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REPUBLIC OF TURKEY PRIME MINISTRY

Investment Support and Promotion Agency of Turkey

TURKISH CHEMICALS INDUSTRY REPORT

AUGUST 2010



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1. Executive Summary

The chemicals industry is a global enterprise with revenues of nearly EUR 2.1 trillion¹ in 2008 and is a keystone for the global economy, converting raw materials (oil, natural gas, air, water, metals, minerals) into more than 70,000 different products. A few goods are manufactured without some input from the chemicals industry. Major product groups which make use of chemical inputs include rubber and plastic products, textiles, apparel, petroleum refining, pulp and paper, and primary metals.

As the global economy emerges from the great recession of the late 2000s, the chemicals industry finds itself passing through a period of transformation. Profit margins have been shrinking and the recent recession has worsened the problems. The commodity side of the business has been investing in large-scale capacity in developing markets and is now struggling with overcapacity. Integrated producers are searching for ways to shift their portfolios to include more specialized, higher margin products. Due to the global economic crisis that began in 2008, stocks piled up and caused a significant decline in 2009 production, while companies mainly concentrated their efforts on selling these stocks. However, starting from 2010, output is expected to increase.

The largest corporate producers worldwide, with plants in numerous countries, are BASF, Dow, Eastman Chemical Company, Shell, Bayer, INEOS, ExxonMobil, DuPont, SABIC, Braskem and Mitsubishi, along with thousands of smaller firms.

The Turkish chemicals industry has been active for several decades, providing many basic and intermediate inputs to various industries. The industry employs more than 81,500 people in around 4,000 companies.² The industry has developed significantly and is expected to develop further in terms of quality, productivity, and environmental awareness as part of Turkey's adaptation to EU standards.

Turkey has competitive advantages, being globally one of the main producers of soda ash, chrome and boron. After a stage of rapid growth (2006-2009 CAGR of 16.8 percent) reaching USD 6.3 billion in 2009, Turkey's chemical exports further increased by 29 percent in the seven months to July 2010, compared with the same period of 2009. Based on recent data, chemical exports reached USD 4.4 billion in the period to July 2010. In 2009, exports of chemicals constituted around 6.2 percent of all Turkish exports, ranking the 4th largest sector by value of exports after the automotive, steel and textile industries. Germany, France, the United Kingdom and Italy are the largest destinations for Turkish chemical industry exports (28.5 percent of the total). Imports of chemicals, on the other hand, increased at a CAGR of 5 percent between 2006 and 2009. Imports in 2009 totaled USD 20.6 billion. Turkey imports mainly from Germany, France, the U.S., Italy, Belgium, the UK and China.³

The industry comprises 11 publicly quoted companies, with a total market capitalization of around USD 3.2 billion (August 2010), the largest company being Petkim Petrokimya Holding A.S. ("Petkim") with a market capitalization of USD 1,438 million (August 2010)⁴. Petkim is the former state-owned petrochemicals company, which was acquired by Socar-Turcas Energy in 2007.

The European Community enforced a regulation in June 2007 on chemicals and their safe use, namely REACH, an acronym for Registration, Evaluation and Authorization of Chemicals.

¹ CEFIC (European Chemicals Industry Council), 2010

² IGEME (Export Promotion Center of Turkey), 2010 Report

³ DTM (Undersecretariat of the Prime Ministry for Foreign Trade)

⁴ Capital IQ



REACH aims to improve the protection of human health and the environment, while enhancing the competitiveness of the EU chemical industry and avoiding fragmentation of the internal market.

The Turkish Undersecretariat for Foreign Trade has encouraged its affiliated body The General Secretariat of the Istanbul Mineral and Metal Exporters' Association (IMMEA) to establish the first help desk as of September 2007. IMMEA conducts awareness activities and provides technical help and guidance to Turkish exporters.

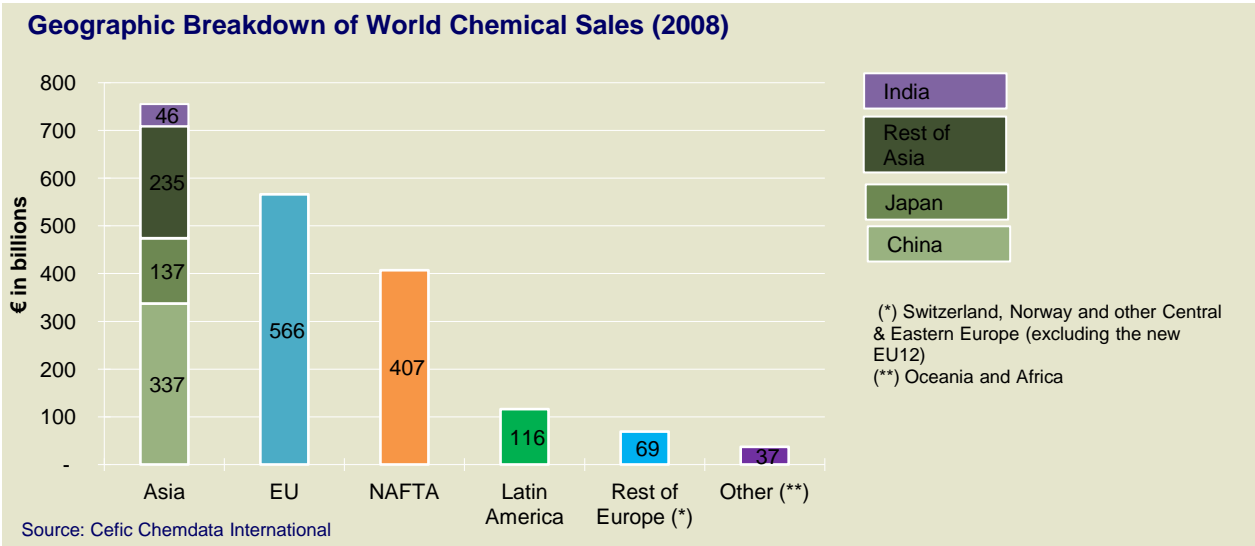
2. Sector Overview

2.1 Global Sector

The chemicals industry is a key part of the global economy converting raw materials (oil, natural gas, air, water, metals, minerals) into various different products. A few goods are manufactured without some input from the chemical industry.

In 2008, Asia represented the largest share in the industry's global turnover of nearly EUR 2.1 trillion, followed by the EU and NAFTA.

Figure 1 - Geographic Breakdown of World Chemical Sales (2008)



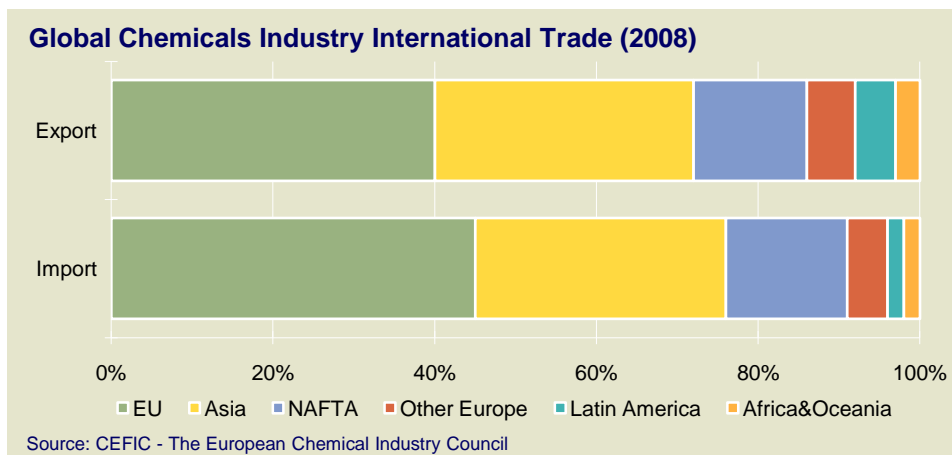
Chemicals are used to make a wide variety of consumer goods, as well as thousands of products that are essential inputs to agriculture, manufacturing, construction and service industries. Major product groups which make use of chemical inputs include rubber and plastic products, textiles, apparel, petroleum refining, pulp and paper, and primary metals.

The largest corporate producers worldwide, with plants in numerous countries, are BASF, Dow, Eastman Chemical Company, Shell, Bayer, INEOS, ExxonMobil, DuPont, SABIC, Braskem and Mitsubishi, along with thousands of smaller firms.

The below figure summarizes the geographical breakdown of the 2008 international trade of chemical materials. The EU has the largest share in both of exports and imports, followed by Asia and NAFTA.



Figure 2 - Global Chemicals Industry International Trade (2008)



As the global economy emerges from the recession of the late 2000s, the chemicals industry finds itself passing through a period of profound transformation. Profit margins have been shrinking; return on capital has been in a steady decline. The recent recession has worsened the problems. The commodity side of the business has been investing in large-scale advantaged capacity in developing markets and is now struggling with overcapacity. Among the fragmented specialty producers in developed markets, competition is growing tougher. Integrated players, wary of declining profits on the commodities side, are searching for ways to shift their portfolios to include more specialized products.

Based on Deloitte Touche Tohmatsu Chemical Group’s analysis on 231 global public chemical companies between 1998 and 2008, profitability has suffered in both the commodity and specialty sectors. In the coming decade, established strategies will be an inadequate foundation for success and may not ensure survival. New approaches are required as prerequisites for competitive viability. Naturally, the specifics of these approaches vary by sector. For commodity chemical companies, the major concern is the excess capacity and preservation of cash. Specialty chemical companies will need to find better ways to focus on customer needs to increase profitability. For integrated chemical companies, both commodity and specialty challenges apply.

Global chemicals production decreased by 4.6 percent in 2009. Although an improvement by 4.6 percent, which will offset the decline in 2009, is expected in 2010, this growth will still be lower than the peak growth rate of 5.4 percent seen in 2004. Afterwards, the output is expected to increase steadily by 5.0 percent and 5.1 percent, respectively in 2011 and 2012. The growth will be mainly concentrated in the emerging countries in Asia-Pacific, Africa, the Middle East and Latin America regions.⁵

US

The US is the world’s largest producer of chemicals generating over USD 674 billion turnover in 2009 with an estimated workforce of around 803,000.⁶ Due to recession that began in 2008, the customer demand has significantly decreased which resulted in unsold stocks in the market. Most of 2009 was dedicated to decreasing these stock levels, and hence caused a significant decline in the chemicals production by 6.2 percent.⁵

⁵ American Chemistry, Business of Chemistry Summary, 2010

⁶ American Chemistry, Business of Chemistry Summary, 2009



With high gas prices, and the industry's manufacturing customers increasingly relocating to Asia, US chemical companies are increasing their investment in new facilities in the Middle East, where gas prices are low, and in Asia, where their customers operate. Many trends and issues affect the US chemicals industry, most prominently globalization, consolidation, and regulation.

Globalization: Foreign trade and investment have become increasingly important to the US chemicals industry, as demand for chemicals in markets in developing Asian, the Middle Eastern, and Latin American countries is growing faster than in Europe and the United States due to higher birth rates, improving living standards, and industrialization. The US exports were approximately USD 145 billion in 2009, more than doubled since 1998.⁷

To meet overseas demand growth, many US chemical companies are building production facilities overseas in developing countries. Moreover, many of the industry's US-based customers are moving their operations to regions with faster growth or lower costs - forcing chemical suppliers to move with them.

Consolidation: The chemicals industry has experienced many mergers & acquisitions over the past decade, mainly due to differences in efficiency, know-how and possible synergies. Most transactions were relatively small, involving individual product lines or plants. From 2004 to 2007, the pace of merger activity picked up after significant slowdowns in the previous three years. The value of worldwide chemical industry merger transactions reached a record USD 120 billion in 2007, up from USD 54 billion in 2006. The economic downturn had a negative effect on the total deal value, down by 54 percent to USD 55 billion in 2008. In 2009, it continued to impact the industry. The deal size in 2009 (12 months) amounted USD 29.3 billion, 87 percent of the deals were strategic.⁸

The changing climate legislation around the globe aiming to reduce carbon emissions is expected to affect the M&A activity within the industry. The effects of climate change on any target should be an integral part of an acquirer's risk assessment process.

Regulation: The chemicals industry, which is subject to numerous environmental regulations, has made great strides in improving its environmental performance. Tighter restrictions on emissions of harmful compounds have forced chemical producers to incur sizable costs in compliance and to develop techniques to reduce, treat, handle, and dispose of hazardous waste.

Europe

The European chemicals industry is a key industry for economic development and wealth, providing modern products and materials and enabling technical solutions in virtually all sectors of the economy.

EU's chemicals industry output plunged to its lowest point in December 2008, when production was down nearly 26 percent on December 2007⁹. After this point, EU chemicals production (excluding pharmaceuticals) has shown moderate growth monthly; however these growth rates were significantly lower than the previous year figures. Based on recent data, EU chemicals production was at its lowest level in March 2009¹⁰, started to improve by August 2009, but was still 17 percent lower than the peak level of January 2008¹¹.

⁷ American Chemistry, Chemistry Industry Facts, June 2009

⁸ PriceWaterhouseCoopers, Chemical Compounds, Q3 2009

⁹ RSC (Royal Society of Chemistry), September 2009

¹⁰ KPMG, Future of the European Chemical Industry, 2009

¹¹ CEFIC (European Chemicals Industry Council), 2009



At its final meeting on 19 February 2009, the Chemicals unit of the European Commission Enterprise and Industry Directorate highlighted the following conclusions on the competitiveness of the chemicals industry in the European Union:

1. For ensuring the future growth of European chemicals industry, more innovation and research must be encouraged in the market
2. For competitiveness and sustainability, natural resources shall be used responsibly and a level playing field shall be established for sourcing energy and feedstock
3. Open markets with fair competition are required for a competitive market

Asia-Pacific Region

The Asia-Pacific region has a growing important role in the chemicals industry, thanks to China's booming economy and strong industrial sector. Chinese chemicals industry grew by 7.7 percent annually between 2000 and 2009.¹²

The Middle East is a significant emerging player on the production side. According to a forecast by the Gulf Petrochemicals and Chemicals Association, the Middle East has the potential to become the center of global chemicals manufacturing, mainly due to its proximity to customers.¹³

¹² RSC (Royal Society of Chemistry), 2010

¹³ EnergyAsia.com, December 2007



2.2 Domestic Sector

2.2.1 Overview

The Turkish chemicals industry has been active for several decades, providing many basic and intermediate inputs to various industries. The industry employs more than 81,500 people in around 4,000 companies. The companies are mainly concentrated in the following cities: Istanbul, Izmir, Kocaeli, Sakarya, Adana, Gaziantep and Ankara.¹⁴

The industry comprises 11 publicly quoted companies, with a total market capitalization of around USD 3.2 billion (August 2010). The largest company is Petkim Petrokimya Holding A.S. (“Petkim”) with a market capitalization of USD 1,438 million (August 2010). Further details are set out in the following table:

Figure 3 – Listed Companies in Turkish Chemicals Sector

#	Company Name	Brief Business Description	August 2010 Market Capitalization (USD million)
1	Advansa Sasa Polyester Sanayi A.Ş.	Advansa engages in the production and marketing of polyester fiber, yarn and related products, pet chips, and pet bottles in Europe, the Middle East, and Africa. The company was incorporated in 1966 and is headquartered in Adana, Turkey. Advansa Sasa Polyester Sanayi A.Ş. is a subsidiary of Advansa B.V.	104
2	Alkim Alkali Kimya A.Ş.	Alkim Alkali Kimya engages in the mining of ores, and production and distribution of chemicals and paper in Turkey and internationally. The company was formerly known as Alkali Madencilik Limited Sirketi and changed its name to Alkim Alkali Kimya A.Ş. in October 1963. Alkim Alkali Kimya A.Ş. was founded in 1948 and is headquartered in Istanbul, Turkey.	125
3	BAGFAŞ - Bandırma Gübre Fabrikaları A.Ş.	BAGFAŞ engages in the production and sale of chemical fertilizers. The company was founded in 1968 and its plant is located in the southern coasts of the Sea of Marmara, between Bandırma and Erdek.	234
4	ÇBS Boya Kimya Sanayii ve Ticaret A.Ş.	The Group's principal activities are production and marketing of stains, paints, varnishes, plastic resins, and polymerization and condensation materials for the construction, automotive and home furnishing sectors.	4
5	ÇBS Printaş Oto Boya ve Gereçleri Sanayii A.Ş.	ÇBS Printaş, formerly known as ÇBS Printaş Baskı Murekkepleri. The Group's principal activities are production and marketing of ink and other related chemical products, as well as equipment and spare parts for the packaging, printing and press sectors. It is a subsidiary of ÇBS Holding.	5
6	Dyo Boya Fabrikaları Sanayii Ve Ticaret A.Ş.	Dyo engages in the manufacture and sale of paints in Turkey. The company was founded in 1927 and is based in Izmir, Turkey. Dyo Boya Fabrikaları Sanayi Ve Tica A.Ş. is a subsidiary of Yasar Holding A.Ş.	85
7	Gübre Fabrikaları T.A.Ş.	Gübre Fabrikaları T.A.Ş. engages in the production and sale of chemical fertilizers in Turkey and internationally. The company was founded in 1953 and is headquartered in Istanbul, Turkey. Gübre Fabrikaları T.A.Ş. is a subsidiary of Agriculture Credit Cooperatives Central Union.	658
8	Hektaş Ticaret T.A.Ş.	Hektaş engages in the production and marketing of agricultural chemicals, pesticides, and veterinary pharmaceuticals. The company was founded in 1956 and is headquartered in Gebze-Kocaeli, Turkey. Hektaş is a subsidiary of OYAK.	67
9	Marshall Boya Ve Vernik Sanayii A.Ş.	Marshall Boya Ve Vernik Sanayii A.Ş. manufactures, markets, and distributes paints and varnishes in Turkey and internationally. The company was founded in 1954 and is based in Kocaeli, Turkey.	204
10	Petkim Petrokimya Holdings A.Ş.	Petkim Petrokimya Holding A.Ş. produces, supplies, and sells petrochemical products in Turkey. It offers low density polyethylene, high density polyethylene, polyvinyl chloride, polypropylene, masterbatches, olefins, fibers, and aromatics. The company was founded in 1965 and is based in Alağa, Turkey.	1.438
11	Soda Sanayii A.Ş.	Soda Sanayii A.Ş. engages in the production and sale of soda ash and chromium chemicals in Turkey. The company was founded in 1969 and is headquartered in Istanbul, Turkey. Soda Sanayii A.Ş. is a subsidiary of Türkiye İş Bankası A.Ş.	285
Total			3.209

Source: Capital IQ

¹⁴ IGEME (Export Promotion Center of Turkey), 2010 Report



The major subsectors within the industry are described in the following paragraphs.

Petrochemicals

The main petrochemicals company is a former public company, Petkim, privatized in 2007. 51 percent of Petkim's equity was acquired by Socar-Turcas Energy at a total consideration of USD 2,040 million. 10 percent of the company is still owned by the Privatization Administration and the remaining 39 percent is free float on the Istanbul Stock Exchange. Petkim's Aliaga petrochemicals complex in Izmir has an annual capacity of 3.2 million tons. Petkim's product range includes LDPE, HDPE, PVC, and PP products, masterbatches, olefins, fiber and aromatics. These products are important inputs for the construction, electricity, electronic, packaging, textile and also medical, dyeing, detergent and cosmetic sectors.¹⁵

In addition, Tupras, Turkey's largest petroleum company with a crude processing capacity of 28.1 million tons per annum, owns a petrochemical production facility with an annual capacity of 50,000 tons.¹⁶

Textiles

The Turkish textile industry is a major production and export center in global terms, thanks to its resource availability, ranking seventh in global cotton production with a capacity of 1.8 million of 480 lb. bales in 2009/10¹⁷. It has proximity to Europe and other important markets, and a highly qualified workforce.

Textile exports increased considerably during the last decade from USD 3.4 billion in 2000 to USD 9.5 billion as of August 2010¹⁸ boosting its supply chain including the chemical producers in parallel.

Fertilizers

The Turkish fertilizer industry has an installed production capacity of around 5.8 million tons. There are seven companies, all being private companies, which exclusively produce fertilizers: Tugsas, Igsas, Bagfas, Toros Gubre, Ege Gubre, Akdeniz Gubre and Gubre Fabrikalari.¹⁹ Domestic production covers the majority of domestic demand but there are also imports.

Trends in agriculture are important for the industry as fertilizer is a major agricultural input. The national agricultural income is increasing but at a slower rate than GDP, decreasing the ratio of agricultural income to GDP from the most recent peak of 14.3 percent in 1997 to 8.4 percent in 2009 (three quarters).²⁰

Pharmaceuticals

The pharmaceuticals industry is one of the most major subsectors within the chemical industry providing approximately 10 percent of the industry's production.¹⁹ Further information regarding the pharmaceuticals sector is provided in the "Turkish Healthcare Industry Report" in this series.

¹⁵ Company Website, www.petkim.com.tr

¹⁶ Company Website, www.tupras.com.tr

¹⁷ U.S. Cotton Market Monthly Economic Letter – August 13, 2010

¹⁸ TIM (Turkish Exporters' Assembly), 2010

¹⁹ IGEME (Export Promotion Center of Turkey), 2010 Report

²⁰ TUIK (Turkish Statistical Institute), 2009



Home and Personal Care

The Turkish home care market size in 2008 was around USD 1.2 billion²¹. P&G, Unilever, L'Oreal, Colgate and other major multinationals have been in the Turkish market for many years. Detergent and exports have reached TRY 444 million²² in 2010 (8 months) representing 0.6 percent of all exports, down from 0.7 percent in 2009 but up from 0.5 percent in 2008.

2008 market size for personal care products was around USD 0.9 billion. Based on IGEME data, men's grooming products, depilatories, bath and shower products, baby care products and toothpastes are the main products in this sector. Hair care products have the largest share, making up one third of the market, followed by personal hygiene products, toothpastes and deodorants. Hair care products are mainly composed of shampoos (59 percent of hair care products).²³

Paints and Coatings

The paints and coatings sector has developed significantly matching the growth in Turkey's construction, automotive and marine industries. The annual production capacity has reached 800,000 tons and the capacity utilization ratio is around 65 percent.²⁴ There are around 600 manufacturing facilities in the market.²³

Soda, Chrome, Boron

Turkey has specific competitive advantage as one of the main global producers of soda ash, chrome and boron.²¹ Soda Sanayii A.S., a private company under the Sisecam Group, is the main producer of soda and chrome. The company has an annual production capacity of over 1.5 million tons of soda (including the capacity of its subsidiaries), 70 thousand tons of sodium bichromate, and around 250 thousand tons of chrome²⁵.

Another important player is Eti Soda A.S., owned by Ciner group, which utilizes an extremely rich trona (natural soda ash) reserve found near Ankara, at Beypazari. It is globally the second largest reserve after a reserve in Wyoming, United States. The factory started its operations in March 2009 with an annual production capacity of 1 million tons. A new substantial trona reserve has recently been found near Ankara-Kazan. The aggregate natural reserves at Beypazari and Kazan are estimated at around 836 million tons.²⁶

Around 72 percent of the world's boron reserves are in Turkey. Boron products are inputs for the agriculture, detergent and soaps, ceramics, insulation fiberglass, timber preservation, flame retardants, nuclear power plants, cosmetics and medicine, metallurgy, and many other industries. Pure boron exports in 2009 totaled USD 435 million.²⁷

²¹ SDSA (Soaps & Detergents Industry Association), 2009

²² TIM (Turkish Exporters' Assembly), 2010

²³ IGEME (Export Promotion Center of Turkey), 2010 Report

²⁴ BOSAD (Colour Manufacturers Association), 2009

²⁵ Company Website, <http://www.sodakrom.com/>

²⁶ BYEGM, (the Directorate General of Press and Information of the Prime Ministry), 2009

²⁷ <http://www.etimaden.gov.tr/>

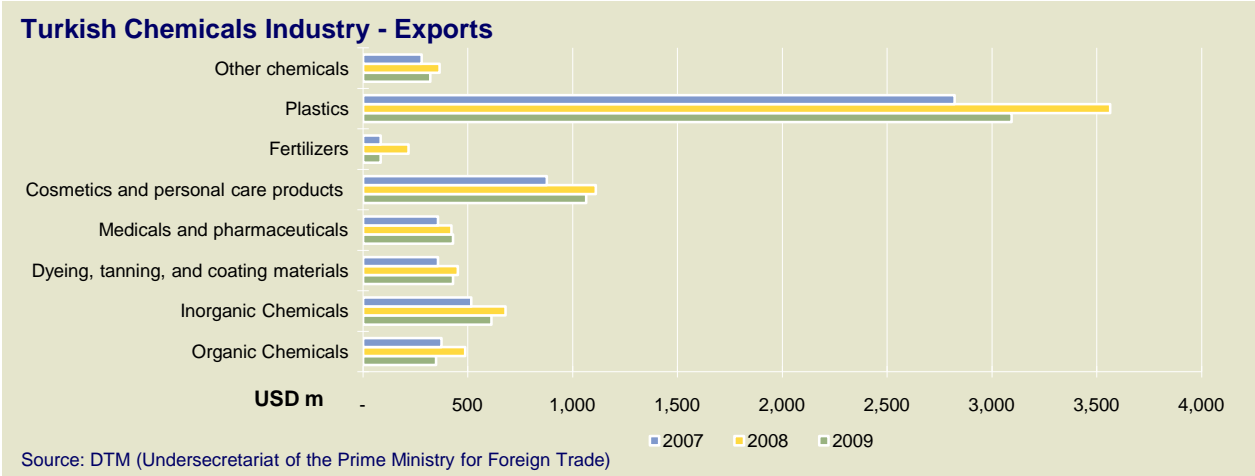


2.2.2 International Trade

After a stage of rapid growth (2006-2009 CAGR of 16.8 percent) reaching USD 6.3 billion in 2009, Turkey’s chemicals exports increased by 29 percent in July 2010 to USD 4.4 billion compared with July 2009 USD 3.4 billion after the global economic downturn in 2009.²⁸

In 2009, exports of chemicals constituted around 6.2 percent of all Turkish exports, ranking the industry 4th by total value of exports after automotive, steel, and textiles. Germany, France, the United Kingdom and Italy are major destinations for Turkish chemicals exports (28.5 percent of the total).

Figure 4 - Turkish Chemicals Industry - Exports

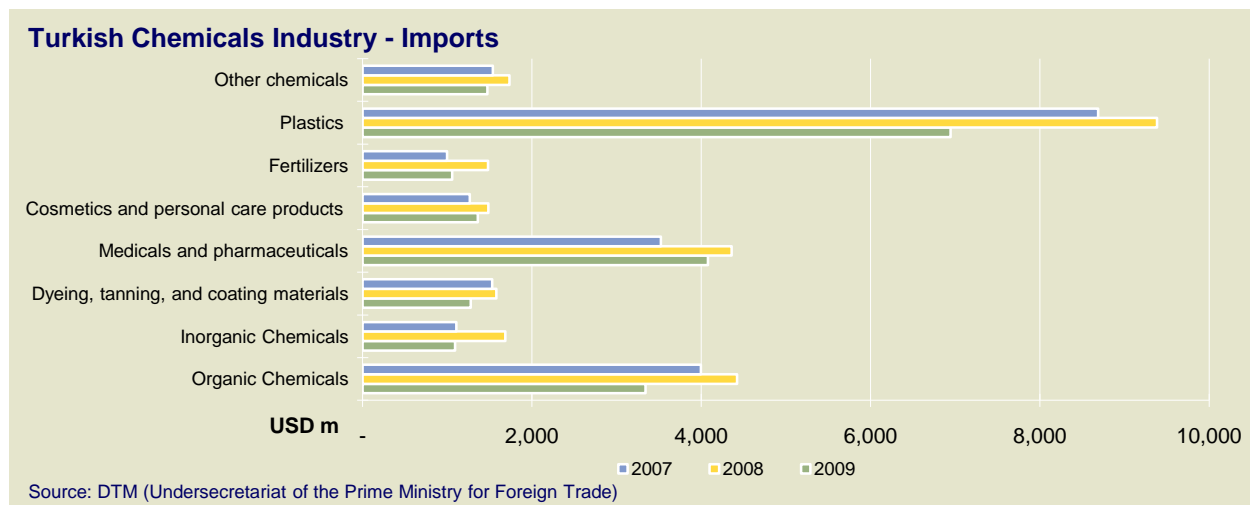


Imports of chemicals increased with a CAGR of 5 percent between 2006 and 2009. The imports in 2009 totaled USD 20.6 billion. Turkey imports mainly from Germany, France, the US, Italy, Belgium, the UK and China.

²⁸ DTM (Undersecretariat of the Prime Ministry for Foreign Trade)



Figure 5 - Turkish Chemicals Industry – Imports



2.2.3 REACH

REACH is the acronym for Registration, Evaluation and Authorization of Chemicals. The REACH proposal requires industry to register all existing and future new substances with a new European Chemicals Agency. As specified in its website, REACH aims to improve the protection of human health and the environment while enhancing the competitiveness of the EU chemicals industry and avoiding the fragmentation of the internal market.

In this context, as detailed in CEFIC’s website, the main objectives of REACH are:

- To establish a coherent registration system designed to provide basic hazard and risk information on new and existing chemical substances manufactured in or imported into the EU;
- To reverse the burden of proof, moving it away from Member States' authorities to producing and importing companies, who will be responsible for demonstrating that substances can be used safely;
- To introduce responsibility for downstream users to provide information on uses and associated risk management measures relating to substances;
- To maintain the existing restriction system and to introduce an authorization procedure for the most hazardous substances as a new instrument;
- To ensure greater transparency and openness for the public by providing easier access to relevant information on chemicals;
- To establish a European Chemicals Agency to facilitate the administration of REACH and ensure that the system is applied in a harmonized way across the EU;

The Turkish Undersecretariat for Foreign Trade has encouraged its affiliated body The General Secretariat of Istanbul Mineral and Metal Exporters’ Association (IMMEA) to establish the first help desk and IMMEA has been functioning as an industrial help desk as from September 2007. IMMEA conducts awareness activities and provides technical help and guidance for Turkish exporters.²⁹

²⁹ General Secretariat of Istanbul Mineral and Metals Exporters' Association

2.3 Main Players

Major players in the Turkish chemicals industry, selected from a list of the first 500 manufacturers in Turkey, are listed in the following table.

Figure 6 – Major Chemical Companies in Turkey (2009)

ISO 500 Ranking	Company Name	Sector	Production Based Sales 2009 (TRY million)	Location
1	Tüpraş-Türkiye Petrol Rafinerileri A.Ş.	Petrochemicals	15,496	Kocaeli
14	Petkim Petrokimya Holding A.Ş.	Petrochemicals	2,028	Ege Region
16	Unilever Sanayi ve Ticaret Türk A.Ş.	Personal & Home Care	1,998	İstanbul
33	Aksa Akrilik Kimya Sanayii A.Ş.	Textile	929	İstanbul
56	Eti Maden İşletmeleri Genel Müdürlüğü	Mining	695	Kamu
107	Soda Sanayii A.Ş.	Mining	459	İstanbul
108	Türk Henkel Kimya San. ve Tic. A.Ş.	Personal & Home Care	458	İstanbul
196	Bagfaş Bandırma Gübre Fabrikaları A.Ş.	Fertilizer	256	İstanbul
218	Gübre Fabrikaları Türk A.Ş.	Fertilizer	232	İstanbul
126	Betek Boya ve Kimya Sanayi A.Ş.	Coating	383	İstanbul
426	Hayat Temizlik ve Sağlık Ürünleri San. ve Tic. A.Ş.	Personal & Home Care	117	Kocaeli
73	Hayat Kimya Sanayi A.Ş.	Personal & Home Care	598	İstanbul
232	Akdeniz Kimya San. ve Tic. A.Ş.	Chemicals	214	Ege Region
251	Gemlik Gübre Sanayii A.Ş.	Fertilizer	195	Gemlik
248	DYO Boya Fabrikaları Sanayi ve Tic. A.Ş.	Coating	196	Ege Region
311	Marshall Boya ve Vernik Sanayii A.Ş.	Coating	163	İstanbul
252	Polisan Boya Sanayi ve Ticaret A.Ş.	Coating	194	Gebze
366	Dow Türkiye Kimya Sanayi ve Ticaret Ltd. Şti.	Chemicals	136	Kocaeli
295	Ak-Kim Kimya San. ve Tic. A.Ş.	Textile	169	İstanbul
373	Cam Elyaf Sanayi A.Ş.	Chemicals	132	İstanbul
317	Cognis Kimya Sanayi ve Ticaret A.Ş.	Personal & Home Care	160	Kocaeli
411	Akteks Akrilik İplik Sanayi ve Tic. A.Ş.	Textile	120	Gaziantep
413	BASF Yapı Kimyasalları San. A.Ş.	Chemicals	120	İstanbul

Source: ISO (Istanbul Chamber of Industry)



2.4 SWOT Analysis

Strengths

- Strong export potential
- Significant growth potential for many subsectors (e.g. pharmaceuticals, home & personal care, coatings, etc.)
- Industry's awareness and support concerning REACH
- Young and talented workforce
- Turkey's geostrategic importance
- Availability of some rare raw materials (soda ash, boron, chrome)

Weaknesses

- Relatively small scale by international standards
- Insufficient hazardous waste processing facilities
- Unregistered trading within the industry

Opportunities

- R&D investment and training of the workforce may increase efficiency
- Likely expansion of local refining capacity
- Turkey's likely EU partnership
- Increasing investments in private sector
- Better trade ties with neighbouring countries

Threats

- Fluctuating input prices
- Extended timetable for Turkey's EU partnership

The Turkish Grand National Assembly has approved the Ninth Development Plan (2007-2013) on 28 June 2006 with Law No: 877. This development plan is fed by a list of Committees, including the Committee for the Chemicals Industry. In their sub-division report, the Chemicals Industry Committee has highlighted the following steps for the industry's future development:³⁰

- Establishing an economically stable environment for continuous growth;
- Increasing the competitiveness of the industry;
- Improving the human resource quality;
- Reducing the level of dissimilarities among different regions of the country so that natural resources could be processed within their own regions;
- Extend the ongoing improvements in governance.

The following steps were highlighted as the means of achieving the above mentioned goals:

- Investing in research and development;

³⁰ Turkish Prime Ministry State Planning Organization, 2009



- Investing in human resource development;
- Increasing the amount of local inputs and reducing the dependence on imports;
- Improving the cooperation between the industry players and the governing body in parallel with the ongoing changes as part of Turkey's commitment to join the EU;
- Improving supervision and eliminating unregistered trading within the industry;
- Investing in and improving the level of occupational health and safety;
- Emphasizing the importance of the chemicals within the national industry;
- Improving the attractiveness of the industry for foreign investors.

2.5 Mergers & Acquisitions

The Turkish chemicals industry has a 13 percent share in the total foreign capital in Turkey. Below is a list of major M&A transactions by foreign investors in the Turkish chemicals industry over the last decade:

#	Acquirer	Origin	Target	Date	Stake	Deal Value (USD million)
1	Astra Polymers Compounding Co Ltd	Saudi Arabia	Constab Middle East Polimer	May-10	N/D	7.0
2	Bancroft Private Equity LLP	UK	Kayalar Kimya	December-09	N/D	17.0
3	Saint Gobain Produits Pour la Construction SAS	France	Saint-Gobain Weber Yapi Kim San ve Tic A.S.	July-09	99.9%	N/D
4	Turcas-Socar Energy	Turkey - Azerbaijan	Petkim Petrokimya Holding A.Ş.	October-07	51.0%	2,040.0
5	Brenntag	Germany	Trend Gıda	December-08	N/D	N/D
6	BASF Coatings	Germany	Yaşar Basf Otomotiv Boyaları	June-08	50.0%	N/D
7	Brenntag	Germany	Aromaster	May-08	N/D	N/D
8	Azelis	Luxembourg	Tara Kimya	January-08	100.0%	N/D
9	Brenntag	Germany	Abacı	September-07	N/D	N/D
10	Kansai Paint	Japan	Akzo Nobel Endüstri Ve Otomobil Boyaları	September-07	51.0%	18.9
11	BASF	Germany	Meges Boya	October-06	75.5%	N/D
N/D: Not Disclosed						

Source: Deloitte

2.6 Sector Establishments and Institutions

Establishments and Institutions	Code	Description	Website
Turkish Chemical Manufacturers Association	TKSD	TKSD contributes the development of chemical industry and its subsectors, solving sector problems by getting in touch with various state and private bodies.	www.tksd.org.tr
Turkey Chemicals Petroleum Tire and Plastic Industries Employers Union	KIPLAS	KIPLAS is an employer's union which gathers all chemicals sector employers under a single roof.	www.kiplas.org.tr
Chemical Engineers Association	KMO	KMO provides ways to protect the environment, consumers and works for the development of the profession of chemical engineering.	www.kmo.org.tr
Soap and Detergent Manufacturers Association	SDDS	SDDS aims to secure uniformity of soap and detergent producers; inform producers about developments in sector.	www.sdds.org.tr
Turkish Plastic Industry Association	PAGEV	In line with developments worldwide, PAGEV aims to meet the organizational needs of the rapidly growing Turkish plastics industry which comprise mostly of SME's. The main objectives of PAGEV are to establish a substructure to ensure that the industry is integrated with the global plastics industry; to enhance vocational training, quality, technology, productivity and competitive power; to promote the image of plastics by improving relations with the public opinion and public organizations; to help the industry to train qualified manpower and gain technological superiority by contributing to the vocational training and research efforts; to lead the industry in all issues and areas.	www.pagev.org.tr
General Directorate of Agricultural Production and Development	TUGEM	TUGEM works for preparing integrated and discrete agricultural and rural development projects; preparing efficient botanical and animal products using projects; providing development of husbandry and water products; providing equipments to producers.	www.tugem.gov.Tr
Paint Manufacturers Association	BOSAD	BOSAD aims to develop the sector by conducting scientific researches and provides consultancy services.	www.bosad.org
National Boron Research Institute	BOREN	The Institute aims to increase the usage and development of boron and related products in the fields of agriculture, timber preservation, construction materials, textiles, paper industries, ceramics, glass, chemicals and other related areas.	www.boren.gov.tr



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Abbreviations

CAGR	Compound Annual Growth Rate
GDP	Gross Domestic Product
ISPAT	Republic of Turkey Prime Ministry Investment Support and Promotion Agency
REACH	Registration, Evaluation and Authorization of Chemicals
ECHA	European Chemicals Agency
IMMEA	Istanbul Mineral and Metal Exporters' Association
CEFIC	European Chemicals Industry Council
IGEME	Export Promotion Center of Turkey
EU	European Union
NAFTA	North American Free Trade Agreement
M&A	Mergers and Acquisitions
LDPE	Low Density Polyethylene
HDPE	High Density Polyethylene

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