

PAGEV
THIN WALL
PACKING PRESENTATION
2016



TURKISH ECONOMY

The Turkish economy has shown remarkable performance with its steady growth over the last decade.

A sound macroeconomic strategy in combination with prudent fiscal policies and major structural reforms in effect since 2002 has integrated the Turkish economy into the globalized world, while transforming the country into one of the major recipients of FDI in its region.

The main objectives of the structural reforms were ;

- to increase the role of the private sector,
- to enhance the efficiency and resiliency of the financial sector,
- to place the social security system on a more solid foundation.

As these reforms have strengthened the macroeconomic fundamentals of the country, the economy grew with an average annual real GDP growth rate of 4.9 % over the period of 2002 to 2013 and 4,7 % between 2002 - 2014.

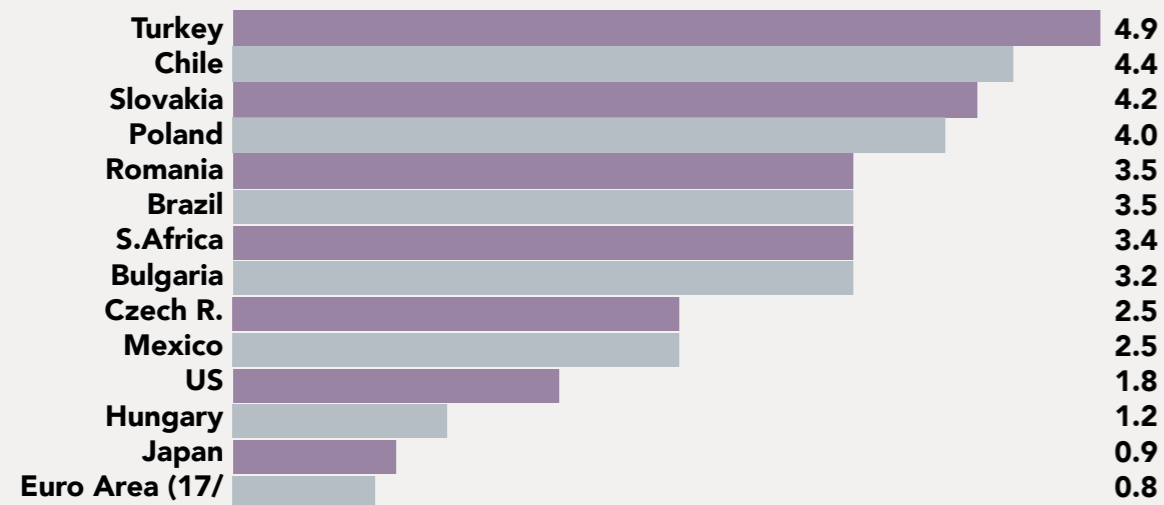


Table 1: Average Annual Real GDP Growth (%) 2002-2013

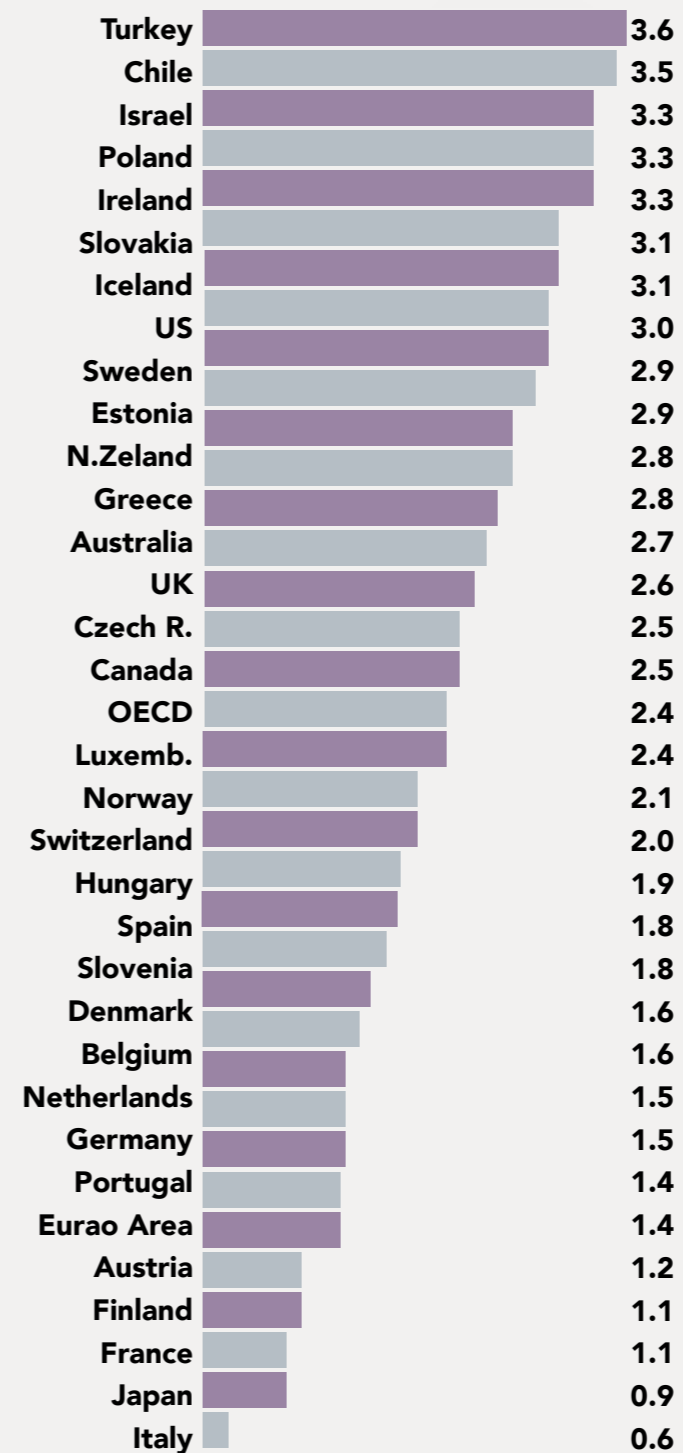


Table 2: Annual Average Real GDP Growth (%) Forecast in OECD Countries 2014-2016

Moreover, Turkey's impressive economic performance over the past decade has encouraged international institutions to make confident projections about Turkey's economic future.

According to the OECD, Turkey is expected to be one of the fastest growing economies of the OECD members during 2014-2016, with an annual average growth rate of 3.6 percent.

GDP OF G-20 COUNTRIES (2013)

Significant improvements in such a short period of time have registered Turkey on the world economic scale as an exceptional emerging economy, the 18th largest economy in the world and the 7th largest economy when compared with the EU countries, according to GDP figures in 2013.

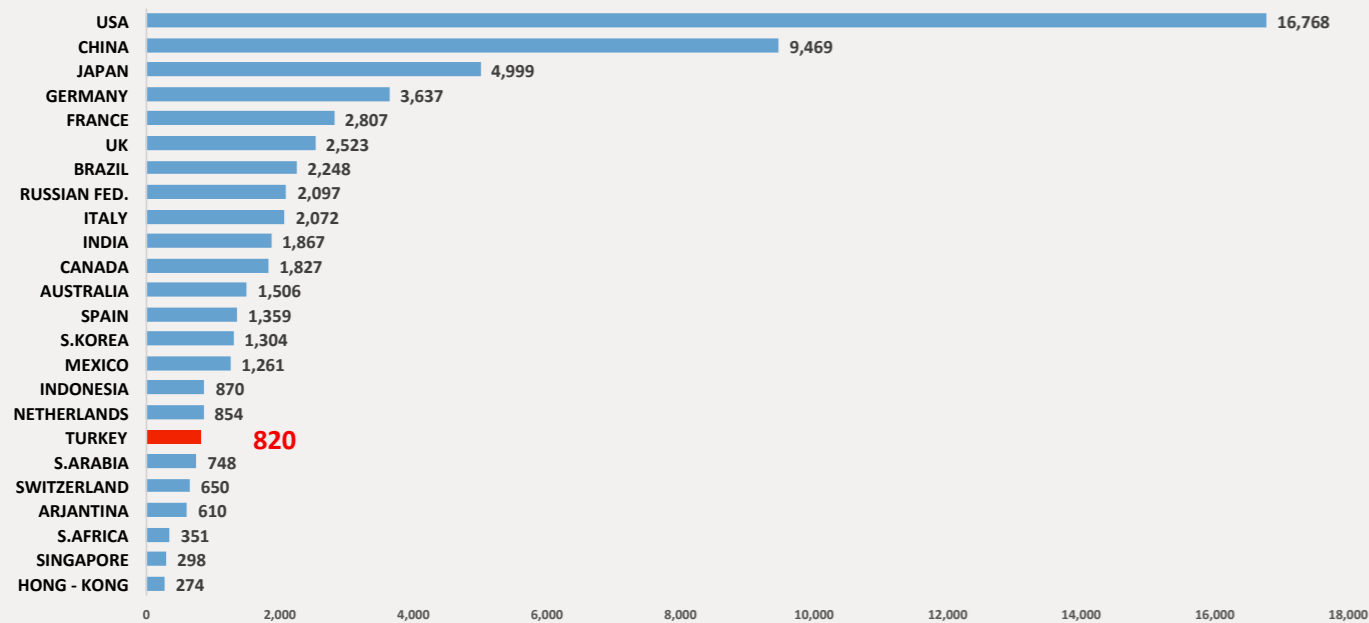


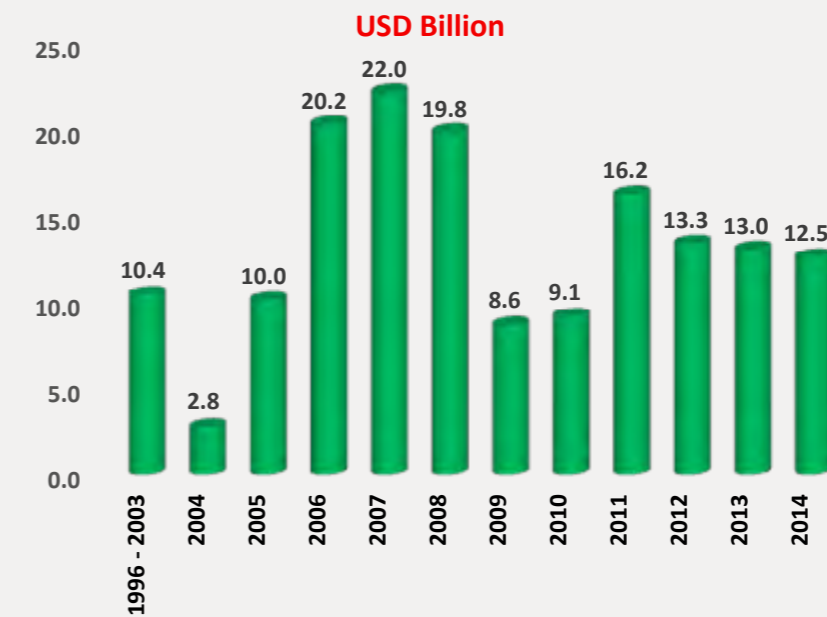
Table 3: GDP of G-20 Countries (2013) Turkey ranks 19th among G 20 Countries as of 2014

FDI – FOREIGN DIRECT INVESTMENTS

In terms of FDI flows, Turkey's share among global and developing countries realized as about 1.5%.

Despite residual effects of great recession and unfavorable conditions in its region, Turkey has managed to be the top recipient country in Western Asia Region .

According to the UNCTAD's report, Turkey rose to the 22nd rank moving up two places among the host countries.



No of companies having foreign shareholders is 43.896, 310 of which are operating in plastics and 557 of which are operating in food and beverage industry, most of which are using thin wall pagkaging.

FREE TRADE AGREEMENTS OF TURKEY

Those In Force	Negotiation Finished	Ongoing Negotiation	Started negotiations Initiative
Albania	Faroe Islands	Peru	USA
Bosnia and Herzegovina	Ghana	Ukraine	Canada
EFTA Countries	Kosovo	Colombia	Thailand
Morocco	Lebanon	equator	India
Palestine	Moldova	Mexico	Indonesia
S.Korea		Japan	Central Africa
Georgia		Singapore	Caribbean
Montenegro		Congo	Pacific Nat.
Macedonia		Cameroon	Algeria
Malaysia		Seychelles	South Africa
Mauritius		Gulf Cooperation Council	
Egypt		Libya	
Syria		Mercosur	
Serbia		Chad	
Chile			
Tunisa			
Jordan			
Israel			

	GDP USD Billion	Shares in World GDP	GDP Growth Rate (%)	Shares in Total World Trade Volume (%)	Exports / GDP (%)	Imports / GDP (%)	Inflation (%)
World	74.699	100,00	3,28	100	25,2	24,8	3,9
Advanced Economies	45.533	60,95	1,39	59	23,4	24,7	1,4
Euro Areas	12.754	17,07	-0,43	41	19,7	18,1	5,9
Emerging & Developing Economies	28.166	39,05	4,74	33	27,0	25,1	1,3
Turkey	820	1,10	4,05	1,09	18,4	30,6	7,5

Table 4: Turkey shares 1,10 % of World GDP and 1,09 % of World Trade Volume.

INDEX	WORLD RANKING
GDP	18
POPULATION	19
PER CAPITA GDP	72
DOMESTIC DEBT / GDP	29
FOREIGN DEBT / GDP	22
TOTAL EMPLOYMENT	14
LABOUR PRODUCTIVITY	42
HOURLY COMPANSATION (MANUFACTURING WORKERS)	46
GLOBAL COMPETITIVENES	45
BASIC REQUIREMENTS	56
EFFICIENCY	45
INNOVATION FACTORS	51
HUMAN DEVELOPMENT	69
BETTER LIFE	36

Table 5: World Ranking Indicators For Turkey

SOME RISKS IN 2014 & 2015 IN TURKISH ECONOMY

Economic recovery has been the key matter of debate throughout the world in 2014.

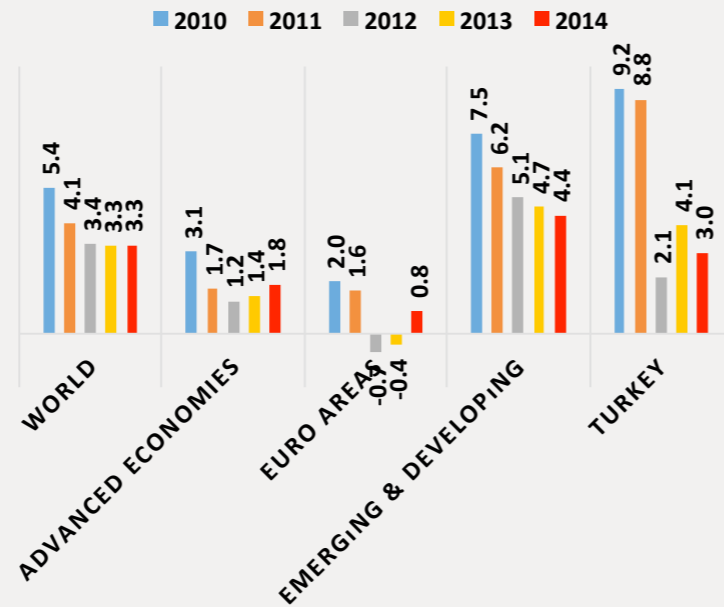
However, the issues regarding Syria and Ukraine has shaken the confidence in establishing the world economic balances.

Notwithstanding the certain level of economic recovery in the USA and England in 2014, the risks concerning economic growth in the EU has increased and Japan on the other hand, has entered recession within the last quarter of the year.

Negativities has been experienced in economic outlook of many developed countries such as China, Russia and Brazil.

The economies of developing countries, due to the slowdown, have lost their driving force characteristic within the world economy.

	Unit	2014	2015 / 6
GDP	USD Billion	756	-
Per Capita Income	USD	10,404	-
GDP Growth Rate	%	2,9	2,9 (Half Year)
Unemployment Rate	%	10,4	9,6 (4 M)
WPI	%	6,36	6,81 (7 M)
PPI	%	8,85	5,62 (7 M)
Manufacturing Industry CPR	%	74,4	74
Exports	USD Billion	157,7	73,5
Imports	USD Billion	242,2	106,8
Foreign Trade Balance	USD Billion	- 84,5	-33,2
Foreign Trade Volume	USD Billion	398,0	180,3
Export / Import	%	65,1	69
Year End US Dollar Sales Price	TL	2,3411	2,6898
Year End Euro Sales Price	TL	2,8300	3,0903



While the Turkish economy downsized in 2009 by 4.9%, it reached to high growth rates such as 9.2% and 8.8% in 2010 and 2011, however the growth rate decreased to 2.2% in 2012, while it increased to 4.0 % in 2013, once again it regressed to 2,9 % in 2014.

High current deficit, inflation increase, deceleration in growth rate, increasing financial need and hot money outflow are considered to be amongst the risks which the Turkish economy will face in 2015.

2015 PROJECTIONS FOR WORLD ECONOMY

Due to the amount of interest rate hike in the USA, recovery efforts of China, the expected recession in the EU, the ongoing risks in Russia, Ukraine and Syria and decline in oil and commodity prices, it is hard to expect any positive developments regarding world economy in 2015.

The expected regression in global money supply in 2015 will mostly force the developing countries towards structural reforms for growth.

While significant increases in Indian economy is expected in 2015, regression will occur due to the sanctions in Russian economy caused by the crisis in Ukraine, depreciation of rouble with the effect of decreasing oil prices and capital outflows.

The decrease of oil prices will revive the domestic demand in developed and developing nonoil countries and have a positive effect on the decrease of current deficit, inflation and interest regression.

Decrease in economy and sector growth rates, Increase in unemployment rate, Decrease in manufacture capacities by avoiding from personnel expenditures, in order to close the deficits arising from exchange differences,

	IMF Projection			OECD Projection		
	2013	2014	2015	2013	2014	2015
GDP Growth Rate	4,1	3,0	3,0	4,1	3,0	3,2
Consumer Prices	7,5	9,0	7,0	7,5	9,0	7,4
Current Account Balance	-7,9	-5,8	-6,0	-7,9	-5,4	-5,1
Unemployment	9,0	9,5	9,9	9,0	9,9	10,1

Table 5: % Change

Imposing restrictions in manufacturing industry and foreign acquisitions in raw material, Acceleration of hot money outflow.

The decline in foreign capital inflows due to the negative developments in Syria and Iraq

Postponement of investment due to political uncertainty

Decrease in sales in construction and automotive industries due to the increase in the cost of sales.

Decline in tourism revenues due to negative developments in Syria and Iraq and the economic crisis in Russia and Ukraine.

The effects of increasing unemployment rate due to the 2 millions of immigrants from Syria

TURKEY'S GENERAL ADVANTAGES AS A COUNTRY OF ATTRACTION

DRIVING FORCES BEHIND THE FURTHER DEVELOPMENT OF TURKISH PLASTICS INDUSTRY

Booming economy

More convenient investment climate

Turkey is one of the main countries in its own region having already established a well-advanced plastics, plastics packaging and plastics building and construction materials industries.

Turkey is turning into an important energy terminal and corridor in Europe which connects east and west

Turkey has a dynamic and mature private sector

Population prospects & favourable demographic profile.

Turkey's unique geographical position - easy access to the diversified markets

Turkey is one of the main global automotive production centers of the world.

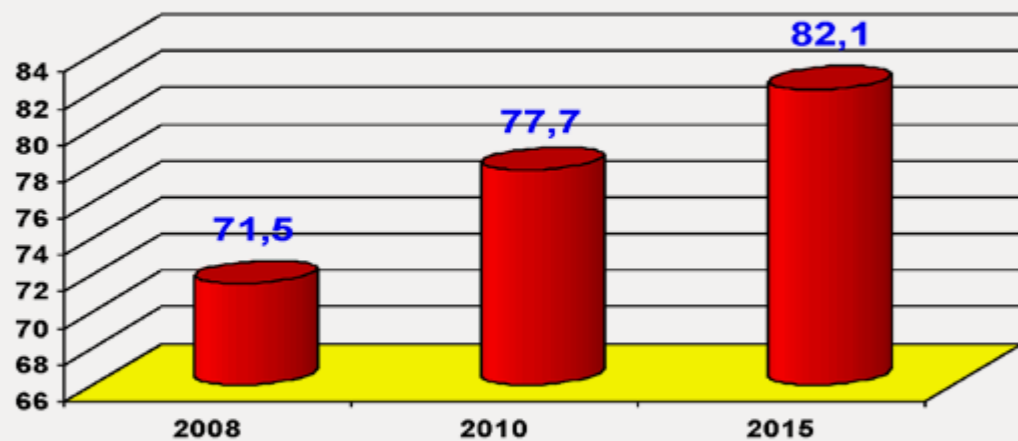
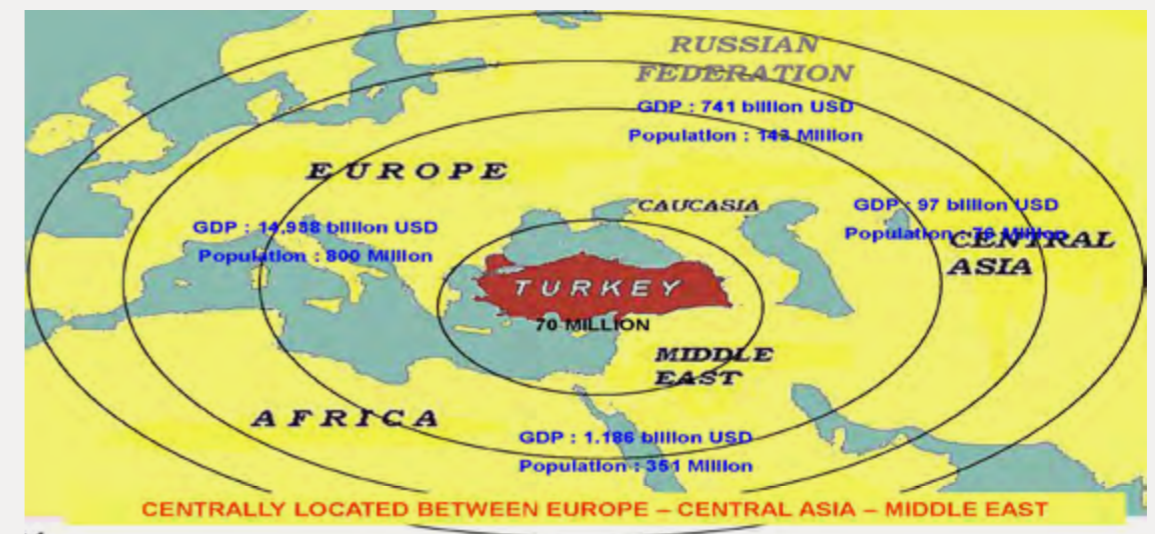


Table 6: Population and Favourable Demographic Prospects (Million People)

Young Population (Average Age = 29)

Easy access to the diversified markets
In a four hour flight, one fourth of the world's GNP and one fourth of the world's population.



Increasing Global Production
Automotive Industry



TURKISH PLASTICS INDUSTRY

Turkish Plastics Industry Profile (As of 2014)

TOTAL PROCESS CAPACITY	8,23 MILLION TON
PRODUCTION VALUE	USD BILLION 35
VALUE ADDED TO MACRO ECONOMY	USD BILLION 14
POSITION BY PROCESS CAPACITY	SECOND AFTER GERMANY IN EU
EMPLOYMENT	250.000
NO OF COMPANIES OPERATING	6.500 - % 98 SME
DOMESTIC CONSUMPTION	7,2 MILLION TONES
PER CAPITA CONSUMPTION	94 KG
PLASTICS PRODUCTION BY INDUSTRIES	PACKAGING : % 40
	BUILDING & CONSTRUCTION : % 22
	ELECTRICS & ELECTRONICS : % 10
	AGRICULTURE : % 6
	TEXTILE : % 4
	AUTOMOTIVE : % 4
	OTHERS : % 14

The plastics industry is one of the youngest and most rapidly developing industries of Turkish manufacturing industry.

The industry comprise nearly 6.500 companies, producing plastics products, raw materials, semi finished products, machines and equipments.

IMPORT DEPENDENCY IN PLASTICS RAW MATERIALS	TOTAL: % 86
EXPORTS	
TOTAL EXPORTS	2,3 MILLION TON – USD BILLION 6,0
RAW MATERIALS EXPORTS	670.000 TON – USD BILLION 1,1
END PRODUCTS EXPORTS	1,601 MILLION TON– USD BILLION 4,9
SHARE OF INDUSTRY EXPORTS IN TOTAL CHEMICAL EXPORTS	30 %
5 MAJOR EXPORT MARKETS	
PLASTICS RAW MATERIALS	GERMANY, ITALY, RUSSIAN FED. EGYPT, BULGARIA
PLASTICS END PRODUCTS	IRAQ, GERMANY, RUSSIAN FED. UK, AZERBAIJAN
IMPORTS	
TOTAL IMPORTS	6,6 MILLION TON – USD BILLION 14,2
PLASTIC RAW MATERIALS	6,043 MILLION TON – USD BILLION 11,1
PLASTICS END PRODUCTS	575.000 TON – – USD BILLION 3,1
5 MAJOR IMPORT MARKETS	
PLASTIC RAW MATERIALS	S.ARABIA, S.KOREA, GERMANY, BELGIUM, USA
PLASTICS END PRODUCTS	CHINA, GERMANY, ITALY, S.KOREA, FRANCE

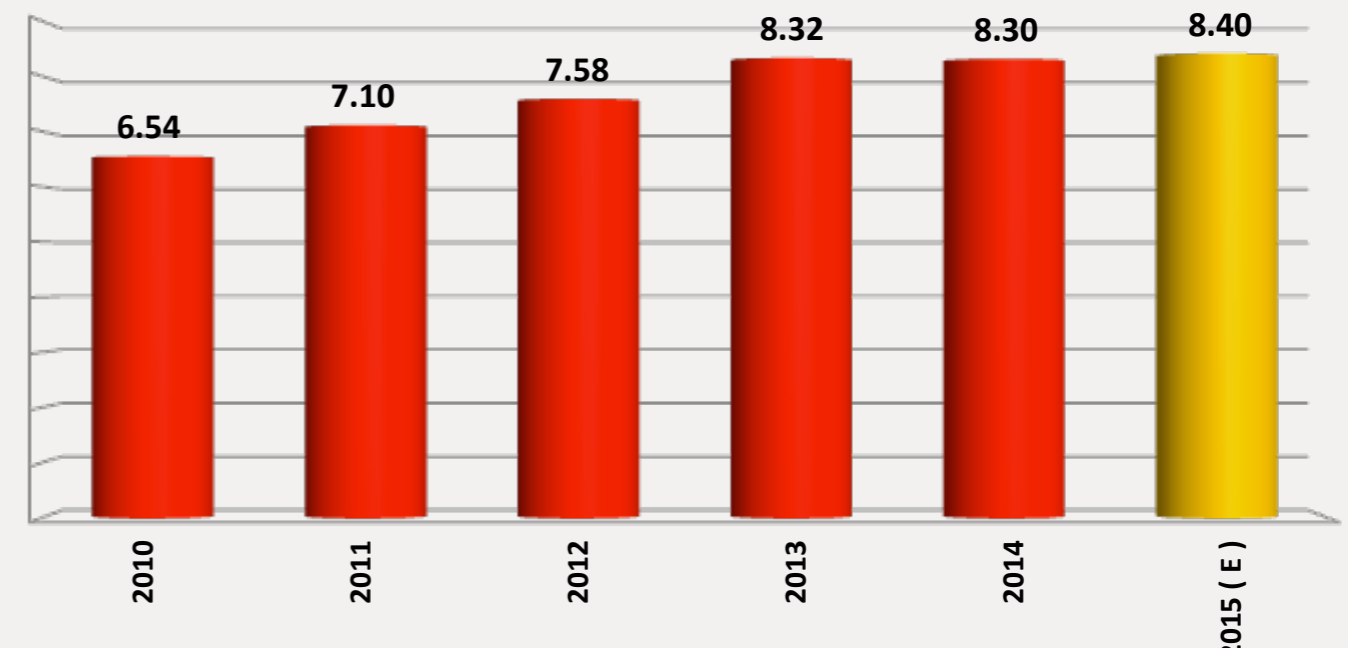


Table 6: Turkish Plastics Industry Process Capacity (Million Tons)

The plastics industry is one of the youngest and most rapidly developing industries of Turkish manufacturing industry.

The industry comprise nearly 6.500 companies, producing plastics products, raw materials, semi finished products, machines and equipments.

TURKISH PLASTICS INDUSTRY

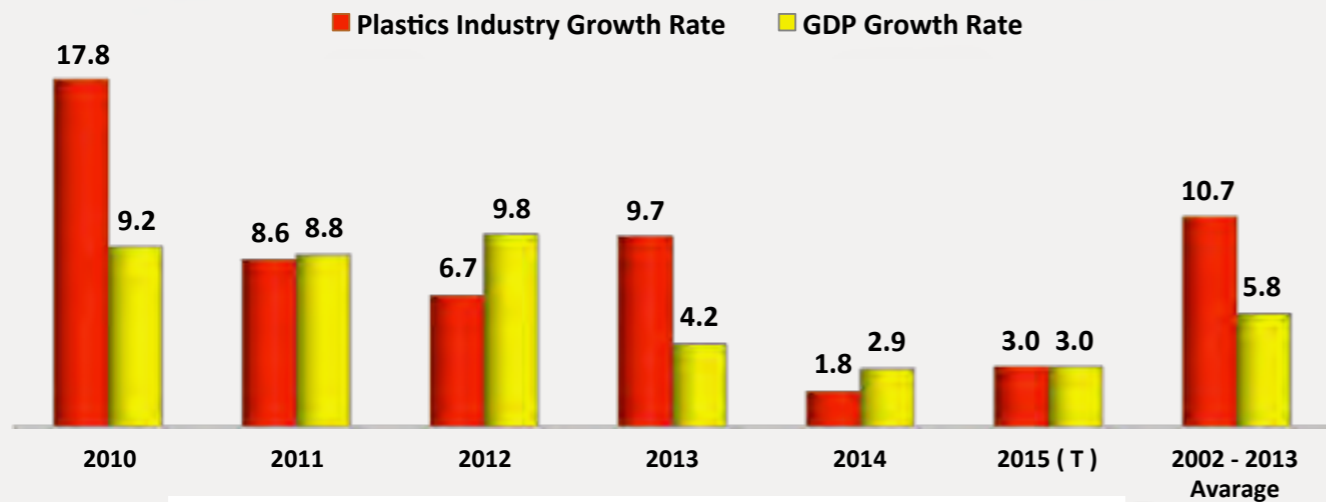


Table 7: GDP & Plastics Industry Growth Rate Comparison

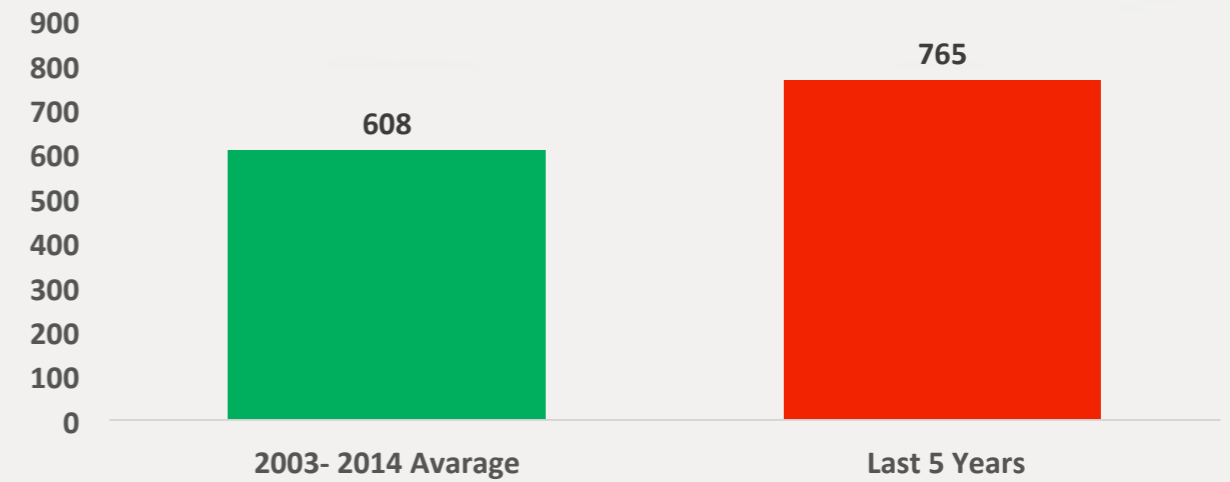


Table 10: Machinery Investment of Turkish Plastics Industry(USD Million)

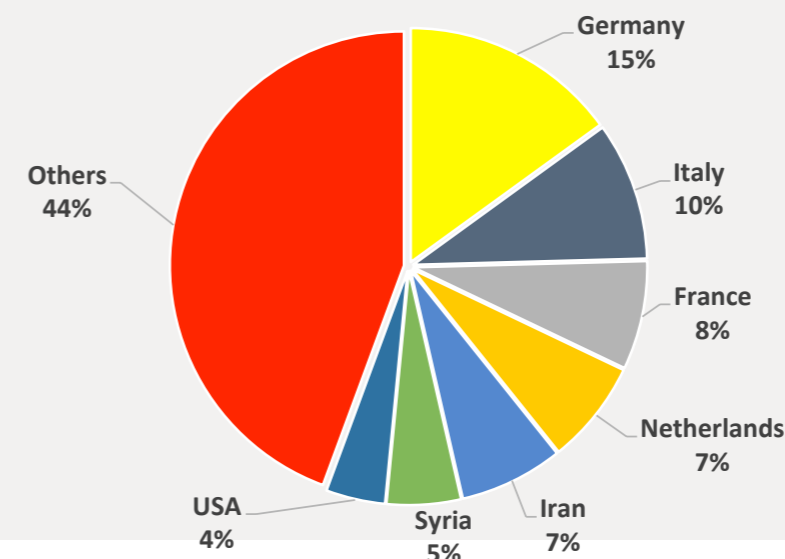
	Million Ton	% Share		Million Ton	% Share
China	72	25,0	Poland	6.2	2,2
USA	42	14,6	Russian Fed.	6.3	2,2
Germany	15	5,2	Indonesia	4.3	1,5
S. Arabia	12.5	4,3	Canada	4.2	1,5
India	11.5	4,0	Malezia	3.6	1,3
Tayland	8.5	3,0	Check. Rep.	1.9	0,6
TURKEY	8.3	2,8	Hungary	1.8	0,6
Italy	8.0	2,8	Arjantin	1.6	0,6
Brazil	7.0	2,4	Others	67.2	23,3
France	6.5	2,3	TOTAL WORLD	288	100,0

Table 8: Global Comparison of Plastics Processing Capacities

Turkish plastics industry shares 2,8 % of total world plastics production which makes Turkey the 7th biggest producer in the world and 2nd in Europe.

Turkish Plastic Industry invests in the machinery and equipment in parallel to the rise in the processing capacity.

The industry invested worth of ;
 USD billion 7,3 between 2003-2014. (USD Million 608 / year)
 The average investment of last 5 years amounted as USD million 765



As of 2015, 310 companies within the plastics industry, have foreign capitals and 64% of these are of European origin. As far as the distribution of the foreign capital is concerned, Germany leads the way with 15 % and is followed by Italy with 10 %

Table 11: Foreign Capital Ventures in Turkish Plastics Industry

MAIN IMPORT SOURCES & EXPORT PARTNERS OF TURKISH PLASTICS PRODUCTS(2014)

SHARE OF PLASTICS INDUSTRY IN TOTAL NATIONAL EXPORTS AND IMPORTS(% - USD)

Country	Million \$	\$ - %	COUNTRY	Million \$	\$ - %
China	666	22	Iraq	545	11
Germany	591	19	Germany	261	5
Italy	253	8	Russian Fed.	232	5
S. Korea	212	7	England	231	5
France	177	6	Azerbaijan	226	5
USA	118	4	Iran	198	4
England	115	4	France	187	4
Belgium	87	3	Georgia	158	3
Spain	61	2	Romania	155	3
Japan	50	2	Libya	152	3
10 countries	2.330	76	10 Countries	2.345	47
Others	756	24	Others	2.631	53
TOTAL	3.086	100	TOTAL	4.976	100

Table 12: Main Import Sources

Turkey imports plastic product from over 100 countries every year. Imports, made from 10 major sources in 2014, comprised 76% of the total imports. China has become prominent import source in 2014

Country	Million \$	\$ - %	COUNTRY	Million \$	\$ - %
China	666	22	Iraq	545	11
Germany	591	19	Germany	261	5
Italy	253	8	Russian Fed.	232	5
S. Korea	212	7	England	231	5
France	177	6	Azerbaijan	226	5
USA	118	4	Iran	198	4
England	115	4	France	187	4
Belgium	87	3	Georgia	158	3
Spain	61	2	Romania	155	3
Japan	50	2	Libya	152	3
10 countries	2.330	76	10 Countries	2.345	47
Others	756	24	Others	2.631	53
TOTAL	3.086	100	TOTAL	4.976	100

Table 13: Main Export Partners

Turkey exports plastic products to approximately 200 countries. 10 leading countries received as share of 47 % in 2014. Iraq, Germany and Russian Fed. comprise the leading 3 export markets.

Industries	% Share
Mineral fuels and oils	22,9
Boilers and machines	11,4
Electrical machines and devices	7,4
Iron and steel	7,3
Motor land vehicles and parts	6,3
Plastics and products	5,9
Gems	3,4
Organic chemical products	2,4
Optical materials	2,0
Pharmaceutical products	1,8

Table 14: Imports

The plastics industry ranked 6th largest importer industry with a share of 5.9% amongst 10 exporter industries in 2014.

The reason for such ranking of the industry, which created surplus in plastic product foreign trade, amongst largest importer industries originates from its high import dependency on plastic raw material import.

Industries	% Share
Motor vehicles and their components	11,5
Boilers, machines and their components	8,6
Knitted garment products - accessories	6,5
Electrical machines and components	6,1
Iron and steel	5,9
Gems	5,0
Goods from iron and steel	4,0
Nonwoven garment goods - accessories	4,0
Mineral fuels and oils	4,0
Plastics and products	3,9

Table 15: Exports

The plastics industry became the 10th largest exporter in 2014 with a share of 3.9% of plastic export (product + raw material) within the total national export.

According to the Istanbul Minerals and Metals Exporters' Association export records, plastics export (product + raw material) ranked first within total chemical industry export with a share of 32% in 2014.

TURKISH PLASTICS PRODUCTION / CONSUMPTION BY MARKETS

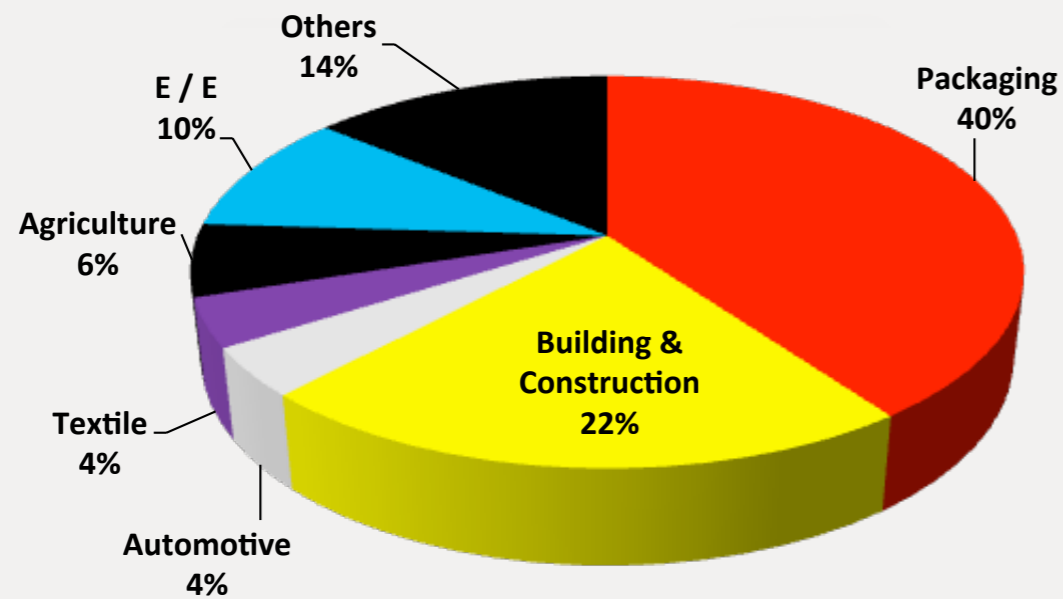


Table 16: Consumption By Markets

The primary industries shaping the domestic consumption are packaging and construction materials as it is in the world and EU. The consumption ratios are about 40 % for packaging, 22 % for construction whereas the other industries hold a ratio between 4-10 %.

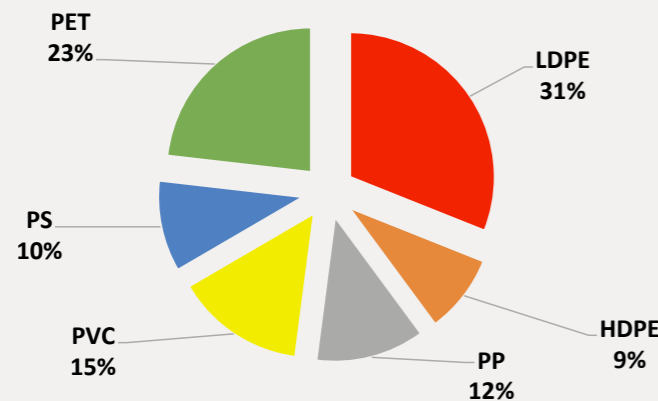


Table 17: Plastics Raw Materials Domestic Production Share

The import dependency of Turkish plastic industry on plastic raw material supply is still continuing and increased to 86% in 2014. It is presumed that plastic raw material manufacturing in 2014 ended with approximately 1 million 24 thousand tonnes.

TURKISH PLASTICS PACKAGING MATERIALS INDUSTRY

Products	No of Companies	Ton	M ²	Meters	1000 Unit
Plastic Film	205	200.639	1.036.345.507	421.630.400	
Sheets	137	128.243	342.572.240		
Bottles and cans	235	86.589			2.008.991
Storage Containers	543	279.737			1.648.000
Packings Bags	734	493.000	1.247.482.460		841.000
TOTAL	1.854	1.188.208	2.626.400.207	421.630.400	4.497.991

Table 18: Installed Capacity of Plastics Packaging Industry

In Turkish plastics packaging industry, lots of companies manufacture lots of different products, and manufacturing capacities of companies in terms of products cannot be defined over a certain unit. According to PAGEV database, about 1.450 companies are operating in plastic packaging 61% of which located in Istanbul. More than 10 companies that operate in 14 provinces account for 83% of total companies.

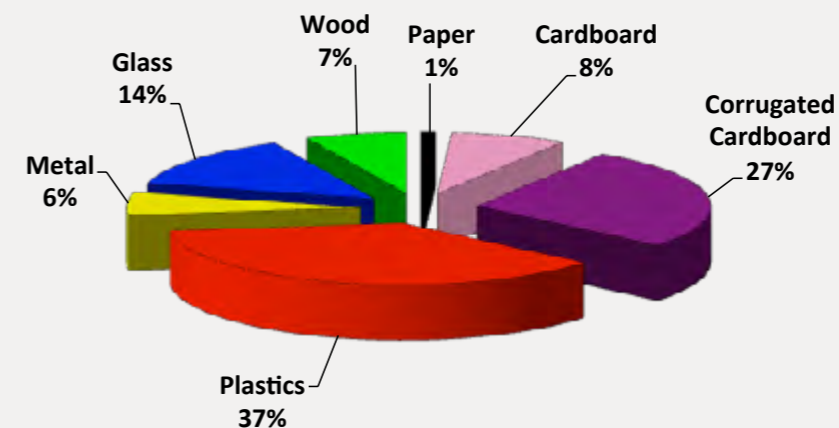


Table 19: Installed Capacity of Plastics Packaging Industry

According to the data from ASD - Packaging Industrialists Association, the share of plastic packaging in total packaging industry is 37 %.

SHARE OF PLASTICS IN TOTAL PACKAGING MATERIALS

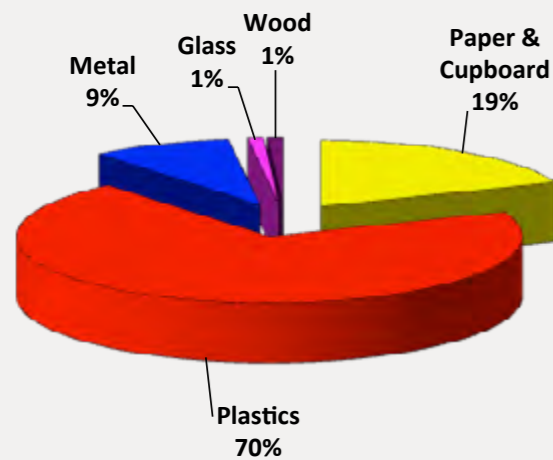


Table 20: Exports

The share of total exports of plastics packaging industry is 70 % in total packaging imports.

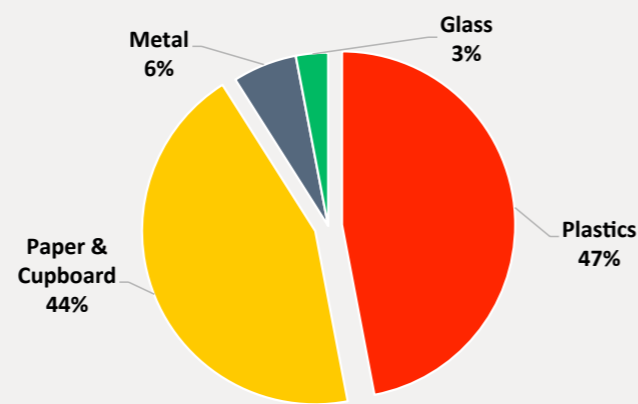


Table 21: Imports

The share of total imports of plastics packaging industry is 47 % in total packaging imports.

SHARE OF PLASTICS PACKAGING MATERIALS IN TOTAL PLASTICS PRODUCTS

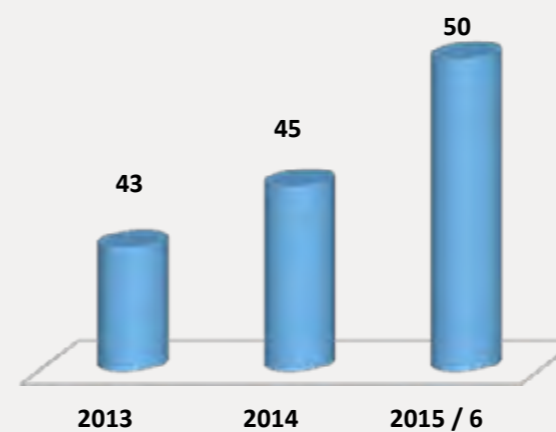


Table 23: Exports

2014, plastic packaging products exports, shared % 45 of total plastics industry exports.

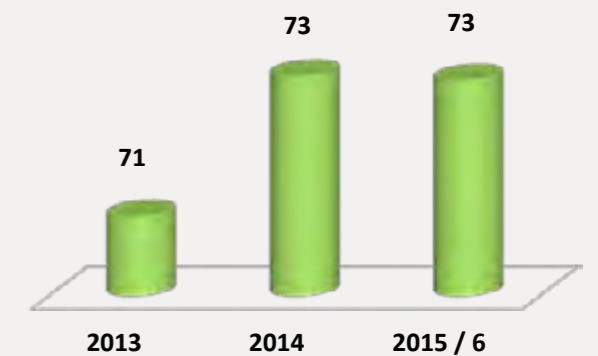


Table 24: Imports

In 2014, plastic packaging products imports shared % 73 of total plastics industry imports .



Table 22: Plastics Packaging Materials Production(Million Tones)

It is expected that the production will be 3.4 million tons and USD billion of 11,6 at the end of 2015 at the end of 2015 by increasing % 3,4 in unit base and decreasing % 11,6 in value base compared with 2014.

PLASTICS PACKAGING FOREIGN TRADE OF TURKEY

10 MAJOR EXPORT MARKETS & IMPORT SOURCES FOR TURKISH PLASTICS PACKAGING MATERIALS INDUSTRY

Plastics Packaging Materials Imports

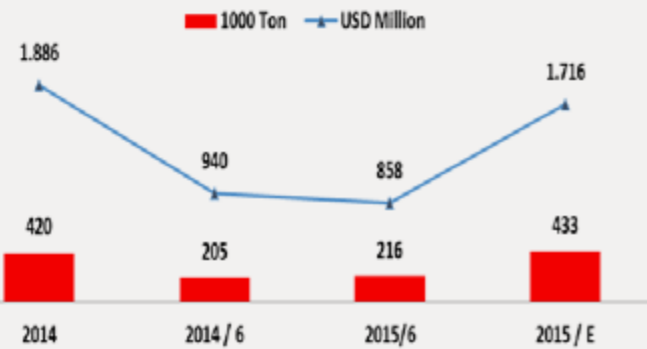


Table 25: Exports

The imports of plastics packaging materials which was 420 thousand tones and USD billion of 1,7 in 2014 are expected to be 433 thousand tones and USD billion of 1,72 at the end of 2015.

Plastics Packaging Materials Exports

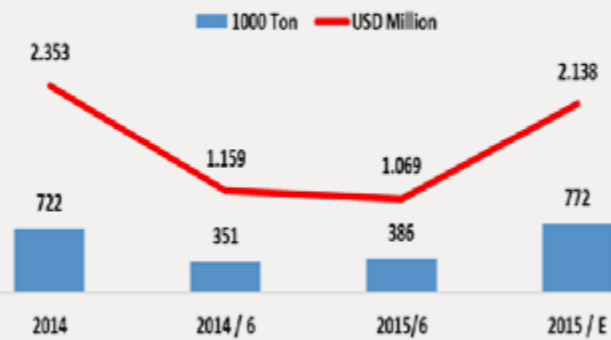


Table 26: Imports

The exports of plastics packaging materials which was 722 thousand tones and USD billion of 2,3 in 2014 are expected to be 772 thousand tones and USD billion of 2,1 at the end of 2015.

COUNTRIES	% Share
Iraq	7,8
UK	7,5
Germany	7,4
France	4,7
Italy	4,2
Israel	3,6
Netherland	3,4
Iran	3,3
Azerbaijan	2,8
Poland	2,6
Total 10 Countries	47,3
Others	52,7
Total	100,0

Table 26 Exports

Turkey exports plastic packaging products to more than 150 countries. 10 major export partners had 47 % share.

Iraq, UK, Germany, France, and Italy kept its status of top 5 markets.

COUNTRIES	% Share
Germany	19,1
China	18,1
Italy	8,6
S.Korea	8,4
France	4,2
UK	4,0
USA	3,9
Belgium	3,6
Greece	2,3
India	2,0
Total 10 Countries	74,5
Others	25,5
Total	100,0

Table 27: Imports

Plastics packaging products are imported from more than 80 countries.

The share of top 10 import partners within total imports realised as % 75. 5 major import partners are Germany, China, Italy, S. Korea, and France.

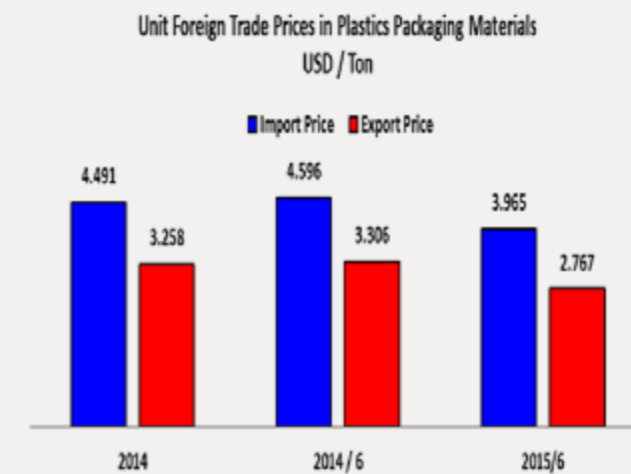
FOREIGN TRADE SURPLUS IN TURKISH PLASTICS PACKAGING INDUSTRY



Turkey has foreign trade surplus in terms of amount and value in total foreign trade of plastic packaging products.

The foreign trade surplus is expected to increase by % 12,4 in unit base and decrease by % 9,6 in value base at the end of 2015.

UNIT FOREIGN TRADE PRICES IN TURKISH PLASTICS PACKAGING INDUSTRY



Average import prices of plastic packaging products have been over the average export prices in Turkey since 2000.

This shows that Turkey imports plastic packaging products with higher added-value while exporting products with lower added-value.

Plastic packaging products exports in 2023 is expected to reach USD billion of 5,5 In 2023, in order to achieve the export target of \$ 5.5 billion;

The creation of strategic alliances

Exporting or less exporting companies to be gathered,

Plastics packaging industrial foreign trade company should be established,

Synergy actions must be created, to cut costs with joint purchasing, to establish technical and commercial infrastructure, to develop and expand the cluster activities to ensure increased efficiency in production.

Another strategy is to become a global center of excellence in producing innovative plastics packaging materials in Turkey.

The main actions that can be done for this purpose are;

To produce technological products,

To set priorities on R & D investments,

To create development policies,

To take best practices of the leading countries and organizations in the packaging industry as a model,

To develop mechanisms to encourage mergers to increase the international competitiveness,

To identify the R & D needs of the plastic packaging industry to establish scientific works in universities to increase innovative activities.

GLOBAL PLASTICS PACKAGING MARKET

World packaging industry is very large and big industries and the plastic packaging industry has an important place in the economies of the countries.

In parallel with the rapid development of plastic packaging, plastic has become an essential part of our daily lives.

Key to this success, is the best way to maintain supply capability and low weight due to the cost savings as a result.

Plastics, through innovative technologies, are becoming increasingly sophisticated, lightweight, versatile and has replaced the traditional packaging materials such as glass and paper in many areas.

Rapid increase in the use of plastics has been realized with the development of polystyrene, polypropylene, PVC, polyester and polyethylene copolymers.

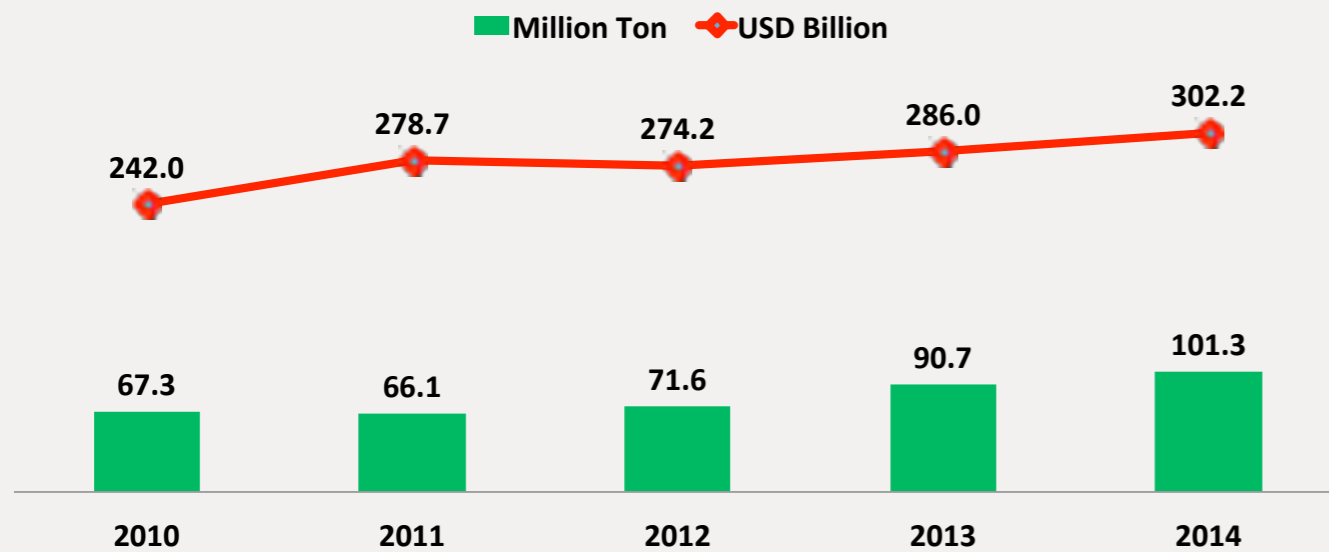
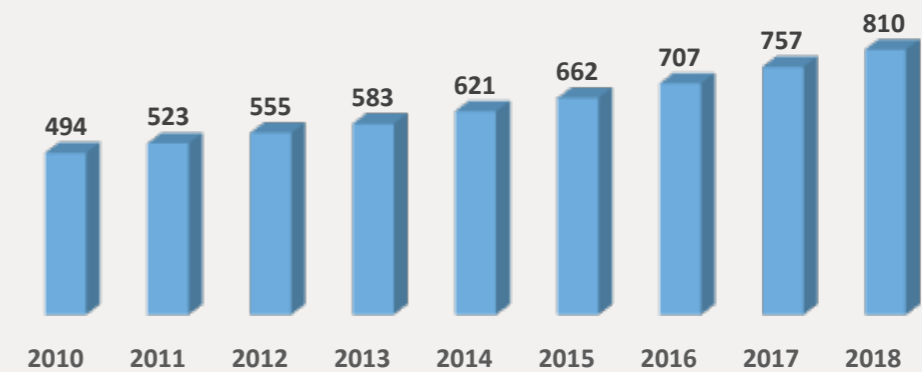


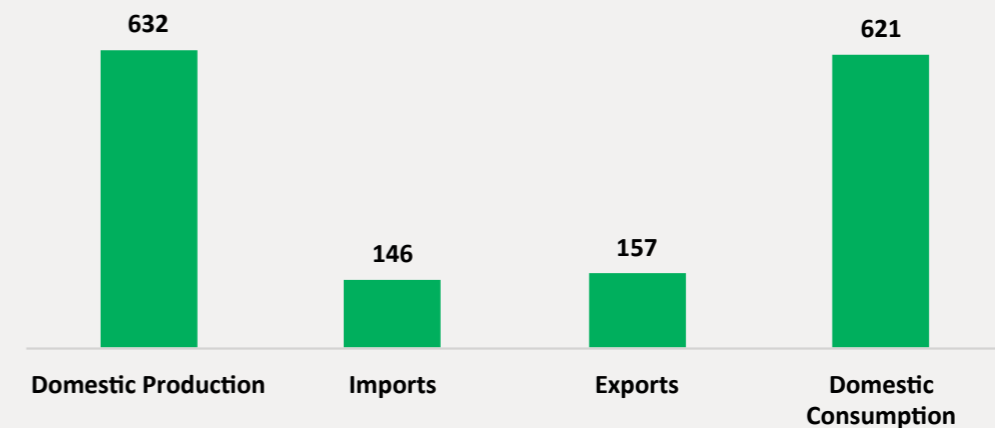
Table 28: World Total Trade Volume for Plastics Packaging Materials

SHARE OF PLASTICS PACKAGING MATERIALS IN TOTAL PLASTICS PRODUCTS

Plastics Packaging Global Market Growth USD Billion



World Total Plastics Packaging Supply & Demand 2014 USD Million



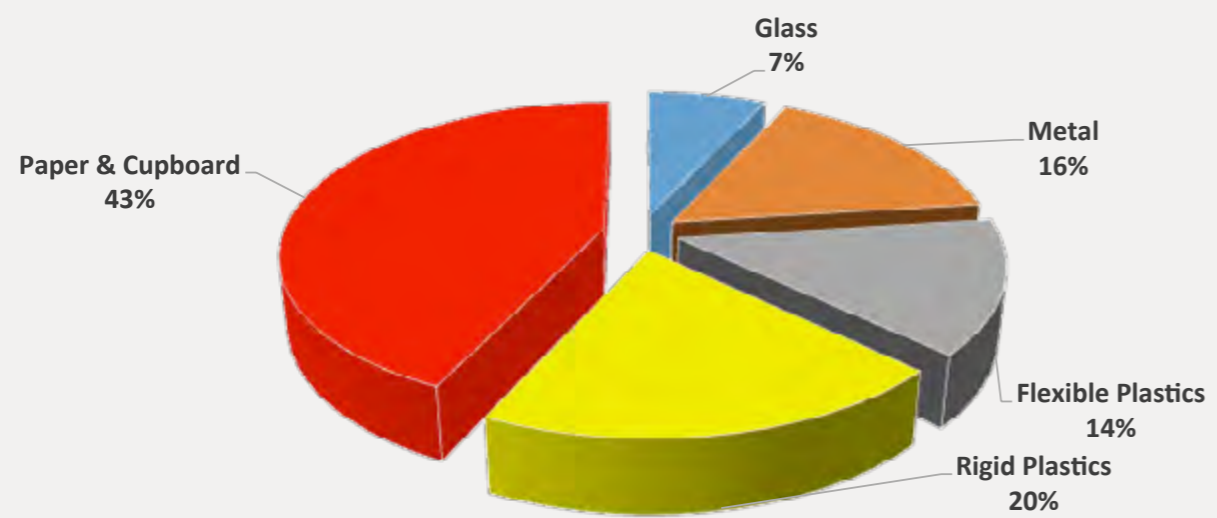
In 2014, global production of plastics packaging realised as USD Billion of 632, global imports by 146, global exports by 157 and global domestic consumption by USD billion of 621.

The global packaging industry is experiencing solid growth, especially in plastics between 2010 – 2014.

The global packaging industry is growing globally at an average one point above GDP rate. However, not all segments and geographies are equal.

Global plastics packaging market realized as USD Billion of 621 is expected to reach to USD Billion of 810 in 2018.

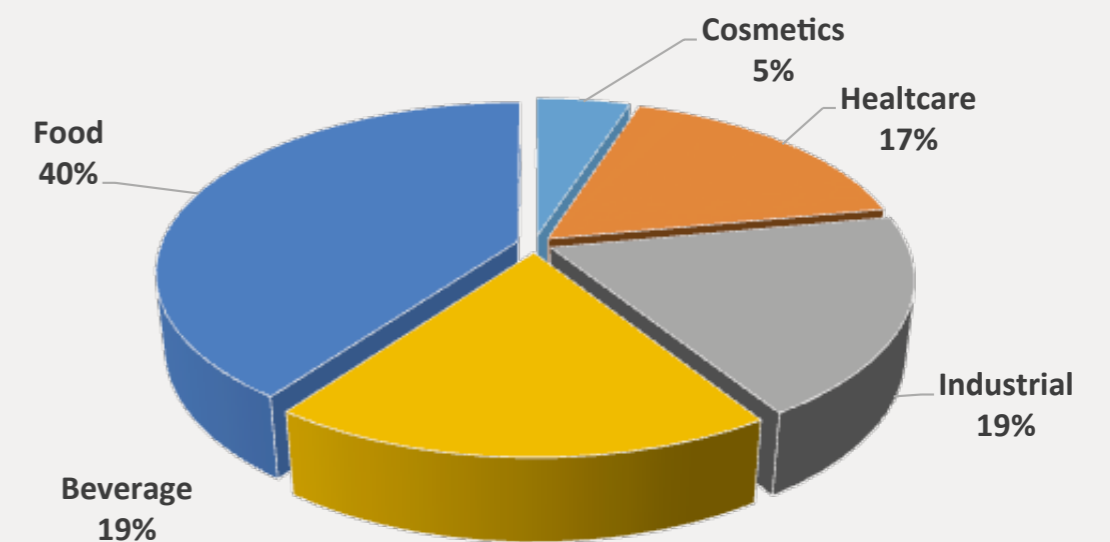
GLOBAL PACKAGING BY MATERIALS



Global paper and board packaging is the largest segment in size, but plastic packaging has the strongest growth prospects

Plastic continues with strong performance, due to its lightweight, flexibility, durability and design properties. For example, stand up flexible pouches are experiencing an even faster growth of over 11% CAGR.

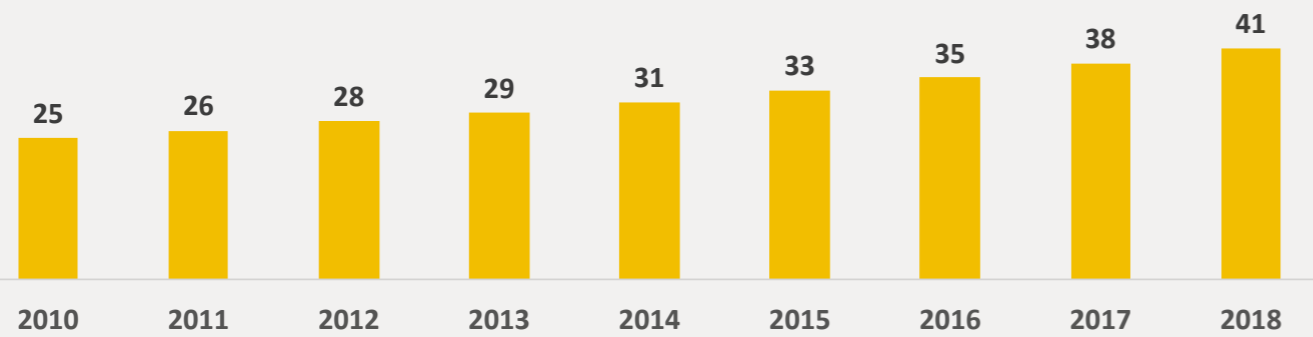
SHARE OF PLASTICS PACKAGING MATERIALS IN TOTAL PLASTICS PRODUCTS



The packaging industry serves large consumer markets, including food and beverages, healthcare and cosmetics together representing almost 80% of the market, as well as industry and transportation. These end-uses are stable, growing steadily and consequently attractive.

Changes in lifestyles, population aging and smaller households are leading to an increased level of "ready-to-eat" and single serve foods.

GLOBAL THIN WALL PACKAGING MARKET - USD BILLION



Global thin wall plastics packaging market, shares about 25 % of total rigid plastics market.
 Global thin wall packaging market realised as USD billion of 31 in 2014 and expected to be USD billion of 41 in 2018
 Despite lower growth prospects, Europe is expected to remain the largest packaging market in the world in size.
 North America is the second largest market in size.
 Growth forecasted is mostly generated by the Asia-Pacific region.
 Asia is characterised by flat Japanese market growth of 0.5% and a booming Chinese market growth of 10.0%;
 China has seen important growth in all aspects of packaging: industrial and transport on the one hand, but also retail consumer oriented.
 Demand is driven by less complex packaging solutions, using paper and board, and metals. Higher value packaging solutions including flexible plastic are emerging, and there is clear interest in brands and luxury product, plus an expanding middle class.

KEY DEMAND GROWTH DRIVERS OF GLOBAL PACKAGING INDUSTRY

Changes in income, standard of living and urbanisation,
 Changes in consumer demand; white goods, healthcare, technology, luxury, fastfoods, etc.
 Changes in World regional trade and transport,
 Changes in demographics. Aging population easy-to-open, single serve packaging. Younger generations - smaller and lighter for on-the-run consumption,
 Packaging waste: sustainability and environmental concerns drive, reduction, innovation and acceptability;
 Retail is changing: packaging especially for shelf-ready, ecommerce, trade, global retail & brands.
 Recent innovations and trends :
 Lightweighting. Using less fibre and lower grammage while maintaining strength and reduced waste;
 White surfaced and shelf ready packaging. Offering high print quality and colours, shelf and brand presence, plus consumer engagement;
 Total renewable, all bio-based packaging, combining wood fibre with biodegradable plastics.
 Plastic packaging is here to stay and will continue to replace other substrates. Challenges remain: sustainable sourcing, recyclability, biodegradability and waste.
 Plastic packaging (usually composed of Polyethylene (PE), Polyethylene terephthalate (PET), Polypropylene (PP), Polystyrene (PS) or Polyvinyl chloride (PVC)), has a variety of advantages, instrumental in increasing market share. It offers various shapes, and colours to support brands, marketing, innovations and strategies, especially for large groups in consumer businesses and retail.
 Plastic packaging covers a wide range of products and technologies of all shapes, sizes and rigidity: bottles, jars, containers, cases, pallets, tubes, closures, films, multilayers laminated expanded or foamed, etc. It meets the needs of primary, secondary and transport packaging with functionalities that other packaging materials can not easily reach.

TURKISH THIN WALL PLASTICS PACKAGING INDUSTRY

Turkey, shows a faster development in plastics packaging industry, than the EU countries, Growing urbanization trend, the lengthening of the average life expectancy, women's increasing population of working life, the contribution of consumption habits and the expectations of consumers ; developed the self-service in the central and consumer direct selling hypermarket, promotes the spread of supermarkets and supermarket chains in the entire country.

This support the development of use of retail systems packaging. Likewise, consumers in markets achieve the possibility of finding with many more varieties of cheap but good quality and reliable products, price and quality.

Apart from customer service, sale promotions, special discounts, free product coupons directs customers preferably to purchase from the store.

The chain of shopping malls and retail sales racks and feed the order accordingly packaged product demand.

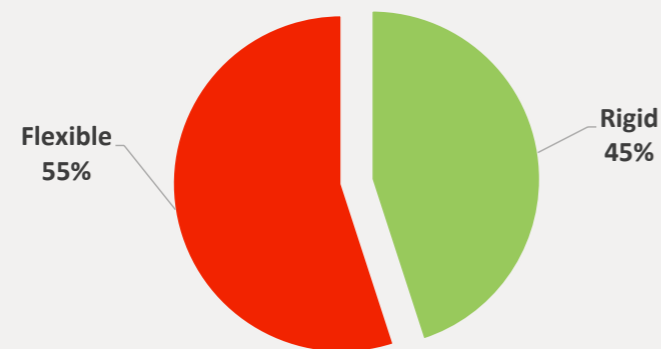
Thin Wall Packaging like tubs, cups, pots, trays, clamshells and plastic jars, provides a means of supplying consumer appeal, convenience and product protection, whilst reducing the carbon footprint.

Barrier properties can be tailored to the application by careful material selection to be cost-effective.

Innovative designs are enabled by developments in manufacturing technology.

Applications include margarine, yogurt, ice cream, meat, bakery, fresh fruit and vegetables.

TV dinners are a rapidly growing market as households work harder; microwave, freezer and oven-proof containers are included in this sector.



Turkish plastic packaging industry is made up of flexible plastics by 55 % and rigid plastics packaging products by 45%.

Social demographics, emerging markets and new technology would all impact upon packaging design in the future.

"It is impossible to predict what the future looks like but we can identify trends which indicate possibilities and potential.

The growth of emerging markets – the E7 countries of China, India, Brazil, Mexico, Russia, Indonesia and Turkey,

The increase in middle class consumers particularly in Asia but declining disposable income in western economies,

Ageing population would lead to a need for larger fonts, improved ease of access and smaller meal portions,

Recession hit convenience shoppers will look for re-sealable packs to reduce food waste and offer better value for Money,

The spread of wealth will lead to more 'tiering' of product ranges, putting 'good', 'better', 'best' labelling into practice.

Pressure on resources will lead to a greater pressure on costs for raw materials but increase consumer demand for more sustainable, environmentally-friendly packs.

POTENTIALS IN FOOD AND BEVERAGE AND PACKAGING INDUSTRY

Turkey's food industry has registered a steady growth in recent years, with the Turkish consumers becoming increasingly demanding, driven by the multitude of choices offered by mass grocery retail outlets. Rising disposable income and changing consumption patterns, along with the increase in the number of females in full-time employment, have all led to an increase in interest as regards packaged and processed food, such as ready-to-eat meals and frozen food.

As the sector is getting more sophisticated, Turkey is becoming one of the largest markets for dairy products including milk, yoghurt, cheese, kefir and ayran (a drink made of yoghurt and water) form an integral part of the traditional Turkish diet.

Traditionally, artesian, unpackaged products have dominated the Turkish dairy market, holding back widespread growth but also posing a potential to the investors.

Turkey is ranked 5th in the Business Monitor International (BMI). Business Environment Ratings for the food and drinks industry on account of its large population size, lack of market maturity or saturation, favorable long-term economic structure and GDP per capita.

The Turkish beverage sector is one of the leading industries in Turkey, constituting an important portion of the country's GDP.

The strengths of the industry include the size of the market in relation to the country's young population, dynamic private sector economy, substantial tourism income and favorable climate.

Turkey's food and beverage trade balance is expected to grow positively over the 2013 - 2016 period, due to the sheer size of the country's agricultural sector. As consumers demand a wider variety of food and beverage products, the annual trade balance is expected to increase to USD 8 Million by 2016. Total volume is expected to reach USD 9.1 Million.

With its young and growing population, food and beverage consumption and infact packaging products for them are both increasing in Turkey. The Turkish food industry has important export opportunities due to the diverse agricultural products available in the country.

Being a developing country, the GDP per capita is expected to increase in coming years, which will also have the effect of increasing consumer spending on food and beverage with their packaging materials.

An interested young population is open to trying new brands and products in Turkey. Growth in the tourism sector also benefits consumption in the food and beverage industry. Since the market is still not mature, there are many opportunities for new products to enter Turkey.

TOTAL PLASTICS PACKAGING CONSUMPTION IN TURKEY BY TYPES

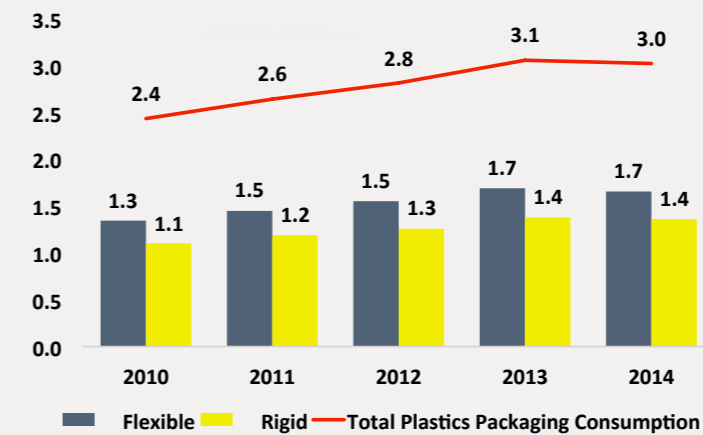


Table 29: Million Tons
CAGR
(2010 - 2014) = 5,7 %

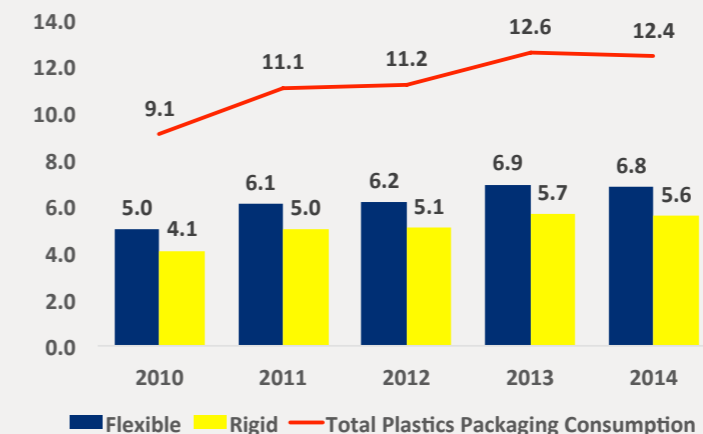
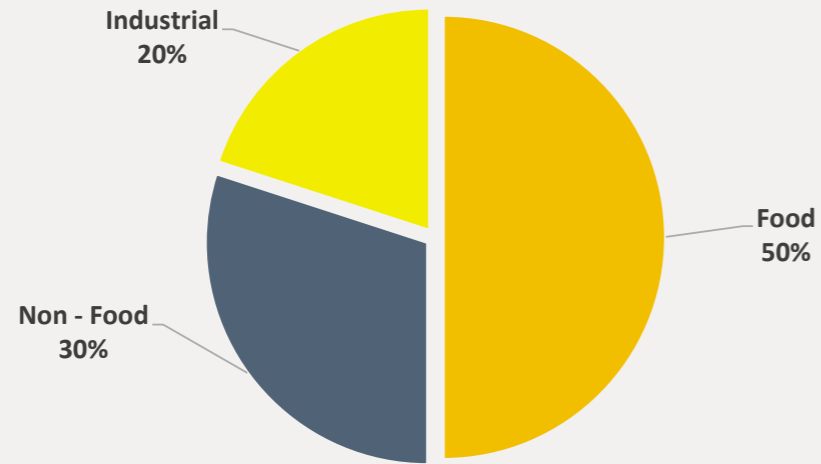
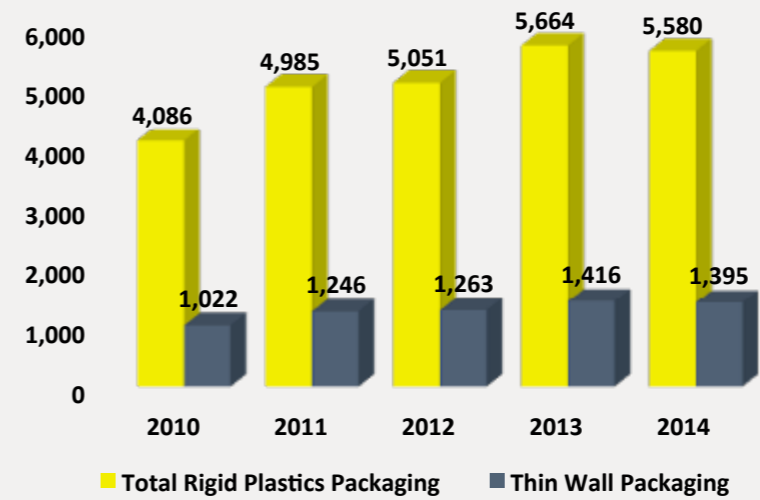
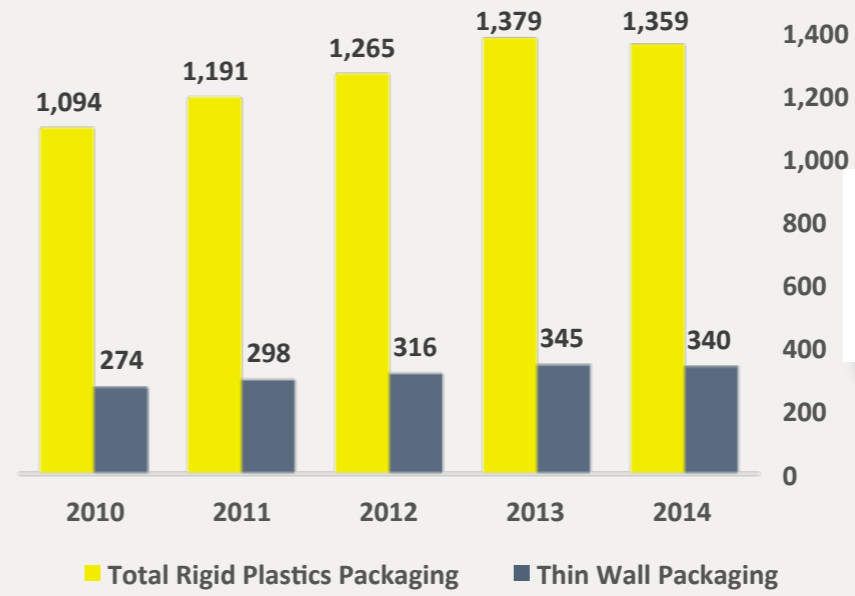


Table 30: USD Billion
CAGR
(2010 - 2014) = 8,0 %

THIN WALL PLASTICS PACKAGING CONSUMPTION BY APPLICATION IN TURKEY



TOTAL THIN WALL PLASTICS PACKAGING CONSUMPTION IN TURKEY



TOTAL THIN WALL PLASTICS PACKAGING CONSUMPTION BY APPLICATION IN TURKEY

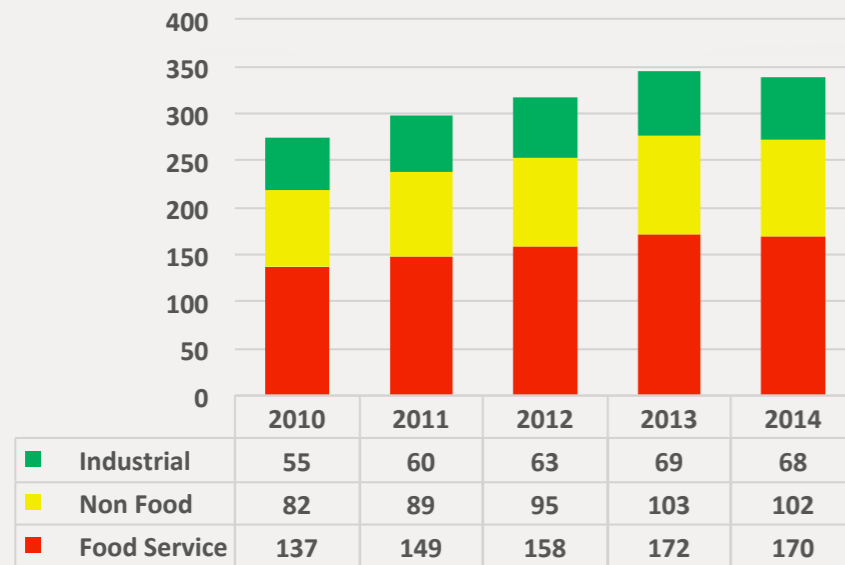


Table 31: 1000 Tons

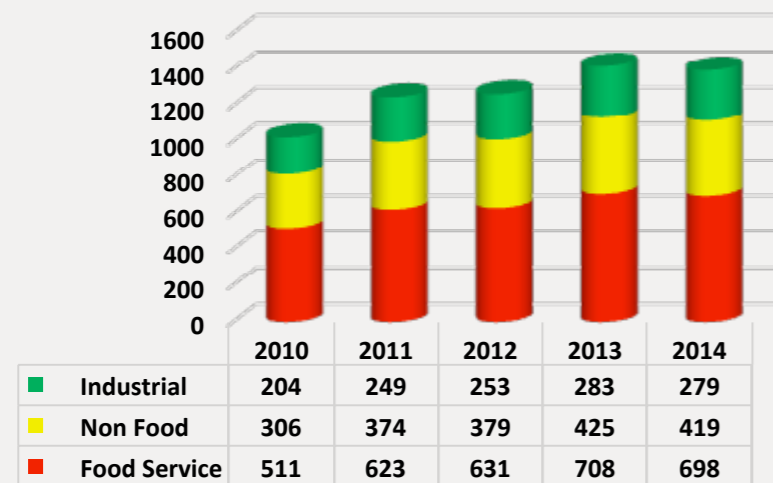
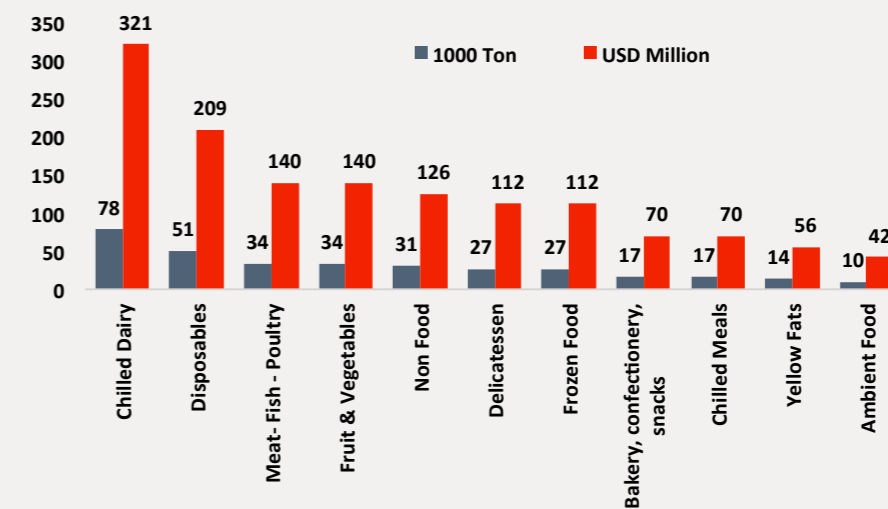
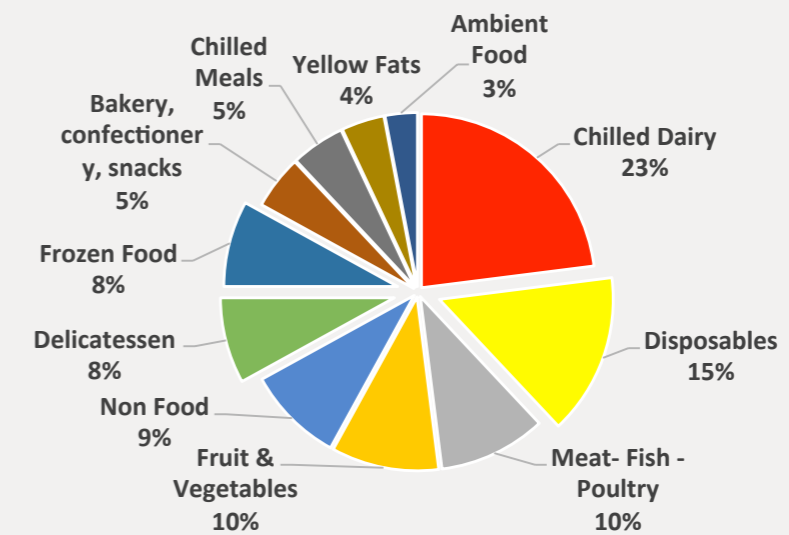


Table 32: USD 1000

THIN WALLED PACKAGING CONSUMPTION IN TURKEY BY APPLICATION IN 2014



Thin walled plastic packaging are known to be the most important growth market in the coming years.
Demographic developments, such as one - and two people live and increasing the older homes will contribute to the market growth.

NOTES:

TÜRKİYE'NİN AMBALAJ ATIK YETKİLENDİRİLMİŞ KURULUŞU



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