CHAPTER – V

TRADING OF PRODUCTS IN COMMODITIES MARKET

This chapter deals about the various commodities traded in India and briefly describes about each commodity, the need for trading the commodity, the factors influencing the trading of the commodity and the present Indian scenario and global scenario of the trading of each of the commodities listed earlier.

5.1 GOLD

INTRODUCTION

Gold is the most desired precious metal in the history of the world. The value assigned to gold by everyone primarily stems from the fact that it is almost always in demand compared to its relative scarcity; despite this, it is the most highly distributed precious metal. It is widely sought after and possessed by most countries and it is found in most nations – from equatorial regions to freezing Siberia; and is produced across nations in notable quantities. Historically, gold was mined vigorously from Africa; however, it is now found and processed in my countries including South America, Transylvania in Europe, Siberia in Asia, California in North America, and Australia. In nature, gold occurs as nuggets or grains in rocks, veins and alluvial deposits. It is the most malleable and ductile metal ever known. It maintains its bright yellow luster without oxidizing in air or water. Around 174,100 tonnes of gold have been mined till 2012 according to GFMS gold survey report 2013. It is also widely used across the globe as an alternative medium for monetary exchange. Besides its widespread monetary and symbolic functions, gold has many practical uses in dentistry, electronics, and other fields. Its high malleability, ductility, resistance to corrosion and most other chemical reactions, and conductivity of electricity has led to many uses, including electric wiring, colored-glass production, and gold leafing. However, the amount of gold in the world is finite and production has not grown in relation to the world's economies. Today, gold mining output is declining. With the sharp growth of economies in the 20th century, and
increasing foreign exchange, the world's gold reserves and their trading market have become a small fraction of all markets and fixed exchange rates of currencies to gold became unsustainable.

FIGURE 5.1 - GOLD

FUTURES TRADING – BENEFITS TO THE ECONOMY

- India, being a major consumer, needs to be integrated with international markets. Developed economies provide avenues for efficient price discovery and risk management. Having a futures platform in India will allow Indian value chain members to participate in the above process, and also offset their price risk.
- India already has a huge spot market in gold. A futures exchange will only complement the existing system by providing a forward curve for prices. Going forward, the futures platform will integrate fully with the spot market creating a symbiotic relationship wherein mutual benefits will flow seamlessly.
The futures market will allow investment gold to freely flow into the market, which will further strengthen the price discovery process.

NEED FOR FUTURES TRADING IN GOLD

Gold is the most liquid asset in the world. The standard gold bar of 995 or 999 purity is accepted across the world and returns its full asset value which makes it the least risky. More importantly, India being the largest consumer, it has always been linked to the international bullion market. All developed economies allow for “derivatives” trading in gold comprising of futures, options, swaps, etc. These derivative instruments have immense benefits to different strata of the market. Some are listed below:

- Producers of gold are always exposed to downside risk of their gold decreasing in value by the time it is mined, refined and taken to market. For them, futures trading allows for advance sale of their gold at prices suitable to them, so that their margins are secured.
- Jewelry makers buy gold to be designed as per their customers’ specifications. For them a lag in procurement of gold as raw material and sale of finished Jewelry would expose them to price risk, thus, affecting their profit margins. Futures trading will allow them to book gold as per their design schedule. Moreover, in case of uncertainties, they can always hedge their risk on futures so that the loss arising in their business is offset by equivalent profits on gold futures.
- Supply concerns are one of the most important reasons for futures trading to exist. In the last few years, supply increase has been from scrap recovery, sales from central banks and loans from official gold reserves. Owing to these supply pushes, price of gold fluctuates causing volatility.

Since gold is priced in US Dollars, any economic activity that affects this currency, indirectly affects the gold price. Additionally, conditions like inflation, deflation,
bankruptcies, etc. affect the economy at a larger level. Gold, being an inflationary hedge, automatically attracts investors’ attention for diversifying their risk and neutralizing their portfolio.

5.2 SILVER

INTRODUCTION

Silver belongs the basket of eight precious metals – the others being Gold, and six platinum group metals. For over 6 decades, Silver has been known and prized for its colour, luster, non-corrodible nature, and the relative ease with which it can be worked. In addition to these attributes, silver is also sought after owing to its decorative applications, and the way it has been transformed into a predominantly industrial metal. Being soft and malleable, silver can be transformed into many items like jewelry, handles for daggers and swords, utensils and tableware. Industrial use of silver accounts for over two-thirds of its total consumption, however, the same did not arise until 19th and 20th centuries. Nearly two hundred years after silver was used as money, it was removed from the monetary circulation cycle towards the 1960s. This was implemented mainly due to increase in industrial demand of silver; as mining activity could not keep up with the rapidly increasing demand for coin operated vending machines. In the present day, silver coins are officially minted with the sole usage being commemoration events and not as money. Although silver deposits are found scattered across the Mediterranean spanning from Spain through Greece and Romania to Afghanistan; significant silver mining didn’t start before 4000 BC. Early in history, silver, like gold, was a durable store of wealth and was used as money. Since the 1970s, its monetary use has largely disappeared, and it has become almost entirely an industrial metal. Investment demand and producer hedging now absorb less than 3 percent of the world’s supply of newly mined silver. Silver jewellery is regarded as an investment in some countries. Other small items of investment include the bullion coins, commemoratives, and small bars of fine silver discussed above in the subsection “Coins and Medals.” About three-fourths of the world’s mined silver is a byproduct of base-metal and gold mining at several hundred mines.
India is primarily a silver importing country, as the production of India is not sufficient to satisfy the ever-growing domestic demand. The production of silver in India in 2012 stands out at the figure of around 2.1 million ounces placing it at the 20th position in the list of major silver producing countries. The import of silver in India hovers over 110 million ounces that shows the huge size of Indian domestic demand. However, this import level fell sharply as a result of the decline in demand due to rise in silver prices and inconsistent monsoon on which the income of the rural sector depends. But, even this sharp decline could not affect India’s reputation of being one of the largest consumer countries of silver in the world. India stands third after United States and Japan among the leading consumers of silver in the world.

**FIGURE 5.2 - SILVER**

Silver, like gold, has been used in three principal ways—a fabricated product, an investment good, and, until the 1970s, a monetary metal. Of the silver supplied to the world market yearly, more than 97 percent is destined for fabrication and the remainder, for investment and producer hedging. Although fabricated silver is used in the same products the world over, the pattern of use differs from country to country and region to region. In most countries, the industrial uses constitute an important sector of the market,
often the most important sector. The two other prominent sectors—photography, and jewellery and silverware—vary greatly in relative importance. Coins and medals constitute a very minor sector in most countries. Most silver, certainly most in the industrial uses and photography sectors, is consumed in the industrial countries. The use of silver for jewellery and silverware in a country appears to be determined more by social custom than by degree of economic development. Silver is used in the large majority of its commercially important end uses as an alloyed or unalloyed metal. Major applications of silver are listed below.

- Photography
- Jewellery and Silverware
- Coins and Medals
- Industrial uses – Bearings, Brazes, Soldering, Catalysts
- Dental and Medical applications
- Electrical and Electronic applications – batteries, conductors, etc.
- Mirrors
- Purification of drinking water
- Automotive industry – as silver-coated glass to reflect sunlight so as to reduce load on the air-conditioning system
- As an alloy in control rod materials in “pressurized water type” nuclear power reactors

5.3 CRUDE OIL

INTRODUCTION

“Light Sweet Crude Oil”, also known as “Western Texas Intermediate” or WTI, is a US based crude oil having low-sulphur, low density and high API gravity. As it produces more gasoline and diesel fuel, when refined, compared to other “heavier” and “sour” crude oils; it commands a higher price in the market. This WTI crude oil being traded at the New York Mercantile Exchange (NYMEX) has become the global
benchmark for pricing of all other types of crude oil traded across the world. Crude oil is one of the most volatile commodities traded chiefly because the way it affects the global economy as well as our dependency on its derivative products like gasoline, heating oil, furnace oil, etc.

Over 40% of the world’s energy source comes from crude oil and its products. With growing demand comes another great concern of resource depletion. Unlike agricultural commodities which are seasonally cultivated, crude oil availability across the world is limited and is not recyclable. In addition to this, the producers of oil invest heavily in finding newer oil wells despite resources being limited; giving rise to diminishing returns per unit invested. Moreover, rising geo-political interest also adds to the increasing participation and volatility in oil prices.

As crude oil is a heterogeneous mixture of hydrocarbon chains which are separated by the refining process to yield several different products with varying uses.

- Gasoline – also known as petrol is used largely by automobiles for transportation
- Diesel – used by automobiles and specific industries as fuel
- Fuel oil – required by many industries as fuel in furnaces, boilers, etc
- Kerosene – used for lighting and heating; also used for transportation, cooking and as pesticide
- Jet Fuel – also known as Aviation Turbine Fuel (ATF), it is used by as fuel for airplanes
- Lubricants
- Wax
- Petroleum coke – used as a solid fuel
- Asphalt
- Tar
Western Texas Intermediate (WTI): This is the US benchmark crude oil. It is a light, sweet crude oil with an API gravity of approximately 40 and a sulfur content of approximately 0.3%. The spot price of West Texas Intermediate is reported at Cushing, Oklahoma.

Globally, US and Canada are the largest consumers of oil on a per capital basis. The chart below shows region-wise consumption of crude oil across the globe. North America, Europe and Asia-Pacific form the largest consuming regions.

**FIGURE 5.3 - CRUDE OIL**

On the supply side, the Middle-East region owns more than a third of the world’s supply, followed by Europe & Eurasia and North America. The Asia-Pacific is now catching up based on recent oil discoveries. The Middle-East has the largest proven reserves of crude oil followed by Europe & Eurasia and South & Central America. New oil discoveries in Europe & Eurasia region and the Middle-East region caused proven
reserves to increase in these areas, while the Asia-Pacific region has remained considerably constant in this regard. Saudi Arabia contributes 13% to the world crude oil production, followed by Russian Federation contributing 12% and next is USA with 8%.

USA is the largest consumer of crude oil followed by China & Japan, each contributing 23%, 10% & 6% respectively in the world’s consumption. India has a share of 3% of world’s consumption. Middle East region is the highest exporter of Crude Oil in the world contributing 45% followed by Former Soviet Union contributing 16% of exports of crude oil. The Europe region is the biggest importer of crude oil, followed by US, each contributing 28% & 25% respectively. These regions collectively import more than 50% of the world’s imports. Indian demand has picked up in the last few years owing to increased consumption of petrol and diesel. Industrial demand has also picked up thus increasing demand for furnace oil and other mid-distillates. Indian supply remains more-or-less constant at approximately 0.77 mn bbls per day which is around 27% of demand. The rest of the demand is met through imports, mainly from the middle-east. India imports a Dubai-Oman crude and Brent crude is the proportion of 62.3:37.7. India is a net-net importer of crude oil. In India, the oil and gas industry is partially administered. Prices of some products like petrol, diesel, jet fuel, etc. are fixed by the government on a periodic basis. Pricing of the remaining products are based on market based calculations, done by the refining companies themselves frequently. Since we are net importers of crude oil, we are exposed to price risk on the purchase side, while crucial products like petrol and diesel are sold at fixed prices in the market.

5.4 COPPER

INTRODUCTION

Copper is ductile, corrosion resistant, malleable and an excellent conductor of heat and electricity. Alloyed with other metals, such as zinc (to form brass), aluminum or tin (to form bronzes), or nickel, for example, it can acquire new characteristics for use in highly specialized applications. As long as copper applications have flourished, it has proved to be completely recyclable. This increases the economic viability of this metal.
Longevity of applications like roofing, wiring, and plumbing will ensure usage of copper over a long time to come.

United States, Japan, Chile, Canada, Zambia, and the European Union are the major refiners of copper; major exporters include Chile, Indonesia, Canada and Australia and major importers include Japan, China, the European Union and Philippines. Production via exploration of new mines is an important factor influencing prices. On this front, aspects like labour contract expirations also affect on copper prices. Further, shipping disruptions and natural calamities like earthquakes also impact prices. The copper most commonly used for sheet and strip applications complies with ASTM B370. It consists of 99.9 percent copper, and is available in six tempers designated by ASTM B370 as: 060 (soft), H00 (cold rolled), H01 (cold rolled, high yield), H02 (half hard), H03 (three quarter hard), and H04 (hard). Soft temper copper is extremely malleable and best suited for applications such as intricate ornamental work.

As a metal, copper has many unique and beneficial properties. Historically, it is one of the oldest materials in use by man and can illuminate parts of our great history throughout civilized times. The production and use of copper are also important parts of our economy. Copper use dates back to 10,000 years ago in western Asia. During the Chalcolithic Period, societies discovered how to extract and use copper to produce ornaments and implements. Some of the applications of copper include:

- Electrical Applications – wiring, instrumentation, microprocessors, etc.
- Architecture & Piping
- Household products
- Coinage
- Bio-medical applications
- Chemical applications
- Fire extinguishers
- Electroplating
Across the globe, copper demand and supply are largely influenced by economic, technologic and societal factors. Total land based resources are estimated to touch 1.6 billion tons while deep-sea nodules are estimated to be 0.7 billion tons. The US, EU, Japan and China form the major consumers while Chile, Indonesia, Canada, Australia and EU form major suppliers. Chile is the highest producer of copper in the world, producing 34% of the world’s production. Peru & USA each produce 8% & 7% respectively of the world’s copper production. India forms 3% of the total world demand for Copper, owing to which it had to import Copper for its consumption. However, with producers like Birla, Sterlite and Hindustan Copper scaling up their operations, India is emerging from its net-importer status to a fast growing exporter nation. PSU telecom companies BSNL and MTNL account for 10% of the total Indian consumption of copper.

FIGURE 5.4 – COPPER

Indian Copper prices are directly linked to the LME fixings declared every day. On a broader scale, the following factors affect Copper prices worldwide.

- Mining activity, new mine discovery and expansion of existing mines directly affects the supply side of the price equation and influences global pricing
• Political problems in major supplying countries including Chile, South Africa and Peru cause prices to fluctuate. Supply problems can also occur as labour contracts in mines end, thus creating an artificial bottleneck in the short term
• Weather problems like earthquakes also cause supply side issues, thus, influencing the prices
• Demand fluctuations in developed nations coupled with issues with freight and shipping affect prices
• Stockpiles or inventory positions at LME and COMEX have an impact on pricing as they alter the forward price curve
• Since copper is increasingly used in the electrical and electronics industry, market scenario for these products also affects prices.

5.5 COTTON
INTRODUCTION
Cotton often referred as "White gold", has been in cultivation in India for more than five thousand years. It is one of the oldest fibers and the time when it was first utilized is not known accurately. It is a soft fiber that grows around the seeds of the cotton plant. The fiber is most often spun into thread and used to make a soft, breathable textile, which is the most widely used natural-fiber cloth in clothing today.

The cottonseed which remains after the cotton is ginned is used to produce cottonseed oil, which, after refining, can be consumed by humans like any other vegetable oil. The cottonseed meal that is left generally is fed to ruminant livestock. Cottonseed hulls can be added to dairy cattle rations for roughage. Cotton is used to make a number of textile products. In addition to the textile industry, cotton is used in fishing nets, coffee filters, tents, cotton paper, and in bookbinding. The first Chinese paper was made of cotton fiber.

GLOBAL SCENARIO
Cotton production and trade is widely spread across the world, with more than 80 nations cultivating the crop. However, its production, consumption and trade are
dominated by a few nations. The world cotton production in 2011-12 is 123.64 million bales of 480-lb. each as against 116.56 million bales of 480-lb. each in 2010-11. The world's four largest cotton-producing countries are China, India, the USA and Pakistan, which together account for nearly 79% of the world production. Other major producers include Brazil, Uzbekistan and Turkey. The USA is the largest exporter of cotton, accounting for over one-third of global trade in raw cotton, which is estimated to be 11 million bales of 480-lb. each in 2011-12. While China is the largest importer of cotton.

**INDIAN SCENARIO**

India's annual production of cotton has been showing a steady increase in the recent years supported by a rise in acreage, better seed quality and improved practices. India is estimated to have produced 35.6 million bales of 170 Kgs of cotton from an acreage of 12.91 million hectares and a yield of 496 kg/ha in 2011-12, as against a production of 32.5 million bales of 170 Kgs, acreage of 11.14 million ha and yield of 496 kg/ha in 2010-11. Interestingly, while India has the largest area in the world under cotton cultivation, its yield is one of the lowest at around 500 kg/ha as against the world average yield of 740 kg/ha.

**FIGURE 5.5 – COTTON**

In India, cotton is a predominantly a monsoon-season crop. It is planted from the end of April through September, and harvested from October to January, based on the
time of sowing. Cotton is produced in three zones, the Northern zone comprising the states of Punjab, Haryana and Rajasthan, the Central zone comprising the states of Maharashtra, Madhya Pradesh and Gujarat and the Southern zone comprising the states of Andhra Pradesh, Karnataka and Tamil Nadu. Cotton cultivation is also gaining momentum in the state of Odisha. The states of Gujarat, Maharashtra and Andhra Pradesh are the major producers of cotton, accounting for about 75% of the total production.

India has been a major exporter of cotton, since 2005-06. It is currently, the world's second largest exporter. It exported around 8.4 million bales of 170 Kgs of cotton in 2011-12. India mostly imports Long and Extra Long Staple (ELS) cotton from the US, Egypt, and West Africa.

FACTORS INFLUENCING COTTON TRADING

- The domestic demand supply scenario, inter-crop price parity, cost of production and international price situation are the major factors that influence prices in the market.
- Cotton prices especially cotton seed prices.
- Quality of cotton seed oil cake especially the oil%.
- Export and domestic demand of cotton, global production demand has a direct correlation to the pricing of cotton irrespective of the variety.
- Monsoon plays most crucial factor in the production of cotton. Weather, pests, diseases and other risk factors associated with agricultural crops are also important for cotton.
- Direct procurement by the government agencies and storage in warehouses. Government policies with relation to import, export and Minimum Support Price are significant influencers.
- Cotton being used primarily in manufacturing products such as clothing and home furnishings, the overall health of associated industries and economic well-being of the final consumer are important.
• New developments in the textile industry, with regard to development and adoption of new technology, fibers, mechanization, and so forth impact cotton prices in the long run.

5.6 CHANA

INTRODUCTION

Chana or chickpea is an important pulse crop of India and is a rich source of protein and used as edible seed and also for making flour. It is highly nutritious and ranks third amongst important legumes after dry bean and peas. Two types of chana like desi and kabuli are being cultivated across the globe.

Among the total chana production in the world, desi type contributes to 80% while rest is of kabuli type. It is well grown in sandy and loam soils with low temperatures during nights. It requires dry weather during the day and sensitive to rainfall. Heavy rains during growth stage leads to excessive vegetative growth and it may not give good yields.

GLOBAL SCENARIO

The world chana production has remained stagnant over the last decade between 8 to 9 million tonnes, while the area under cultivation is hovering around 10 to 12 million hectares. India is the world’s largest producer, consumer and importer of pulses and accounts for 27% of the global pulses production. The other major producing countries are Pakistan, Australia, Turkey, Iran and Myanmar.

More than 90% of chana is consumed by the countries producing it. During last couple of years, world chana production has marginally increased due to increase in production in India and Australia.

INDIAN SCENARIO

India is the biggest producer of chana with 7.05 Million tonnes (approx.) of production in 2008-09. India contributes around 64% to the global chana output. Despite being the major producer of chana, India is the net importer of chana. India imports nearly 20% of the world imports of chana, closely followed by Pakistan (18%), Bangladesh (9%) and Spain (8%).
On the exports side, India exports 20% of the world exports, closely followed by Australia (20%), Mexico (12%) and Myanmar (10%).

Major producing states are Madhya Pradesh, Maharashtra, Andhra Pradesh, Rajasthan and Karnataka. Major trading centers of chana in India are Indore (Madhya Pradesh), Latur (Maharashtra), Akola (Maharashtra), Bikaner (Rajasthan) and Delhi.

FIGURE 5.6 – CHANA

FACTORS INFLUENCING CHANA PRICES
- Rainfall during monsoon season and soil moisture
- Weather factors during winter season (unseasonal rains may damage the crop)
- Area and production in major producing states like Madhya Pradesh, Maharashtra, Andhra Pradesh and Rajasthan
- Arrival pattern from February till April
- Demand from stockiest, mills and retail demand
- Government policies – export/import, duties, stock limits and other restrictions
- Import of pulses and chana by Government and private agencies
- Output in Australia and Canada.
5.7 CASTOR SEED

INTRODUCTION

Castor plant (Ricinus communis) is cultivated around the world for its non-edible oilseed. Castor is an important non-edible oilseed crop and is grown especially in arid and semi-arid regions. It is originated in the tropical belt of both India and Africa. It is cultivated in 30 different countries on commercial scale, of which India, China, Brazil, USSR, Thailand, Ethiopia and Philippines are major castor growing accounts about 88 per cent of the world's production.

It is an annual crop and is grown by sowing the seeds in hot weather. In India, it is grown as a kharif crop and is planted generally during the months of July and August. The crop has a duration period of 4 to 5 months and is generally harvested in the months of December and January.

Castor oil has a wide range of applications mostly industrial. The castor oil has indispensable usage in many industries like cosmetics, surface coatings, toiletries, pharmaceuticals, perfumes, soaps, and medicines. Castor oil and its derivatives are also used in lubricating formulations. Castor oil is used either in crude form or in the refined hydrogenated form.

GLOBAL SCENARIO

Castor oil enjoys tremendous demand world-wide, estimated at about 220,000 tonnes per annum. The current consumption of Castor Oil and its derivatives in the domestic market is estimated at about 100,000 tonnes.

The supply of castor and its derivatives is highly fluctuating. Any change in the production trend in any of these countries leads to a change in the level of the world production. The growing castor-based bio-fuel industry is also resulting in the increasing demand pressure on castor.
INDIAN SCENARIO

India is the biggest exporter of castor oil holding about 70% share of the international trade in this commodity followed distantly by China & Brazil. The average castor production in India was approximately 11.15 lakh tonnes in 2008-09. The states of Gujarat & Rajasthan contribute 90% of the total castor produced in India.

FIGURE 5.7 – CASTOR SEED

The districts in Gujarat namely Mehsana, Banaskantha, Sabarkantha, Gandhinagar, Ahmedabad and Kutch are the main production centre of Castor. Andhra Pradesh and Rajasthan follow Gujarat in production of castor seed. In Andhra Pradesh the main production centres are Nalgonda, Meboobnagar, Prakasam, Guntur and Ranga Reddy. The total area on which castor is produced in India is around 7.87 lakh hectare (approx.) in 2008-09.

FACTORS INFLUENCING CASTOR PRICES

- Consumption and export pattern
- Estimated output based on the acreage and weather conditions and pest infestation etc
- Leftover stocks from the previous year’s production after meeting the demand
• Government policies and intervention
• Direct procurement by the government agencies and storage in warehouses
• Shifting cropping patterns in producing countries

5.8 CRUDE PALM OIL

INTRODUCTION

Palm oil is a fatty edible vegetable oil, yellowish in color, derived from the flesh and the kernel of the fruit of the oil palm tree. The oil palm tree is a tropical, single stemmed tree having feather like leaves that gains a height of around 20 meters. The fruits of this tree, that are also the sources of the palm oil grow in bunches, are reddish in color, bigger than plums in size and have a single seeded kernel inside. The oil palm tree is native to the areas of coastal Africa and appears different from a coconut palm tree.

One hectare of oil palm yields approximately 20 FFBs, which when crushed yields 6 tons of oil (including the kernel oil, which is used both for edible and industrial purposes) Crude Palm Oil (CPO), Crude Palmolein, RBD (refined, bleached, deodorized) Palm Oil, RBD Palmolein and Crude Palm Kernel Oil (CPKO) are the various edible forms of palm oil traded in the market.

Crude Palm Oil (CPO) is one of the most important edible oil in India. Palm oil is one of the few vegetable oils known to be rather high in saturated fats, and it comes close to soybean oil as one of the most widely-produced vegetable oils in the world.

GLOBAL SCENARIO

Together, Malaysia and Indonesia account for over 85% of world production of Crude Palm Oil, with most of that produced intended for exports. The world production of Crude palm Oil in 2012-13 was 55 Million Tons. With a total production of 28 MMT Indonesia accounted for almost 51% of the world production followed by Malaysia with a production of 19 MMT and accounting for almost 34% of the world production.

INDIAN SCENARIO

India is the largest importer of Crude Palm Oil with an annual average imports of approximately 50 lac MT. India imports bulk of its palm oil requirement from Indonesia.
Palm oil being the cheapest among the edible oil segment is widely consumed among the Indian household.

Kandla, JNPT, Chennai, Kakinada, Haldia are the major port for imports in India.

FIGURE 5.8 – CRUDE PALM OIL

FACTORS INFLUENCING CPO PRICES

- Oilseeds production at domestic and global level
- The supply-demand and price scenario of competitive oils
- The Government export-import policy
- Import duty and tariff value in India, Indonesia and Malaysia
- The supply-demand scenario of all oils and oilseeds in the consuming centers, viz., India, China and EU. This in turn is manifested as imports from these countries
- The palm oil production cycle: April - December is peak production period
- Import regulations imposed in the importing countries
- Crude Oil Prices due to use of Palm oil in manufacturing of biodiesel
5.9 MUSTARD SEED

INTRODUCTION

Mustard seeds are yellowish colored, small seeds mainly used as a spice in many countries. The seeds can come from three different plants: black mustard, brown Indian mustard, and white mustard. Rapeseed belongs to the plant of the same genus and also known as canola in many countries.

Rapeseeds and mustard seeds are sources of rapeseed/mustard seed oil and oilcake. Yellow colored oil is obtained by extraction process of the crushed rape/mustard seeds. During the production of oil, pressed cakes of the seeds are left over that have some amount of oil content. These cakes are distilled to make oil cakes, which serves as an animal feed.

Mustard/Rapeseed cultivation is done widely throughout the world. It is basically a winter crop and it requires a temperate climate to prosper. The planting season or the sowing period in India is during the Rabi season i.e. October to November. The harvesting period is from February to March. The rapeseed/mustard crop actually acts as a very good cover of soil in winters.

GLOBAL SCENARIO

Global production of rapeseed increased from 37.33 million tons in 2000 to 59.38 million tons in 2009. It has been growing at the rate of 6.55% during the last 9 years' period (over 2000-2009 period). The major contributors to global rapeseed production are China, India, EU-27, Canada and others with a share of 22%, 11%, 36%, 20% and 11% respectively.

Consumption of rapeseed in the World has increased from 31.33 million tons in 1997 to 59.16 million tons in 2009, growing at a rate of 7.4 % compounded annually during the period. China has been the biggest consumer of rapeseed.

Annual export trade of rapeseed stands at around 12 million tons. It has been growing at the rate of 14.23% (annually compounded 1996-2009), major share being contributed by Canada.
INDIAN SCENARIO

Rapeseed has been a traditionally important oilseed crop in the country. Indian rapeseed production has been fluctuating in the range of 5.5-6.5 million tons over the last few years. About 0.15 MT is retained for sowing and direct consumption as 'seed', leaving about 5.35-6.35 million tons for crushing and extracting oil. India is self-sufficient in mustard seed and oil as import and export of the commodity is almost non-existent. However India exports around 400,000 tons of oil cake.

Rajasthan and Uttar Pradesh are the major rapeseed producing States in the country. Together, they produce about 90% of the produce. Hapur, Alwar, Bikaner and Jaipur are the active spot markets of rapeseed in the country.

FIGURE 5.9 - MUSTARD SEED

Being an important source of edible oil and feed meal to the country, rapeseed is undoubtedly the focus of Indian oilseed industry. Efforts are being made both by the Government of India and the industry associations to increase production of this vital source of edible oil and meal.
FACTORS INFLUENCING RAPESEED-MUSTARD SEED PRICES

- Various supply-demand factors revolving around the global edible oil scenario
- Influence of internationally traded substitutes (Palm, soya oil)
- The nature of the existing supply
- The presence of a large unorganized crushing sector
- Government policies and intervention.
- The ups and downs in production, arrivals in the mandis, international prices of other oilseeds and oils

5.10 RBD PALMOLEIN

INTRODUCTION

RBD Palm olein is refined, bleached and deodorized form of palm oil which is extracted after crushing palm fruit. It is used in many countries as edible cooking oil.

RBD Palm Olein is the liquid fraction obtained by the fractionation of palm oil after crystallization at controlled temperatures. It is used as an important raw material in the manufacture of soaps, washing powder and other hygiene and personal care products.

Palm oil is obtained from fresh fruit bunches (FFB) of oil palm cultivated in plantations. There are several commercial variants of palm oil available viz., Crude Palm oil, Crude Palmolein, RBD (Refined Bleached Deodorized) Palm oil, RBD Palmolein and Palm Kernel Oil.

RBD Palmolein is used as cooking oil as well as frying oil for food industries such as snack food and ready-to-eat food. It is also used as a raw material for margarine and shortening. It is used in soap, candles and oleo chemical industries.

GLOBAL SCENARIO

Palm oil production and trade is widely spread across the world. However, its production, consumption and trade are dominated by a few nations. Palm oil dominates the global vegetable oil export trade.

The world Palm oil production in 2011-12 is 50.68 million tons as against 47.95 million tons in 2010-11.
The world's two largest Palmoil producing countries are Indonesia and Malaysia which together account for nearly 87% of the world production. Other major producers include Columbia, Thailand and Nigeria.

Indonesia has nearly expanded its output in the past decade making it the largest producer of palm oil in the world, accounting for 51% of total world output. Indonesia and Malaysia are the largest exporter of Palm Oil & it’s by products, accounting for the entire global trade in Palm Oil, which is estimated to be 38.78 million tons in 2011-12. Malaysia and Indonesia with 17.95 and 16.7 million tons respectively are major exporters. While India is the largest importer of Palm Oil followed by China & EU. Price competitiveness has been reason for increased consumption of this oil.

FIGURE 5.10 - RBD PALMOLEIN

INDIAN SCENARIO

India is one of the largest vegetable oil importers in the Asian continent followed by China. Crude Palm Oil is the single largest commodity of India’s edible oil import basket. India is basically a net importer of the palm oil.
India imports Crude Palm Oil mainly from Indonesia while from Malaysia it imports mostly refined, bleached and deodorised (RBD) palm olein. Palm oil imported into India is used in various forms- consumed directly as 'palm oil' after refining, used in the manufacture of Vanaspati, for blending with other vegetable oil, crude oil and kernel oil for industrial purposes, etc.

India imports roughly 2.9 million tons of Palmoil and its variants a year. The domestic production is very meager at 0.5 lakh tons. In 2011-12 (Nov – Mar) India imported 20.79 lakh tons of Crude Palmoil and 8.21 lakh tons of RBD Palmoil.

Kandla, Haldia, Kakinada are the major ports for Crude Palmoil & RBD Palmolein entry to India and the major trading points too.

**FACTORS INFLUENCING RBD PALMOLEIN TRADING**

- Oilseeds production at domestic and global level
- The supply-demand and price scenario of competitive oils
- The Government export-import policy
- The supply-demand scenario of all oils and oilseeds in the consuming centers, viz., India, China and EU. This in turn is manifested as imports from these countries
- The palm oil production cycle: April - December is peak production period
- Import regulations imposed in the importing countries
- Crude Oil Prices due to use of Palm oil in manufacturing of biodiesel

**5.11 REFINED SOY OIL**

**INTRODUCTION**

Soybean oil is one of the most important edible oil used in India. Soybean oil in its crude form is the second most traded oil in international market after palm oil. Degummed (Crude) and Refined soy oils are the two traded forms of the commodity in the spot as well as futures markets. In India, soybean arrival starts from early October. Crushing for oil and meal starts in October and peaks during the subsequent two-three months.
Nearly all soybeans are processed for their oil. Soybean oil is used in cooking and frying foods. Margarine is a product made from soybean oil. Salad dressings and mayonnaise are made with soybean oil. Some foods are packed in soybean oil (tuna sardines, etc.) Baked breads, crackers, cakes, cookies and pies usually have soybean oil in them.

Soy-based lubricants are as good as petroleum-based lubricants, but can withstand higher heat. More importantly, they are non-toxic, renewable and environmentally friendly. The high-protein fiber (that which remains after processing has removed the oil) is toasted and prepared into animal feed for poultry, pork, cattle, other farm animals and pets.

GLOBAL SCENARIO

Of the total global vegetable oil production Soybean oil production accounts for 27.4%; whereas of the total vegetable oil consumption Soybean oil consumption accounts to 27.7%. The production of Soybean Oil has increased from 35.88 MMT in 2008-09 to 37.93 MMT at a growth rate of 5.7%. On the other hand, consumption of soybean increased from 35.78 MMT in 2008-09 to 37.65 in 2009-10 MMT registering a growth of 5.22%. Increasing price competitiveness and increasing usage of palm oil have given way to widespread soybean oil growth - both in terms of production as well as consumption.

United States is the major producer of soybean oil in the World. It accounts for approximately 23% of World soybean oil production followed by China (21%), Argentina (18%) and Brazil (16%).

China is the major consumer and importer of soybean oil in the World. It accounts for approximately 19% of World soybean oil consumption. Followed by India (12%), US (8%) and Indonesia (4%)

Argentina is the major exporter of soybean oil in the World, followed by United States, Brazil and EU-27 nations.

INDIAN SCENARIO

India is the net importer of Soybean Oil. The imports of Soybean Oil have increased from 12% in 2007/08 to 15% in 2009/10 of the total edible oil imports in India.
India’s Soybean Oil production declined from 1.45 mn tons in 2007/08 to 1.1 mn tons in 2009/10. On the other hand consumption of Oil has increased from 2.3 mn tons in 2007/08 to 2.5 mn tons in 2009/10. The gap between the production and consumption is met by importing the Soybean Oil.

FIGURE 5.11 - REFINED SOY OIL

FACTORS INFLUENCING SOYBEAN OIL PRICE

Indian Soybean Oil prices are highly correlated with the CME prices. On a broader scale, the following factors affect Soybean Oil prices.

- Production dependence upon agro-climatic conditions e.g., rainfall, temperature etc.
- Concentration of production base in few countries (USA, Argentina, Brazil) as against its widespread consumption base
- Its close link with its internationally traded substitutes (Palm, Mustard oil), and its base raw material (soybean) in addition to its co-derivative (soy meal)
- The crush margin between Oil, Meal and seed
- Government Import Policy
- The nature of the existing long drawn value chain
5.12 SOYBEAN

INTRODUCTION

Soybean is an important source of high quality but inexpensive protein and oil. It has an average protein content of 40% and oil content of 18% - 20%. Soybean protein has great potential as a major source of dietary protein. A by-product from the oil production (soybean cake) is used as a high-protein animal feed in many countries. Soybean also improves soil fertility by adding nitrogen from the atmosphere.

It has emerged as an important commercial crop in many countries. About 82-85% of the global Soybean production is crushed for oil and meal, while the rest is consumed either in the form of 'bean' itself or for value-added soybean snack foods.

The bulk of the crop is solvent extracted for vegetable oil and defatted Soy meal which is used for animal feed. The extracted Soy oil is one of the major sources of edible oil in the world. Soy oil remnant after oil extraction is rich source of protein for livestock. In 2009, soybeans represented 53% of world oilseed production.

In India, soybean is a Kharif crop. Its sowing begins by end-June with the arrival of south-west monsoon. The crop is ready for harvest by the end of September.

GLOBAL SCENARIO

Soybean is the leading oilseed produced globally. Of the total global oilseed production Soybean production accounted for 58.9% in 2009/10; whereas of the total oilseed consumption Soybean consumption accounted to 56.7%.

The production of Soybean has increased from 211.21 MMT in 2008-09 to 257.46 MMT at a growth rate of 21.58%. On the other hand, consumption of soybean increased from 222.16 MMT in 2008-09 to 235.69 in 2009-10 MMT registering a growth of 6.09%.

Increasing price competitiveness, and aggressive cultivation and promotion from the major producing nations have given way to widespread soybean growth-both in terms of production as well as consumption.

United States is the major producer of soybean in the World. It accounts for approximately 36% of World soybean production with an annual production of 91.4
million tons in 2009/10, followed by Brazil 67.5 million tons of annual production. Argentina, China and India with 54, 14.5 and 8.75 million tons of production, contribute to 21%, 6% and 3% of World production, respectively in 2009/10.

China is the major importer of soybean in the World, followed by EU-27 nations, Japan and Mexico.

United States is the major exporter of soybean in the World, followed by Brazil, Argentina and Paraguay.

FIGURE 5.12 – SOYBEAN

INDIAN SCENARIO

India is the 5th largest producer of soybean in the world. The Soybean Production in India is approximately 9.67 million tons in 2009/10. The states of MP, Maharashtra and Rajasthan contribute 95% of the total soybean produced in India.

FACTORS INFLUENCING SOYBEAN PRICES

On a broader scale, the following factors affect Soybean prices worldwide.

- Expected demand: Average level of consumption and exports during the past few years
- Production: Estimated output based on the acreage and weather conditions and pest infestation etc. of India as well other major countries producing soybeans
• Carryover stocks: Leftover stocks from the previous year’s production after meeting the demand

• Crop acreage: Extent of area sown under the crop

• International prices: CBOT Soy complex price movement, DCE Soybean price movement and estimates released by domestic and global agencies

• Imports and exports: In case of edible oils, the traders need to know the details of important sources and destinations of the external trade. In case of Soy meal the information regarding the world demand and production estimates of key soybean producing countries like Argentina and Brazil needs to be analyzed

• Government policies and intervention

• Procurement: Direct procurement by the government agencies and storage in warehouses.

5.13 LIST OF LARGEST PRODUCING COUNTRIES OF AGRICULTURAL COMMODITIES

Production (and consumption) of agricultural commodities has a diverse geographical distribution. Along with climate and corresponding types of vegetation, economy of a nation also very much influence the amount of production. The major agricultural products can be broadly grouped into foods and fibers.

FOOD PRODUCTS - Produce Types

<table>
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**Nuts**

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**Spices**

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### NON-FOOD PRODUCTS

#### FIBERS

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