# Demystifying COMMODITIES

-Trading in <u>Commodities</u>

> Demand

>Supply

Price



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## Foreword

FOREWORD

## Welcome to a whole new world of opportunities!

The process of economic liberalisation in India began in 1991. As part of this process, several capital market reforms were carried out by the capital market regulator Securities and Exchange Board of India. One such measure was to allow trading in equities-based derivatives on stock exchanges in 2000. This step proved to be a shot in the arm of the capital market and volumes soared within three years. The success of the capital market reforms motivated the government and the Forward Market Commission (the commodities market regulator) to kick off similar reforms in the commodities market. Thus almost all the commodities were allowed to be traded in the futures market from April 2003. To make trading in commodity futures more transparent and successful, multi-commodity exchanges at national level were also conceived and these next generation exchanges were allowed to start futures trading in commodities on-line.

Commodities exchanges have seen a surge in commodity futures volumes in the last few months. This rise in volumes has been led by bullion (gold and silver) trading. Today a whole lot of commodities are available for trading in futures and the list is getting bigger by the day. No wonder then that the commodity futures market is being viewed as a significant business segment by many– businessmen, investors, institutions, brokers, banks et al.

Of course there are still millions of Indians who are not aware that commodities other than gold and silver can also be traded in on commodity exchanges, a là equities. Fewer still know that commodities can be traded on-line!

Hence to educate Indian investors in the benefits of trading in commodities Sharekhan has decided to bring out a compilation of questions on the subject along with their answers. **Demystifying Commodities** seeks to cover every aspect of commodity trading and has been written in a language that is simple and lucid, a characteristic of Sharekhan.

I am certain that Demystifying Commodities will go a long way in generating awareness about commodity trading among Indian investors. The various money-making trading strategies for the commodities market discussed in Demystifying Commodities will also be of immense help to those billion investors who are already trading in commodities.

A Sheru

December 2004

## PROLOGUE

Last week I was in Kolkata to meet our local high net worth clients. I like the city for its investment savvy people and mouth-watering rosogullas. Of course a lot can be written on the two subjects but here I want to speak of a particular experience of mine in the City of Joy.

I was putting up in a posh hotel in south Kolkata. On the first evening of my stay there, I was relaxing in the hotel lounge after a long and fruitful meeting when I heard a middle-aged man coming down the stairs, talking on his cell. From parts of the conversation I could make out that he was talking to his broker about an investment related matter. Clad in a crisp white safari suit, he looked like a typical Marwari businessman, tall, fair and well-built.

After finishing his conversation he took the seat opposite mine with a worried frown. As he settled down I went back to the investment magazine I was reading. Shortly I heard a well-modulated voice asking me for a pen. It was the same gentleman. I took out my Parker and gave it to him with a smile. After thanking me profusely he started taking down notes from a financial daily. He returned the pen after a few minutes and thanked me again. He seemed inclined to talk, more so after he noticed that I was reading an investment magazine.

Shortly he started the conversation by telling me that his name was Rajiv Mittal and he'd used my pen to take down some stock prices from the financial daily. At the sound of the word *stock* my antennae were on alert and I asked him if he invested in the stock market. He told me that although he mainly traded in grains and oils yet he has been investing in stocks for many years. A rich businessman from Ahmedabad he had come to Kolkata for a business deal. "I have even traded in that new thing called Derivatives and liked it very much," he told me with a grin.

At this juncture I couldn't resist introducing myself. On learning that I was a stockbroker of repute, he got excited and immediately came and sat next to me. "Can I discuss certain things with you for a while?" he asked. "Sure," I said, smiling, and kept the magazine aside. Mr Mittal moved closer to me and said, "Although my business is doing well and I have invested a good amount in various schemes, I want to diversify my portfolio. Can you please advise me? Also is there some way of reducing risks in my core business of grains and oils?" In response I very gently made a suggestion, "Start investing in the commodity futures market."

It is for the benefit of investors like Mr Mittal that I have penned down the various aspects of commodity trading I'd explained to him that evening in Kolkata. I present them in a question-and-answer form to keep things simple.

SHAREKHAN

Prologue

# **Commodities**

Mr Mittal: Can you please tell me how trading started at commodity exchanges?

Sharekhan: Most of the commodity exchanges of today were started in the late 19th century and the early 20th century. To understand how the commodities market works in India, we need to understand how it works outside India. That is because the ever-increasing pressure on the other global markets to integrate with each other and with the US markets, and the liberalisation process that started in our country in the early 90s necessitate the study of global markets. Let us thus take a look at how it all began.

It all started in an American city called Chicago. In the 1840s, Chicago had become a commercial centre with railroad and telegraph lines connecting it with the East. Around the same time, the McCormick reaper was invented which eventually led to higher wheat production. Farmers from the Midwest came to Chicago to sell their wheat to dealers, who, in turn, shipped it all over the country.

The Midwest farmers brought their wheat to Chicago hoping to sell the same at a good price. The city had few storage facilities and no established procedures either for weighing grains or for grading the same. In short, the farmers were often at the mercy of the dealers.

The year 1848 saw the opening of a central place where the farmers and dealers could meet to deal in "spot" grain, ie to exchange cash for immediate delivery of wheat.

The futures contract, as we know it today, evolved as the farmers (sellers) and the dealers (buyers) began to commit to future exchanges of grain for cash. For instance, a farmer would agree with a dealer on a price to deliver to the latter 5,000 bushels of wheat at the end of June. The bargain would suit both the parties. The farmer would know how much he would be paid for his wheat while the dealer would know his costs in advance. The two parties would even exchange a written contract to this effect along with perhaps a small amount of money representing a "guarantee."

Such contracts became common and were even used as collateral for bank loans. They also began to change hands before the delivery date. If the dealer decided that he did not want the wheat, he would sell the contract to

someone who did. Or the farmer who didn't want to deliver his wheat would pass his obligation to another farmer. The price would go up and down, depending on what happened in the wheat market. In the event of bad weather, the people who had contracted to sell wheat would hold more valuable contracts because the supply would be lower; if the harvest were bigger than expected, the seller's contract would become less valuable. It wasn't long before people who had no intention of ever buying or selling wheat began trading the contracts. They were speculators, hoping to buy low and sell high or sell high and buy low.

This saw the birth of the first central exchange in 1848 in Chicago under the name Chicago Board of Trade (CBOT). The emergence of the derivatives market as an effective risk management tool in the 70s and the 80s resulted in the rapid creation of new exchanges and the expansion of the old ones.

These old exchanges are located mainly in developed nations. However a few were created in developing countries too. The Buenos Aires Grain Exchange in Argentina, established in 1854, is one of the oldest in the world.

**Mr Mittal:** Is the concept of trading in commodity futures new in India? Sharekhan: No. You will be surprised to learn that the first organised futures market in India was set up way back in 1875 in the form of the Bombay Cotton Trade Association. However the Bombay Cotton Exchange founded in 1893 was the first organised commodity exchange in India.

The Gujarati Vyapari Mandali in 1900 carried futures trading in oilseeds: groundnut, castor seed and cotton. The Chamber of Commerce at Hapur set up in 1913 was the most notable futures exchanges for wheat. Futures trading in bullion began in 1920 in Bombay. In 1919 jute trading was conducted by the Calcutta Hessian Exchange. But organised futures trading in raw jute began only in 1927 with the establishment of the East Indian Jute Association.

Most of these exchanges traded in region-specific commodities and the lack of a national level exchange that could offer multiple commodities at the same platform was felt time and again. So about a couple of years back, at a time when 21 regional exchanges in India were offering various commodities for trading, the government came out with the concept of demutualised, electronic (on-line, screen-based), national level multicommodity exchanges as part of its agricultural and economic liberalisation programme.

The most prominent national level multi-commodity exchanges in India at present are the National Commodity & Derivatives Exchange (NCDEX) and the Multi Commodity Exchange (MCX). All the traditional and generation next commodity exchanges are regulated by the Forward Market Commission (FMC) under the Ministry of Consumer Affairs and Public Distribution.

### Mr Mittal: Which commodities can be traded on these exchanges? Sharekhan: A cash commodity\* must satisfy three basic criteria to get

successfully traded in the futures market:

- 1. It has to be standardised and, for agricultural and industrial commodities, it must be in a basic, raw, unprocessed state. There are futures contracts on wheat, but not on flour. Wheat is wheat (although different types of wheat have different futures contracts). The miller who needs a wheat future to help him avoid losing money on his flour transactions with customers wouldn't need a flour future. A given amount of wheat yields a given amount of flour and the cost of converting wheat into flour is fairly fixed and hence predictable.
- 2. Perishable commodities must have an adequate shelf life because delivery on a futures contract is deferred.
- 3. The cash commodity's price must fluctuate enough to create uncertainty, which means both risk and potential profit.
- \* The actual physical product on which a futures contract is based. This product can be an agricultural commodity, bullion, stock, interest rate, index or a financial instrument.

## Mr Mittal: How does a commodity exchange work?

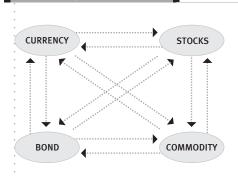
Sharekhan: In most exchanges trading floors are divided into pits (or rings), where traders stand facing one another. These are more or less shallow octagonal areas with raised steps around the edge. Each pit is designated for trading one or more futures contracts. For instance, at the CBOT there are large pits for trading T-bonds, soy bean and corn futures among many others. The Commodities Exchange Center in New York houses more than one futures exchange; there you will find trading pits for such diverse commodities as coffee, sugar, frozen orange juice, cocoa, gold, cotton and heating oil.

However the generation next exchanges like the NCDEX and the MCX are technology driven. These exchanges trade on an electronic platform, having consciously moved away from the age-old traditional platform in order to provide a pan-India network and improved transparency in deals, a là the equities market. These exchanges allow trading in almost all commodity futures.

Mr Mittal: Is there any relation between commodities and the other financial instruments?

Sharekhan: Many believe that most other financial markets, ie the markets for currency, bonds and stocks, operate independent of the commodities market. However that is not the case. The following chart shows how closely integrated all these markets are in reality.

Let us understand this integration better.



The Spiral Effect

- 1. As you know any change in interest rates affects the currency market, leading to an impact on bond prices.
- Any resulting change in the bond prices would affect the treasury and the prospects of the country, thereby affecting industry and stock prices.
- 3. The ups and downs in the stock prices, as a result of all that, would then signal a message to the currency market about the economic prospects of the country. The resulting changes in the currency market would affect the bond market.

4. Again, the prospects of the country's economy would affect the interest rates, thereby influencing commodity prices and the economy itself. This again would affect the stock prices, which would again send signals to the other three markets.

This chain process, or the "Spiral Effect" as we call it, would continue. Hence the world over all the financial markets are interrelated. Financial markets of a country do not move in isolation. Thus the understanding of one financial market leads to the reading of the other.

Clearly the commodities market does not work in isolation and whatever happens in this market always has an impact on the other major financial markets.

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## Mr Mittal: How can we get some information on commodities? Which are the important factors that affect futures prices?

Sharekhan: The fundamental approach to forecasting futures prices involves monitoring demand and supply. The investors and traders gather this information from a number of sources including trade organisations, private news gathering/research firms and the press. A very important and complete source of such information in our country is the government, through its departments of agriculture and commerce, and the central bank, as well as trade associations of commodities like the Bombay Bullion Association, the Solvent Extraction Association, the Bombay Metal Exchange etc.

As a broker Sharekhan offers exclusive products, market letters, analyses and trading calls to suit varied needs. We also have a lot of information and research reports on commodities on our website www.sharekhan.com.

#### Mr Mittal: Who trades in commodity futures and why?

Sharekhan: Basically there are two types of futures participants: hedgers and speculators.

In general, the hedgers use futures for protection against adverse future price movements in the underlying cash commodity. The rationale of hedging is based upon the demonstrated tendency of cash prices and of futures values to move in tandem.

The hedgers are very often businesses, or individuals, who at one point or another deal in the underlying cash commodity. Take, for instance, a soy trader who buys soy seed for oil; if soy prices go up he has to pay the farmer or the soy seed dealer more. For protection against higher soy prices, the trader/processor can "hedge" his risk exposure by buying enough soy futures contracts to cover the amount of soy he expects to buy. Since cash and futures prices tend to move in tandem, the futures position will profit if soy prices rise enough to offset cash soy losses.

The speculators are the second major group of futures players. These participants include independent traders and investors. For the speculators, futures have important advantages over the other investments. The speculators need to invest fewer amounts in futures than in cash since here they need to pay only a fraction of the value of the underlying contract (usually between 5-10%) as margin. Commodity futures are highly leveraged investments.

Also commission/brokerage charges on futures trades are small compared to what they are in case of physical trade and other investments. Moreover there are no transportation charges, no insurance costs, no storage charges and no security concerns when someone trades in futures.

Mr Mittal: Investment in commodities is new to me. Why should I invest in commodities? What are the benefits of trading in commodity futures? Sharekhan: Of course with the other asset classes offering attractive returns, "Why commodities?" is the inevitable question that pops up in one's mind today. Well, commodity derivatives provide unique moneymaking opportunities to a wider section of market participants, starting from investors, hedgers, arbitragers, traders, manufacturers, planters to exporters, importers et al. Trading in commodity futures is not new to the agrarian Indian population and business class. They are well aware of the advantages of commodity futures trading. Trading in commodities is easy and simple as:

- No balance sheets, Profit & Loss statements, understanding of EBITDA (earnings before interest, tax, depreciation and amortisation) and reading between the lines required. Commodity trading is about the simple economics of demand and supply.
- No breaking of heads over market direction. Seasonality patterns quite often provide clue to both short- and long-term traders and investors.
- Commodity trading comes with almost nil insider trading and company specific risks.

What's more, why invite risk by investing in a metal company when you can trade in the metal itself? After all, while the stock price of the company is dependent on several factors including the company's own fundamentals, the price of the metal is driven by the simple economics of demand and supply. The more the demand for the metal, the higher its price and vice versa. Also compared to equities it is much cheaper to trade in commodities, where margin requirements are lower. Further a bull phase in the commodities market lasts for 10 to 15 years.

To understand everything about commodity futures you may please call any of our branches or visit our website www.sharekhan.com. Trading in futures is like trading in forward contracts with some differences.

## Mr Mittal: What are forward contracts?

Sharekhan: A forward contract is a customised contract between a buyer and a seller where settlement takes place on a specific date in future at a price agreed today. The rupee-dollar exchange rate is a big forward contract market in India with banks, financial institutions, corporates and exporters being the market participants. The forward contracts are negotiated overthe-counter products and each contract is customised and unique in terms of the contract size, expiration date, asset/commodity type, asset quality etc.

#### Mr Mittal: What is a commodity futures contract? How does it work?

Sharekhan: Unlike a stock, which represents equity in a company and can be held for a long time if not indefinitely, futures contracts have finite life. They are primarily used for hedging commodity price-fluctuation risks or for taking advantage of price movements, rather than for buying or selling the actual cash commodity. The word "contract" is used because a futures contract requires the delivery of the commodity in a stated month in the future unless the contract is liquidated before it expires.

The buyer of the futures contract (the party with a long position) agrees on a fixed purchase price to buy the underlying commodity (gold, silver, castor seed, refined soy oil or rubber) from the seller at the expiration of the contract. The seller of the futures contract (the party with a short position) agrees to sell the underlying commodity to the buyer at expiration at the fixed sales price. As time passes, the contract's price changes relative to the fixed price at which the trade was initiated. This creates profits or losses for the trader.

## Mr Mittal: What are the features of a futures contract? Please explain with an example.

Sharekhan: Futures are exchange traded standardised contracts to buy or sell an asset (or say a commodity) in future at a price agreed upon today. The asset can be a share, index, interest rate, bond, sugar, crude oil, gold, silver, cotton, coffee etc.

The standard terms in any futures contract are:

- Quantity of the underlying asset (the market lot for trading and for delivery)
- Quality of the underlying asset (very important in case of commodity futures)
- The unit price quotation base (price per 10 gram/per kilogram etc)
- Expiration date of the contract
- Tender and delivery period for the commodity
- Minimum fluctuation in price (tick size)
- Settlement style (in cash or physical).

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**For example:** when you are dealing in February 2005 gold futures contract on the MCX, you know that the market lot, ie the minimum quantity you can buy or sell, is 1 kilogram with minimum 0.995 fineness; the price of gold is quoted per 10 gram on ex-Mumbai basis which includes 1% sales tax. The contract expires on February 03, 2005 (you need to square off the trade or roll it over on or before January 31, 2005 if you are not interested in giving/taking the physical delivery). The tick size is Re1 per 10 gram (100\*1), ie Rs100 per contract/market lot. The delivery period is from February 01 to February 03, 2005. The contract can be settled in cash or in physical form as per the exchange regulations.

You need to read the delivery and settlement procedure for each commodity carefully, as it differs from exchange to exchange and from commodity to commodity. The trading unit and the delivery unit are normally different for different commodities.

Mr Mittal: What is the difference between a forward contract and a futures contract?

Sharekhan: A futures contract is nothing but a form of forward contract. You can differentiate a forward contract from a futures contract on the following lines:

- **Customised vs Standardised contract:** forward contracts are customised while futures contracts are standardised. Terms of forward contracts are negotiated between the buyer and the seller. The terms of futures contracts are decided by the exchanges on which these are traded. For example, in futures contracts the quantity and the expiry date are fixed and decided by the exchanges whereas the expiry date and the quantity can be different for different parties in case of a forward contract.
- **Counter-party risk:** in case of forward contracts there is a risk of counter-party default. In case of futures, the exchanges become counter-party to each trade and guarantee the settlement of each trade. Hence there is no counter-party risk in trading through the exchanges.
- **Liquidity:** futures are much more liquid and their price is transparent as their price and volume are reported in the media. Moreover futures exchanges attract participants from all over the country on a single platform. In case of forward contracts all the participants are not on a common trading platform.
- **Squaring off:** a forward contract can be reversed only with the same counter-party with whom it was entered into. A futures contract can be reversed on the screen of an exchange, as the latter is the counter-party to all the futures trades.

## Mr Mittal: How to arrive at future prices of a commodity?

Sharekhan: The theoretical price of a futures contract is the spot price of the underlying commodity plus the cost of carry. Please note that futures are not about predicting the future prices of the underlying asset or commodity.

In general, Futures Price = Spot Price + Cost of Carry.

The cost of carry is the sum of all costs incurred if a similar position is taken in the cash market and carried to expiry of the futures contract less any revenue that may arise out of holding the asset. The cost typically includes interest cost in case of financial futures; in case of commodity futures, insurance and storage costs etc are also considered. Revenue may be in the form of dividend in case of stocks and financial instruments.

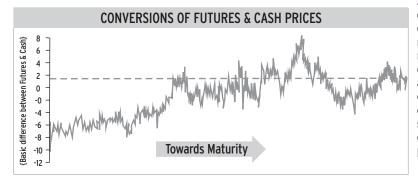
Though one can compute the theoretical price, the actual price may vary depending upon the demand and supply of the underlying asset or commodity.

#### Mr Mittal: How are the commodity futures priced?

Sharekhan: Suppose (0.995 fineness) imported gold is quoting at Rs6,000 per 10 gram in the physical spot market in Mumbai. The interest rate is about 6% per annum. The cost of carry for one month would be Rs30 (6,000\*6%/12). As such a gold futures contract with one month's maturity should quote at nearly Rs6,030. However it has been observed on several occasions that futures quote at a discount or premium to the theoretical price, meaning below or above the theoretical price. This is due to demand-supply pressures and future expectations.

Every time a commodity future contract trades over and above its cost of carry (above Rs30 in this case) the arbitragers step in and reduce the extra premium commanded by the futures contract due to demand. For example, they buy the commodity in the cash/physical market and sell the equal amount in the futures market, thereby creating a risk-free arbitrage for the discount/premium.

Mr Mittal: What happens to a futures price as a contract approaches expiry?



Sharekhan: As a futures contract approaches expiry, the cost of carry reduces in tandem with the reduction in the time to expiry; thus futures prices and cash prices start converging. On the expiry day, the futures price should equal the cash/physical market price.

#### Mr Mittal: How can I use commodity futures contracts?

Sharekhan: You can use commodity futures in different ways. You can do directional trading using futures. In case you are bullish on the underlying commodity (gold, silver, soya, rubber etc) and feel that its price will go up, you can simply buy futures of that particular commodity. Similarly if you are bearish on the underlying commodity and feel that its prices will fall, you can sell futures of that commodity. You can also hedge your natural exposure by using futures, thereby minimising the price risk.

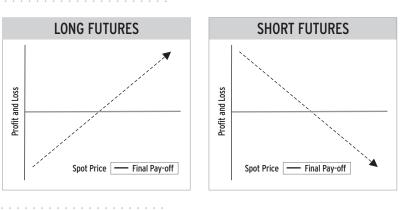
## Mr Mittal: Can I square off my position at any time before the expiry of the contract?

Sharekhan: Yes. It is not necessary to wait for the expiry day once you have initiated a position. You can square up your position at any time during the contract period, booking profit or cutting losses.

## **Mr Mittal:** What are the advantages and risks of trading in futures compared to trading in the cash market?

Sharekhan: The two biggest advantages of futures are that you can short sell them without having stock of the commodity and that you can carry your position for a long time. The same is not possible in the physical market because you have to give delivery of the commodity within a specified date. Conversely you can buy futures and carry the position for a long time without taking delivery by rolling over the contract.

Moreover futures positions are leveraged positions, meaning you can take a Rs100 position by paying just Rs5-10 margin and daily mark-to-market (MTM) loss, if any. This can enhance the return on the capital invested. For



example, you expect silver price to go up from Rs10,000 per kilogram to Rs11,000 per kilogram in one month. One option is to buy silver (say 30 kilogram) in the physical market by paying Rs3 lakh (30 kilogram @ Rs10,000 per kilogram). You make Rs30,000 (Rs1,000 per kilogram) on an investment of Rs3 lakh, getting about 10% returns. Alternatively you take futures position in

silver by paying about Rs1,000 per kilogram (Rs30,000 per contract) toward initial and MTM margin. You make Rs30,000 on an investment of Rs30,000, ie about 100% return! Please note that taking leveraged position is very risky as you may even lose your full capital in case the price moves against your position.

The other advantages is that trading in futures is cheaper as you do not incur transportation, insurance, storage, sales tax, octroi, security charges etc.

#### Mr Mittal: How can I hedge my commodity positions using futures?

Sharekhan: Suppose you are holding a stock of a commodity in which you deal and that has futures trading on it in a commodity exchange. You feel that the price of that commodity may fall in the next few days but you cannot sell the entire stock in the market for that short time, as you also need to keep the stock with you. But if the price of the commodity falls, you will lose because you have to sell the same at a lower price. So you want to hedge or minimise the loss for the expected adverse price movement of the stock for those few days.

One option is to sell the stock and buy it back after a few days when the price falls. This involves heavy transaction costs. Alternatively you can sell futures of that commodity to hedge your position in that commodity. Using commodity futures you can virtually sell your commodity and buy it back without losing the possession of the stock. This transaction is much more economical as it does not involve costs of storage, insurance, transportation etc.

You might say that if the price of the commodity had moved up, you would have made a profit without hedging it. However it is also true that in case of a fall, you might have lost without hedging. Please note that a hedge is not a tool to maximise profits, it is a device to minimise losses. As it is said, "A hedge does not result in a better outcome but in a predictable outcome". Actually hedging is not speculation, "not hedging" is speculation.

## Mr Mittal: Are arbitrage opportunities available in commodity futures just as they are in equities?

Sharekhan: Yes. Arbitrageurs in the futures markets monitor the relationship between cash and futures constantly in order to exploit such opportunities. If, for example, an arbitrageur realises that gold futures in a certain month are overpriced in relation to the cash gold market and/or interest rates, he would immediately sell those contracts knowing that he can lock in a risk-free profit.

## Mr Mittal: If I have some liquid money, how can commodity futures help me to earn risk-free money?

Sharekhan: It is easy. You can deploy your surplus money in the commodity futures market to earn risk-free money. Suppose, for example, spot gold price is Rs6,000 per 10 gram in Mumbai on April 16, 2004 and at the same time the June contract of gold at the MCX is trading at Rs6120.

You can earn some risk-free return here by following the steps mentioned below:

• Buy 10 kilogram of gold from the market (keep it at a security vault of course) and sell the MCX June contract at Rs6120.

- Pay Rs60 lakh in cash to take delivery of the gold in the physical market.
- On expiry of the contract, at the time of the delivery period you opt for giving the delivery to the buyer.
- Complete the formalities related to physical delivery of the gold.
- Whatever happens to the gold price, you earn Rs120 per 10 gram of gold for two months.
- Thus there is a risk-free gross profit of Rs120 per 10 gram or of Rs1.20 lakh for 10 kilogram gold (on an investment of Rs60 lakh). You need to deduct the transaction charges to arrive at the net gain in the transaction.

Mr Mittal: If futures of an underlying commodity are quoting below the spot price in the physical market, can I gain using commodity futures?

Sharekhan: Yes, of course you can but in that case you should have that commodity in your possession. Suppose two months' pure silver futures are quoting at 11,800 per kilogram while at the same time silver is quoting at Rs12,140 in the physical spot market. The market lot for silver is 30 kilogram for delivery on the MCX and the NCDEX. By following the steps mentioned below you can make some risk-free money:

- Sell 30 kilogram of 0.999 fineness pure silver in the cash market at Rs12,140 per kilogram.
- At the same time buy one contract of 30 kilogram silver two months' contract at Rs11,800 per kilogram.
- Receive Rs12,140 per kilogram of silver. Use part of this money for paying the initial margin and invest the rest.
- On expiry during the delivery period you will get the delivery of 30 kilogram silver-pay for this.
- Whatever happens to the price of silver, you earn Rs340 (12,140-11,800) per kilogram on your holding of silver.

We at Sharekhan constantly monitor such risk-free money-making opportunities and inform the investors of these opportunities whenever these arise. You just need to give us a call or visit our website www.sharekhan.com to learn of such opportunities.

Mr Mittal: Which are the various national level multi-commodity exchanges?

Sharekhan: As I told you, there are some 21 commodity exchanges in India. However most of them are regional, off-line (non-screen-based) and commodity specific; hence these are almost inoperative. The major national level multi-commodity exchanges to trade in all permitted commodities are:

• Multi Commodity Exchange of India Ltd, Mumbai (MCX)– www.mcxindia.com. The exchange is promoted mainly by professionals and supported by Financial Technology. The exchange started operations in November 2003.

- National Commodity and Derivative Exchange, Mumbai (NCDEX)-www.ncdex.com. The exchange is promoted by the ICICI, National Stock Exchange, Life Insurance Corporation of India and NABARD. The exchange started trading in December 2003.
- National Multi Commodity Exchange of India Ltd, Ahmedabad (NMCE)-www.nmce.com.

## Mr Mittal: Can we trade in any of these commodity exchanges through Sharekhan?

Sharekhan: Sharekhan is the founder member of both the major commodity exchanges, ie the MCX and the NCDEX, and provides trading facility through both the exchanges.

Mr Mittal: Which commodities are available for trading in these exchanges? Sharekhan: The following commodities are available in various categories on both the MCX and the NCDEX:

- Bullion: gold and silver;
- Metals: steel, aluminum, zinc and tin;
- Oil and oil seed: castor seed, soy seed and soy oil, rape/mustard seed and oil, crude palm oil and RBD Palmoline;
- Spices and plantation: pepper and rubber;
- Other commodities: cotton, chana (gram), guar, jute, sugar, wheat and pulses; and
- More commodities like coffee, tea etc are expected to be added in due course.

## Mr Mittal: How much margin is required for trading in commodities?

Sharekhan: As in case of stocks, in commodities too the margin is calculated by the VaR system. Normally it is between 5-10% of the contract value. The margin is different for each commodity. Just like in equities, in commodities also there is a system of initial margin and MTM margin. The margin keeps changing depending on the change in the price and volatility. The MCX charges a flat margin on the contract amount while the NCDEX calculates the margin as per the SPAN system.

## Mr Mittal: Can you give me the details of the contracts available, margin required, trading and delivery units etc? Sharekhan: Sure. Check this table out.

## MCX

MCX							
Commodity	Trading qty	Mkt price/Unit (Rs)	Quote/ Base	Contract value (Rs)	Initial margin (%)	Delivery unit	Quotation base
Gold (995)	lkg	5,700	10g	570,000	5.00	lkg	Mumbai
Gold mini (995)	100g	5,700	10g	57,000	5.00	lkg	Mumbai
Silver	30kg	8,900	lkg	267,000	5.00	30kg	Ahmedabad
Silver mini	5kg	8,900	lkg	44,500	5.00	30kg	Ahmedabad
Castor seed	5MT	1,600	100kg	80,000	4.00	10MT	Ahmedabad
Black pepper	1MT	8,050	100kg	80,500	8.00	1MT	Ernakulam
Rubber	1MT	5,750	100kg	57,500	5.00	10MT	Kottyam
Mustard oil	1MT	400	10kg	40,000	3.00	10MT	Jaipur
Mustard seed	10MT	400	20kg	200,000	3.00	10MT	Jaipur
RBD Palmoline	1MT	400	10kg	40,000	4.00	10MT	Mumbai
Refined soy oil	10MT	450	10kg	450,000	4.00	10MT	Indore
Castor oil	1MT	400	10kg	40,000	4.00	10MT	Kandla
Guar seed	5MT	1,500	100kg	75,000	7.00	10MT	Jodhpur
Groundnut oil	1MT	475	10kg	47,500	4.00	10MT	Rajkot
Soy seed	1MT	1,600	100kg	16,000	4.00	10MT	Nagpur
Steel long	25MT	21,400	1MT	535,000	5.00	25MT	Taloja / Kalamboli
Steel flat	25MT	27,700	1MT	692,500	5.00	25MT	Taloja / Kalamboli
Copper	1MT	120	lkg	120,000	5.00	9MT	Mumbai
Nickel	250kg	520	lkg	130,000	8.00	3MT	Mumbai
Tin	500kg	420	lkg	210,000	5.00	5MT	Mumbai
Channa	5MT	1,450	100kg	72,500	5.00	10MT	Delhi
Tur	10MT	2,100	100kg	210,000	5.00	20MT	Mumbai
Urad	10MT	1,200	100kg	120,000	5.00	20MT	Navi Mumbai
Yellow peas	10MT	1,250	100kg	125,000	5.00	20MT	Navi Mumbai
Long cotton	26 candy	20,500	1 candy	533,000	3.00	55 bales	Mumbai
Med cotton	26 candy	19,000	l candy	494,000	3.00	55 bales	Mumbai

## NCDEX

NCDEX							
Commodity	Trading qty	Mkt price/Unit (Rs)	Quote/Base	Contract value (Rs)	Initial margin (%)	Delivery unit	Quotation base
Gold (995)	lkg	5,700	10g	570,000	5.00	lkg	Mumbai
Gold kilo (999)	lkg	5,600	10g	560,000	Span(5–10)	lkg	Mumbai
Gold (999)	100g	5,600	10g	56,000	Span(5-10)	lkg	Mumbai
Silver	5kg	8,900	lkg	267,000	Span(5-10)	30kg	New Delhi
Silver mega	30kg	8,900	lkg	44,500	Span(5–10)	30kg	New Delhi
Soy bean seed	1MT	1,900	100kg	19,000	Span(5–10)	10MT	Indore
Refined soy oil *	1MT	450	10kg	45,000	Span(5–10)	10MT	Indore
Mustard seed	1MT	400	20kg	20,000	Span(5–10)	10MT	Jaipur
Expeller mustard oil	1MT	450	10kg	45,000	Span(5–10)	10MT	Jaipur
RBD Palmoline *	1MT	450	10kg	45,000	Span(5–10)	10MT	Kakinada
Crude palm oil	1MT	400	10kg	40,000	Span(5–10)	10MT	Kandla
MS cotton	18.7 quintals (11 bales)	6,400	100kg	119,680	Span(5–10)	93.5 quintals (55 bales)	Bhatinda
LS cotton	18.7 quintals (11 bales)	6,600	100kg	123,420	Span(5–10)	93.5 quintals (55 bales)	Ahmedabad
Pepper	1MT	8,000	100kg	80,000	Span(5–10)	1MT	Kochi
Rubber	1MT	5,800	100kg	58,000	Span(5–10)	1MT	Kottayam
Jute	25 bales (500 bags per bale)	1,400	100 bags	175,000	Span(5–10)	25 bales (500 bags per bale)	West Bengal
Channa *	10MT	1,600	100kg	160,000	Span(5–10)	10MT	Rajasthan Desi-Delhi
Guar seed *	10MT	1,100	100kg	110,000	Span(5–20)	10MT	Jodhpur
Guar gum *	10MT	4,100	100kg	410,000	Span(5-20)	10MT	Jodhpur
Castor seed **	10MT	375	20kg	187,500	Span(5–10)	10MT	Disa
Sugar M *	10MT	1,750	100kg	175,000	Span(5–10)	10MT	Muzzafarnagar
Sugar S *	10MT	1,650	100kg	165,000	Span(5–10)	10MT	Navi Mumbai-Vashi
Turmeric *	10MT	3,000	100kg	300,000	Span(5–10)	10MT	Nizamabad
Wheat *	10MT	800	100kg	80,000	Span(5–10)	10MT	Delhi
Yellow peas *	10MT	1,300	100kg	130,000	Span(5–10)	10MT	Mumbai
Jute raw	10MT	1,100	100kg	110,000	Span(5–10)	10MT	West Bengal-Kolkatta
Urad *	10MT	1,700	100kg	170,000	Span(5–10)	10MT	Mumbai

\*Inclusive of sales tax \*\* Inclusive of all taxes exclusive of sales tax

Please note the above is a snapshot of the contracts. You need to check the full details, which can be found on our website www.sharekhan.com or at any of our outlets, before entering into any trade.

Mr Mittal: But if I want to give or take physical delivery, where will it be done? Sharekhan: The exchanges have specified a delivery centre for each commodity the same is mentioned in the contract specification of each exchange. In most cases the price quotation base is the delivery centre. The exchanges plan to have more than one delivery centre in future.

## Mr Mittal: Are any transaction/turnover charges imposed on commodity futures contracts, as is in the case of stocks?

Sharekhan: The FMC does not impose any transaction charges as of now but the respective commodity exchanges do. Transaction charges are in the range of Rs6 and Rs10 per lakh, which differs for each exchange and each commodity.

SHAREKHAN

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## Mr Mittal: Do I need to pay sales tax on all trades? Is registration mandatory?

Sharekhan: No. If the trade is squared off no sales tax is applicable. The sales tax is applicable only in the case of a trade resulting into a delivery. Normally it's the seller's responsibility to collect and pay the sales tax. The sales tax is applicable at the place of delivery. Those who are willing to opt for physical delivery need to have a sales tax registration number.

## Mr Mittal: Is there any stamp duty on commodity futures?

The indicative stamp duty rates in Maharashtra are as under:

The stamp duty rate differs in each state for different commodities.

Mr Mittal: How many contracts will be available for futures trading? Will the contracts be of three calendar months as is the case with equities? Sharekhan: At the NCDEX three consecutive calendar month contracts will be available for all commodities, the same as the National Stock Exchange has for equities derivatives. For example: January, February and March 2004.

Sr. No.	Commodity	Stamp duty rate
1	Bullion	Re 1 for every unit of 1kg of gold or part thereof Re1 for every unit of 50kg of silver or part thereof
2	Oil seeds	Rel for every 10,000kg (100 quintal or 10MT) of oilseed or part thereof
3	Yarn/non-mineral oils/spices of any kind	Rel for every 10,000kg or part of thereof the value
4	Cotton	Rel for every unit of transaction of 4,500kg or part thereof
5	All other commodities	Rs20 per contract {Article 5 (4) of the Bombay Stamp Act.}

The MCX is providing different numbers of contracts in different commodities. For example, in gold there are six contracts in a year (February, April, June, August, October and December); in the same way silver also has six contracts in a year (January, March, May, July, September and November). For some commodities there are monthly contracts while for the others the contracts are bi-monthly.

You need to check the exact contract month for the commodity in which you wish to trade.

## Mr Mittal: What is the date of expiry for the contracts?

Sharekhan: At the NCDEX the contracts expire on the 20th day of each month. If 20th happens to be a holiday the expiry day is the previous working day.

At the MCX the expiry day is the 15th of every month except for gold and silver which expire on the fifth of every month. If the 15th or the 5th happens to be a holiday the expiry day is the previous working day. In few cases the expiry day is also other than these dates, to align the contract with international exchanges.

### Mr Mittal: What is the timing of the commodity derivatives market?

Sharekhan: The MCX provides trading facility from Monday to Friday. Its market hours are from 10:00am to 5:00pm. The exchange also has a trading session in the evening for gold, silver and a few other international commodities. The evening session keeps changing as per international market timings depending on the season. Currently it is 5:30pm to 11:55pm.

The NCDEX provides trading facility from Monday to Saturday. Its market hours are from 10:00am to 5:00pm in the morning session. The evening session of the NCDEX is from 5:30pm to 11:55pm. Trading in all expiring contracts ceases at 5:00pm on the contract expiry date. Trading in non-expiring contracts continues as per the stated trading hours. On Saturdays the trading facility is available from 10:00am to 2:00pm.

## Mr Mittal: A commodity has several qualities-how do I know which quality is being traded in the futures market?

Sharekhan: The specification of each commodity is given and mentioned in the contract. Each participant trades in that particular quality only. For example, the exchange contract specifications could state gold of 0.995 or 0.999 fineness, silver of 0.999 fineness and rubber of RSS 4 quality. The price quoted on the exchange terminal will be of that particular quality and as per contract specification only.

#### Mr Mittal: Is delivery mandatory in commodity futures trading?

Sharekhan: No. It's not mandatory. However there is always a provision for delivery in commodity futures trading to ensure that the futures prices are in conformity with the underlying. The option for delivery is normally with the seller; the buyer/seller has to express his intention for delivery as per the rules of the exchanges. The market lot for delivery is normally higher than the trading lot. The contracts which are not assigned for delivery can be settled in cash as per exchange regulations. But you need to read the contract details and settlement/delivery procedures carefully. The details are available on our website www.sharekhan.com.

In most cases, delivery does not take place. Instead both the buyer and the seller, acting independently of each other, usually liquidate their long and short positions before a contract expires; the buyer sells futures and the seller buys futures.

**Mr Mittal:** How are the daily settlement prices arrived at on both the commodity exchanges?

**Sharekhan:** The method of arriving at the daily closing/settlement price at each of the exchange is as follows:

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After the end of a trading session, the system calculates the closing price of each and every contract traded on the system. The logic for calculation of the closing price is as follows:

- Closing price is equal to weighted average price of all trades done during last 30 minutes of a trading session.
- If the number of trades during the last 30 minutes is less than five, then it is based on the weighted average price of the last five trades executed during the day.
- If the number of trades done during the day is less than five, then it is taken as the weighted average of all trades executed during the day.
- If no trades have been executed in a contract on a day, then the official closing price of the last session is taken as the official closing price.

#### NCDEX

The daily settlement price, determined by the exchange at the end of every trading day, is computed on the following basis:

- In single price auction, if the number of contracts is greater than or equal to 15 and the number of clients is greater than or equal to five, else
- Last half an hour of futures volume weighted average price (VWAP), if the number of contracts traded during the last half an hour is greater than 25 and the number of clients greater than five, else
- Last one hour of futures VWAP, if the number of contracts traded during last one hour is greater than 25 and the number of clients who traded is greater than five, else
- Theoretical futures price

The theoretical futures price is calculated as spot price\*{ $e^{(r*t)}$ }, where r = interest rate/Mumbai inter bank offer rate (or MIBOR) and t = time remaining till maturity. The spot price will be the price prevailing in the physical market as on the expiry date of the futures contract and will be determined through a transparent mechanism of polling. The exchange at its sole discretion can change the method of computation of the daily settlement prices via notice/circular given out to the market participants.

Mr Mittal: What is the due date rate? Is it different from the final settlement rate? How is the final settlement price arrived at on the expiry date of a contract?

Sharekhan: Let us first look at the MCX.

The due date rate with respect to a contract means the average of the closing prices of the last five trading days of the contract maturity or the average of last five days' closing price in the spot market (of the market/place which is the basis of that contract), whichever is higher. The exchange shall have the power to alter or modify such due date rate on the basis of upcountry prices, if it is expedient to do so.

#### Now, the NCDEX.

The final settlement price will be determined by the exchange at the maturity of the contract, ie the spot price on the last trading day.

#### Mr Mittal: What happens in case of a default?

Sharekhan: In case the commodity is of a quality superior or inferior to the one mentioned in the contract, then there is a provision for premium/discount at the time of delivery.

The exchanges have a penalty clause in case of any default (non-payment or non-delivery) by any member. There is also a separate arbitration panel of exchanges. Both the exchanges (the NCDEX and the MCX) also maintain settlement guarantee funds.

## Mr Mittal: Are any additional margin/brokerage/charges imposed in case a client wants to take/give delivery of goods?

Sharekhan: Yes. In case of delivery, the margin during the delivery period increases to 20-25% of the contract value. The brokerage will also be higher in case of trades resulting in delivery. Both the parties have to incur cost on transportation, storage, insurance, octroi, sales tax, local taxes, processing etc.

Mr Mittal: Do these exchanges also have a commodity index? Can I trade in a commodity index instead of trading in a specific commodity?

Sharekhan: No, as of now none of the Indian commodity exchanges have a commodity index. But we expect these exchanges to launch some commodity indices in future.

Mr Mittal: Can you explain to me the entire process of trading as well as the delivery and settlement procedures at the MCX with an example? Sharekhan: Yes, sure. Suppose you are bullish on gold and want to buy one kilogram of gold contract at the MCX.

- Assume that you bought one kilogram gold June contract @ Rs5,800 per 10 gram (ex-Mumbai) on May 6, 2004 by paying only the initial margin of just 5% of the contract value (Rs29,000 in this case as the contract's value will be Rs580,000).
- You need to pay/receive MTM profit or loss on a daily basis till the time you square off the position.
- You can cover your position any time during the contract period to book your profit or loss by just doing a reverse trade at the market price.
- Say on May 12, when the market trades at Rs5,900, you can reverse your earlier transaction. You will make a profit of Rs10,000 in this case (Rs100 per 10 gram, for 1,000 gram) which will be credited to your account.
- Please note that you need to square off or roll over the position to the next contract if you are not willing to take physical delivery of the gold on or before May 31 (5 days before the expiry day, ie June 4 in this case).

Alternatively if you do wish to take physical delivery, the procedure is as follows:

- On June 1 (the first day of the contract expiry month) you are supposed to pay 25% margin of the contract value (Rs580,000\*25% = Rs145,000) per contract to carry your position during the delivery period of the contract month.
- On June 2, as a buyer you get to intimate the exchange specifying the quantity you wish to take the delivery. You can opt against taking delivery and get your trade squared off automatically on the expiry day by paying 1% penalty.
- By June 5, your remaining payment should be paid to the exchange. Assuming that you have paid the entire MTM and delivery margin earlier, the remaining amount of 75% of the contract value has to be paid.
- On June 7 the delivery will be completed (as June 6 happens to be a Sunday). On that day, by submitting the warehouse receipt at the delivery centre, you can take your gold after confirming the quality. The exchange will release the payment to the sellers only after you confirm that the delivery is over and subject to no arbitration.
- In all transactions resulting in delivery, transportation, tax, insurance and warehouse charges, after the seller has given the delivery, are to be borne by the buyer.
- The detailed settlement and delivery procedure are available on our website www.sharekhan.com and at all our offices.
- (Please read the settlement and delivery procedures fully and note the cost involved carefully before investing for physical delivery).

Mr Mittal: Can you explain to me the delivery and settlement procedure at the NCDEX with an example?

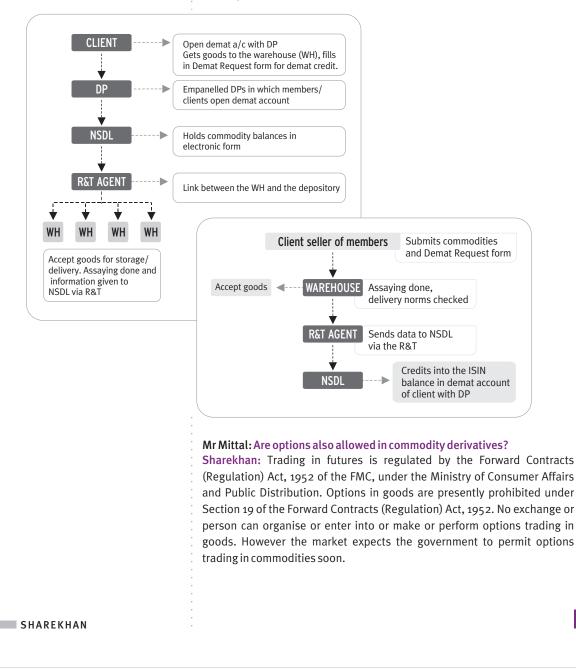
**Sharekhan:** The NCDEX has two contracts in silver: silver, which is of 5 kilogram trading lot, and silver mega, which is of 30 kilogram lot.

- Assuming that you are bearish on silver and sold July silver mega contract (30 kilogram lot) by taking a sell position at Rs9,200 per kilogram on May 6, 2004 by paying the initial margin of around 8% and carrying it forward till the expiry, your contract size will be Rs276,000 (Rs9,200\*30) and the initial margin amount will be approximately Rs22,100.
- The margin is calculated as per the SPAN system and may vary on a dayto-day basis, depending on the price movement and volatility. At the NCDEX the initial margin has two components: Span Margin and Gross Exposure Margin.
- You need to receive/pay the daily MTM profit/loss as per the daily settlement price of the silver July contract.
- You can square off your position any time on or before the last trading day of the contract month (on the NCDEX the last day is the 20th of the contract month).
- For example, if on July 5 silver is trading at Rs9,000 per kilogram (ex-Delhi), you can buy back your contract and book profit of Rs6,000/(Rs200\*30) per contract. In the same way you may book your losses if the price goes up against your view.
- If you want to give physical delivery of silver, you need to put your intention on the last day on the trading terminal and the buyer is bound to take the delivery as per the exchange rules.
- Please note as per the NCDEX rules the delivery option in case of silver mega and gold kilo contract is with the seller. While in case of gold 100 gram lot and silver 5 kilogram lot the delivery takes place only if both the buyer and seller opt for the physical delivery and it matches.
- All the trades which are not intended for delivery or are not matched are settled in cash.
- On July 20 as a seller you have to intimate the exchange whether you are willing to give delivery or not. If yes, then you are supposed to furnish the electronic account number of the goods (silver, in this case) warehoused by you, that is earlier converted into electronic account by the designated centre as prescribed by the exchange.
- The exchange then matches your sell order with that of the buyer, who is supposed to take delivery. On expiry, your account gets debited and the same is credited into the buyer's account. Once the buyer takes delivery subject to no arbitration, the exchange releases the payment to you on T+4 basis. That is on July 24.
- Say, for example, your selling order is not matched with any buying intention then all your orders would be settled in cash.
- As an alternative, if you want the exchange to settle your transaction in cash, all you need to do is not to give any delivery intentions and your orders would automatically get settled in cash on T+1 basis on July 21.
- (Please read the settlement and delivery procedures fully and note the cost involved carefully before investing for physical delivery).

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#### Mr Mittal: Do I need to open a demat account for commodity trading?

Sharekhan: The procedure for delivery is different in each exchange. In case of the MCX there is no need to have a demat account. However those who are willing to give/take physical delivery through the NCDEX need to open a demat account with the empanelled depository participants (DPs). You can obtain the list of empanelled DPs from my office. The process flow for delivery at the NCDEX is as follows:



Mr Mittal: What are the benefits of trading in commodity futures with Sharekhan?

Sharekhan: Sharekhan provides you the facility to trade in commodities through Sharekhan Commodities Pvt. Ltd–a wholly-owned subsidiary of its parent SSKI. With Sharekhan you can trade on two major commodity exchanges of the country:

(1) Multi Commodity Exchange of India Ltd, Mumbai (MCX) and

(2) National Commodity and Derivative Exchange, Mumbai (NCDEX).

To trade in commodities (bullion: gold/silver, metals and agricultural commodities) you need to open an account with Sharekhan first. If you are an existing Sharekhan client, you just need to sign an agreement to the effect that you wish to begin trading in commodity futures. You can trade in commodities with the existing client code. If you are not a Sharekhan client yet, don't worry. Just walk into any of the numerous Sharekhan branches/franchisees spread across the country and fill up the account opening form, deposit the required margin and start trading in commodity futures!

Note on margin: before starting to trade or placing an order for any commodity, you need to have margin money in your account. The initial margin is around 5-10% for any commodity. You also need to take care of the daily MTM margin to avoid any adverse movement in the commodity prices.

Mr Mittal: How does Sharekhan help to trade in commodity futures?

Sharekhan: Sharekhan has launched its own commodity derivatives microsite. The site is available through the home page of Sharekhan's website www.sharekhan.com.

Along with the site Sharekhan has launched several commodity derivatives products (both research and trading) too. The products have been listed below:

Commodities Buzz: Daily view on precious metals and agro commodities.

Commodities Beat: Summary of the day's trading activity.

**Commodity Trader's Corner:** Commodity trading calls; there are two types of trading calls

RapidFire: (short-term calls-one day to five days-updated daily)

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## Epilogue

## EPILOGUE

**Medium-term Plays:** (medium-term calls-one month to three months-updated weekly or in between if needed)

Sharekhan Xclusive: commodity research reports and analyses (periodical)

Commodity Scan: daily commodity market data and statistics (end-of-day)

All these products are e-mailed as newsletters to Sharekhan's registered clients and uploaded on the commodity derivatives section of our site www.sharekhan.com.

That is not all. You also get personalised research and a lot more trading strategies from Sharekhan from time to time.

Mr Mittal: How do I get started? How do I open a commodity trading account with Sharekhan? How do I contact you?

Sharekhan: Sharekhan is always near you. You can visit any of the over 220 Sharekhan outlets spread across the country; or call us on 39708090—a single access number across India (local call charges applicable).

You may also open an account on-line by visiting our website www.sharekhan.com; or simply write to me at commodities@sharekhan.com for opening an account.

## Epilogue

Today Mr Mittal is a valuable client of Sharekhan and he trades not only in stocks but also in commodities. Yes, he opened both stock trading and commodities trading accounts with Sharekhan soon after returning to Ahmedabad.

**Disclosure:** Demystifying Commodities is only informative. The answers to the questions may change with changes at the exchange level. Please check with us/exchanges the details before executing any trade. Sharekhan will not be responsible for the information used or whatsoever.

## Sharekhan

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