkish partner **Gama Holding** after buying a stake in **Gama's energy company** in December 2007 for an undisclosed sum.
- Specialist retailer **Best Buy** announced in May 2009 that it would open three consumer electronics supermarkets in the cities of Ankara, İzmir and Bursa in the first quarter of 2010, and was examining opening up 73 other stores in different parts of the country.
- The **Krea Group**, the local operating partner of **Merrill Lynch Global Principal Investments,** developed a shopping mall in Eskişehir, in northwest Anatolia, and is investing in three other shopping centers in Turkey, including two in İstanbul and one in the city of Adapazarı. **Merrill Lynch** acquired the **Neo Shopping Center** in Eskişehir in February 2007 for $94.5 million.
- **Citigroup Venture Capital International** in May 2007 acquired a 50% stake in fashion house **Beymen** for $145 million and a 30.05% share in department stores operator **Boyner Büyük Mağazacılık** for $48 million from the **Boyner Group**.
- **Colony Capital LL.G** in April 2007 bought a 50% share in Turkish entertainment venture **Mars Entertainment Group** for $44.9 million.
- The U.S. **Templeton Strategic Emerging Market Fund** in May 2007 acquired a 10.34% stake in processed food manufacturer **Tat Konservecilik** for $17.8 million.
- Leveraged buyout specialist **Kohlberg Kravis Roberts & Co. (KKR)** bought a 97.6% interest in roll-on-roll-off transport ships' operator UN Ro-Ro for $1.284 billion.
- **Seef Foods** in November 2008 acquired a 39% stake in Turkish processed food manufacturer Ana Gıda for an undisclosed sum.
- The U.S. **Carlyle Group** in July 2008 purchased a 50% share in **TVK Gemi Yapım Servisi,** a shipbuilding company.

- The **Trump Organization** a U.S. real estate development group, is constructing the twin **Trump Towers Istanbul** in partnership with Turkey's **Doğan Group** and **Taş Yapı**. The mixed use buildings will have as a shopping center, business offices and residential flats.

The Turkish - U.S. partnership, which has been characterized as a security-dominated relationship, has diversified and trade and investment volumes increased over the last decade. One-third of the American firms doing business in Turkey started their economic activities after 2003. In this framework, Turkey declared 2006 as "Trade year with USA", planning to highlight the economic dimension of the relations by the new commercial initiatives. The U.S. provided a $400,000 loan to the **Union of Chambers and Commodity Exchanges of Turkey** for enhancing the cooperation between small and medium sized enterprises of the two countries. The **Council of American Investment and Trade** meeting and **Economic Partnership Commission** meeting, which could not be gathered over the three years, were held in 2006 and 2007, and 2008 respectively. The Council of American Trade and Investment also met in Ankara in 2009.

The Turkey-U.S. trade volume in the year 2000 was $7 billion. In 2008, this figure reached $16.261 billion. Yet the pace of growth in Turkey's trade with the U.S. has been much slower than the growth of its commercial ties with many European Union nations, Russia and China. Furthermore the trade has been lopsided with U.S. exports to Turkey nearly four times the amount of Turkey's exports to the U.S. This necessitates new initiatives to expand Turkish exports so that trade between the two nations is more balanced.

In 2008, Turkish exports to the U.S. increased only 2.9% to $4.290 billion from $4,171 billion in 2007, while imports spiraled upward 46.6% to $11.971 billion from $8.166 billion in 2007. Experts cited the U.S. mortgage crisis and the weak U.S. dollar/strong Turkish lira as the principal reasons for the flat growth in Turkish exports and meteoric rise in U.S. foreign sales. Particularly hard hit were exports of ready-wear and textiles, which has been in a steady decline during the past five years. Exports of natural stones and ceramics, jewelry, and tobacco also declined. Ready-wear and textile exports of Turkey to the U.S. fell from $1.8 billion in 2004 to $883 million in 2008.

In face of increasing competition from low-cost Chinese textiles flooding international markets, more than 50 Turkish textile companies have invested in manufacturing operations abroad. The companies are seeking to benefit from low labor and energy costs, maintain their markets in the U.S. and the European Union and penetrate new markets, such as Africa and Asia. These companies have invested in Tunisia, Bulgaria, Egypt, Uzbekistan, Jordan, Moldova, China, Russia, Pakistan, Sudan and the Czech Republic and the Gaza Strip.

TURKEY'S TRADE WITH THE UNITED STATES

	Exports		Imports		Trade Volume	
	Turkey's Exports to the U.S. **($ Mn)**	U.S. Share of Turkey's Exports **(%)**	Turkey's Imports from the U.S. **($ Mn)**	U.S. Share of Turkey's Imports **(%)**	Turkey's Volume with the U.S. **($ Mn)**	U.S. Share of Turkey's Volume **(%)**
1985	506	6.4	1,150	10.1	1,656	8.6
1995	1,514	7.0	3,724	10.4	5,238	9.1
1996	1,639	7.1	3,516	8.1	5,155	7.7
1997	2,032	7.7	4,330	8.9	6,362	8.5
1998	2,233	8.3	4,054	8.8	6,287	8.6
1999	2,437	9.2	3,080	7.6	5,517	8.2
2000	3,135	10.8	3,911	7.2	7,046	8.6
2001	3,126	10.0	3,261	7.9	6,373	8.8
2002	3,356	8.5	3,099	6.0	6,279	7.4
2003	3,751	7.0	3,496	5.0	7,246	6.2
2004	4,860	7.6	4,745	4.8	9,517	5.9
2005	4,911	6.6	5,376	5.1	10,192	5.4
2006	4,996	5.9	6,261	4.3	10,916	4.9
2007	4,171	3.9	8,166	4.8	12,229	4.4
2008	4,290	3.3	11,971	5.9	16,261	4.9

Source: Turkish Statistical Institute (TUİK), Undersecretariat of Foreign Trade (DTM)

"I resisted for two years from leaving Turkey, but couldn't resist any longer," Şenol Şenkaya, chairman of Yeşim Tekstil, one of Turkey's biggest ready-wear manufacturers, said. Yeşim invested in a factory in a special industrial zone in Egypt, where labor and energy costs were a fraction of Turkey. Yeşim exports its products to international companies as **Nike, GAP, Banana Republic, Zara,** and **Marks & Spencer.** Another 100 Turkish firms, mainly ready-wear and textile companies, are planning to invest a total $4 billion in a special Turkish industrial zone in Egypt, to export to the U.S., the Egyptian General Authority for Investment and Free Zones (GAFI) said.

Except for the 2002-2004 period, the United States has consistently maintained a trade surplus with Turkey - one of a handful of countries where U.S. exports still exceed imports. This reached $7.691 billion in 2008.

U.S. exports to Turkey draw on a wide range of sectors. America's top ten exports to Turkey are in unequivocally different industrial categories. Leading exports in 2008, included iron and steel; boiler and machinery; mineral fuels and oils; vehicles, aircraft, spacecraft, and parts; organic chemicals and pharmaceuticals; cotton and cotton and optical instruments and medical equipment.

BREAKDOWN OF TURKEY'S IMPORTS FROM THE UNITED STATES, 2006-08

$ Million

	2006	2007	2008
Iron and Steel	785	1,349	2,822
Boilers, Machinery	1,114	1,346	1,533
Mineral Fuels and Oils	276	338	1,432
Vehicles, Aircraft, Spacecraft, and Parts	683	536	965
Organic Chemicals & Pharmaceuticals	737	830	962
Chemicals & Plastics and Articles thereof	420	448	724
Cotton	532	819	620
Optical Instruments & Medical equipment	500	548	619
Food, Oilseeds & Vegetable Oils	230	342	571
Paper Products	210	301	347
Turkey's Total Imports from the U.S.	6,261	8,166	11,971

Source: Undersecretairat of Foreign Trade

In contrast, the export profile of Turkey to the U.S. consists of a limited variety of sectors and products, hindering a meaningful increase in the trade volume. The commodity breakdown of trade between the two countries shows that the United States penetrates the Turkish market with a far greater range of goods than that with which Turkey is able to tap the American market.

BREAKDOWN OF TURKEY'S EXPORTS
TO THE UNITED STATES, 2006-08
$ Million

	2006	2007	2008
Textile & Ready-waerl	1,332	1,151	883
Iron and Steel	925	322	785
Boilers, Machinery	331	395	437
Petroleum Oils and Gases	383	317	422
Processed Natural Stones & Ceramics	448	437	354
Vehicles, Aircraft, Spacecraft, and Parts	449	296	326
Food	230	256	260
Jewelry	298	324	193
Copper Products	97	107	102
Tobacco	139	172	97
Turkey's Total Exports to the U.S.	5,601	4,171	4,290

Source: Turkish Statistics Institute, TİM

Turkey's exports to the United States are limited largely to textiles and apparels, which constituted some 20.6% of Turkish exports to America in 2007, compared to 45% in 2004. This decrease, which was mainly attributable to the developments in the post quota period, was compensated to some degree by the increase in sales of iron and steel, petroleum oils and gases to the U.S. Textile and ready-wear exports are followed by iron and steel export revenues.

As Turkey has set an export target of $500 billion for the year 2023, the 100th anniversary of the Turkish Republic, the US economy remains a key market for its products, despite the geographic distance involved and tough competition its companies face. Failure of Turkish companies to draw up log-term strategies led to economic relations falling behind desired levels. Moreover, for a long time only textile and ready-made clothing industries saw the US market as an export destination. Only recently have industries like ceramics, iron and steel, natural stone processing or jewelry been approaching the US market. During 2006 - 2008, Turkish business strategy was focused on increasing exports on a state-based and sector-focused strategy, involving organized special activities in the six target states (New York, Texas, California, Illinois, Georgia and Florida).

ENHANCING TRADE VOLUMES

Below is a quotation from a Turkish business leader on Turkish-American trade:

Rifat Hisarcıklıoğlu, TOBB-DEİK President: Delivering a speech at the Memorandum of Understanding signing ceremony, Rifat Hisarcıklıoğlu said "The trade volume between Turkey and the U.S. was merely $10 billion as of 2005, while that between Turkey and the EU was $ 87 billion. Turkey's foreign trade volume with the EU grew by 129%, while the increase in the trade volume between Turkey and the U.S. remained at 43%. TOBB, as the roof structure of the Turkish business world, is not pleased with the current trade volume between Turkey and the U.S. Therefore, we attach great significance to enlarging the trade volume between the two countries."

On another occasion Mr. Hisarcıklıoğlu said that dialogues between Turkey and the U.S. in political and military fields were satisfactory despite some difficulties in Turkish-U.S. relations and added, "However, we can't make same evaluations for economic and commercial relations. In other words, economic and trade aspect of our relations aren't satisfactory." "Within the business progress project conducted jointly by TOBB and U.S. Chamber of Commerce, the Turkish companies will learn the rules to enter the U.S. market. Our cooperation with U.S. Chamber of Commerce will include third countries. There is serious potential to boost cooperation between our companies in regions such as Middle East, Central Asia, and Black Sea."

2.4 TRADE RELATED ISSUES

Generalized System of Preferences (GSP): Turkey, which, together with Russia, Brazil and India, was among a group of 13 countries that could lose preferential trade benefits granted by the United States under a review conducted 2006, was relieved by the approval of the system by the U.S. Congress in January 2007. The Bush administration's review followed complaints from some in Congress that countries such as Brazil and India, which get duty-free benefits from the United States, had not been helpful in efforts to achieve agreement in the Doha Round of global trade talks.

GSP covers around 20% ($1.060 billion) of Turkey's export to the United States and Turkey wants to continue with this system.

The Qualified Industrial Zones: Turkish textile manufacturers want to establish a series "qualified industrial zones" in the economically backward provinces of southeastern Anatolia, similar to the ones in Egypt and Jordan, to export textiles and apparel to the U.S. without any trade restrictions. They said that the Turkish government had brought up issue of the zones during U.S. President Barack Obama's state visit to Turkey April 6-7. Products manufactured in qualified industrial zones allow for easy entry into the U.S. without quotas and countervailing taxes. In the zones established in Egypt and Jordan, local textile manufacturers can sell their products directly to the U.S. on condition that some of their raw materials and intermediate products come from Israel. Some 20 Turkish textile industrialists, led by men's trousers producer Osman Benzes, chairman of **APS**, have pledged to invest in the proposed zones. Southeast Turkey, where the zones would be established, has been ravaged by 25 years of conflict between Turkish security forces and outlawed PKK. Establishment of the zones would help create tens of thousands of jobs and discourage young dissidents from joining the ranks of the PKK, officials said.

Palestinian Free Industrial Zone (PFIZ): The **Union of Chambers and Commodity Exchanges of Turkey (TOBB)** has recently undertaken the revitalization of Erez Industrial Estate Project in the Gaza strip - now renamed as "Palestinian Free Industrial Zone" (PFIZ). The Turkish companies -especially textile companies, to be operational here would be able to export freely to the USA and the EU. In March 2006, the Chairman of TOBB, held meetings in Washington regarding the future of Enez industrial zone with U.S. Undersecretary of Defense Department Eric Edelman, officials of U.S. State Department and Word Bank officials about the issue. The agreement, which envisages reconstruction of Erez industrial zone and its management by TOBB, was signed in the beginning of 2006. However, the project's future has become uncertain because the United States decided to put sanctions on new Palestinian administration led by Hamas and last year's fighting between Israeli forces and Hamas in the Gaza Strip.

Turkish Industrial Zone in Egypt: President Abdullah Gül laid the foundation for a Turkish industrial zone in Egypt's 6th of October City in mid January 2008, during a state visit to the Middle East nation. The area will include 150 factories for producing textiles, ready to wear clothes, cars, electronics, and flat glass at investments of $4 billion, the Egyptian General Authority for Investment and Free Zones reported. Turkish companies aim to export products to the U.S. from this base without trade limitations. Turkish investments in Egypt stood at $1.2 billion as of the end of 2008. Trade between the two countries stood at over $2 billion in 2008. Turkey targets to bolster two-way trade between the two states to $5 billion by 2011.

DEVELOPING REGIONAL TRADE AND INVESTMENT WITH THE U.S.

Dissatisfied with the low performance of commercial transactions between two countries, Turkey launched the Trade Development Strategy with America in 2006, aiming to reach six states directly. This is an extension of the Trade Development Strategy with Neighboring and Surrounding Countries, initiated in 2000 by the Undersecretariat of Foreign Trade. The strategy, which incorporates 50 countries around Turkey, has yielded very positive results, raising Turkey's trade volume with the concerning countries by 125% during 2000-04.

During the launch of the strategy, the Undersecretary of the Prime Ministry for Foreign Trade Tuncer Kayalar said: *"Our approach will be sector and region specific, creating new and direct markets for our products and also attracting investment into Turkey especially in high technology areas. The new approach targeted initially six states; namely, New York, Illinois, Georgia, Florida, Texas and California. The strategy is not limited to trade. On the contrary improving economic cooperation and encouraging direct investment are the keys for the strategy's success. We believe Turkish companies also have much to offer on this front. Turkey presents a significant opportunity to access other regional markets like*

Africa, the Middle East and Central Asia, where Turkish companies are experienced in operating in difficult business climates. " This strategy involves opening, in addition to New York and Washington, D.C., trade offices in Los Angeles and other cities, holding conferences, conducting a public relations campaign to raise people's awareness of Turkey in the states of Georgia, California, Illinois, New York, Florida and Texas, establishing extensive relationships with local administrations in these states, providing support for Turkish participants in 200 trade exhibitions across the United States as well as organizing 10 Turkish exhibitions in the country. The Undersecretariat of Foreign Trade also plans a trade council trip to California and Florida and smaller scale boutique trade councils to New York and Chicago in 2007.

Turkish and American companies also carry out joint construction projects in a wide geographical region from Afghanistan to Lebanon. Enlarging these partnerships to other sectors will turn these commercial contacts into joint investments. Meanwhile, the U.S. companies and BOTAŞ, the state oil pipeline company, have been conducting discussions to cooperate on the hydrocarbons in Iraq.

III. MAJOR EXPORTS OF TURKEY

3.1 AUTOMOTIVE

MOTOR VEHICLE PRODUCTION TAKES NOSE DIVE AFTER RECORD OUTPUT IN 2008

Turkey's motor vehicle industry, which was one of the fastest growing in the world, went into a tailspin in the first quarter of 2009, because of the recession in the European Union, its main export market. Nearly 80% of Turkey's motor vehicles are exported.

The country in 2008 produced a record-smashing 1,171,917 motor vehicles, including 621,567 automobiles, a three percent increase from the same period in 2007 and more than a fivefold increase from 1990, the **Automotive Manufacturers' Association (OSD)** reported.

Turkey manufactured a total 1,024,987 motor vehicles in 2006, 914,315 motor vehicles in 2005, 430,947 vehicles in 2000 and 209,150 in 1990. It produced only 3,000 vehicles in 1963 - all farm tractors. Today, 14 out of every 1,000 motor vehicles produced in the world are manufactured in Turkey.

But in the first three months of 2009, Turkish motor vehicle output stood at only 145,833 units, a 59% drop from the same period in 2008. Motor vehicle production has been falling since last August. Motor vehicle exports also plunged 56% in January-March 2009 to 121,478 units. Experts say the skid is likely to continue until the fourth quarter of this year when the decline will level off. But it may take several years before full recovery takes place and last year's levels of output are once again reached.

Three major manufacturers have gone out of business in the past two years: commercial vehicles producers Otoyol, Askam and tractor manufacturer Uzel Makine. The global economic meltdown has left hundreds of small size Turkish suppliers in dire financial straits, requiring a restructuring of bank debts.

All major foreign automotive companies have operations in Turkey, including **Ford, Toyota, Mercedes Benz, Hyundai, MAN, Renault and Fiat.** Turkey has 16 large motor vehicle manufacturers. Most of these 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 now domestically designed and manufactured only locally and nowhere else.

TURKISH AUTOMOTIVE PRODUCTION 1990-2009

YEAR	TOTAL VEHICLE PRODUCTION	AUTOMOBILE PRODUCTION
1990	209,150	167,556
1995	282,440	233,412
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	1,024,987	545,682
2007	1,132,932	634,883
2008	1,171,917	621,567
2008*	358,331	187,348
2009*	145,833	91,155

* January-March

Source: Automotive Manufacturer's Association (OSD)

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. A boom in exports has driven production increases.

TURKISH MOTOR VEHICLE PRODUCTION IN 2007-2008 IN UNITS

	2007	2008	% Change
AUTOMOBILES	**634,883**	**621,567**	**-2**
COMMERCIAL VEHICLES	**464,530**	**525,543**	**13**
Midsize Trucks	28,388	28,904	2
Light Trucks	6,156	7,896	28
Pick up Trucks	391,737	449,434	15
Buses	6,945	7,896	8
Minibuses	21,299	21,123	-4
Midibus	9,305	10,660	15
FARM TRACTORS	**33,538**	**24,807**	**-26**
TOTAL MOTOR VEHICLE PRODUCTION	**1,132,951**	**1,171,917**	**3**

Source: Automotive Manufacturers' Association (OSD)

The nation in 2007 ranked seventh biggest motor vehicle manufacturer in Europe and 16th largest in the world, according to the Paris-based International Motor Vehicle Manufacturers' Association (OICA). In Europe, only Germany, France, Spain, England, Russia and Italy manufactured more vehicles than Turkey in 2007.

Turkey is Europe's third biggest producer of light commercial vehicles (LCVs -- pick up trucks and minibuses) after Spain and France, and the largest manufacturer of passenger buses. It was expected to become the largest producer of light commercial vehicles in Europe and move up a couple of scales in car production by 2010 as a result of new massive investments.

A major project in this field is the development of the Minicargo vans by automaker Tofaş. Under this project, the company is spending $410 million to design and produce the commercial vehicles for Fiat, PSA Peugeot and the Citroen Group. It plans to turn out 135,000 commercial vehicles a year for eight years, starting in 2008. Ninety-five percent of production would be exported, one-third to Fiat, one-third to PSA Peugeot and one-third to Citroen.

TURKISH MOTOR VEHICLE EXPORTS 2007-2008 IN UNITS

	2007	2008	% Change
AUTOMOBILES	**504,353**	**525,301**	**4**
COMMERCIAL VEHICLES	**316,017**	**384,969**	**22**
Pick up Trucks	295,585	366,646	24
Minibuses	2,695	851	-67
Trucks	9,398	9,742	4
Midibuses	2,987	2,180	-27
Buses	5,352	5,510	3
FARM TRACTORS	**9,509**	**10,493**	**10**
TOTAL MOTOR VEHICLE PRODUCTION	**829,879**	**920,763**	**11**

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

TURKISH AUTOMOTIVE INDUSTRY EXPORTS 2006-2007 (IN U.S. DOLLARS)

Sector	2007	2008	% Change
Motor Vehicle Exports	**12,782,627,326**	**14,872,403,452**	**16**
Passenger Cars	6,849,650,057	7,495,704,534	9
Buses	1,099,543,073	1,239,947,457	13
Others	4,833,434,196	6,136,751,461	27
Total Side Industry Exports	**6,320,762,302**	**7,016,601,111**	**11**
Spare Parts and Components	5,225,898,830	5,807,139,074	11
Tires and Tire Tubes	895,748,611	976,029,024	9
Batteries	102,269,786	127,902,222	25
Auto Glass	96,845,075	105,530,791	9
Total Automotive Exports	**19,103,389,628**	**21,889,004,563**	**15**

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

Turkey's biggest motor vehicle manufacturer, Ford Otosan, a joint venture between Ford and Turkey's Koç Group, plans to export its Ford Transit LCVs to the U.S. starting in 2009.

The motor vehicle industry is 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 European Union.

The OSD has set a target to double production by 2012 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. 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. It earned a record $21.889 billion in exports in 2008, a 15% jump from 2007, according to the Uludağ Exporters Association, a trade group.

"If someone had told me 15 years ago that we planned to produce 2 million vehicles a year in Turkey, I would have fainted. Now, I believe it is a distinct possibility," Toyota Turkey's Chief Executive Officer Tamer Ünlü, speaking at the First International İstanbul Automotive Congress (Automotivist) in November 2007, said.

DEVELOPMENT IN THE AUTOMOTIVE MARKET, 2001-2008

000 Units

	2001	2002	2003	2004	2005	2006	2007	2008
Production	286	357	562	862	914	1,024	1,132	1,171
Exports	202	262	360	518	561	706	828	920
Sales	195	175	401	754	763	670	641	526
Imports	94	83	223	436	438	384	359	306
Share of Exports, %	71	73	64	60	61	69	73	79

Source: Automotive Manufacturers' Association (OSD)

PROSPECTS FOR THE AUTOMOTIVE AND COMPONENT INDUSTRIES

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.

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 WTO (World Trade Organization).

TURKISH MOTOR VEHICLE PRODUCTION IN 2008 BY COMPANIES (IN UNITS)

Companies	Passenger Cars	Commercial Vehicles	Agricultural Tractors	Total
Oyak-Renault	286,695			286,695
Ford Otosan		268,761		268,761
Tofaş	76,688	190,748		267,436
Toyota	126,521			126,521
Hyundai Assan	81,590			81,590
Honda Turkey	50,073			50,073
Türk Traktor			22,102	22,102
M. Benz Türk		20,800		20,800
Karsan		11,230		11,230
Temsa		10,542		10,542
Anadolu Isuzu		10,007		10,007
B.M.C.		8,736		8,736
Otokar		3,023		3,023
Uzel			1,786	1,786
MAN Turkey		1,696		1,696
Hattat Tarım			919	919
TOTAL	621,567	525,543	24,807	1,171,917

Source: Automotive Manufacturers' Association (OSD)

"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."*

AUTOMOTIVE PENETRATION RATES, JUNE 2007

	Turkey	EU
Vehicles / 1,000 persons	176	556
Passenger cars / 1,000 persons	88	476

Source: Turkish Statistics Institute

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.

The domestic market is dominated by imports - about two-thirds of all cars sold in Turkey in 2007 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. The continued strength of the New Turkish Lira (YTL) combined with low cost bank loans often makes imported passenger cars affordable. Many middle and upper class Turks also prefer imported cars to locally manufactured vehicles as status symbols.

Renault, Hyundai, Toyota, Ford, Fiat, Opel, and Volkswagen (VW), were the top automobile sellers in Turkey in 2008. Some 47 manufacturers sold cars in Turkey in 2008. Ford, Opel and VW sell only imported cars

TOP 20 AUTOMOTIVE COMPANIES IN NET SALES IN 2007
(IN MILLION U.S. DOLLARS)

	Company Name	Net Sales
1	Ford Otomotiv Sanayi A.Ş.	6,198
2	Oyak Renault Otomobil Fabrikaları A.Ş.	3,697
3	Toyota Otomotiv Sanayi Türkiye A.Ş.	3,432
4	Tofaş Türk Otomobil Fabrikası A.Ş.	3,107
5	Mercedes Benz Türk A.Ş.	1,849
6	Hyundai Assan Otomotiv San. ve Tic. A.Ş.	1,422
7	Bosch Sanayi ve Ticaret A.Ş.	1,224
8	Temsa Sanayi ve Ticaret A.Ş.	950
9	Honda Turkey	776
10	BMC Sanayi ve Ticaret A.Ş.	730
11	Goodyear Lastikleri T.A.Ş.	689
12	Brisa Bridgestone Sabancı Lastik A.Ş.	656
13	Türk Pirelli Lastikleri	563
14	Delphi Automotive Systems Ltd. Co.	535
15	MAN Turkey	506
16	Türk Traktor	439
17	Kordsa Global	394
18	Componenta Döktaş Dökümcülük	375
19	Otokar Otobüs Karoseri Sanayi A.Ş.	369
20	Uzel Makina Sanayi A.Ş.	323

Source: İstanbul Chamber of Industry

COMMERCIAL VEHICLES

Some 10 major companies, led by **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.

LEADING AUTOMOTIVE EXPORTERS OF TURKEY IN 2007
IN MILLION U.S. DOLLARS

	Company	Amount	Business Area
1	Ford Otosan	3,413	Commercial vehicles
2	Toyota Otomotiv Sanayi	2,859	Automobiles
3	Oyak Renault Otomotiv Fabrikaları A.Ş.	2,589	Automobiles
4	Tofas Türk Otomobil Fabrikaları A.Ş.	1,529	Automobiles, commercial vehicles
5	Bosch Sanayi ve Ticaret A.Ş.	932	Auto parts
6	Mercedes Benz Türk	932	Passenger buses, commercial vehicles
7	Hyundai Assan Otomotiv Sanayi A.Ş.	728	Automobiles
8	Goodyear Lastikleri	420	Tires
9	Kordsa Global End. İplik ve Kord San. ve Tic. A.Ş.	267	Tire Cord Fabric
10	Delphi Automotive Systems	213	Auto Parts
11	MS Jant ve Makina Sanayi	185	Wheels
12	Temsa San. ve Tic. A.Ş.	184	Commercial vehicles
13	Türk Traktor	147	Farm tractors
14	Federal Mogul Segman ve Gömlek Üretim Tesis A.Ş.	144	Auto parts
15	Honda Turkey	133	Automobiles
16	Autoliv Cankor	132	Seat belts
17	Toyota Motor Europe Adapazarı Branch	132	Automobiles
18	Brisa Bridgestone Sabancı Lastik San. ve Tic. A.Ş.	117	Tires and tire tubes
19	BMC San. ve Tic. A.Ş.	98	Commercial vehicles
20	Veleo Otomotiv Sis. End. A.Ş.	88	Auto parts
21	Heyes Lemerz Jantas San. ve Tic. A.Ş.	87	Wheels

Source: Turkish Exporters' Assembly (TİM), İstanbul Chamber of Industry

Some 45% of all light commercial vehicles sold in Turkey are imports.

FORD OTOSAN, TURKEY'S LEADING PRODUCER OF COMMERCIAL VEHICLES

Ford Otomotiv Sanayi (Ford Otosan) is one of the most successful U.S.-Turkish manufacturing partnerships. Turkey's leading producer of vehicles produced and sales 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 2008, the company produced a record 268,761 commercial vehicles -- trucks, minibuses, and pick-ups., and exported 217,876 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 Karamursel-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.

FARM TRACTORS

Turkey has two producers of large agricultural tractors: Türk Traktor, 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.

PARTS AND COMPONENTS

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.

"*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.*"

Some of the foreign companies with investments in the auto components industry include **Magnetti Marelli** (Italy), **Mando Corp.** (South Korea), **Mecaplast** (Monaco), **Autoliv** (Sweden), **Bamesa Group** (Spain), **Robert Bosch** (Germany), **Hanil E Hwa** (South Korea), **Arcelor Auto** (France), **and Bosal Holding** (Belgium), **Federal Mogul** (U.S.), **Teksid** (Italy), **Heyes Lemmerz** (U.S.), **Arvin Meritor** (U.S.), **H.P. Chemie Pelzer** (Germany), **Exide Corp** (U.S.), **Faurecia** (France), **Sango Co.** (Japan), **Yazaki** (Japan), **Michelin Kronprinz** (France), **Goodyear** (U.S.), **Bridgestone** (Japan), **Toyoda Iron Works** (Japan), **ZF Lemförder** (Germany), **ZF Friedrichshafen** (Germany) 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. A fourth company, Petlas, turns out aircraft tires as well as tires for commercial vehicles, cars and farm tractors and has a five percent market share.

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

3.2 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 $785 million worth of steel in 2008 a 144% jump from the $322 million of exports to the U.S. market in 2007. 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, saying that *"Most of our companies have come out with zero antidumping margins."*

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 eventual rebuilding in Iraq. 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 fifth largest and the world's 11th biggest steel producer with a total production of 26.806 million tons in 2008, commanding two percent of global output. Only Russia, Germany, Ukraine and Italy 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 2009 and 42 million tons by 2010, according to the **Steel Manufacturers' Association (DÇÜD)**

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 80% to 20% in favor of long products over flat products, while in consumption the ratio is 50% to 50%.

PRODUCTION OF IRON & STEEL, 2000-08

000 tons

	2001	2002	2003	2004	2005	2006	2007	2008
Long	9,643	10,324	11,895	13,232	15,498	18,690	19,400	21,043
Flat	2,957	3,144	3,535	3,616	3,760	3,903	5,700	5,227
Specialty	273	299	320	330	343	424	700	536
Total	**2,873**	**13,767**	**15,750**	**17,178**	**19,601**	**23,017**	**25,800**	**26,806**

Source: Turkish Iron and Steel Producers' Association, Çemtaş

Turkey has one of the the world's fastest growing steel industries, growing 4.1 percent in 2008, the **DÇÜD** reported. The Chinese steel industry, the world's biggest producer of steel, grew only 1.7 % in 2008.

Some 78.5% of Turkey's manufactured steel, or 21.043 million tons, was in long products; and 19.5%, or 5.227 million tons, was in flat products, and two percent or 536,000 tons was in quality, engineering steel in 2008.

Global steel production in 2008 reached 1.330 billion tons, according to **DÇÜD**. Chinese production was 502 million tons, followed by Japan with 118.8 million tons, the U.S. wth 91.5 million tons and Russia with 68.5 million tons in 2008.

Flat products are used in the manufacture of durable consumer goods, such as refrigerators and automobiles, and in packaging and shipbuilding. Long products are used primarily in the construction industry.

FOREIGN TRADE

In 2008, Turkey exported 16.5 million tons of iron and steel products, earning $15 billion, **DÇÜD** said. The bulk of the steel exports came from long products. 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 harmed 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 hampered the industry as domestic housing sales plunged 36.5 %.

The industry has roared back since then 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.

Asian countries, such as China and Taiwan, once Turkey's main markets for iron and steel exports, 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," acording to Serhan Gök, a senior analyst with **Finansinvest,** a brokerage house.

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.

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

In 2008, Turkey spent $12.5 billion on imports of 12.5 million tons of iron and steel imports. 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.

The nation mainly imports steel from the former Soviet Union and the European Union.

IRON & STEEL FOREIGN TRADE, 1998-2008

	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

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

In recent years, Turkey has been a big importer of 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

The Turkish steel industry employs 26,732 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. The only other domestic manufacturer of flat products is **Borçelik,** a member of Borusan Holding. The remaining 15 steel mills are privately owned and produce long products.

Erdemir, owned by a subsidiary of the **Armed Forces Pension Fund (Oyak),** also owns the **İskenderun Demir Çelik (İsdemir),** a long products manufacturer, acquired in 2001 by way of privatization, and production there is being gradually converted to mainly flat products.

Turkey has three integrated steel producers -- **Erdemir, İsdemir** and **Kardemir.** The remaining 16 mills use electric arc technology.

In pipe production, there are 24 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.

The welded steel pipe production of Turkey reached 3.2 million tons in 2007, according to **Borusan Mannesmann Boru Sanayi ve Ticaret,** Turkey's biggest producer of welded steel pipes. Demand for welded steel pipes reached 1.9 million tons in 2007. Turkey is Europe's third largest steel pipe manufacturer after Italy and Germany.

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 able to produce every kind of alloyed and unalloyed castings, specializing in the production of cast parts for the automotive industry, earth moving machines, cement industry, pumps and valves, steel industry, tractors and agricultural machinery and other manufacturing industries 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 at Karabük in 1940. Today the **Kardemir** mill in Karabük has a raw steel capacity of 700,000 tons per year.

In 1955, **Mannesmann-Sümerbank Pipe Industries (now Borusan Mannesmann Boru Yatırım)** was established in İzmit, 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 (İsdemir)** began production.

Another public enterprise, **MKEK,** was the first producer of specialty steel, producing 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-value 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 is converting its İşdemir plant into flat production through modernization and conversion investments worth $1.9 billion. Production capacity was expected to increase to 7 million tons a year in 2007 and 10 million tons a year in 2009, ending the excess capacity in long products and, at the same time, absorbing the supply deficit in flat products. In addition, the **Arcelor-Borçelik** partnership is envisaging new investments in flat products.

Processors import scrap iron, semi-finished products or purchase them from integrated steel producers and mini-mills. With the exception of one cold rolling company that produces flat products and a few companies producing specialized products such as spring steel, most of these players are sub-scale rolling mills supplying low-value-added, often very substandard, long products to the construction industry.

Turkey has been turning out excess supply of long products, forcing it to find export markets in recent years.

"There is an excess domestic demand for flat steel and an excess domestic supply of long steel, leading to long steel exports and flat steel imports," Mete Kunter, assistant director of **Ata Invest Research,** said.

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 distributes 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, **İsdemir,** 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, aim to correct the imbalance in the sector toward long products with the privatization of **İşdemir.**

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

CONSUMPTION OF IRON & STEEL, 2000-07

000 tons

	2001	2002	2003	2004	2005	2006	2007*	Change, % (07/06)
Long	3,993	4,930	6,205	6,676	8,598	9,872	11,641	17.92
Flat	4,327	5,865	6,848	7,772	8,859	9,777	9,566	-2.16
Specialty	387	491	602	773	908	1,109	1,479	33.36
Total	**8,707**	**11,286**	**13,655**	**15,221**	**18,365**	**20,758**	**22,686**	**9.29**

Note: 2007 data are provisional

Source: Turkish Iron and Steel Producers' Association

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 producer. Gonzalo Urquijo, a member of the **ArcelorMittal** management board, said the company 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."

3.3 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.

The industry accounted for 23.45% of all Turkish goods sold abroad in 2007, down from about 36.1% in 2000. 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 (İGEM).**

TURKEY'S TEXTILE, CLOTHING, LEATHER AND CARPET EXPORTS IN 2007 AND 2008 (IN 1000 U.S. DOLLARS)

PRODUCTS	2007	2008	CHANGE IN % OVER 2007
Ready Wear and Apparel	16,059,858	15,722,503	-2.1
Textile and Raw Materials*	6,554,050	6,807,831	3.9
Leather and Leather Products	1,268,796	1,318,046	3.9
Carpets	1,003,720	1,097,900	16.4
Total	**24,886,424**	**24,946,280**	**0.0**

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

Source: İstanbul Textile and Apparel Exporters' Associations (İTKİB)

The nation exported $22.503 billion in clothing and textiles in 2008, a slight decrease from 2007, the **Turkish Exporters' Assembly (TİM)** reported. Textile industry officials said that export sales were rapidly declining because of sluggish European and American markets stemming from the U.S. mortgage market morass and the global recession. Turkey exported a record $22.600 billion in clothing and textiles in 2007, up 15.5 % from 2006.

Along with leather products and carpets, total sector exports in 2008 reached $24.946 billion, about the same as in 2007. Sector exports in 2007 stood at $24.886 billion, up 17.3% from $21.485 billion in 2006.

Ready wear and apparel exports fell 2.1% to $15.722 billion from $16.059 billion in 2007.

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) increased 3.9% to $6.807 billion from $6.554 billion in 2007.

Leather and leather products (footwear, leatherwear and accessories) exports rose 3.9% to $1.318 billion from $1.268 billion in 2007, while carpet sales abroad increased 16.4% to $1.168 billion from $1.003 billion in 2007.

Sector exports accounted for 19.62% of all Turkish exports in 2008.

Although the sector - clothing, textiles, leather products and carpets combined - 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 six years, down from about 35% in 2002, 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.

But a sharp decline in the value of the Lira against the dollar and the euro starting late September 2008 and continuing throughout October will make Turkish apparel and textile exports more competitive, but may not come in time to prevent mass bankruptcies in the sector.

Most textile manufacturers say their export sales are rising but their revenues are shrinking as a result of the strong domestic currency and rising competition from the Far East. Ready-wear and apparel production has been in sharp decline in Turkey over the past several years.

Some clothing manufacturers were relocating their production units from Turkey to less costly countries, such as Egypt, and the Palestinian Gaza Strip, to sell their products to the U.S. without quotas. 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 the Chinese with their large populations are unwilling to invest.

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. This is reflected in Turkey's trade figures. Although the industry contracted by a total 18% in 2006 and 2007, according to the **İstanbul Chamber of Commerce,** textile exports increased 17.31% in the same period over 2006.

Scores of leading Turkish clothing manufacturers are beginning to open their own fashion stores, 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, based on synthetic fibers and nonwovens rather than on cotton, 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.

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. The average hourly wage more than doubled between 1980 and 1996. 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.

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 and the Gaza Strip. 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 is expected to increase in 2009 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.

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 to remain competitive, and establish a presence in the Japanese clothing market, the world's second biggest read-to-wear market.

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 **L.C. Waikiki**, **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.

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 75 million people are under the age 25 - and its closeness to heavily populated markets in Eastern Europe and the Middle East, make it an excellent base for foreign investment.

CLOTHING EXPORTERS

Clothing manufacturers such jeans producer **Mavi,** and women's wear manufacturer Öztek 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&Tween** suits, and President George Bush always has a collection of **Bisse** 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 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 $7.5 billion in 2008, 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 $2.330 billion in 2008. 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.

3.4 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 16 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 15th 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. Four of Turkey's 500 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, the **World Gold Council's** general director in Turkey.

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.**

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. But gold imports fell 28% in 2008 to 165.9 tons in 2008, from 230.8 tons in 2007, as local demand fell as the global economic recession deepened, the **İstanbul Gold Exchange (İAB)** reported. Hundreds of thousands of anxiety-ridden Turks, facing possible job losses and economic uncertainty, cashed their gold brooches, bracelets and rings, providing a huge supply of scrap to the jewelry industry. The selling of Turkey's gold hoard by households heightened in the first two months of 2009, and there was absolutely no gold imports in the January-February period, an anomaly in the country.

About 22.8% of Turkey's gold jewelry production is sold to tourists visiting the country. Turkish exports of precious metals and jewelry exports rose from a mere $2.8 million in 1992 to $5.4 billion in 2008, the **Turkish Statistical Institute (TUİK)** said. Exports of precious metals and jewelry in the first two months of 2009 soared to $2.7 billion. The country exported some 135 tons of gold jewelry in 2007, including direct sales to foreign tourists and suitcase traders from the former Soviet Union, and according to the **World Gold Council.**

Gold jewelry is Turkey's biggest export item after motor vehicles and components, textiles, iron and steel and home electronics.

PRODUCTION AND DOMESTIC DEMAND

The production was worth 313 tons of gold equivalent in 2007. This includes gold, workmanship and precious metals (in particular diamond), but excludes other materials and precious stones including pearl, textile etc. Approximately 38.6% of jewelry demand is accounted for by domestic consumers, 17.8% is exported directly and 22.2% is exported indirectly. Some 20.2% is used for new coin minting or is hoarded as an investment or as a precaution for bad times.

FUTURE PROSPECTS

Gold has been a traditional savings instrument in the republic. Gold brooches, bracelets 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 increase from a record smashing 30.9 million in 2008 (17.8% growth) to 32 million by 2010, an aggregate national income of around $1 trillion by 2015, the Turkish jewelry sector offers major opportunities.

With exports including luggage trade and sales to tourists totaling some $3.7 billion, 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: *"I believe the exports will reach $10 billion by 2010. 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 - 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*	0.0

* Figures are for January - February
Source: İstanbul Gold Exchange

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*	2.7

* Figures are for January - February
Source: Turkish Statistical Institute (TUİK)

3.5 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 6th century Hagia Sophia, one of the greatest achievements in

Christian religious architecture, and the 17th 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 2007, some 3.823 million cubic meters of marble and 10.697 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 $1.402 billion in 2008, accounting for 43% of the country's mineral and ore exports, the **Ministry of Energy and Natural Resources** reported.

The U.S. continues to be the biggest importer of processed Turkish marble and natural stones. In 2008, it imported processed marble and natural stones worth $354 million, or 25.2% of all of Turkey's marble and natural stone exports.

More than 1,000 marble foundries, 1,500 marble processing plants and 7,500 workshops exist in the country.

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 fourth biggest producer of ceramic tiles and the third in terms of exports. The nation is also Europe's fifth 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.

Ceramic exports totaled $868 million in 2008, an increase of 5.5% from 2007, according to the **Turkish Statistical Institute (TUİK).** Turkish ceramic exports went to 122 countries in 2007.

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.

Four producers - **Kale Group**, **Toprak**, **Eczacıbaşı** and **Graniser** -- control about 40% of production capacity in ceramic tiles. There are 25 large and midsize firms producing ceramic tiles and 31 firms manufacturing sanitary ware in Turkey.

PROFILE OF CERAMIC TILE INDUSTRY, 2005-2006

	2005	2006
No of companies	24	24
Capacity (000 sqm)	310,114	307,531
Production (000 sqm)	230,000	325,000
Consumption ($ Mn)	120	135
Exports (000 sqm)	172	197
Exports ($ Mn)	406	406

Source: Ceramics Federation

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. In 2005, the nation's productive capacity of sanitary ware was around 20.720 million items, 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 2007, Turkey had a 360.1 million-square meter ceramic tile production capacity, as a result of new investments and capacity increases, the **Turkish Ceramics Federation** reported.

A thriving housing and real estate market in Turkey has driven enormous increases in production in 2007, particularly for wall and floor coverings and sanitary ware.

The country's biggest ceramics manufacturer is the **Kaleseramik,** which has a 66 million-square meter ceramic tile production capacity. Turkish production in ceramic tiles in 2006 was around 278 million square meters, according to the **Ceramic Covering Producers' Association (SERSA).**

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 2007 totaled 885,986 tons, including 379,233 tons of industrial glassware and 488,797 tons of home glassware), the **Turkish Statistical Institute (TUİK)** reported. Turkey's glass exports in 2008, totaled $1.016 billion, TUİK announced on its web site.

The **Şişecam Group,** a conglomerate with a wide range of product groups, accounts for over 85% 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.** It 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 U.S. 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 announced in February 2008 that it was investing $250 million in a plant in Russia's Krasnador region to produce flat glass, and said it also acquired a packaging plant in Leningradskaya, in a move to expand in the former Soviet republic.

With its current performance, **Şişecam** ranks the fifth largest glassware producer in the world. 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 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.

IV. INVESTMENT OPPORTUNITIES IN TURKEY

4.1 FINANCIAL SERVICES

BANKING

As of April 2008, some 45 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 32 commercial banks of which three -- **T.C. Ziraat Bankası, Halkbank and Vakıfbank** -- are state-owned, 11 are privately owned deposit banks, 17 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 system*	Banks				
	1999 4Q	2000 4Q	2001 4Q	2002 4Q	2007
Commercial Banks	62	61	46	40	32
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	17
Development and Investment Banks	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
Sector	81	79	61	54	45

*Excludes Participation banks.

Source: Banks' Association of Turkey

The total assets of the Turkish banking system as of April 7, 2009 stood at $469 billion, down from $587.7 billion at the end of September 2008, due to a 27% slide in the value of the Turkish Lira against the dollar as the global recession began to bite into Turkey, the Banking Regulation and Supervision Agency (BDDK), reported.

Yet the Turkish banking system remains tiny compared to those of the U.S. and member countries of the European Union. The assets of the Turkish banking system in 2008 were equivalent to around 32.4% of that of the **Bank of America,** the biggest U.S. bank.

The country's banking system has grown 3.7-fold since the end of 2002, when total bank assets stood at a mere $126.7 billion. Growth has run parallel with the robust performance of the Turkish economy, strength of the New 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 Two.

Bank deposits stood at $232.billion and loans totaled $297 billion as of April 7, 2008, the **BDDK** reported.

In terms of assets, the largest Turkish banks are state-owned **T.C. Ziraat Bankası** and **Türkiye İş Bankası (İşbank),** the country's biggest private bank. Other big top tier banks include the privately-owned **Akbank, Garanti Bankası, 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** 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 has remained relatively immune to the present 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.

TURKISH BANKING, 2006-2009

	2006	2007	2008	2009*
	$ Bn	$ Bn	$ Bn	$ Bn
Assets	347	498	484	469
Credits	164	224	243	232
Deposits	211	305	ua**	297
Net Income	8	13	8	ua**
# of banks	46	46	45	45
# of branches	6,849	7,618	8,790	ua**
# of employees	143,168	158,559	171,598	ua**

* As of April 7.
** Unavialable
Sources: Banks Association of Turkey (TBB), Banking Supervision and Regulation Agency (BDDK)

"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 **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 17.9%, 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. Weak 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 of Turkey** 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, vice 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."*

CONSUMER BANKING GROWS

During the heady growth years from 2002 to 2008, 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 the present 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 **Akbank,** a large bank, reminisced. *"The huge untapped domestic market was our prime target."*

The number of bank branches in Turkey expanded from 6,106 in 2002 to 8,790 by the end of 2008, and the number of employees in the banking sector grew from 123,271 in 2002 to 171,598 in 2008, the **Banks Association of Turkey** reported.

TOTAL BRANCHES AND EMPLOYEES IN THE TURKISH BANKING SYSTEM 1995-2008

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

Source: Banks' Association of Turkey

Consumer loans increased from $16.5 billion, or only 16% of all bank loans in 2005 to an estimated $87 billion in 2008, or 37.6 percent of all bank loans of $243 billion. Nearly half of all consumer loans were mortgages.

In addition to direct consumer loans, credit and debit card usage is also 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 didn't catch fire until the 1990s.

By the end of 2008, Turkey's banks had issued a total 43,394,025 credit cards and 60,551,484 debit cards, according to the **Interbank Card Center (BKM).**

STATISTICS ABOUT ON PLASTICS CARDS IN TURKEY

	As of December 31, 2008
Number of credit cards issued	43,394,025
Number of debit cards issued	60,551,484
Number of POS machines	1,632,639
Number of ATMs	21,970

Source: Interbank Card Center

The number of Automated Teller Machines (ATMs) in operation also ballooned to 21,970 at the end of 2008 from 4,656 in 1995.

The growth of Points-of-Sale (POS) terminals has also been brisk. The number of POS terminals grew to 1,632,639 on December 31, 2008 from 299,950 in 2000 and only 25,000 in 1995, the BKM reported.

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.

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

PROJECTED GROWTH IN TURKISH BANKING 2009-2014

	2009*	2014	CAGR
	$ Bn	$ Bn	%
Assets	469	960	14
Credits	232	520	17
Deposits	297	528	13
# of banks	45	20-25	-
# of branches	8,790**	11,000	-

* As of April 7
** As of end 2008
Source: Ergun Özen, General Manager of Garanti Bank

OUTSOURCING

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 likely to fuel demand for outsourcing, bankers say.

The market size for outsourcing of information technology and telecommunications services in Turkey was $391,007 million in 2007, and is growing at a fast rate, 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. **ING Bank** established its operation center in the textiles boom town of Kahramanmaraş, in southern Turkey, while **Finansbank** opened an operational center in Erzurum, in eastern Turkey.

One major foreign company is active in banking outsourcing is **Siemens** and it provides call center services for **HSBC** and **Fortis Bank** and **Garanti Ödeme Sistemleri,** the credit card operations of **Türkiye Garanti Bankası,** and some credit card and ATM services for Citibank and Fortis.

But 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," Pınar İşmen, director of the credit card and alternative payments channels of **Fortis 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."*

FOREIGN BANKS JOIN 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 10th 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.

- 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 **Çolakoğlu Group** for $216.8 million, gaining control of a 42.165 % stake in **Turk 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.**

- 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.**

- 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.

- 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 business woman 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.

- In the biggest banking transaction in Turkey to date 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** acquired 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.

- 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 **Turklandbank.**

- **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 **ABN Amro Bank**, **Credit Lyonnais**, **Fortis Bank**, **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**, Portugal's **Millennium Bank**, Italy's **UniCredito Group**, France's **BNP Paribas**, Belgium's **Fortis Bank**, 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**, **ABN Amro Bank**, **Credit Lyonnais**, **Deutsche Bank**, **Société Generale, and Westdeutsche Landesbank Girozentrale**, **the Libyan Arab Foreign Bank**, **the Kuwait Investment Co**, **Habib Bank of Pakistan**, **Bank Mellat of Iran**, and **Taib Investment Bank.**

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

TOP 20 BANKS OF TURKEY IN TERMS OF ASSETS AS OF JUNE 30, 2008

Name of Bank	Total assets (In million dollars)	Number of branches	Number of employees	Year when founded
1 T.C. Ziraat Bankası A.Ş.	72.977	1,262	20,427	1863
2 Türkiye İş Bankası A.Ş.	72.125	973	19,898	1924
3 Akbank T.A.Ş.	64.669	764	14,467	1947
4 Türkiye Garanti Bankası A.Ş.	60.854	676	15,923	1946
5 Yapı ve Kredi Bankası A.Ş.	47.642	791	14,821	1944
6 Türkiye Vakıflar Bankası T.A.O.	39.658	395	9,495	1954
7 Türkiye Halk Bankası A.Ş.	37,599	612	11,556	1938
8 Finans Bank A.Ş.	19,705	418	9,680	1987
9 Denizbank A.Ş.	14,645	359	7,311	1997
10 ING Bank A.Ş.	12.043	352	6,108	1984
11 HSBC Bank A.Ş.	11,785	301	6,966	1990
12 Türkiye Ekonomi Bankası	10,829	299	5,989	1927
13 Fortis Bank A.Ş.	8,969	296	5,438	1964
14 Şekerbank T.A.Ş.	5,970	250	3,966	1953
15 İller Bankası	5,050	19	3,112	1933
16 T. Sınai Kalkınma Bankası	4,230	4	300	1950
17 Citibank A.Ş.	3,914	57	2,356	1980
18 Türk Eximbank	3,578	2	387	1987
19 Tekstil Bankası A.Ş.	2,804	60	1,534	1986
20 Anadolubank A.Ş.	2,634	77	1,794	1996

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

LIQUIDITY SHORTAGES

On the financial side, however, Turkey's banks were grappling with liquidity shortages -- caused by the higher cost in foreign funding -- and rising non-performing loans, as the crisis in the global economy worsened.

As late as August 2008, Turkish banks were able to access global money markets for syndicated loans with ease. Most of these deals were "securitization" transactions, by which the Turkish banks would receive short term loans by offering their credit card and export receivables as collateral.

But with the collapse of the American finance giant **Lehman Brothers** in September, the securitization market came crashing, and interest rates on loans for Turkish banks soared from 0.75 percent above the London Interbank Offered Rate (LIBOR) to 2.5 percent above LIBOR, leading to increased funding costs and liquidity shortages for Turkish banks, Turkish bankers said.

The financial crunch prompted the **Central Bank of Turkey** to inject billions of dollars into the banking system by easing reserve requirements of the banks and lowering interest rates on overnight loans to by two percentage points to 9.75% on April 16, 2009, the lowest level in more than 40 years. Overnight interest rates stood as high as 20.25% in July 2008.

The **Central Bank** also inundated the market with dollars in March to halt a sudden skid of the Turkish Lira against the dollar. The Lira lost 20 percent value against the dollar in a matter of days in February and March, only to regain 16 percent value aften the **Central Bank's** intervention.

NON-PERFORMING LOANS

As of April 7, non-performing loans represented 4.39% of all bank loans in Turkey, up from 3.68% at the end of 2008, the **BDDK** reported on its web site.

"Non-performing loans are the biggest risks to the Turkish banking system," Zafer Kurtul of **Akbank,** remarked. "By conservative estimates, it is projected that 6% to 7% of all loans in Turkish banking could become non-performing by the end of this year."

Bankers said some of the debt would have to be restructured, and suggested a program similar to the one that led to new terms on debt payments of hundreds of large corporations and mid-sized companies after the recession in 2001.

Banking non-performing loans were accumulating mainly in credit card receivables, consumer loans and debt payments of small and medium size enterprises. At the end of 2008, some 7 percent of all credit card loans, 6.2% of car loans and 5.2% of loans to small business were non-performing.

INSURANCE

Turkey's insurance business, where foreign companies now control 46.33% of all insurance premiums and 51% of the market, is also rapidly growing. Insurance premiums in 2008 stood at $7.782 billion, down from $9.483 billion in 2007, the insurance trade newspaper Sigortacı reported. This was due to the impact of the global recession on Turkey's fragile economy, triggered by the collapse of the U.S. housing market.

Nevertheless, insurance premiums rose in 2008 represented an 11-fold increase from 1990, when the sector generated only $710 million. Still Turkey remains the low man on the totem pole among most European nations when it comes to insurance premiums.

As foreign banks have acquired Turkish banking assets, they have also come to own large slices of affiliate financial companies, including brokerage houses, factoring and leasing companies, and insurance firms.

Some 46 companies operate in insurance sector. Of these 16 are fully foreign-owned and 14 are majority foreign-owned.

INSURANCE PREMIUMS IN TURKEY BY SELECTED YEARS 1990-2008 (IN MILLION U.S. DOLLARS)

Year	Amount
1990	710
2000	2,846
2003	3,585
2004	4,736
2005	5,815
2006	6,829
2007	9,453
2008	7,782

Sources: Sigortacı Newspaper, Turkish Insurance and Reinsurance Companies Union

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, **American Life and Liberty Mutual** of the U.S., **Ergo International, Alianz and HDI Gerling International Holding A.G.** of Germany, **Global Equities Management (GEM) of the Bahama Islands, TBIH and Eureko** of the Netherlands, **Mapfre** of Spain, **Fortis** and **Dexia** of Belgium, **Zurich Financial** of Switzerland, **Abraaj Capital** of the United Arab Emirates, and **Unicredito Group** of Italy,

CAPITAL MARKETS

In the first 11 months of 2008, investment in Turkish financial and capital markets stood at around $460.7 billion, including $101 billion in investment carried out by foreign individual and institutional investors, the **Association for Turkish Capital Market Intermediaries (TSPAKB)** reported.

İSTANBUL STOCK EXCHANGE

The **İstanbul Stock Exchange (İMKB)** has been one of the world's most volatile bourses with share prices yo-yoing.

On December 31, 2007, the benchmark **İMKB-100** Index stood at 55,539 points, 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 last year. But the index plunged 51.6% to 26,864 points on December 31 2008, as jittery investors fearing a global liquidity crunch and an economic slowdown due to the U.S. mortgage crisis sold their shares in Turkish stocks in a frenzy of profit-taking, as the **İMKB** took the worst beating among stock markets worldwide.

MARKET CAPITALIZATION OF THE İSTANBUL STOCK EXCHANGE IN SELECTED YEARS 1994-2008 (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
July 22, 2002	35.000
2004	100.000
2005	161.537
February 27, 2006	201.017
2007	288.761
February 29, 2008	232.190
December 31, 2008	119.698
February 27, 2009	100.462

*Unless specified, the closing date used is December 31.

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

Market capitalization of the **İstanbul Exchange (İMKB)** on February 27, 2009, stood at $100.462 billion, the lowest level since 2004.

Nevertheless, market capitalization on the **İMKB** grew five-fold from the end of 1994 to the end of February 2009, as a result of increased numbers of companies going public and share prices soaring.

Although more than 60 Turkish firms have applied to the **Capital Market Board,** the stock market regulatory agency, to go public, only ten companies, including two real estate investment trusts (REITs) and two general investment firms, went public in 2007. These were:

- Airports operator **TAV Havalimanları Holding A.Ş.**
- **Sağlam REIT.**
- General investment company **Oyak Yatırım Ortaklığı A.Ş.**
- Securities investment company **Merkez B Tipi Menkul Kıymetler Yatırım Ortaklığı**
- **Türk Telekom,** the country's former fixed phone line monopoly.
- Turkey's second biggest state bank, **Halkbank.**
- Brokerage house **İş Yatırım Menkul Değerler A.Ş.**
- **Sinpaş REIT.**
- Participation bank and Islamic finance house **Albaraka Türk Katılım Bankası A.Ş.**
- **Tekfen Holding A.Ş.** one of Turkey's leading conglomerates.

Sixty-nine percent of the shares traded on the exchange in the first 11 months of 2008 were controlled by foreign institutional investors, according to the **TSPAKB.** Foreign investors controlled 55% of the shares listed and 13% of all transactions on the stock market in 2004.

"We are seeing increased foreign investor interest in our capital market," wrote Gökben Altaş, a research analyst with **TSPAKB,** in a report on foreign investment in the Turkish capital market published in February 2008.

In the biggest initial public offerings in 2008, foreign institutional investors acquired $1.3 billion of the $1.8 billion in shares offered by state-owned **Halk Bank** and around 70% of the 15% share offer of Turk Telekom in 2008.

Numerous foreign institutional investors and banks trade actively on the exchange through subsidiaries and brokerage houses they own. These include **Raymond James Securities, Citibank and Merrill Lynch, Bank Hapoalem of Israel, Credit Suisse International, Dexia, Deutsche Bank, EFG Eurobank Ergasias, the National Bank of Greece, Fortis Bank, Unicorn Investment Bank, Sbic Investment, Compagnie Financiere de Camondo, BNP Paribas, MCT International BV, UBS AG., Unicredito Group.**

Some 317 companies and nine investment funds were listed on the **İMKB** as of February 27, 2009.

PRIVATIZATION

Turkey's ambitious privatization program is switching gears, shifting from the sale of sprawling state industries to the energy sector, ports, highways and other infrastructure.

Since the program was initiated in 1985 to the end of 2008, the **Privatization Administration (ÖİB),** the main agency assigned to carry out the country's huge privatization program, has sold the state's shares in nearly 200 companies, generating a total $36.312 billion in revenues.

The state has exited from forestry products, petrochemicals, dairy, pulp and paper, oil refining and oil products retailing, tobacco and spirits, aluminum, animal feed, cement industries, and shipping. Several industries still remain in **ÖIB's** portfolio, such as the sugar concern **Şeker Fabrikaları A.Ş.,** but privatization in Turkey is now turning to other fields.

In the first quarter of 2009, the **Sabancı Holding-Verbund** and **Enerjisa Joint Venture** acquired **Başkent (Capital City) Electricity Distribution Company,** one of 20 regional power distributors in Turkey being privatized, for $1.250 billion, while the **Ak Enerji-Cez Joint Venture** acquired **Sakarya Electricity Distribution Company** for $600 million. In January, **France's GDF Suez** acquired the operational rights of the İzmit gas company, **IZGAZ**, from **Municipality of Greater Kocaeli** in western Turkey, for 25 years for $522 million. **IZGAZ** supplies 1 billion cubic meters of natural gas to subscribers in the city each year.

MAJOR SALES OF STATE ASSETS CARRIED OUT BY THE PRIVATIZATION ADMINISTRATION IN 2009

Company Privatized	Acquiring Company	Purchase Amount in Million U.S. Dollars
Capital City Electricity Distribution Company	Sabancı Holding-Verbund- Enerjisa JV	1,250,000
Sakarya Electricity Distribution Company	Akcez	600,000
Total		1,850,000

Source: Privatization Administration (ÖİB)

The biggest privatization implementation in 2008 was the 52% share offering of **Petkim,** the petrochemicals concern. A joint venture that included Azerbaijan's state oil company Socar, Turkey's energy investment company **Turcas** and the **Azeri Injaz** company, acquired the majority shares of **Petkim** for $2.040 billion. The ÖİB raised $1.9 billion from a public offering of 15% shares of **Türk Telekom,** the telecommunications concern. **BAT** acquired **Sigara Sanayi İşletmeleri,** the cigarette manufacturing arm of the former state tobacco monopoly **Tekel,** for $1.721 billion. Turkey's **Zorlu Enerji** acquired Ankara **Doğal Elektrik's** seven power plants a geothermal field and gas turbines for $510 million.

The Undersecretariat of Defense in 2008 concluded a 20-year management contract for the operational rights to thel terminal of İstanbul's **Sabiha Gökçen Airport,** İstanbul's second biggest international airport, with a Turkish-Indian-Malaysian consortium, led by the **Limak İnşaat,** for $3.5 billion. The new airport management company is expected to raise the capacity of the terminal to 10 million passengers a year from the current 3 million and build a new international flights terminal and other facilities. bid on July 8, 2007. The winning consortium was **Limak İnşaat A.Ş. (Turkey), GMR Infrastructure Ltd (India) and Malaysia Airports Holding Joint Venture.** The **Sabiha Gökçen Airport** is located on İstanbul's Asian side and is the city's second biggest international airport. It is used mainly for local and international charter flights.

The biggest privatization to date was the **Saudi Group Oger Telecom's** acquisition of 55% of **Türk Telekom,** the state telecommunications concern, in 2005 for $6.5 billion.

In 2009, the ÖİB is expected to complete the privatization of the **Ports of Bandırma** and Derince, along the Sea of Marmara, and Samsun, on the Black Sea Coast, as well as the sale of **Meram Electricity Distribution Company,** and the national lottery, **Milli Piyango.**

Privatization authorities approved the sale of operating rights of the **State Railway's (TCDD's) Port of Derince,** in the Gulf of İzmit, along the northeastern shores of the Sea of Marmara, to **Turkerler Investment Enterprise Group** for $195.250 million.

They also approved the sale of **Meram Elektrik Dağıtım A.Ş.** to **Alsim Alarko Sanayi** for $440 million. **Meram Elektrik Dağıtım A.Ş.** distributes electricity the south central Anatolian provinces of Kırşehir, Niğde, Konya, Karaman, Nevşehir and Aksaray. **Meram Elektrik** has 1.475 million subscribers and an 8% loss of power on the grid.

MAJOR SALES OF STATE ASSETS CARRIED OUT BY THE PRIVATIZATION ADMINISTRATION IN 2008

Company Privatized	Acquiring Company	Purchase Amount in Million U.S. Dollars
Petkim 52% stake offering	Socar-Turcas-Injaz Joint Venture	2,040.000
Türk Telekom %15 share Offering	Public offering	1,900.000
Sigara Sanayi İşletmeleri ve Ticaret A.Ş.	BAT	1,721.000
Ankara Doğal Elektrik's seven power plants, geothermal field and gas turbines	Zorlu Enerji	510.000
NITRO-MAK Makina Kimya Nitro Nobel Sanayi A.Ş. 33% stake sale	Altay Endüstri Yatırımları ve Tic. -Altay Kolektif Şirketi - M. Murat Dural ve Ortağı - ANG Ali Nihat Gokyiğit Yatırım Holding- Viem Ticaret ve Sanayi Ltd. Joint Venture	19.500
Tekel Pipe, Cut Tobacco and Waterpipe Brands	Medtur Gıda Turizm Maden San. ve Tic. A.Ş.	0.350
Total		6,295.786**

** Includes minor land sales.
Source: Privatization Administration (OİB)

Çelebi Joint Venture placed the highest bid for **Turkish State Railways Administration's (TCDD's) Port of Bandirma,** along the Asian shore of the Sea of Marmara with a $175.5

Other major state companies coming up for privatization are:

- Some 29 major power plants in the next phase of the privatization of state economic enterprises.
- The privatization of the **Yeşilırmak, Çoruh and Osmangazi Electricity Distribution Companies.** Investment analysts predicted that the country could attract more than $10 billion in funds through the tendering of the 20 power distribution companies because of the intense competition.
- The remaining 75.02% stake in state-owned **Türkiye Halk Bankası (Halkbank),** Turkey's sixth biggest commercial bank, in block sales.
- The ÖİB is also planning to privatize the sugar mills of **Türkiye Şeker Fabrikaları (TSF),** the state sugar concern in 2009, in six other groups or portfolios Shares of some state sugar factories, such as **Konya Şeker Fabrikası,** have been sold.

- The government in 2009 plans to hold a new tender for the rights to build and operate **Bodrum-Milas International Airport** because the current operators failed to carry out new investments as stipulated in its contract with the state. **Teknotes Teknolojik Tesisler A.Ş.** and **Aerodrom Beograde Airport Ortak Girişim** signed a contract in 2006 to operate the airport for 45 months for $100 million and renew it.

- The **OIB** in 2009 plans to launch tenders to transfer the operations of the **Bosphorus Bridge** and the **Fatih Sultan Mehmet Bridge** in İstanbul, and nine express roads across Turkey. The express roads are the **921- km Edirne-İstanbul-Ankara Express Road; the 170-km Pozantı-Tarsus-Mersin Express Road; the 316 km Tarsus-Adana-Gaziantep Express Road; the 122-km Toprakkale-İskenderun Express Road; the 141-km İzmir-Aydın Express Road; Gaziantep-Şanlıurfa Express Road; İzmir and Ankara Ring Roads.**

- The **OIB** is planning to sell its remaining 30 % share in the partially privatized telecommunications company **Türk Telekom** starting in 2009 through share sales. The OIB **picked Deutsche Bank-Garanti Investment Securities A.Ş.** as financial advisers for the public offering.

- The government plans to privatize **Terminal 1 Antalya Airport** starting in 2009.

- The Municipality of Greater İstanbul has begun work on the privatization of **İstanbul's Metro Lines and Light Rail Systems, the İstanbul Sea Bus Company (İDO), and municipal real estate development company Kiptaş, and the İstanbul Natural Gas Distribution Company (İGDAŞ)** and plans public offerings. İstanbul has 47 km of rail lines that will be extended to 100 km.

- The privatization process for **Ankara's Municipality Directorate of Electricity, Gas and Bus Services (EGO)** began in November 2008.

- The ÖİB launched tenders in February for the privatization of the State Railways Ports of Bandırma and Samsun.

- Turkey plans to privatize the state petroleum pipelines operator **Botaş,** munitions producer **Makine Kimya Endüstrisi Kurumu (MKEK)** and the **General Directorate of Coal (TKİ)** when the global economic crisis is over. The three companies to be privatized are: **Botas,** the state company responsible for importation, transmission and distribution of oil and natural gas. Botas currently operates 3,374 km of crude oil pipelines and 10,526 km of natural gas pipelines, carrying 130.2 million tons of crude oil and 88 billion cubic meters of natural gas each year; **MKEK,** which comes under the **Defense Ministry,** is the state armaments manufacturer, operating 10 factories and producing ammunition, weapons, rockets, explosives, machinery, materials, and chemical products for the Turkish armed forces and for civilian use. **TKİ,** Turkey's 18th biggest industrial company in terms of sales, mines lignite coal at seven big mines in western Turkey.

- The government has authorized the **Higher Planning Committee** to tender the construction of $9.9 billion of Express Roads in western Turkey to the private sector on a "build-operate-transfer" (BOT) basis. The 781- km of highways will be tendered in nine sections and will include the 30 km **Kınalı-Hadımköy Motorway,** northwest of İstanbul, at a cost of $130 million; the 106 km **Hadımkoy-Mahmutbey Motorway** in northwest Turkey at a cost of $343 million; the 86 km **Tarabya-Beykoz Motorway-**at the cost of $2.2 billion; the 89-km **Sarıyer-Yusa Highway** for $2.251 billion; the 117-km **Mollafenari-Akyazı Motorway** in northwest Anatolia; the 30 km İzmit Junction for $350 million; the 62 km **Kınalı-Ağaçlı** Motorway for $529 million; the 115 km **Garipce-Poyraz** Highway for $2.036 billion; the 146 **Ömerli-Akyazı Highway** for $1.258 billion. The highways will supplement the existing **Trans European Motorway (TEM)** and will have a capacity for 506,000 vehicles a day. The government also plans to tender the **İzmit Bay Bypass Road and İzmir Highways.** The **İzmit Bay Bypass** will include a bridge across the bay, tunnels and 44 km of highway, linking the northeastern coast of the Sea of Marmara with the town of Orhangazi, in Bursa province, and connecting to the new **İzmir Highway** for a total 404 km. The İzmir highway parking spaces are located at every 20 km; service stations at every 50 km; motels and hotels at every 200 km.

- The state-owned **Turkish Coal Corporation (TKİ)** is planning to open 20 more new lignite coal fields to the private sector under a plan to create jobs for 10,000 persons, produce 50,000 tons of coal and turn out 35 billion kilowatt hours of electricity annually. Winners of the contracts for the 10 biggest fields must build power stations to accompany the investments. The country has abundant supplies of low calorific lignite - 8.3 billion tons - that it wants to use to meet Turkey's growing demand for electricity. Rising prices for imported oil and natural gas are forcing Turkey's energy planner to reassess the country's domestic coal supplies. The other major coal fields to be transferred to the private sector include: Tekirdağ-Saray, in European Turkey, with 129 million tons of reserves. The winner must build a 300 MW power station; Bingol-Karliova, in eastern Turkey, with 26 million tons of reserves. The winner is required to build a 100 MW power plant; Bursa-Davutlar, northwestern Anatolia, where a 160 MW plant has to be constructed; Denis, western Turkey, where a 160 MW power plant will have to be erected; Manisa - Eynez in western Anatolia where a 600 MW plant is needed. The coal will be used for heating and electricity; Kütahya-Derinşahlar, in western Turkey, where a 300 MW plant will be built. The coal is to be used for heating purposes and for power generation; Adana Tufanbeyli, southern Anatolia. A 600 MW power station needs to be built; Soma-Eynez, western Turkey, where a 300 MW plant has to be built.

Privatization is also being carried out by the **Savings Deposits Insurance Fund (TMSF),** a state banking receivership fund that is selling companies and assets of more than 20 banks that collapsed since 1997. Other state agencies, banks and municipalities are also involved in privatization.

Major sales carried out by the **TMSF** in the past two 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 that were previously owned by the controversial Uzan Group but taken over by the receivership fund against its debts to the state over the collapse of its İmarbank.

Turkey's Maritime Organization plans to transfer the operational rights of **Galataport,** the project for the renewal and operations of İstanbul's old passenger liner gateway, for 49 years, possibly in 2008. The first tender in February 2006 was cancelled after the State Planning Organization refused to approve the transfer of shares of **Galataport** to a consortium led by Israeli businessman Sammy Ofer's **Royal Caribbean Cruises and Turkey's Global Investment Holding,** because of irregularities in the tender. The consortium had offered $4.3 billion for **Galataport.** The new port will help transform Karaköy, a former 15th Century Venetian neighborhood with rundown, crowded, old apartment buildings, shabby business offices, port facilities, mosques, churches and synagogues, into the "new Barcelona" of İstanbul, in a major urban renewal. Some 5,000 historic buildings in the district will be renovated, and İstanbul's public brothels, located in Karaköy, will be moved outside the city. **The Galataport Project,** located between **TDİ Headquarters** in Karaköy, next to the ferryboat landings, and **Chamber of Shipping** in Fındıklı, would include three hotels, restaurants, cinemas, convention centers, new customs facilities, cultural centers, playgrounds, a shopping center, a museum and a large automobile park, and a new quay.

ELECTRICITY DISTRIBUTION REGIONS TO BE PRIVATIZED

1	Dicle (Diyarbakır, Mardin, Siirt, Şanlıurfa, Batman and Şırnak provinces)	12	Uludağ (Balıkesir, Bursa, Yalova and Çanakkale)
2	Van Gölü (Van, Hakkari, Muş, Bitlis)	13	Trakya (Edirne, Kırklareli and Tekirdağ)
3	Aras (Erzurum, Ağrı, Kars, Ardahan, Erzincan, Bayburt, and Iğdır)	14	AYEDAŞ (Asian side of İstanbul)
4	Çoruh (Trabzon, Rize, Artvin, Gümüşhane and Giresun)	15	Sakarya Electric (Sakarya, Bolu, Düzce and Kocaeli)**
5	Fırat (Bingöl, Elazığ, Malatya, Tunceli)	16	Osmangazi (Eskişehir, Bilecik, Afyon, Kütahya, and Uşak)
6	Çamlıbel (Sivas, Tokat, Yozgat)	17	Boğaziçi (İstanbul - European Side)
7	Toroslar (Adana, Mersin, Osmaniye, Hatay, Gaziantep and Kilis)	18	Kayseri (Kayseri province)**
8	Meram (8th Region covering Kırşehir, Nevşehir, Niğde, Aksaray, Konya and Karaman)	19	Menderes (Aydın, Denizli and Muğla)
9	Başkent Elektrik Dağıtım (9th Region, covering Ankara, Kırıkkale, Zonguldak, Bartın, Karabük, Çankırı and Kastamonu)**	20	Göksu (Adıyaman and Kahramanmaraş)
10	Akdeniz (Antalya, Burdur and Isparta)	21	Yeşilırmak (Amasya, Çorum, Ordu, Samsun and Sivas)
11	Gediz (İzmir and Manisa)		

* Each region with the exception of İstanbul province represents a single or several provinces. Power distribution in İstanbul province is separated in two regions the European side and the Asian side.
** Power distribution in Kayseri province, and the Başkent Elektrik and the Sakarya Elektrik has already been privatized.

Source: TEDAŞ

- The **State Railways Administration** plans to sell **Sirkeci Railway Terminal,** one of the two main railway terminals of İstanbul, and would like buyers of the land to build hotels, business offices and shopping plazas at the site on the European side of İstanbul. A new train terminal is being built at Yenikapı as part of the **Marmaray Project,** a high speed rail connecting Asia and Europe with a tube crossing under the Bosphorus that will replace the **Sirkeci and Haydarpaşa Railway Terminals.**

- **The State Railways Administration (TCDD)** is planning to lease out its 904 train stations and terminals in 57 provinces to the private sector possibly in 2009, in the greatest reform in the 78-year history of Turkey's biggest money-losing state economic enterprise. The **TCDD** intends to raise $500 million annually through the leases that would allow the private sector to build hotels, cafes, restaurants and shopping centers at the stations and terminals. The biggest prize of all would be the **Haydarpaşa Terminal Project,** in İstanbul, where Turkey's **Çalık Group** has already prepared a $7 billion dollar plan to transform it and the surrounding areas into a major shopping, cultural and tourist hub with five-star hotels with a bed capacity of 9,000, public parks, a convention center, yachting marinas, theaters, shopping malls, deluxe restaurants, marinas, and seven tulip-shaped skyscrapers to symbolize the city (originally built on seven hills). The project aims to change the skyline of İstanbul to make it resemble Manhattan. The plan was designed by Şefik Birkiye, an architect and son of a Turkish diplomat. Birkiye designed the **Klassis Hotel** and the **Klassis Golf Hotel and Country Club** in Silivri, 60 km west of İstanbul, a new city for **Monaco**, and major sites in **Cairo**. A new train terminal is being built at Yenikapi as part of the Marmaray Project, a high speed rail connecting Asia and Europe with a tube crossing under the Bosphorus that will replace the **Sirkeci** and **Haydarpaşa Railway Terminals.**

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

NAME OF THE COMPANY	INDUSTRY	Share of ÖİB (%)
1 Sümer Holding A.Ş.*	Textile, leather, ceramics, carpet, sugar	100.00
2 Sümer Halı A.Ş.	Carpet	100.00
3 T. Denizcilik İşletmeleri*	Maritime	100.00
4 Tobacco, Tobacco Products, Salt and Alcohol Enterprises Inc. (TEKEL)*	Tobacco Products, Salt	100.00
5 Turkish Electricity Distribution Inc. (TEDAŞ)	Electricity Distribution	100.00
6 Ankara Doğal Elektrik Üretim ve Ticaret A.Ş.	Electricity Production	100.00
7 Türkiye Şeker Fabrikaları A.Ş.*	Sugar processing	100.00
8 KBİ-Karadeniz Bakır İşlet. *	Copper	99.99
9 T.Halk Bankası A.Ş. *	Banking	75.00
10 Petkim Petrokimya Hold. A.Ş. *	Petrochemicals	61.32
11 Doğusan Boru Sanayi ve Ticaret A.Ş.	Pipe Production	56.09
12 Turkish Airlines (THY)*	Airline	49.00
13 Türk Arap Pazarlama A.Ş.	Marketing	12.50
14 Kayseri Şeker Fabrikası A.Ş.	Sugar processing	10.00
15 T.İş Bankası	Banking	0.000001

* Some of the assets/or shares of these companies have been privatized

Source: Privatization Administration

OTHER ENTITIES IN THE PRIVATIZATION PROGRAM

PORTS	OTHERS
1. State Railway's Bandırma Port	1. Foça Holiday Resort
2. State Railway's İzmir Port	
3. State Railway's Samsun Port	
4. State Railway's Derince Port	
5. İzmir-Çeşme	

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
3. Tarsus-Adana-Gaziantep	
4. Toprakkale-İskenderun	
5. İzmir-Çeşme	
6. İzmir-Aydın	
7. Gaziantep-Şanlıurfa	
8. İzmir ve Ankara Çevre	

ELECTRICITY ASSETS

1 Çatalağzı Lignite Generation Plant	16 Suatuğurlu Hydroelectric Generation Plant
2 Orhaneli Lignite Generation Plant	17 Kılıçkaya Hydroelectric Generation Plant
3 Seyitömer Lignite Generation Plant	18 Çamlıgöze Hydroelectric Generation Plant
4 Ambarlı Doğalgaz Lignite Generation Plant	19 Ataköy Hydroelectric Generation Plant
5 Ambarlı Fueloil Lignite Generation Plant	20 Köklüce Hydroelectric Generation Plant
6 Hopa Lignite Generation Plant	21 Almus Hydroelectric Generation Plant
7 Aliağa K.Ç.G.T. Lignite Generation Plant	22 Sarıyar Hydroelectric Generation Plant
8 Bursa Gas Lignite Generation Plant	23 Oymapınar Dam Hydroelectric Gen. Plant
9 Lignite Generation Plant	24 Gökçekaya Hydroelectric Generation Plant
10 Altınkaya Hydroelectric Generation Plant	25 Yenice Hydroelectric Generation Plant
11 Hirfanlı Hydroelectric Generation Plant	26 Beyköy Hydroelectric Generation Plant
12 Kesikköprü Hydroelectric Generation Plant	27 River Plants*
13 Derbent Hydroelectric Generation Plant	28 Electricity Distribution Inc. (TEDAŞ)
14 Kapulukaya Hydroelectric Generation Plant	
15 Hasanuğurlu Hydroelectric Generation Plant	

* 54 small river plants

Source: Privatization Administration Board (OIB)

FOREIGN INVESTMENT

In 2008, Turkey attracted $14.442 billion in foreign investment, the lowest in three years, the **Central Bank of Turkey** reported. The country pulled in a record $21.873 billion in foreign direct investment in 2007. In 2006, the nation attracted a $20.1 billion in foreign direct investment (FDI), twice the amount of foreign investment that entered the nation in 2005 and 79 times more than the amount of investment that the country absorbed from 1954 to 1980. Turkey in 2006 ranked 16th in the world in attracting FDI and fifth among emerging markets.

About 70% of the FDI has been in mergers and acquisitions and the remaining has been in greenfield investments.

"Turkey has the potential to attract five percent of its GNP -- around $25 billion -- in foreign investment every year," Mustafa Alper, secretary general of the **Foreign Investors' Association (YASED),** declared in an interview.

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

The three largest foreign investments in Turkey in 2008 were:

- **BAT's** acquition of the cigarette manufacturing company of the former state monopoly Tekel for $1.721 billion.
- Britain's **BC Partners'** acquisition in February of **Koç Holding's** 50.83% share in **Migros,** Turkey's biggest retailer, for $1.645 billion.
- France financial giant **AXA's** purchase of the **Armed Forces Pension Fund's** 50% stake in **AXA Oyak Holding** for $525 million. The acquisition gives AXA complete control over insurance companies **AXA Oyak Sigorta** and **AXA Oyak Hayat Sigorta,** two of the biggest in their fields of general and life insurance.

MERGERS AND ACQUISITIONS

In 2008, Turkey had 171 cases of mergers and acquisitions (M&A), totaling an estimated $16.3 billion in investment, the U.S. consultancy company **Ernest & Young** said in a report published in January 2009.

It said that $5.718 billion in M&A activity involved energy companies, $2.394 billion in financial services, $2,062 billion in retailing, $1,954 billion in manufacturing, $1.076 billion in cement, $676 million in construction, $554 million in healthcare, $495 million in real estate development, $382 million in transportation and logistics, $232 million in media and entertainment, $228 million in textiles, and $569 million in other fields.

Some 22 of the M&A transactions were in manufacturing, 17 in financial services, 16 in energy, 15 in services, 14 in food and beverages, 13 in retailing, 10 were in transportation and logistics, nine in media and entertainment, eight in the automotive sector, seven in healthcare, six in construction, five in real estate, and five in informatics. Twenty-four transactions were in other fields.

ISPAT HELPS DRAW RECORD INVESTMENT

The Investment Support and Promotion Agency of Turkey (ISPAT) is helping Turkey draw foreign direct investment.

*"Although **ISPAT** is a state entity, we have a private sector mind. Our team is composed of multilingual, professional and 30 dedicated project directors. We are totally result-oriented,"* ISPAT's chairman Alpaslan Korkmaz, 36, said in an interview with FDI magazine.

Established in July 2006 to attract foreign investment into Turkey, **ISPAT** works as a "one-shop stop", minimizing bureaucracy and assisting foreign companies coming to Turkey all through the investment process -- free of charge. The agency has its headquarters in Ankara and an office in İstanbul. The agency also has representatives in China, Germany, France, India, Israel, Japan, Russia, the United Arab Emirates, Britain and the U.S.

Korkmaz says the agency supports every investor approaching Turkey without discriminating about his sector or origin, but gives 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.

"We designated these sectors according to the needs of Turkish economy and the trends of the global economy," Korkmaz said.

A graduate in business administration of Neuchatel University and fluent in five languages Korkmaz previously served as director of the economic development and investment agency of Neuchatel, where he helped attract large amounts of FDI into the Swiss canton. Korkmaz's success drew the attention of Turkish Prime Minister Recep Tayyip Erdoğan, who asked him to become head of the new Turkish foreign investment agency.

Seventy percent of the foreign investment coming into Turkey is in mergers and acquisitions, Korkmaz declared.

"This is quite parallel with the international situation: Turkey presents its compatibility with global business environment, but the country is also receiving more and more greenfield investments in different sectors," he said. *"The expansion of already installed industrial companies (as in the automotive industry, home 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."*

4.2 TOURISM

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 Turkey'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.

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

The number of tourists visiting Turkey swelled 20.3-fold in the past three decades, from 1.523 million in 1979 to a record 30.929 million in 2008, according to the **Turkish Statistical Institute.** In 2008, the country had a 3.34% share in the global tourism market share, up from 2.7% in 2005.

By 2013, Turkey aims to attract 38 million tourists annually and earn $34.4 billion a year from tourism, according the **State Planning Organization's** Ninth Five Year Economic Development Plan.

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 eco tourism, incentive and convention tourism, adventure travels, ski holidays 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.

In 2006, Turkey ranked 11th in the world in the number of tourist arrivals and ninth in terms of tourism receipts with $16.9 billion, the **WTO** reported.

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 nations and the former Soviet Union.

TOURIST ARRIVALS IN TURKEY (2003-2008)

Year	Tourists (million)	Revenues (billion dollars)
2003	14.0	13.2
2004	17.6	15.9
2005	21.1	18.2
2006	19.8	16.9
2007	23.3	18.5
2008	30.9	21.9

VISITORS TO TURKEY FROM TOP TEN COUNTRIES (2007)

Country	Number of Tourists
Germany	4.148.252
Russia	2.465.481
Britain	1.916.015
Bulgaria	1.239.666
Iran	1.058.270
Holland	1.053.669
France	768.168
USA	646.376
Georgia	630.923
Ukraine	593.302

Source: Culture and Tourism Ministry

In 2007, Germany led with the most visitors to Turkey with 4,148,252 tourists, followed by the Russia with 2,465,481.

Some 646,376 Americans visited Turkey in 2007, the Tourism Ministry reported.

Turkey's tourism earnings also grew from a modest $280 million in 1979 to a record $21.9 billion in 2008, according to the **Ministry of Culture and Tourism.**

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.

HOTELS

At the end of 2006, Turkey had 3,344 hotels and holiday villages with a total bed capacity of 783,319, 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.

The Chairman of the Tourism Investors Foundation said that $8 billion investments were expected by 2010 for hotels, marinas, golf courses and shopping centers only, excluding infrastructure work requirements. He noted that İstanbul, in particular, needed to increase its current 5-star bed capacity considerably.

The April 2006 report of **GYODER (the Association of Real Estate Investment Companies)** 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 boutique hotels. Their number has reached 500, of which 150 being 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 their number 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 **Iberotel** and France's **Novotel Hotels** and **Club Mediterranean.**

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 Projec**t). 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 **Algerve** 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

The ministry also wants to have 12 marinas constructed on the Mediterranean Coast with berths for 6,000 yachts. The new marinas would run from Antalya to the Syrian border and make Turkey the biggest yachting center in the Mediterranean. Major new marinas are also planned as part of the **Haydarpaşa Project** in İstanbul that will transform the city's main railway terminal into a tourism hub.

Many of the marinas would 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 sell the marinas back to the state. Or they would own the marinas permanently.

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% to 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 call 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, Adıyaman 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 (Afyonkarahisar, Kütahya, Uşak, Eskişehir, Ankara), southern Marmara (Çanakkale, Balıkesir, Yalova) and central Anatolia (Yozgat, Kırşehir, Nevşehir, Aksaray, Niğde) are the priority regions.

The only hitch to the BOT or BOO systems is that the government does not provide any sovereign guarantees should the contractors run into financial difficulties and fail to meet debt payments to banks.

Turkey has several marinas that were built on a BOT basis and are privately operated, including the **Kalamış Marina** in İstanbul and the **Marmaris Marina,** in southwest Turkey, and the **Turgut Reis Marina,** near Bodrum, on the Aegean Coast. Turkey has 22 marinas. 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 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.

GOLF INVESTMENTS

Turkey currently has 16 operating golf courses, three in İstanbul and 13 in 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 small Portugal has 72 golf courses.

But a massive building of golf resorts are planned in the Aegean and Mediterranean regions is expected to transform Turkey into a key golf destination. New golf links are also planned for İstanbul, Ankara, Muğla, Aydın provinces. Turkey has 31 golf clubs, including several in eastern provinces.

By 2010, Turkey may well have three dozen operating golf courses, and several major international tournaments are likely to take place in the country.

Within the "100 golf courses in 4 years" project developed by the **Turkish Golf Federation**, an additional income of $1 billion is expected to be generated, and some 100 golf courses are expected to be built in the mid-to-long term. Many foreign real estate and institutional investors have been looking for places in the Mediterranean and Aegean regions suitable to combine golf facilities with the residential units on one site.

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 winter.

The planned holding of the **2011 University World Winter Games (Winter Universitade)** in Erzurum, in eastern Turkey, when more than 15,000 athletes and trainers and staff from around the globe will participate, is expected to spur growth in winter tourism in the country. New hotels and sports facilities have to be 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 -- will also be built. The nearby **Palandöken Ski Resort** will be used for Alpine skiing and cross country and biathlon events.

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 wit7 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.

HEALTH TOURISM

In the recent years, Russian, British, German and Dutch tourists have been flocking 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.

In 2006, 300,000 foreign tourists spent holidays in the country's spas, making up 60% of the visitors to the country's thermal baths. Forty percent of the visitors to the Spas were Turks, 30% were Russians, 15% were British, 10% were German and five percent were Dutch. Tourism officials believe that the centers could attract as many as 1 million tourists a year.

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.

TURKEY AS A GROWING HEALTH TOURISM DESTINATION

Going in hand with the thermal facilities is also the wider possibility of establishing retirement or residential health complexes which have proved profitable elsewhere in Europe. *"This could be the beginning of a very interesting and lucrative shift in an already dynamic market."* said regional property expert Pik Greune.

An important new development is towards receiving incoming patients from European and Middle Eastern countries for treatment in Turkey. The country has raised its profile as a destination for health tourism. The health and medical tourism has the potential of making important contributions to the economy. Some arrangements have been made for patient exchange on a private basis from various European countries including the Netherlands and UK.

THE THERMAL TOURISM CITIES PROJECT (TTCP)

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 Mertoğlu. 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 most promising areas include ophthalmic, cosmetic surgery, cancer treatment and dentistry. For example, the new hospital of **Dünya Eye Hospital**, which was opened in June 2004 as the world's biggest eye hospital, attracts patients from more than 40 countries. Progress towards the EU accession will further help this potential to materialize. The new Acıbadem Maslak Hospital in İstanbul specializes in cencer treatment and aıms to attract foreign patients.

Dr. Hakan Yılmaztürk from **Hayat Hospitals** said on the issue: “Treatment expenditures are three-to-four fold in Europe compared with Turkey, while Turkey ranks in top positions regarding the level of health technology and skill. Equipped with millions of dollars worth of equipments, many hospitals have significant expectations regarding the tourist flow, in particular from Europe. This potential is a fact which is recognized at global platforms as well.” Regretting about the losses Turkey has been incurring in this area, Gracy Kohen, GM of **Richmond Wellness-Nua** in Sapanca, commented: “Resources Turkey has for health tourism are far above the world standards and we will not be surprised when a mass of people flow into Turkey for health tourism very soon.”

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 Orientes (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 first consuls 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.

4.3 CONSTRUCTION AND REAL ESTATE

CONSTRUCTION INDUSTRY CONTRACTS AFTER RECORD EXPANSION

Turkey's construction industry contracted 7.6% in 2008, after three successive years of rapid growth, spurred by a robust housing market and major government spending on infrastructure, ranging from urban transport and intercity motorways to hydroelectric dams and sewerage systems, the Turkish Statistical Institute reported. The market in 2008 stumbled as the global recession began impacting Turkey's economy.

Partly financed by the national government, local administrations and foreign financial institutions, public sector projects and the housing boom have helped revive the construction industry, 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 had a market size of $63.7 billion in 2006, including activities in both Turkey and abroad, and accounted for 5.3% of the Gross National Product (GNP) according to the **Association of Building Materials' Manufacturers (İMSAD).**

"The construction and the building materials industries combined are the sectors that contribute the most to Turkey' economic growth," Can Fuat Gürlesel, an economist and consultant to İMSAD, told a news conference in İstanbul in January 2008.

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, and a booming young population.

The country's population is rising 1.4% 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 Statistics Institute.

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 Halkali 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 on April 27, 2009, is being carried out by a Japanese-Turkish consortium, led by Taisei Corp. of Japan. Other members include Kumagai Gumi Co. of Japan, Gama Endüstri Tesisleri İmalat ve Montaj A.Ş. and Nurol 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.
- **Ilısu Dam:** Work is continuing on the controversial Ilısu Dam, despite a massive Internet campaign by pro-PKK environmentalists against the project. Turkey on August 15, 2007, 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. **German Hermes, Austrian OEKB** and **Swiss SERV** provided export coverage worth ¤ 525 million. Some ¤ 25 million was provided for the restoration of artifacts of Hasankeyf, a 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. But 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.

The **State Planning Organization (DPT)** estimated that Turkey entered this decade with a deficit of 2.5 million houses. Ata Investment's October 2006 report foresees this deficit to rise to 5.0 million by 2010. This requires a total investment of around \$200 billion until the year 2010 (approximately \$40 billion every year).

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," Teoman Metehan, chief executive officer of **Teknik Yapı Yapılar Sanayi ve Ticaret A.Ş.**, a contractor and 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 like Ankara, İzmir and İstanbul, 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. But efforts to knock them down have been met by stiff resistance from local inhabitants who often clash with demolition teams and accompanying security forces.

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 in the next two years.

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.

"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 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, announced plans in February 2008 that it would 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, 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 will give middle and lower income families the opportunity to become home owners.

The law allows lenders to offer variable-rate mortgages that can then be turned into securities and be taken off bank's balance sheets.

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.

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. In summer 2007, it began a massive campaign to build 275,000 social housing units at 745 sites in 81 provinces. Work is to be completed in 4.5 years. This is a major initiative in a country where 2 million to 2.5 million low-income people need immediate housing. The lands are owned by TOKİ and its participations, **Emlak Konut, Emlak GYO (Real Estate Investment Company)** and **Emlak Pazarlama**, while the private companies build on them on a revenue-sharing basis.

TOKİ's subsidiary **Emlak Konut** has completed many residential and commercial construction projects in Turkey, including the 8,752 housing units in the Ataşehir project on İstanbul's Asian side, and the first two phases of the **Mavişehir Project** in İzmir with 5,321 housing units.

All of its projects are developed and constructed by private contractors on lands **TOKİ** and **Emlak Konut** own on a unique revenue-sharing basis. **Emlak Konut** has tendered construction of 25,000 housing units to private companies on lands it owns in various cities and building has begun. It plans to tender out an additional 40,000 housing units. **Emlak Konut's** housing projects under construction are for mid and upper mid income families. Revenues generated from the sale of the housing developments are used to finance construction of **TOKİ's** social housing.

But with interest rates on housing loans hovering around 1.50% in March 2008, demand for mortgages is now limited to upper income families.

"We were foreseeing that interest rates would fall under one percent in the second half of 2008. But under these conditions this won't be possibler," Fuat Erbil, deputy general manager of **Türkiye Garanti Bankası** responsible for consumer banking, said.

Nevertheless, housing loans reached an estimated record $43.5 billion in 2008, or 18.6% of all bank loans, nearly 17 times more than in 2004, the Banks Association of Turkey reported.

The Association of Real Estate Development Companies (GYODER), which is expecting 6 million new homes to be built in Turkey by 2016, predicts that the Turkey's annual housing loan market could double to $60 billion annually when the mortgage system is operating in full swing.

CONSTRUCTION PERMITS ISSUED FOR RESIDENTIAL BUILDINGS, 1995-07

	Dwelling units, 000	Area, Million m^2
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

Source: Turkish Statistics Institute, Turkish Union of Contractors

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.

SHOPPING CENTERS AND COMMERCIAL BUILDINGS

A surge is taking place in the building of new office offices and shopping centers in cities throughout Turkey, where new American-style suburbs are mushrooming.

Turkey had 206 modern shopping centers as of December 31, 2008, and some 201 others were in various stages of construction and planning, according to the Turkish Council of Shopping Centers, a trade group. Even once-sleepy eastern Anatolian cities, like Elazığ, Diyarbakır and Sivas now have thriving shopping malls.

SHOPPING CENTERS IN TURKEY AS OF DECEMBER 31, 2008

	İstanbul	Anatolia	Total
Existing Centers	66	140	206
Under Construction	45	61	106
In Project Stage	42	53	95
Total	**153**	**254**	**407**

Source: Turkish Council of Shopping Centers

Some 4.781 million square meters of rentable space was available at the Turkish shopping centers as of the end of 2008.

All this is strange in a country that introduced the concept of shopping centers to the world. The 15th 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 of 12 million now has more modern shopping centers than most European cities -- 66 in all -- and 45 more are being built. New York City, a metropolis of far greater wealth, had only 57 shopping malls. By 2012, İstanbul was expected to have more than 100 shopping malls, according to some projections.

Many of İstanbul's complexes are mixed use sites (a combination of shopping centers, office buildings, residences and hotels.)

Three major sites under construction in İstanbul are the **Diamond of Istanbul**, **Istanbul Sapphire** and the **Trump Towers Istanbul.**

The **Diamond of Istanbul** is a 53-floor futuristic mixed use site that will include a shopping mall, a 308-room delux hotel and 44 residential apartments. The 270-meter building will be the tallest building in Turkey when completed in 2010. The 64-story, 261-meter **Istanbul Sapphire** will include a 64-store shopping center, a residential complex, sports facilities and car park. **Trump**

Towers Istanbul, a complex of two towers, one with 39 floors and the other with 37 floors, is being constructed by the **Trump Organization** of New York City, and Turkey's **Doğan Group, Yeşil İnşaat** and **Taş Yapı.** The buildings will include office space, residential flats and a shopping mall.

Foreign manufacturers are flocking to the shopping centers to open franchises. The newspaper Hurriyet reported that 40% of the stores in Turkey's shopping malls were either foreign-owned or were franchises of foreign companies.

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**, **Divarese**, **Harvey Nichols**, **Versace**, **Starbucks Café**, **Second Cup Café, and Gloria Jeans Café**, **Burger King**, **McDonald's**, **Kentucky Fried Chicken**, and **Pizza Hut.**

Foreigners spent $1.34 billion on property in Turkey in 2005 and $ 2.9 billion in 2006. 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. Major multinationals, such as **Carrefour**, **IKEA**, **Bauhaus**, **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 $2.4 billion to build malls in Turkey. German investment company **Prime Development** announced in April 2009 that it would make investments in Turkey's shopping mall and housing sector at a total cost of USD 1.5 billion, with the first shopping centers in İskenderun and Antakya.

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 İstanbul, the spiral Dubai Towers, for $500m in partnership with the **İstanbul Municipality**, though the project has so far been halted by the **Council of State,** Turkey's supreme administrative court, on procedural grounds. Other developers from Gulf include **Tamniyat Group, Eta Star of Dubai and Emaar Group.**

There is a wide scope for the development of real estate market. *"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-2007, the bank had a total portfolio volume of ¤ 900 million in Turkey.

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 is 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 April 5, 2009, some 85,582 foreign nationals, individually or in groups, had acquired 74,542 plots of land and homes in Turkey, equivalent to 51,103,834 square meters, 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, were preferred by foreign nationals, it said.

Some 18,435 Germans had bought property, followed by 24,524 Britons, 10,937 Greeks, 5,844 Irish, 4,997 Danish, 4,641 Dutch, 3,497 Norwegians, 2,140 Austrian, 1,921 Belgian and 981 Russian citizens. Some 121 Canadians had acquired 134 plots of land and homes in Turkey, eqivalent to 37,480 square meters.

"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."*

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; the town's leading tax payer is a British woman realtor.

"Even London cab drivers own homes along the Turkish Coast," commented Hakan Kodal, chief executive officer of the **Krea Group**, a real estate development company affiliated with **Merrill Lynch.**

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 market freehold residential properties to purchasers in mainly in Britain 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

Since 1972, Turkish contractors' companies have undertaken over 3,500 construction projects in 65 countries abroad, worth an ultimate $84 billion, becoming the top third contender in overseas contracting, according to the **Undersecretariat of Foreign Trade.** These contractors aim to complete projects totaling $100 billion by 2010.

Some 23 Turkish companies were ranked among the world's top 225 contractors in 2008 by the industry magazine Engineering News Record (ENR).

The Turkish construction sector has accumulated the technological capacity and know-how over the years to meet domestic demand. Starting in the 1980s, it has also built up a significant presence abroad.

OVERSEAS CONTRACTING

Turkish firms are carrying out projects in dozens of countries in a wide geography extending from Ireland to Sakhalin Islands in the Pacific Ocean and from the African countries of Ghana, Mali, Sierra Leone and Cameroon to India. Turkish contractors currently concentrate the bulk of their worldwide presence in Russia, with contracts worth about $2.7 billion. Iraq ranks second in this respect with $1.5 billion. Turkey's EU membership is expected to create a significant market for the overseas contracting sector.

4.4 ENERGY

Turkey's production of primary energy supplies increased in 2007 to 27.5 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 power facilities and lack of new offshore oil fields. Additionally, low rainfall has 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.

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.

PRIMARY ENERGY PRODUCTION OF TURKEY 1990-2007 (TABLE 1) BY SELECTED PRODUCTS (IN ORIGINAL UNITS)

Years	Hard Coal (1000 Tons)	Lignite (1000 Tons)	Asphaltite (1000 Tons)	Natural Gas (In Million Cubic Meters)	Crude Oil (1000 Tons)
1990	2,745	44,407	276	212	3,717
1995	2,248	52,758	67	182	3,516
2000	2,392	60,854	22	639	2,749
2001	2,494	59,572	31	312	2,551
2002	2,319	51,660	5	378	2,420
2003	2,059	46,168	336	561	2,375
2004	1,946	43,709	722	708	2,276
2005	2,170	57,708	888	897	2,281
2006	2,319	61,484	452	907	2,284
2007	2,462	72,121	782	893	2,134

Source: Ministry of Energy and Natural Resources

(TABLE 2)

Years	Hydro-Electric Power (GWh)	Geothermal Electricity (1,000 TOE*)	Wood (1000 Tons)	Biomass (1000 Tons)	Solar Energy (1000 TOE)	Total (Table 1+2)** (1000 TOE)
1990	23,146	364	17,870	8,030	28	25,478
1995	35,541	437	18,374	6,765	143	26,719
2000	30,879	648	13,938	5,981	262	26,047
2001	24,010	687	16,263	5,790	287	24,676
2002	33,684	730	15,614	5,609	318	24,259
2003	35,330	784	14,991	5,439	350	23,783
2004	46,084	811	14,393	5,278	375	24,332
2005	39,714	926	13,819	ua***	385	ua
2006	44,465	1,081	13,268	ua	403	26,800
2007	36,007	914	12,932	ua	420	27,500

* Tons Oil Equivalent (TOE)
** Includes GWH from Wind Energy and Geothermal Heating in TOE
*** Unavailable (ua)
Source: Ministry of Energy and Natural Resources

Energy imports constitute one-fifth of the nation's import bill. In 2007, Turkey spent $33.9 billion on the import of energy supplies, including fossil fuels, lubricants and related materials, according to the Turkish Statistics Institute (TUİK)

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 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 (2001-2007)

Year	Amount in Million U.S. Dollars
2001	8,339
2002	9,204
2003	11,576
2004	14,407
2005	21,256
2006	28,859
2007	33,900

Source: Turkish Statistical Institute (TUİK)

Turkey privatized the first two of 20 regional electricity distribution companies in early 2009:

In January, **Sabancı Holding-Osterreich Elektriztatwirtchafts Aktiengesellschaft (Verbund)-Enerjisa Enerji Üretim A.Ş. Joint Venture** acquired **Başkent (Capital City) Electricity Distribution Company** for $1.225 billion. The power company distributes electricity in the provinces of Ankara, Kırıkkale, Zonguldak, Bartın, Karabük, Çankırı and Kastamonu, in northwest Anatolia.

In February, **AkCez**, a joint venture between Turkey's **Akkok Group** and the Czech Republic's **Cez,** acquired **Sakarya Electricity Distribution Company** for $600 million. The power company distributes electricity in the provinces of Sakarya, Bolu, Düzce and Kocaeli also in northwest Anatolia.

In related developments in 2008, the Turkish group **Aslim Alarko** was the highest bidder for **Meram Electricity Distribution Company,** which supplies power to six provinces in central Turkey. It bid $440 million.

The government's Privatization Administration invited bids for the **Yeşilırmak**, **Çoruh** and **Osmangazi Electricity Distribution** companies by October 20, 2009.

In addition to its power distribution companies, the government is planning to sell 26 large hydroelectric dams and coal-fired power plants and 56 small river dams that have completed their economic life span. It is encouraging private companies to build and operate new hydroelectric dams and natural gas-fired power plants, operate state coal mines and geothermal facilities. It privatized natural gas distribution rights in more than 154 cities, and began 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** and coal concern **TKİ.** Botas is the state company responsible for importation, transmission and distribution of oil and natural gas. **BOTAŞ** currently operates 3,374 km of crude oil pipelines and 11,130 km of natural gas pipelines, carrying 130.2 million tons of crude oil and 88 billion cubic meters of natural gas each year. In 2007, **BOTAŞ** had a net income of $695 million on net sales of $1.281 billion. **TKİ,** Turkey's 18th biggest industrial company in terms of sales, mines lignite coal at seven big mines in western Turkey. In 2007, it had a before tax income of $15.7 million on net sales of $1.431 billion. The company employs 10,842 persons.

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 to France's **GDF Suez** for $522 million, officials said. **İZGAZ**, which supplies 1 billion cubic meters of natural gas to subscribers in the city every year, posted $290.8 million in net sales in 2007.

A Russian-led consortium was the sole bidder for Turkey's first nuclear power plant. The state **Turkish Electricity Trade and Construction** company is continuing negotiations with JSC **Atomstroyexport-JSC Inter Rao Uses- Park Teknik Consortium,** for construction of the nuclear plant in Akkuyu, in İçel province on the Mediterranean Coast. Turkey also plans to construct nuclear power plants in Sinop, on the Black Sea Coast, Konya in central Turkey and Akkuyu by 2020. The three sites will have a total capacity of 5,000 MW.

Turkey also wants private companies to build new oil refineries, in addition to the existing private oil refineries concern, Tüpraş, which operates the country's four oil refineries.

Turkey 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 **Ministry of Energy and Natural Resources.** The total budget for the ministry in 2009 was a mere $2.116 billion.

INVESTMENT NEEDS OF THE TURKISH ENERGY SECTOR, 2005-20

Sector	Investment, $ Mn
Coal Exploration & Extraction	5,109
Oil	16,000
Natural Resources	2,700
Water (DSİ)	6,093
Generation (EÜAŞ)	458
New Generation Facilities	91,276
Transmission	938
Distribution	6,000
Total	128,574

Source: Ministry of Energy (MENR)

"The state does not 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 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.

In 2006, Turkey met 33% of its general energy consumption from oil, 28% from coal, 29% from natural gas and 10% from hydroelectric power and other renewable energy resources.

Turkey's general energy demand is expected to increase to 154 million Tons Oil Equivalent (TOE) by 2010 and to 282 million TOE in 2020 from 78 million TOE in 2001.

OIL AND NATURAL GAS

Turkey, which isn't self-sufficient in oil, at the end of 2007 had only 38.743 million tons of recoverable oil reserves, an amount that could meet only 1.5 years of the nation's demand for crude oil, forcing the state-owned **Turkish Petroleum Corporation (TPAO)** to carry out deep sea and tough mountainous terrain drilling, energy officials said.

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.

TPAO plans to spend $750 million on five wells along the Black Sea Coast in 2009 and 2010. **British Petroleum** withdrew from a consortium with **TPAO** when oil drilling along the eastern Black Sea Coast off the town of Arhavi yielded no results.

TPAO signed agreements with Brazil's state **Petroleo Brasileiro S.A. (Petrobras)** and **U.S. Chevron Corp** in 2006 and 2008 to explore for oil in the Black Sea on a 50-50 basis.

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. **TPAO** General Manager Mehmet 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 2007 stood at a mere 2.134 million tons, almost entirely by **TPAO** and **Shell's Perenco. TPAO** also produced 20.075 million barrels (2.75 million tons) abroad, mainly in the Azeri Caspian, in 2007.

Turkey imported about 23.446 million tons of oil in 2006.

It paid a total $9.374 billion for 19.718,825 million tons of imported crude oil in the first ten months of 2007, according to the **Turkish Statistical Institute (TUİK).**

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 mountain ranges, and tectonic faults, would require drilling many wells as deep as 6,000 meters, and may be currently uneconomic.

State-ownedTurkish Petroleum Corp. **(TPAO)** is Turkey's biggest producer of oil, accounting for 71% of the country's production, followed by **Shell (Perenco)** with 24% and **Mobil - Dorchester** produced about four percent. A host of smaller companies also produce oil.

From 1934, when oil exploration and extraction began, and 2007, Turkish and foreign companies have opened 3,458 wells, totaling 6.585 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 **Toreador 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 Siirt, along the Syrian and Iraqi borders, at Tuz Gölü (Niğde) in central Turkey and Thrace.

Zorlu Enerji's **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 23%, which however is still lower than in EU and OECD countries.

Turkey's total natural gas demand is estimated at 31.4 billion cubic meters as of 2007, and has grown very rapidly at about 10% per annum over the last few years. 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:

Vancouver-based **Terasen International (TII)** and **Palmet** of Turkey formed a joint venture in spring 2007 to support **Palmet's** natural gas distribution companies in Gebze, northwest Turkey, and Erzurum, under a $185 million gas project.

Euromax Resources Ltd. of Vancouver, British Columbia, acquired 33.3% interest in the Iskenderun 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.

Telvent realized successful natural gas, water and electrification projects, including turnkey **SCADA** system to **İstanbul Gas Distribution Corporation and Ankara Electric, Gas and Bus Authority (EGO)** and expects involvement in larger projects in the coming years.

Atomic Energy of Canada Limited (AECL) has been following the nuclear energy projects in the country since the mid 1980's. Currently, there are three nuclear plants in the planning stage, envisaged to become operational by 2013.

There are a number of other Canadian companies including **Major Drilling, Troy Engineering, CCM Group** and **Palmet**, which work in the area of construction and energy in general. **Palmet** obtained finance from Canada's state-owned **EDC** in 2005 in order to realize its natural gas distribution projects.

TURKEY'S NATURAL GAS DEMAND IN MILLION CUBIC METERS

YEAR	AMOUNT
2006	29,500
2007	31,400
2008	33,400
2010	42,100
2015	52,200
2020	61,000

Source: BOTAŞ Petroleum Pipeline Corp.

Consumption of natural gas in Turkey grew at 14.8% per year in the last decade, reaching 33.4 billion cubic m) in 2008. The state Petroleum Pipeline Corporation (BOTAŞ) estimates that gas demand will be 42.1 billion cubic meters in 2010, 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 2007, **BOTAŞ** imported 34 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 has reached levels endangering public health. The country has been using mainly lignite, a low-calorific, high-sulphur content coal which is 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** has laid 11,130 km of pipelines to date crisscrossing the nation and plans to supply natural gas to all 81 provinces by end 2009.

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.

PRIVATIZATION

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 2009.

In 2007, BOTAŞ privatized 16 lots (4 billion cubic meters) of its of 64 lots (16 billion cubic meters) of natural gas import contracts to five companies: **Eurasia, Shell Energy, Bosphorus Gas** (a joint venture between Turkish businessman Ali Şen and **Gazprom of Russia**), **Enerco** and the **Aksa Group.**

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 25.6 million tons of crude oil in 2007, and exported 2.2 million tons of leadless gasoline and 2.7 million tons of fuel oil and 587,000 tons of other products in 2007, earning $3.380 billion from foreign sales.

Petkim, the 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. In 2006, Turkey imported 7.6 million tons of finished products, including 6.166 tons of gas oil (diesel), while exporting 2.550 million tons, including 1.740 million tons of fuel oil and 810,000 tons of gasoline.

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** application for 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.

TOP 20 TURKISH ENERGY COMPANIES IN 2007 IN TERMS OF NET SALES (IN MILLION U.S. DOLLARS)*

Name of Company	Total Sales	Sector Involved
1 Tüpraş Türkiye Petrol Rafinerileri	19.264	Oil refining
2 Petrol Ofisi	11.475	Oil products retailing
3 Enka İnşaat	5.876	Electricity production
4 Opet Petrolcülük	5.092	Oil products retailing
5 BP Turkey	4,604	Oil products retailing
6 EÜAS Elektrik Üretim A.Ş.	3.955	Electricity production
7 Aygaz A.Ş.	2.729	LPG filling, distribution
8 Türkiye Kömür İşletmeleri	1.431	Coal mining
9 İGDAŞ	1,828	Natural gas distribution
10 BOTAŞ	1.281	Oil and natural gas pipelines operations, gas and oil imports and distribution
11 Milangaz LPG Dağıtımı	1.238	LPG distribution
12 İpragaz	1.136	LPG distribution
13 Turkish Petroleum Corp (TPAO)	838	Oil and gas exploration, extraction
14 Çalık Enerji	459	Natural Gas/Electricity distribution.
15 Mogaz Petrol Gazları A.Ş.	443	LPG distribution
16 SEAS Soma Elektrik Üretim A.Ş.	421	Electricity production, distribution
17 Zorlu Elektrik Enerji Üretim	402	Electricity production, distribution
18 Enerji Petrol Ürünleri Pazarlama	401	Petroleum products distribution
19 Ak Enerji Elektrik Üretim A.Ş.	387	Electricity production, distribution
20 Shell Gaz Ticaret ve Sanayi	387	LPG distribution

Sources: İstanbul Chamber of Industry, Capital Magazine and Ministry of Energy and Natural Resources

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 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)** crude **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.
- **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 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
- **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 $5.8 billion. Construction of the 2,200-mile pipeline is slated to begin in 2009 and is due for completion in 2012. 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.**
- **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.

OIL PRODUCTS RETAILING

As of the end of April 2009, Turkey had 51 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 five 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 **TABGIS,** 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 30% 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 controlled 67% of all the nation's service and fuel stations.

TURKEY'S LEADING SERVICE AND FUEL OIL STATION OPERATORS AS OF END OF APRIL 2009

Company	Number of Service and Fuel Oil Stations
1. Petrol Ofisi + Erk	3,438
2. Opet + Sunpet	1,509
3. Shell + Turcas	1,338
4. Lukoil + Akpet	816
5. BP	782
6. Total	625
7. Enerji Petrol	507
8. Can Aslan	458
9. Altınbaş (Alpet)	450
10. Termopet	466
11. Starpet Garzan	425
40 Others	4,918
Total	**14,918**

Source: Energy Market Regulation Agency

The market size for gasoline and other oil products in 2008 was around $49.6 billion, compared to $53 billion in 2007. This drop was due to reduction in consumption of oil products because of excessive rising oil costs, according to the **EPDK.**

The past boom has 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 the association **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 grocery stores, coffee houses, fast food restaurants 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.

In addition to the service stations, about 44 companies with 4,000 outlets distribute liquefied petroleum gas (LPG) for cooking and water heating throughout Turkey.

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 into 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 could be permanently shut down.

ELECTRICITY

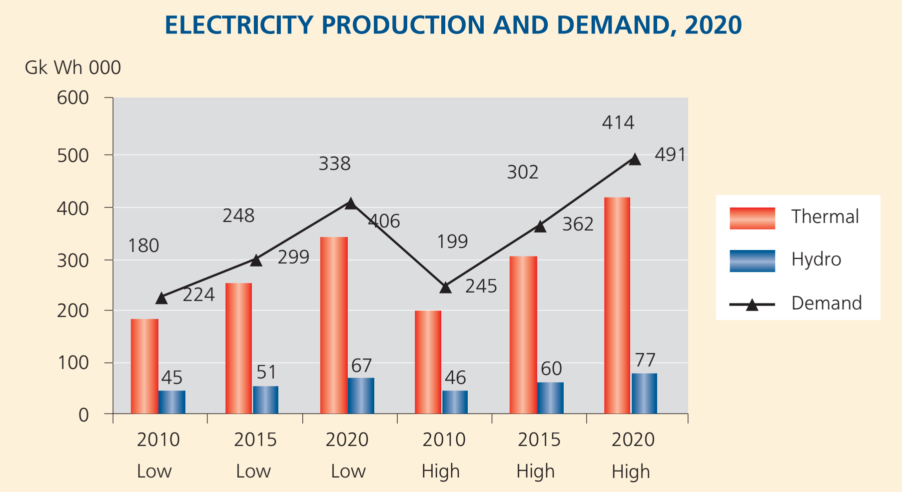
A crash program to develop power plants, with an increased role for private and foreign investors, is key to Turkey's continued economic growth, energy planners say.

Turkey will need a large infusion of foreign capital to increase its generating capacity 58% to 65,000 Megawatts (MW) by 2010 and raise 134% to 96,000 MW by the year 2020.

At the end 2008, Turkey's total installed power production capacity reached and estimated 42,000 MW, according to the **Ministry of Energy and Natural Resources (MENA).**

Turkey's electricity consumption was expected to rise 54.25% by 2010 to 290 billion Kilowatt hours (kWh), and 190% by 2020 to 546 billion kWh, according to state energy planners. Turkey produced around 203.4 billion kWh in 2008, up 8.2% from 2007, **MENA** reported.

Additional generation capacity will be required beyond 2009-2010 under most demand and supply scenarios made by **MENA.** The government is exploring alternatives for adding significant amounts of capacity in order to meet the probable shortage of supply in the medium term. Projections require installed capacity to more than double to 96,348 MW by 2020. Considering the projects under construction, this figure represents an additional capacity requirement of about 54,000 MW. **State Planning Organization** economists calculate that this will require a total investment amount of $84 billion. Investment requirement would be $13 billion during 2007-2010, $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.



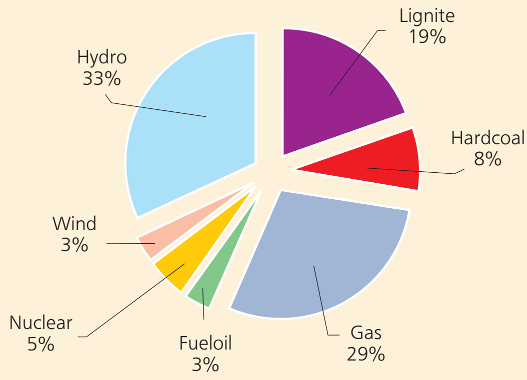
Source: SPO

Electricity demand in Turkey increased 8.4% in 2007, the world's second highest growth rate after China, confounding the nation's energy planners, who had projected lower rates, 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 Cumhur Ersümer declared.

INSTALLED CAPACITY BY RESOURCES, 2020 (MW)



Source: Ministry of Energy and Natural Resources

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 State of Statistical Institute (TUİK).

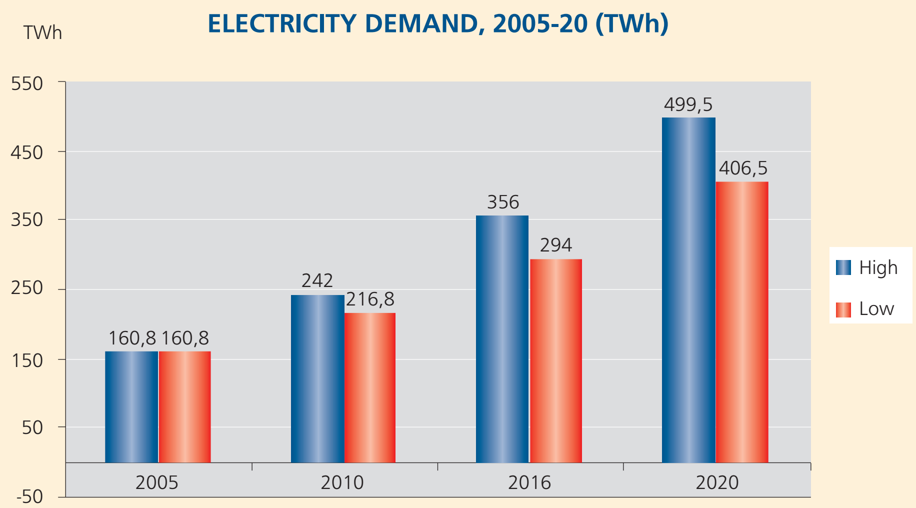
To meet the shortfall, the government is seeking private investors to build and operate new hydroelectric dams, thermal energy power plants and rehabilitate existing ones.

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 hydroelectric dams in mainly eastern Anatolia.

Additionally, many of the 1,277 private sector hydroelectric dam projects, which the **State Hydaulic Works Administration (DSİ)** endorsed, have received licenses from the **Energy Market Regulation Agency (EPDK)** in 2008 and 2009, and have begun construction work. Most of these are small to mid-sized river dams (with under 50 MW power generating capacity).

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.



Source: MENR

"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 group 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.

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
Total	**23,981**	**1,332**	**31,937**

Source: Turkiye Elektrik Enerjisi Piyasası 2007, Deloitte

Germany's **RWE Holding AS** and **Turcas Elektrik Üretim** signed a joint venture agreement for 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.

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
Gürsöğüt	279 MW	Mihalcik, Eskişehir
Kargı	214 MW	Mihalcik, Eskişehir
Alpaslan 2	200 MW	Muş
Hakkari	208 MW	Hakkari
Konaktepe 1-2	138 MW	Tunceli
Beyhani	300 MW	Palu, Elazığ
Doğanlı	462 MW	Hakkari
Kaleköy	293 MW	Solhan, Bingöl
Çukurca	245 MW	Çukurca, Hakkari
Eriç	170 MW	Kemah, Erzincan
Pervari	192 MW	Pervari, Siirt
Durak	120	Çamlıhemşin, Rize
Mut	91	Mut, İcel

Source: Dünya Newspaper, State Hydraulics Works Administration (DSİ)

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. 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.*	23,355.9
2	Enka İnşaat	3,938.8
3	Sugözü	1,320.0
4	Baymina	798.0
5	Birecik	672.0
6	Ciner Holding	620.0
7	Çolakoğlu	571.8
8	Oymapınar	540
9	Unimar	504
10	Trakya Elektrik	498.7
11	Akenerji	443.7
12	Zorlu Enerji	410.5
13	Enerjisa	378.8
14	BİS Enerji	290.7
15	Habaş	255.5
16	Isdemir	220.4
17	Entek	197.6
18	Kartet	191.6
19	Cam İş	177.3
20	Petkim*	170
	Installed capacity of Top 20	**35,599.7**
	Turkey total installed capacity	**40,161.0**

* EUAS and Petkim are state-owned

Source: Para Magazine

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,** the country's biggest foreign investment 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 began in 1996 and was completed in 2001. A company formed by the contractors is operating the hydroelectric dam. It will transfer it to the government under a 15-year contract. State-owned **TEAŞ** has a 30 percent stake, **Gama Endüstri A.Ş.** of Turkey 19.4 percent and Germany's **Philip Holzmann AG** 16.4 percent, with smaller shares for other firms.

- **Mimag-Tractabel** built and is now operating the 770 MW natural gas power plant **Baymina Power Plant** in Ankara. **Baymina** is 95 percent held by Belgium's **Tractabel** and 5 percent by Turkish **Mimag.**

- **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 percent owned by **Edison Mission Energy of Irvine, California.** The power plant uses a combined cycle technology in a cogeneration mode.

- The consortium **Enka** and **Intergen** 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; **International Power** and **Midlands Generation** and **Gama Endüstri** of Turkey, operates the power 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.

- 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 percent share and **Armed Forces Pension Fund (Oyak)** of Turkey with a 49 percent share, own and operate the plant, which produces 9 billion kWh of electricity every year. Prime Minister Recep Tayyip Erdoğan and German Chancellor Gerhard Schroeder opened the coal-fired plant on February 24, 2004, despite protests from environmentalists saying that it will cause pollution. The 1,210 MW plant produces seven percent of Turkey's annual electricity requirements and uses high-calorific imported coal. Some 750 persons are employed at the site.

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, which cause no pollution and produce no greenhouse gasses, as viable environmentally friendly alternatives to fossil fuels.

A major international hydrogen energy research center was established in İstanbul in 2004, under an agreement signed by the 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 would 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 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 blades in 2009 under a license from **American Superconductor Corp.** A separate factory producing wind turbines is being constructed in Adapazarı, in northwest Anatolia **Nett Enerji Elektrik Üretim A.Ş.** is establishing the factory. Production will begin in October 2009.
- 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 Borusan Group and Germany's EnBW AG in April 2009 formed a partnership to invest in ¤ 2.5 billion in energy projects in Turkey.

WIND ENERGY

Turkey intends to increase its wind energy capacity seven-fold to 1,048 MW by the first quarter of 2009 from 20 MW in 2005, despite some concerns over the inconsistency of power generation intensity, Turkey's **Wind Power and Hydropower Plants Businessmen's Assocation** said.

As of December 31, 2007, Turkey had 10 operating wind farms with a total power generating capacity of 146.6 MW. Work on eight other projects with a total capacity of 624.86 MW, including the 130 MW **Zorlu Energy's Rotor A.Ş.** wind farm in the southern province of Osmaniye, were nearing completion. Construction also began on around 75 other wind farms in 2008 and 2009, 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 is 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."

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 2007, it produced 420 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

TURKISH SOLAR ENERGY OUTPUT IN TONS OIL EQUIVALENT (TOE)

Year	Amount
1998	200
1999	236
2000	262
2001	290
2004	375
2007	420

Source: EİEİ

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 heats 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 18 high temperature geothermal fields and three wells in ten provinces to the private sector.

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
Total		**455**	**550**

Source: EİEİ

NUCLEAR ENERGY

Turkish energy authorities are holding talks with a Russian-Turkish consortium for the construction of the country's first nuclear power plant. The consortium **JSC Atomstroyexport-JSC Inter Rao Uses- Park Teknik Consortium** was the sole bidder for construction of the nuclear plant in Akkuyu, in İçel province on the Mediterranean Coast.

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 YTL 350 million investment. Energy officials said.

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.

CERN, located in Switzerland, is the world's biggest nuclear research facility. The site was one of the main settings of Dan Brown's thriller *"Angels and Demons."*

The government wants the private sector to construct and operate three nuclear power plants by 2020 with a total generating capacity of 5,000 MW, 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.

The other two plants would be located in Sinop, on the Black Sea Coast, and Konya province in south central Anatolia, the 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 disposal center 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 10th in the world in terms of mineral wealth, it stands in 28th 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 National Product (GNP). It now accounts for less than 1.5% of the GNP.

Turkey is the world's biggest producer of boron, borax and boric acid, and trona (natural soda), and second largest producer and processor of chromate and chromium. It is also a leading producer of sulfur and sulfuric acid and tincal concentrate, aluminum, phosphate, colemanite, lead and 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 chromate deposits exist in Turkey. **Guleman-Elazığ** is the major chromate mine of eastern Turkey. Main regions in western and southern Turkey for chromate 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, detergents, ceramics, paper, plastics and leather.

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 2008, Turkey's total mineral and metal exports stood at $3.240 billion, accounting for 2.5% of the nation's total foreign sales, according to the **İstanbul Mineral and Metal Exporters' Associations.**

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)** operates the country's big lignite and hard coal mines, increasing lignite coal production every year. The government turned over the **Çöllolar Lignite Mine,** the country's biggest lignite coal mine, to private **Ciner Group** in 2007.

Dedeman Holding is the largest private producer and exporter of chromate 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. **Inmet** of Canada owns the **Çayeli Copper Mine** in the northeastern Rize.

Koza Madencilik of Turkey operates a gold mine in Ovacik, near the ancient ruins of Pergamum in western Turkey, which 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.

In 2008, Greece's **Halcor** acquired copper mining company Sega Bakır for an undisclosed sum.

Tüprag Metal of the Netherlands and **Cominco Mining** of Canada are other foreign minerals producers with direct investments in the nation. Some 23 foreign companies were involved in mining in Turkey in 2007.

4.5 HEALTHCARE

HEALTH INDICATORS

Although per capita health care expenditure has increased 49% since 2002, health indicators show that there is much room for growth in Turkey. Public health expenditures, totaled $18.8 billion in 2005, represent 5.2% of GDP, compared to 8-18% for the EU. The Economist Intelligence Unit estimates the healthcare spending to be $27 billion in 2005, and foresees this to rise to about $41 billion in 2010. About one third of State Planning Organization data and one quarter of EIU data relate to the drug expenditures.

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. Health spending in Turkey lags far behind the EU average of 8-10% with 5.2% of GDP in 2005.

TURKEY'S HEALTH STATISTICS, 2006-2013

Indicators	2006	2007	2013
Population growth rate, per thousand	12.4	ua	10.10
Crude birth rate	2.18	2.17	2.07
Infant mortality rate, per thousand	22.6	21.70	18.50
Life expectancy at birth, years	71.5	71.70	79.0

Source: State Planning Organization, Ministry of Health, Turkish Statistical İnstitute

Per capita health expenditure on purchasing power parity basis stands at $452, while this is $5,635 in the U.S:, $3,003 in Canada, $2,258 in Italy and $1,835 in Spain. 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.

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 health care services is provided by the public sector. The **Ministry of Health** operates 849 of Turkey's 1,318 hospitals, with 135,000 of 200,983 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. In the past decade, it has been the private sector that has made the largest outlays for investment in healthcare.

Supported by the increasing demand for private health care services, the number of private hospitals increased from 1993 onwards, rising from 141 in 1995 to 365 in 2007 and to more than 400 in spring 2009. The private sector operates 27.7% of Turkey's hospitals but accounts for only nine percent of its beds. The **Ministry of Defense** in 2007 ran 42 hospitals with 16,000 beds and municipalities had six hospitals with 1,389 beds.

MEDICAL HOSPITALS AND BED CAPACITIES IN TURKEY IN 2007

Organization	Number of Hospitals	Number of Beds
Ministry of Health	849	135,240
Private	365	17,995
Universities	56	29,700
Ministry of Defense	42	16,000
Municipalities	6	2,048
Total	**1,318**	**200,983**

Source: Ministry of Health, Turkish Statistical Institute (TUİK)

In 2007 and 2008, Abraaj Limited of the United Arab Emirates acquired a total 57.86% stake in **Acıbadem Heathcare Group,** one of Turkey's leading private healthcare companies and hospital operators, for $605.3 million; the **Global Environment Fund** of the U.S. purchased dental care company **DentIstanbul** for an undisclosed amount; Greece's **Hygeia** purchased 50% of the private **Şafak Hospitals** for $48 million.

Other foreign involvements are **Memorial Sloan-Kettering, Johns Hopkins** and **Harvard Medical International.** IFC has 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 hospitals.

Recent developments in the healthcare policy will have further positive effects on the development 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-sought Social Security and General Health Insurance Law, which was adopted by Parliament, increased the retirement age, unified all social security beneficiaries under one umbrella and established a universal health insurance fund.

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 Hospitals,** which are 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.

PRIVATE INVESTMENTS IN HEALTH CARE

Private health care investments, which stood well below the level of public health care investments in 1980s, started to exceed the public figures after 1991, and even doubling it after 1998.

Benefiting from investment incentives, the share of private sector in total health investments increased from about 15% during the 1980s to 70% in 2003. This ratio is set to increase further due to the current health policies of the government.

Major opportunities for foreign companies include investments in health care facilities and software and application development services.

The Turkish private health sector has also developed the capacity to transfer knowhow for establishing hospitals in the countries in the region and is open to collaboration in this area.

Source: Meri Bahar, Deputy General Manager of **Acıbadem Healthcare Group**

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 is estimated to grow 12-14% annually in recent years, and reaching around $3 billion in 2005. The growth has been mainly fuelled by the increase in imports rather than production.

Ninety percent of all medical equipment is imported. Demand is especially strong in sophisticated laboratory and computerized equipment and items for nuclear medicine, cardiovascular surgery, X-ray, anesthesia and intensive care, including ultrasonic scanning apparatus, magnetic resonance imaging apparatus, patient monitoring systems, 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 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.

Major medical supplies and devises produced in Turkey and exported include:

- Medical textile products: 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.
- Wadding, gauze, bandages and similar articles impregnated or coated with pharmaceutical sciences.
- Orthopedic appliances, including crutches, surgical bells and trusses.
- Medical, surgical dental or veterinary furniture.
- Mechano therapy appliances, massage apparatus, artificial respiration or other therapeutic respiration units.
- Sterile surgical catgut, similar sterile suture materials and blood-grouping reagents.

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, 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. **G E Healthcare** announced that it would relocate its headquarters to İstanbul.

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 equipments is predicted to continue to expand 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 health care market. Private sector health care services are expanding, with its share in total fixed capital health investments on the rise - from 48% in 1993 to over 60% in recent years.

As growth in the health care sector is expected to continue and restructuring of the health financing system is on the agenda, Turkey will remain an attractive market for exporters of equipment and supplies, as well as medical consulting services and knowledge transfer. Being an import-dependent sector, the emphasis put on privatization in the health sector will increasingly mean easier sales and higher technology products for foreign equipment suppliers. This growth would be driven by the recently introduced private insurance as well.

In addition to its growing internal market, Turkey also offers opportunities for health care service and equipment providers as a stepping-stone to the markets in the Central Asia and North Africa.

There is an enormous potential for growth in private health care services

With the coming into force of the much-sought Social Security and General Health Insurance Law as of 2008, private hospitals are under construction all over the country in anticipation of growing demand for medical care.

INCOMING FOREIGN PATIENTS

Turkish hospitals enjoy costs 3-4 times lower compared to Europe 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 European, North American and 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 most promising areas include ophthalmic, cosmetic surgery and dentistry. 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, **Acıbadem Healthcare Services,** one of Turkey's top private hospital operators, attracted 2,500 foreign patients. The health group's new **Maslak Hospital** in İstanbul specializes 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.

4.6 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 at 4,286 companies manufacturing various chemicals, according to the **Export Promotion Center of Turkey (IGEME).** Some 95 of these firms are large-scale producers in terms of Turkey with annual sales of over $15 million and more than 150 employees. The rest are small, and medium-scale, family-owned firms. (Medium scale: 51 to 150 employees. Small scale: 1 to 50 employees). Most of the firms are undercapitalized.

Foreign investment exists in 314 Turkish chemical companies, mainly pharmaceuticals and plastics.

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 a 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.

The industry has been neglected by the government in the past two decades, probably because it has been import-dependent and hasn't been able to generate much foreign exchange, compared to 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 2008, Turkey's chemical products (CP) imports, excluding mineral fuel, petroleum products and synthetic fibers, stood at an estimated $28.583 billion, while exports were $8.590 billion according to the **Turkish Statistical Institute (TUİK).**

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 33% 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 CP exports.

Other major CP 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.

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 quadrupled to an estimated 8.100 million tons in 2006, industry officials said.

MAJOR CHEMICAL IMPORTS OF TURKEY 2001-2008 (IN MILLION U.S. DOLLARS)

Chemical Groups	2001	2002	2008
Plastics and plastic products	1,733	2,382	9,385
Organic chemicals	1,625	2,227	4.421
Pharmaceuticals	1,087	1,439	4.360
Rubber and rubber products	ua	ua	2,219
Miscellaneous	ua	ua	1,732
Other chemicals	484	579	1,536
Paint material	491	680	1,579
Inorganic chemicals	356	434	1,684
Fertilizers	266	266	1,481
Essential oils and cosmetics	237	290	844
Cleaning materials	150	184	640
Products related to photography	120	133	233
Total	**6,635**	**8,398**	**28,583**

Source: Turkish Statistics Institute

CHEMICAL EXPORTS OF TURKEY 2001-2008
(IN MILLION U.S. DOLLARS)

Chemical Groups	2001	2002	2008
Plastics and plastic products	610	679	3,582
Rubber and rubber products	ua	ua	1,807
Inorganic chemicals	211	219	679
Cleaning materials	233	261	662
Organic chemicals	155	164	486
Paint material	92	113	452
Essential oil and cosmetics	83	98	448
Pharmaceuticals	127	144	421
Other chemicals	64	76	---
Fertilizers	18	36	---
Total	**1,617**	**1,820**	**8.590**

Source: Turkish Statistics Institute

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 will be around 272,000 tons a year by 2010, the report 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.

"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 plans to privatize **Petkim** and lack of financing have kept the $2.5 billion project on paper only. The İSO urged the government to sell the state petrochemical concern to encourage private investment in the petrochemical industry.

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 major producer is **Başer Kimya** which produces polystyrene. **SASA** and **Korteks** are major producers of synthetic fibers for the textile industry.

PHARMACEUTICALS

Turkey's foreign-dominated pharmaceuticals industry accounts for about 10% of the chemical industry's production. The country has 85 manufacturers of pharmaceuticals and 11 producers of raw materials and 38 importers. Sixty-seven multinationals have investments in the Turkish pharmaceuticals industry, with 14 having their own production facilities.

Major multinational pharmaceutical companies with investments in Turkey include **Roche, GlaxoSmithKline, Novartis, Bayer, Hoechst Marion Roussel, Sanofi Synthelabo, Aventis, Boehringer Ingelheim, Johnson and Johnson, Baxter** and **Pfizer.**

National expenditure on pharmaceuticals in 2008 stood at ¤6.346 billion, according to the **Pharmaceutical Manufacturers' Association (İEİS)**

Turkey turned out 7,155 pharmaceutical products in 2008, the İEİS reported. The association promotes use of generic medicines and represents 37 of the country's biggest drug companies. Twenty companies account for 74.3% of sales in pharmaceuticals. The industry employs 25,000 persons.

In 2008, Turkish pharmaceutical imports totaled $4.36 billion. About 47% of the imports were for raw materials and 53% for finished products, the Turkish Statistics Institute reported. Exports in 2008 reached a record $421 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 22,700 pharmacies in 2006. 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, antiirheumatic drugs, nervous systemics and oncological preparations are the most widely consumed drugs in Turkey, accounting for about 50.68% of the total market in 2006, the **İEİS** reported. Cardiovascular drugs totaled only 12.9% of total consumption in the Turkish market.

In 2007, per capita consumption of medicines in Turkey stood at only $136, one of the lowest figures among European countries, the **European Federation of Pharmaceutical Industries' Associations** reported.

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
*in euros.	

Source: Pharmaceutical Industry Employers' Association, İstanbul Chamber of Industry

The market though was expected to rapidly grow, driven by rising income levels and population growth and greater importance given to health care.

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. The **Ministry of Health** 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.

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, 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 state-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 2008 stood at $3.582 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 2008, the nation imported $9.385 billion in semi-finished and finished products. Most of the imports come from the European Union.

4.7 INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)

MARKET SIZE DOUBLES IN SIX YEARS

Turkey's information and communication technologies (ICT) market reached a size of $25 billion in 2008, an increase of 12.4% from 2006, according to the **Turkish Informatics Industry Association (TÜBİSAD).** The market, which more than doubled from 2003, has had double-digit growth over the past five years in contrast to the single digit expansion in the U.S. and the European Union. Telecommunications accounted for $19.3 billion of the market, while information technologies corresponded for $5.7 billion.

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.

BREAKDOWN OF THE ICT MARKET IN TURKEY, 2006-2008
IN BILLION $

Market	2006	2007	2008
Telecommunications	15.4	18.0	19.3
IT	5.5	5.5	5.7
ICT total	20.9	23.5	25.0

Source: InterPro Marketing Services and Research Group, Turkish Informatics Industry Association (TÜBİSAD)

Although great momentum has been gained in recent years, the share of ICT in GDP remains around 3.4% 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. The Turkish government plans to sell its remaining stake in 2008 through a public offering.

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 segments 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 legislations regarding mobile virtual network operator (MVNO) and new Electronic Communications Law are hot topics on the Telecommunications Authority's agenda this year.

Within the liberalization and deregulation efforts, telecommunications players are entering into different segments of the market. As of February 2008, the operators licensed by **Telecommunications Authority** (all of which have not necessarily launched service provision) totaled 220. These included:

- Authorization agreement:
  - Satellite and cable TV services 1
  - Maritime communication and course 1
- Concession agreement:
  - GSM services 3
  - Various telecommunication services 1
- 2nd type telecommunications license
  - Satellite Communications 33
  - Satellite Platform 4
  - GMPCS Mobile Telephony 8
  - Data Transmission over Terrestrial Lines 27
  - Long Distance Telephone Services 45

- PMR/PAMR Service License 68
- Infrastructure Operation Services 15
- Cable platform services 5

- General authorization
  - Wired and wireless Internet services 162

MOBILE VERSUS FIXED

As opposed to the slow growth 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 65.92 million in 2008. The incumbent telecom operator Türk Telekom has gradually lost ground to mobile operators with increasing GSM penetration. Türk Telekom has been aggressively marketing ADSL, which reached 5.5 million subscribers at the end of September 2008. The mobile market is poised for substantial growth over the next five years, with penetration reaching over 90% by 2010.

TURKEY'S GSM MARKET AS OF DECEMBER 31, 2008

Name of Operator	Number of Subscribers (in Millions)	Market Share
Turkcell	37.00	56.12
Vodafone	16.72	25.36
Avea	12.20	18.51
Total	**65.92**	**100.0**

Source: Avea, Vodafone, Turkcell

Turkey has three main cellular phone service operators:

Turkcell İletişim Hizmetleri: 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 37 million subscribers at the end of 2008 and a 56.12% 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 16.72 million subscribers at the end of 2008, and a 25.36% market share.

Avea: Turkey's third GSM network operator, was founded in February 2004 as a merger between **Türk Telekom's Aycell** and **İŞ-TIM's Aria GSM** networks. Oger Telecom took a 67% stake in Avea after acquiring a majority stake in **Türk Telekom** for $6.550 billion in November 2005. The government owns a 13% stake in **Avea,** and **İşbank** and affiliate companies control 20%. Avea had 12.2 million subscribers at the end of 2008. It controls 18.51% of the GSM market.

IT MARKET

Though relatively small with a $5.7 billion market size in 2008, Turkey has one of the fastest growing IT markets of the world. The IT market is dominated by hardware sales, with 53% of the market being made up of hardware and 33% by services.

Nearly three million personal computers (PCs) were sold in Turkey in 2007, a fivefold increase from 2002, when only 600,000 PCs were sold, Izi Kohen, general manager of **Arena Bilgisayar,** one of Turkey's top distributors of PCs, told IT-Business magazine.

There has been a remarkable increase in notebook sales in recent years due to the high interest for internet/PC and sustained growth of the economy. When compared to developed countries, Turkey still has a very low internet penetration ratio of around 25.3%. 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 2008 as well, triggered by investments both in public and private sector. Currently, finance and public sectors are top two verticals 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.

INTERNET SUBSCRIPTIONS 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

Sources: Ministry of Transportation and Telecommunications, SPO and Pyramid Research, and Economist Intelligence Unit

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 2005, the total value of registered software exports exceeded $15 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 has been the announcement on March 5, 2009, of **Foxconn,** a **Hewlet-Packard (HP)** affiliate based in China, that it plans to turn out 2.4 million desk top computers a year in a factory in the industrial town of Çorlu, in Thrace, 200 km west of İstanbul, with a $60 million investment. The products are for both the domestic market and for exports.

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 Türk 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. Penetration rate is 26% in fixed line telephony services is one of the lowest in Europe. 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. With the introduction of 3G, in 2009, the range of telecommunication services will diversify to a great extent to include broadband communications services, WiFi, Wimax and value added services. Given that and continuing progress in deregulation and commercialization activities, the Turkish wireless market provides plenty of room for growth, offering opportunities for exporters and existing and new players.

Many issues including WiMax. WiFi, the authorization of broadband wireless access services and of mobile virtual network services wait to be clarified during 2009. These are areas which will attract many local and foreign investments into the sector in various capacities.

The convergence in voice and data transmission and the integration of software into new dual-mode mobile devices are likely to put pressure on mobile operators while paving the way further for IT companies.

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 European Union (EU) convergence, 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 Centre" in mid 2006 to meet the software requirements of the EMEA 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, Bimeks, Vatan Bilgisayar, Teknosa** and the new entry **Best Buy** of the U.S. 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).
- **Nortel Networks Netaş Northern Electric Telekomünikasyon A.Ş.,** a joint venture between Nortel Networks of Canada and Turkish shareholders, produces network solutions and communication infrastructure.
- **Alcatel Teletaş,** a joint venture between Alcatel of Belgium and Turkish shareholders, produces wireless and wireline solutions, including switching systems.

4.8 CONSUMER ELECTRONICS

After more than a decade of heady growth in consumer electronics, Turkish production of color television (CTV) sets has been in a decline over the past three years as the country's CTV manufacturers were slowly phasing out output of cathode ray tube (CRT) television sets in favor of 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.

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 5.407 million washing machines, 6.161 million refrigerators, 1.575 million vacuum cleaners and 5.769 electrical ovens in 2007, the Turkish Statistical Institute reported.

TURKISH COLOR TV PRODUCTION 1999-2007 IN MILLION UNITS

Year	Amount
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

Source: Turkish Electronic Industrialists' Association (TESİD)

4.9 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.

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 EU-25 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 qualities of tobacco and olive oil.

Agricultural output has ranged between $40-43 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 the world in terms of vegetable and fruit production per capita as well as 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.

During the global recession, triggered by the collapse of the U.S. housing market, agriculture has been Turkey's strongest sector, despite lower government support programs for farmers. The country witnessed increasing production in 2008 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. Prime Minister Recep Tayyip Erdoğan's government has earmarked TL 5.9 billion ($3.901 billion) for agricultural subsidies in 2009, including support for purchases of diesel for tractors, seeds for farming, animal husbandry and certain crop purchasesa, the magazine Kobi Girişim reported.

In 2008, Turkey's most important agricultural products were cereals (29.2 million tons), followed by various types of vegetables (27.2 million tons) and fruit (15.6 million tons). The bulk of cereals is wheat with 17.8 million tons and barley, while grapes ranked first in fruits, followed by citrus fruits and apples.

Overall agricultural production increased in 2008. The sharpest rise was seen in fruit output, which climbed 8.8% over 2007. Vegetable output was up 6%, but production of cereals was up only 0.1%.

With ample rainfall in the fourth quarter of 2008 and first quarter of 2009 throughout Turkey, agricultural output will expand further, although International Monetary Fund experts are projecting that Turkey's economy will contract by at least 5.5% in 2009.

AGRICULTURAL PRODUCTION, 2005-08

Products	**2006** **000 tons**	**2007** **000 tons**	**2008** **000 tons**
CEREALS	**34,364**	**29,000**	**29,200**
Wheat	20,010	17,234	17,800
Barley	9,551	7,306	5,900
Maize	3,811	3,535	4,300
Rice	696	648	753
Others	671	277	1,200
PULSES	**1,606**	**1,236**	**ua**
Cotton	2,550	2,275	1,800
Tobacco	98	80	100
Sugar beet	14,452	12,415	15,500
Potatoes	4,397	4,228	4,200
Sunflower	1,118	854	992
FRUITS	**14,990**	**14,400**	**15,600**
Grapes	4,000	3,613	3,919
Olive	1,766	1,076	1,410
Hazelnut	661	530	801
Tea	1,121	1,145	1,100
VEGETABLES	**23,988**	**23,600**	**27,200**

Source: Turkish Statistics Institute

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 2008, Turkish agricultural and processed food exports stood at $8.4 billion. 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 $7,7 billion in 2006. Oil seeds, fruit, animal fats and vegetable oils were the biggest import items, accounting for 34% of imports of food items.

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 size of the Turkish agro industry market, as a combination of demand for food, beverages and tobacco, is estimated around $60 billion. Cereals and cereal-based products accounted for 38% 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 5th in olive oil production just after Spain, Italy, Greece and Tunisia, while it is a top contender in dairy 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.

IMPACT OF EU HARMONIZATION PROCESS

Turkey is reshaping its agriculture in preparation for the 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 under a $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 Yaşar, former chairwoman 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, poultry 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.
- **GAP (The Southeastern Anatolia Project),** 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 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.

VIEWS ON AGRO INDUSTRY OPPORTUNITIES IN TURKEY

The views of Feyhan Yaşar, former chairoman of **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, 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 U.S. 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

4.10 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 students. Around 25% of an estimated 50,000 overseas students went to the US in the academic year 2005-06. Of this, some 7,000 to 8,000 are estimated to be at the tertiary level.

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. The recent education reform program aims to correct these weaknesses, but its successful implementation 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 2007-2008 school year was 17,189,790 at all levels of formal education in Turkey, including 10,870,570 enrolled in primary schools. There were 2.372,136 students enrolled in universities and the number of students enrolled at private institutions is rising, accounting for 5% (over 160,000) of students at the tertiary level at the end of 2006. There are 97 universities, of which 30 are private. Five military academies, one police academy, and one foundation school also provide higher education in Turkey for students in the military and security forces.

As of February 2008, only eight provinces out of 81 lacked universities or institutions of higher education: Yalova in western Turkey; Bartın and Artvin, on the Black Sea Coast; Iğdır, Gümüşhane and Tunceli in eastern Turkey; Şırnak and Hakkari in southeast Turkey.

BREAKDOWN OF STUDENTS IN FORMAL EDUCATION IN TURKEY, 2007-08

Academic Level	Number of Institutions	Number of Students
Pre-school	22,506	701,790
Primary Education	34,093	10,870,570
Secondary Education	3,830	1,980,452
Vocational and Technical High Schools	4,450	1,264,870
Higher Education	97*	2,372,136*
	66,268	17,189,790

* Excludes military and police academies and one foundation school

Sources: Ministry of National Education, Higher Education Council

DRAWBACKS IN TERTIARY EDUCATION

- Entrance to graduate and postgraduate courses is handled through a single national university entrance examination. Competition for university admission is fierce. Around 1.6 million students take the exam each year.
- The schooling rate at tertiary level is 27%. 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 27% in Turkey, 53% in Portugal, 59% in Spain, 44% in Hungary and 60% in Poland.
- The skills of university graduates also do not meet the needs of the private sector. Tertiary education in Turkey encompasses all post-secondary programs of at least two years. For example, Turk

SCHOOLING RATES IN TURKEY, 2007 - 08

	No of pupils, 000	Schooling rate, %
Kindergarten*	550	19.9
Primary	10,870	97.3
High Schools	3,980	58.5
Universities, total	2,372	21.06

* Kindergarten figures are for 2005-2006 school year

Source: Ministry of Education, YÖK, TUİK

- The number of students eager to attend university far exceeds capacity in both public and private institutions and a great majority of the students who passed the exam could not be assigned places because of a lack of space. Those who pass the exam, but with lower scores, can only attend two-year colleges. Students with the highest scores are admitted to the university and faculty of their choice. Other less successful applicants must settle for one of their alternate choices.
- EU needs 70,000 IT graduate annually, and this requirement will add up to 213,000 by 2013, according to a study of Turkey IT Foundation. On the other hand, Turkey ranks as the 30th country in advanced networks technology with 23% in Europe.
- 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 exchange.
- Turkey is a target for overseas education with an average 1.6 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 population and there is still room in Turkey for foreign language education as Turkey's business world gives high importance to knowledge of a foreign language. Today, a few state universities are entirely English-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.

4.11 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 to be $3.7 billion in 2006. According to the research of Price WaterhouseCoopers, this will reach $5.7 billion by 2010. Considering that the size of the sector was only $1.5 billion in 2001, this represents a cumulative growth rate of 112% until 2005 and 75% until 2010.

MEDIA & ENTERTAINMENT MARKET , 2001-10

	2001	2005	2006	2010
Market size, $ billion	1.51	3.20	3.76	5.71
Broadband subscribers (000)	10	-	2,130 (1)	4,000

(1) As of June

Source: PriceWaterhouseCoopers, “Global Entertainment and Media Outlook 2006-2010, 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. MUYAP, 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 Tanitim 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.
- Turkish and Greek public relations firms Global Tanıtım and Civitas in January 2008 announced a merger.

4.12 DEFENSE

TURKISH DEFENSE INDUSTRY BECOMES REGIONAL POWERHOUSE

In the town of Tuzla, near İstanbul, private Turkish shipyard RMK Marine has begun construction work on the first of four big search and rescue vessels for the Turkish Coast Guard. The Italian-designed vessels will each be 240 feet long, 33 feet wide and capable of 22 knots an hour.

Nearby, another shipbuilder, Yonca-Onuk, has developed high speed boats for the Turkish Navy and Coast Guard. It has already delivered more than 25 fast intervention vessels for the Turkish Coast Guard, and exported several to Pakistan and the Turkish Republic of Northern Cyprus. Capable of speeds up to 60 knots, the boats are designed to protect the littoral of the three states.

RMK Marine and Yonca-Onuk are just two of dozens 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 antiaircraft 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 25%, to 50% by 2010. Defense Industry Undersecretary, Murat Bayar, said: *"An investment of $3-3.5 billion is being made - apart from logistics - on an annual basis. Twenty-five percent of this corresponds to manufacturing in Turkey and 75% foreign. This ratio is a minimum of 50% in the countries similar to us."*

The turnover of the members of the **Defense Industrialists Association** stood at an estimated $2.317 billion in 2008, up from $2.010 billion in 2007, and exports climbed to $497 million from $420 million. Plans were underway to bolster exports to $1.5 billion by 2010. The country exports its products from Middle East to Africa and from Europe to the Far East.

TURKISH DEFENCE INDUSTRY 2004 - 2007
IN U.S. DOLLARS

YEAR	SALES	EXPORTS	RESEARCH & DEVELOPMENT
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	120,193,733
2008*	2,317,000,000	497,000,000	228,000,000

* Estimate
Source: Turkish Defense Industry Manufacturers' Association

An estimated 200 private and state companies operate in Turkey's defense industry. Most of the companies turn out products mainly for civilian use. But about 30 companies manufacture mainly 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.

The need to develop a domestic defense industry came to a head during 1975-1979 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 16th 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 60 projects. It has financed $15.4 billion in 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 other products.

The **SSM** has insisted that large-scale exporters of defense products to 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 was $9.610 billion in 2009, or 5.6% of the national budget. From 1996 to 2000, annual defense spending averaged 4.48% of Turkey's Gross Domestic Product (GDP), according to Annual per capita defense spending is around $143.

Turkey ranks the 5th largest country in Europe, and 4th largest 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 electronics manufacturers **Havelsan** and **Aselsan.** 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 "Altay" national battle tanks.
- Italian **Westland** in 2007 signed a $2 billion contract TAI and the **SSM** to build attack helicopters.
- 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.

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% to 60% as far as the land forces is concerned. In the air forces, the rate goes up to as high as 80%.

The armed forces of Turkey and the U.S. have been cooperating in Turkish military operations in northern Iraq against **Kurdistan Workers Party (PKK)** terrorist organization with the U.S. providing satellite information on the camps of the outlawed terrorist organization.

Turkey has a growing involvement in the European aerospace sector. It has joined the Airbus A400M military transport consortium and has ordered 10 craft. 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 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

As stated in mid-2006, 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 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 16 new patrol boats

Major deals concluded in 2006 and early 2007 include 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

ON THE U.S. AND TURKEY DEFENSE RELATIONSHIP

The Turkish defense industry, in line with the strategy of the Government Defense Procurement Agency is focusing on indigenous solutions for brand new platforms, modernization and joint development programs. This inclination des not mean the reduction in the volume of defense business of the U.S. companies in Turkey. On contrary, the new model will give more room for cooperation in the long term with the American companies for subsystems, technological investment and production materials.

Turkey has been building up its modernization capabilities for the US-origin platforms such as F-16, S-70, C130, T38. An important aspect of this accumulation of know-how at **TAI, TEI,** other Turkish Industry and Military Air Supply Centers would be the integration with the third countries' modernization needs. The business base can also be extended to cover the logistics, MRO and modification needs of the US Armed Forces' platforms in the region.

Should the opportunities are treated well bilaterally, project-based partnership would offer broadened opportunities to extend the business model from pure one-way seller-buyer relation to a partnership relationship as is the case in the JSF Program. The latter, which is modeled for partnership in development, production and sustainment phases, is a good sign of long-term bilateral relations between the US and Turkish industries.

Source: Muharrem Dörtkaşlı, **TAI**

THE 2023 VISION

The 2023 Vision study[1] 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 Defence, 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 Dörtkaşlı, **TAI**

DIŞ EKONOMİK İLİŞKİLER KURULU
FOREIGN ECONOMIC RELATIONS BOARD

DEİK ADMINISTRATION

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Chairman of the DEİK Executive Board: RONA YIRCALI

DEİK/TURKISH-AMERICAN BUSINESS COUNCIL (TAİK)

EXECUTIVE BOARD AND COMMITTEE MEMBERS (2008 - 2010)

Governing Members / Executive Board

Name	Company	Business Council	Committee
HALUK DİNÇER	H.Ö. Sabancı Holding A.Ş.	Chairman	
ŞERİF EGELİ	SETKOM İleri Tekn. Ürünleri A.Ş.	Vice Chairman	
BEGÜMHAN DOĞAN FARALYALI	Doğan Yayın Holding A.Ş.	Vice Chairman	Media
MUHARREM DÖRTKAŞLI	Tusaş Havacılık ve Uzay San. A.Ş.	Vice Chairman	Defense
TURGAY DURAK	Ford Otosan A.Ş.	Member	Automotive
METİN AR	Garanti Yatırım	Member	Culture and Arts, Finance
KORAY ARIKAN	JP Morgan	Member	Finance, Association Affairs, Member Relations, Annual Conference
FEYHAN YAŞAR	Yaşar Holding A.Ş.	Member	Agriculture and Food
H. CUNEYD ZAPSU	Cuneyd Zapsu Danışmanlık A.Ş.	Member	Political Affairs

Substitute Members / Executive Board

Name	Company	Business Council	Committee
SEDAT BİROL	Eczacıbaşı Holding A.Ş.	Member	Pharmaceuticals, Annual Conference, Association Affairs
KÜRŞAT ÖZKAN	General Elektrik A.Ş.	Member	Energy and Infrastructure, Defense
HALİL DOĞAN BOLAK	ATP Ticari Bilgisayar Ağı ve Elektrik Güç Kaynakları A.Ş.	Member	IT
DAVUT ÖKÜTÇÜ	Aygaz	Member	Energy and Infrastructure, Political Affairs, Member Relations
MUSTAFA BAYRAKTAR	H.Bayraktar Yatırım Holding A.Ş.	Member	Real Estate, Automotive
MURAD DURAL	Altay Kollektif Şti.	Member	Defense
NURİ ÇOLAKOĞLU	Doğan Yayın Holding A.Ş.	Member	PR, Political Affairs, Culture and Arts
HAYRİ ÇULHACI	Akbank	Member	Member Relations, Finance, PR, Culture and Arts, Annual Conference
HASAN AKÇAKAYALIOĞLU	Bank Pozitif	Member	Finance, Political Affairs
ÇAĞLAN MURSALIOĞLU	İş Investment	V. General Manager	Finance
LÜTFİ VAROĞLU	Undersecretariat for Defense Industries	Head for Int'l Cooperation	Defense

Committee Chairs / Members (Outside the Board)

Name	Company	Committee
SÜREYYA YÜCEL ÖZDEN	GAMA Construction	Energy and Infrastructure
MERİ BAHAR	Acıbadem Healthcare Group	Healthcare
MEHMET SAMİ	Ata Invest	Finance
MAHMUT KAYA	Garanti Securities	Finance
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