Introduction to Commodity Futures Markets

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Why commodities

- Commodities are an unique asset class that can provide valuable diversification benefits to an investment portfolio.
- Used in combination with traditional assets like stocks and bonds, they can potentially reduce overall portfolio long-term risk while increasing upside potential.
- The historically low correlation between commodities and financial assets means that commodities may perform well in neutral or negative years for stocks or bonds.
- Hedge against Inflation
- Global Underlying –Broadly difficult to manipulate
- Extremely High Leverage Instrument –Due to low margins (4-5%)
- Pure Play –Demand/Supply/Inventory/Trading Pattern driven
- Hedge against a Currency Fluctuation.

EQUITIES	COMMODITIES
1. Exposure to specific sector as well as management of the company	1. Exposure to specific sector only
2. Long term view may be specific to industry	2. Long term view in general is bullish as directly correlated with economy growth
3. Downside unlimited	3. Downside Limited
4. Equity Volume	4. Commodity Futures Market Volume
= Approx. 15-20k crores every day in Cash	Approx 30K Crores Every Day
= Approx. 90-100k crores every day in F & O	Its only three times of SPOT ..Ideally its needs to be Ten Times of spot Market
5. Options, Indices, PMS and participation from Institutional players	5. Permissions in process
6. Shorter Bull & Bear Cycle	6. Longer Bull & bear Cycle

Who can benefit from Commodities Market

Hedgers & Investors

- Industrial player -Automobile, Electrical ,confectionary ,refineries
- Farmers – Jeera Soya bean ,Potato, Turmeric
- Consumers –Jewelers , Oil Marketing Co, Poultry farms
- Exporters & Importers
- Retail Investors –Household Saving

Arbitrageurs

- Physical Market players - Merchants/Whole sellers
- Different contract sizes
- Spot market & futures Market

Speculators

- Technical Analysis
- Quantitative- Pair Trading
- Algo Traders
- Calendar Spread

Types of Commodity Market

Spot

Forward

Futures Position

- BUY Futures : Right as well as obligation to buy underlying commodity at the future date

- SELL Futures : Right as well as obligation to sell underlying commodity at the future date

Right – To claim profit, if any

Obligation – To pay loss, if any

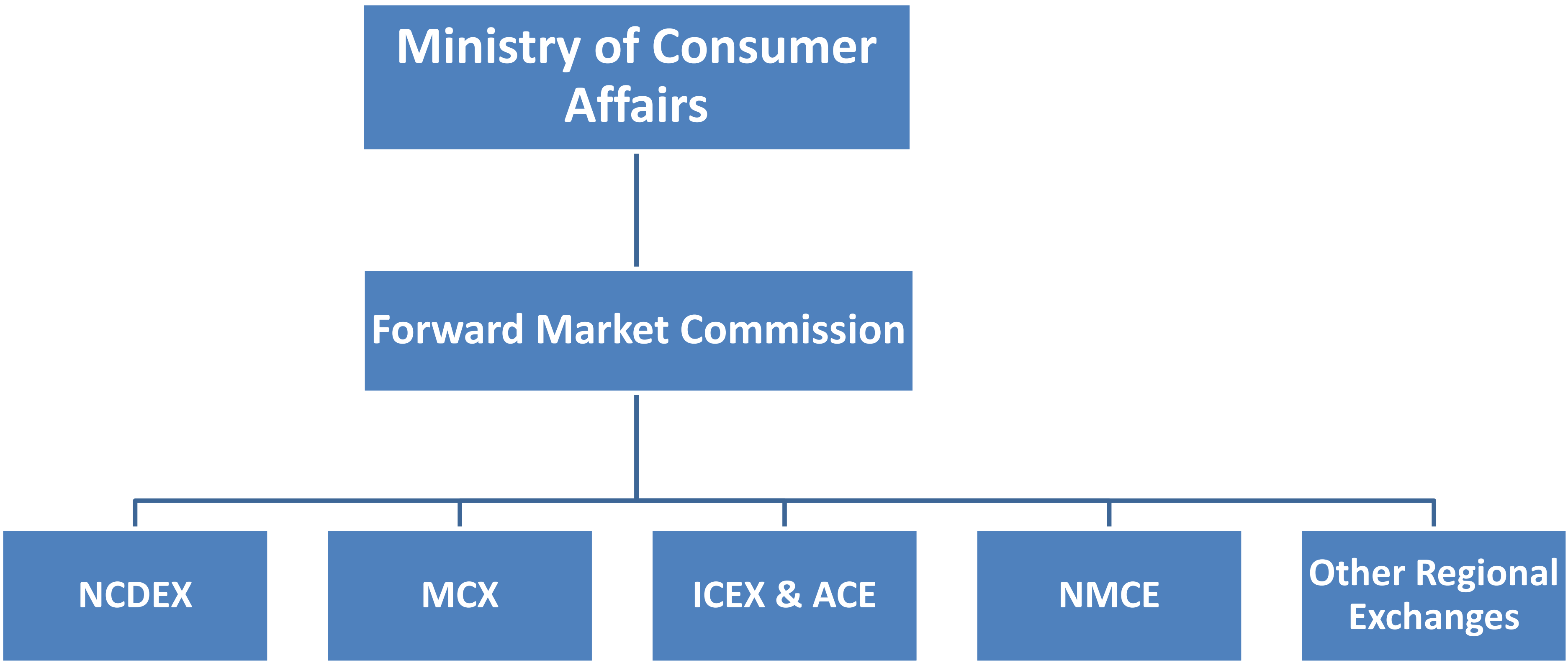
International Exchanges

Major Commodity Futures & International Exchanges

Commodity	Main Exchange	Contract Size
Gold	COMEX (CME Group)	100 troy ounce
Platinum	COMEX (CME Group)	50 troy ounce
Silver	COMEX (CME Group)	5000 troy ounce
WTI Crude Oil	NYMEX, ICE	1000 bbl
Brent Crude	ICE	1000 bbl
Natural gas	NYMEX	10,000 mmbtu
Wheat	CBOT	5000 bu
Milk	CME	200,000 lbs
Copper	London Metal Exchange	25 MT
Lead	London Metal Exchange	25 MT
Zinc	London Metal Exchange	25 MT
Tin	London Metal Exchange	5 MT
Aluminium	London Metal Exchange	25 MT
Nickel	London Metal Exchange	6 MT

CME	Beef, Dairy, Livestock, Hogs, Currencies, Interest rates and Indices
NYMEX	Crude Oil, Gasoline, Heating oil, Natural gas, Propane, Silver, Gold, Platinum, and Palladium
CBoT	Agricultural Commodities, Dow Jones AIG Commodity Index, Metals, Interest Rates
NYBoT	Cotton, Orange Juice, Sugar, Cocoa
TOCOM	Gold, Silver, Platinum, Palladium, Aluminum, Gasoline, Kerosene, Rubber
LME	Copper, Aluminum, Lead. Zinc, Nickel, Tin and Plastics
LIFFE	Cocoa, Coffee, White Sugar, Wheat, Potato, Gilts, Short Sterling, FTSE index
SICOM	Rubber and Coffee

Structure of Indian Commodity Market



Market Timings of Indian Exchanges

WEEK-DAYS	Trading Timings
Agri Commodities	10:00 a.m. to 5:00 p.m.
Bullion, Metals, Crude Oil and Internationally linked Agri Commodities	9:00 a.m. to 11:30 p.m.

Commodities Traded on Exchanges

Commodities Market

Precious Metals

- Gold
- Silver
- Platinum

Base Metals

- Copper
- Zinc
- Nickel
- lead
- Aluminum
- Tin

Energy

- Crude Oil
- Natural Gas
- ATF

Agriculture

- oil seeds
- Spices
- Cereals
- Others

Traders Love Volatility

Daily Price Volatility of MCX Benchmark Commodity Futures				
Years	**Gold**	**Silver**	**Crude Oil**	**Copper**
2008	1.34%	2.71%	1.48%	2.17%
2009	0.78%	1.31%	1.36%	1.59%
2010	1.54%	2.10%	2.60%	2.33%
2011	1.11%	1.60%	2.99%	1.93%
2012	0.74%	1.33%	1.37%	1.32%
2013	1.13%	2.39%	1.84%	1.51%
2014	0.60%	0.95%	1.86%	2.8%

Encash it……………………..

Timings (IST)	Important Global Cues
10:00 am	MCX Opens
12:30 pm	London Market Opens
01:30 pm	LME Inventory data
04:00 pm	LME Ring Opens
05:50 pm	Opening of COMEX Session
06:00 pm	Release of U.S Economic Data
07:00 pm	US Stock Market Opens
08:00 pm	Crude Oil and Natural Gas Inventory Data on Wednesday and Thursday respectively
09:00 pm	LME Ring Closes
11:45 pm	Closing of COMEX Session

Terminology

▪**<u>Trading unit</u>** - The Trading unit is the minimum quantity for a contract that can be bought or sold. e.g. If a member is buying 1 lot of cardamom, he has to buy minimum 100kg of cardamom given trading unit of 100kg.

▪**<u>Quotation / Base value</u>** – It is the Quantity in Lot or Weights for which the prices are quoted for online trading on TWS. e. g. If the quotation or base value for Gold contract is given as 10 grams and the price available for trading on TWS is 28000, that price is for 10 grams of the Gold.

<u>Tick Size</u> – Tick size is the minimum price difference between the bids and asks for a particular contract. The tick size is given in the contract specifications.

<u>DPR</u> – Daily Price Limit i.e. circuit filter limit is the percentage of variation allowed in the price of a commodity in a day with respect to the previous day's close price for the day

<u>DDR</u> - Due date rate is final settlement price for particular future contract and calculation process called computation of DDR.

Name of Commodity	Potatoes Fair Average Quality
Ticker symbol	POTATO
Trading System	NCDEX Trading System
Basis	Delivery to the Buyer's specified/nominated Warehouse Agra, gross weight exclusive of all local taxes – taxes, fees (i.e. mandi fee), levies etc.
Unit of trading	10 MT
Delivery unit	10 MT
Maximum Order Size	500 MT
Quotation/base value	₹ per quintal
Tick size	₹ 1
Quality specification	Potato as per following specification shall be acceptable for physical delivery Width Size (potato width size by one dimension or the other) Less than 35 mm -10% Max More than 80 mm -15% Max Dull, Skin blemishes, Cut , Crack (cut and cracked not exceeding 5% max), Sprouted (Sprouted content not exceeding 1% max and Sprout length more than 2 mm only to be considered as Sprouted), Black scars and Green Potatoes: 15% basis Soil (kgs per bag): 1 kgs Max per 51 Kgs bag The potatoes should be firm and the skin should be mature and thick. The potatoes should be free from disease.
Quantity variation	+/-10%
Delivery center	Buyer specified/nominated warehouse at Agra (within

Types Of delivery

- **Compulsory**: In Compulsory delivery contract, all open interest position of the Members at expiry of the contract result into deliverable obligations. Though the intention to give/take delivery is not mandatory in such contracts , the Seller Member, if so desires, can submit intention to give the delivery along with duly endorsed warehouse receipt and valid quality certificate.
- **Seller Option**: Delivery in seller option contract is based on seller's choice on expiry of the contract. If the Seller Member gives valid intention to give delivery within the stipulated time limit as provided in the relevant contract, the Exchange will allocate the delivery to the Buyer Member. Rest of the open positions on expiry of the contract , not settled by way of delivery, get closed out at the Due Date Rate
- **Both Option**: When intentions of both Buyer and Seller Member to give/take delivery match on or before the expiry of the contract, then the delivery takes place to the extent of matched quantity on expiry of the contract. If the intention is received from only one party, then delivery does not take place and all open interest position of the Members get closed out at DDR (Due date rate).

various margins applicable for delivery

- Tender Period Margin: Refers to the margin levied prior to the Contract Expiry (Normally 5 days prior to the contract expiry)
- Delivery Period margin: Refers to the margin which is levied on open positions marked for delivery on contract expiry. The percentage of Tender and Delivery Period Margin to be levied is mentioned in the contract specifications of a commodity

MCX Physical deliveries as percentage of Trading Volume during FY2013-14

Commodity	Unit	Physical Delivery Quantity	Delivery %
Cardamom	MT	201.20	0.13%
Cotton	Bales	1,56,300.00	0.52%
Gold	kg	2,819.00	0.03%
Goldguinea	kg	146.49	0.63%
Goldm	kg	6,319.50	0.45%
Goldpetal	kg	31.74	0.22%
Goldptldel	kg	0.52	1.31%
Guargum	MT	10.00	0.03%
Guarseed	MT	114.00	0.02%
Kapaskhali	MT	31,190.00	1.80%
Menthaoil	MT	2,467.08	0.54%
Potato	MT	1,080.00	0.02%
Silver	kg	2,35,500.00	0.08%
Silver1000	kg	557.00	10.96%
Steelrpr	MT	3,050.00	1.00%

Disclosure of Delivery Intention

Commodity	Contract Date	Intention Date	Quantity of Delivery Intention	Unit	Buy(B)/Sell(S)
CARDAMOM	13-MAR-2015	09-MAR-2015	180.0000	Qtl	S
		11-MAR-2015	57.0000	Qtl	S
SILVER	05-MAR-2015	02-MAR-2015	450.0000	KGS	S
		02-MAR-2015	7020.0000	KGS	B
		04-MAR-2015	4260.0000	KGS	S
		04-MAR-2015	2250.0000	KGS	B
GOLD MINI	05-MAR-2015	02-MAR-2015	41.0000	KGS	S
		02-MAR-2015	224.8000	KGS	B
		04-MAR-2015	36.0000	KGS	S
		04-MAR-2015	128.3000	KGS	B
CARDAMOM	13-FEB-2015	12-FEB-2015	3.0000	Qtl	S
		05-FEB-2015	72.0000	Qtl	S
GOLD MINI	05-FEB-2015	03-FEB-2015	5.0000	KGS	S
		03-FEB-2015	10.0000	KGS	B
		02-FEB-2015	0.5000	KGS	S
		02-FEB-2015	10.0000	KGS	B
CARDAMOM	15-JAN-2015	06-JAN-2015	30.0000	Qtl	S
		13-JAN-2015	6.0000	Qtl	S
		14-JAN-2015	3.0000	Qtl	S
CARDAMOM	15-DEC-2014	10-DEC-2014	25.0000	Qtl	S
		11-DEC-2014	2.0000	Qtl	S

METAL & ENERGY
Trade with Trust

Hedge Position allocated to various hedgers

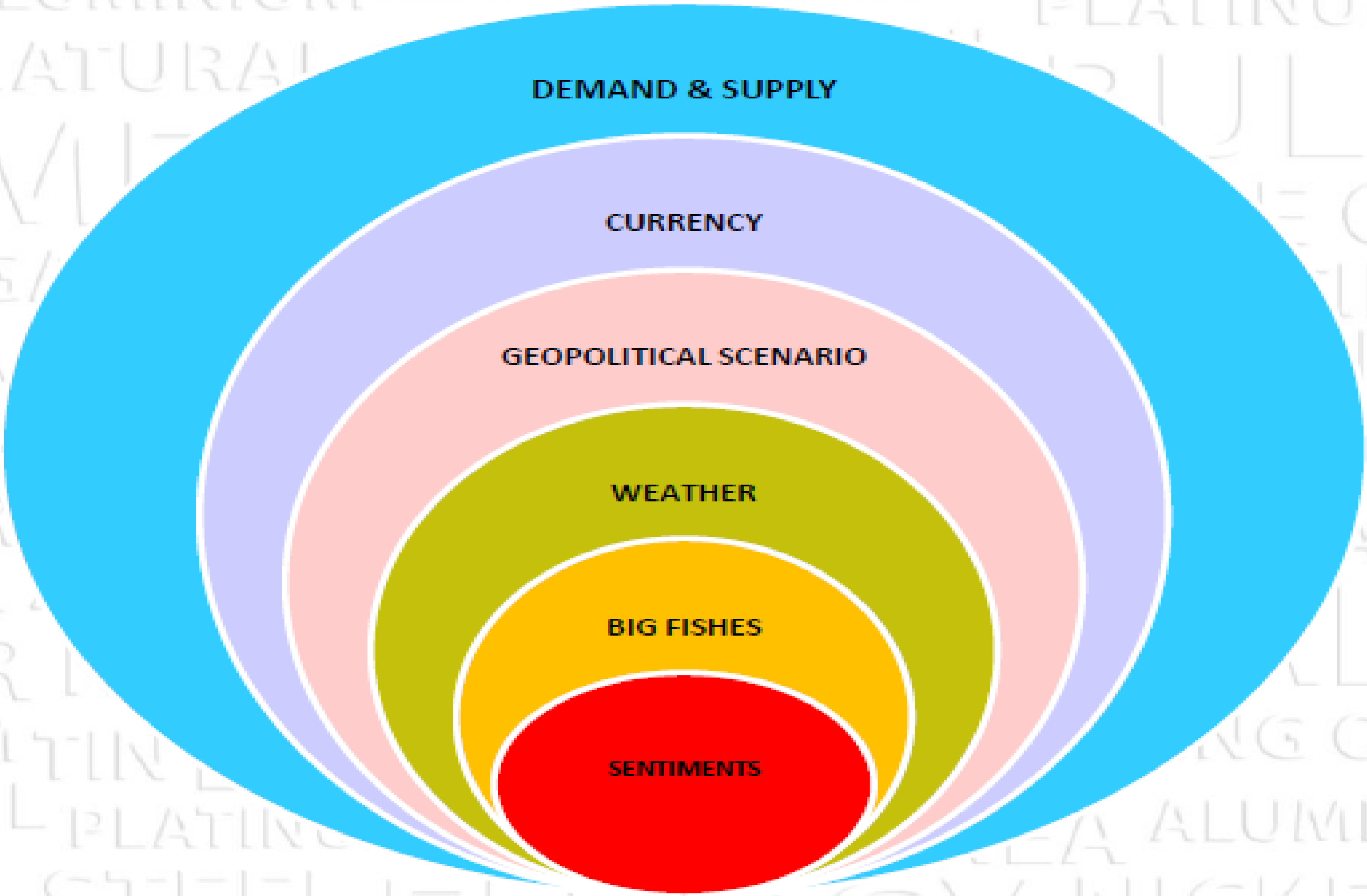
Sr No	Asset	Long Hedge Limits allocated to various hedgers	Short Hedge Limits allocated to various hedgers
1	GOLD-TITAN COMPANY LTD	-	4500 KGS

Physical Gold V/s Futures Gold

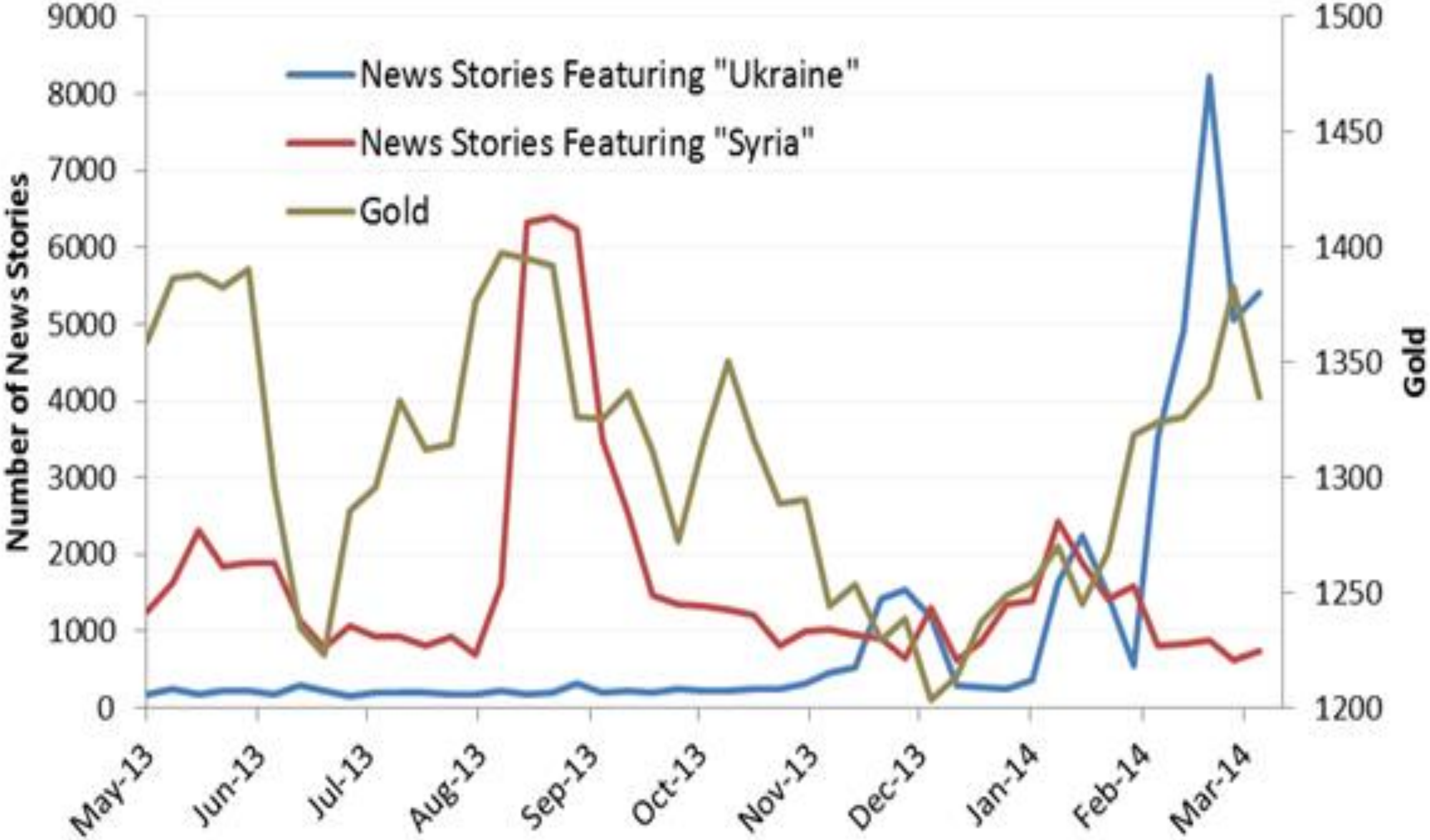
100 grms Required on 1-April -2016	**physical Gold**	**Future Gold**
Market Rate	27827	28000
Intial Capital required for 100 GRMS	278270	16696.2
MTM (RESERVE)	0	50000
Excess Balance capital		213303.8
interest earned on excess capital at 8 % FD		17064.304
interest earned on MTM @ 5.5% EFT		2500
Total interest earning		**19564.304**
less Rollover cost (6 times a year)		3000
less brokerage plus stamp duty		1000
Net earning		**15564.304**
1-April -2016	310000	310000
profit from gold appreciation	31730	30000
plus interest earned on excess capital		15564.304
Net profit	31730	45564.304

MASTERING THE WORLD COMMODITY

FACTORS IMPACTING COMMODITY PRICES

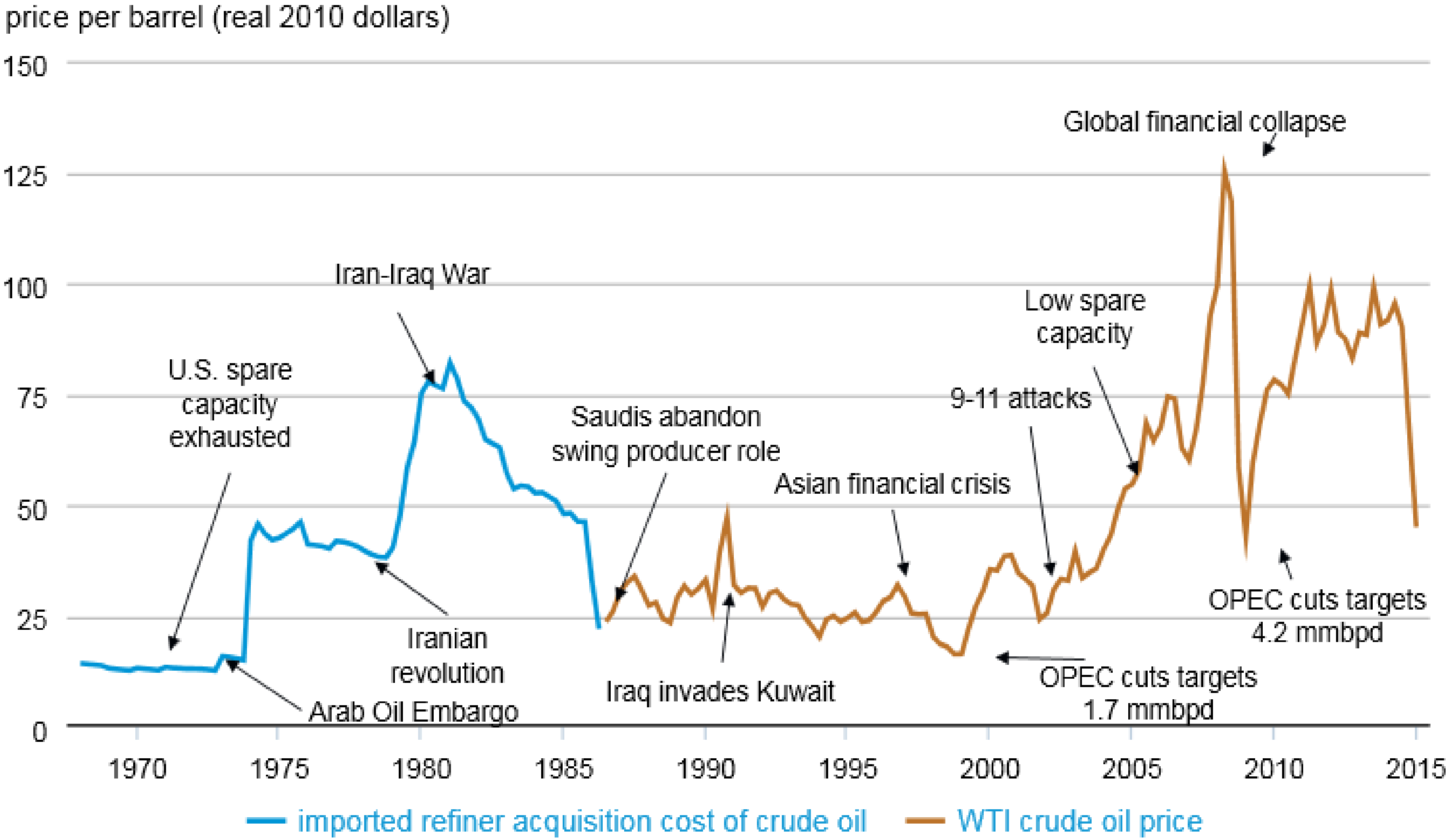


Gold's Rise and Fall With Geopolitical Turmoil



Source: Bloomberg, FXCM

Crude oil prices react to a variety of geopolitical and economic events

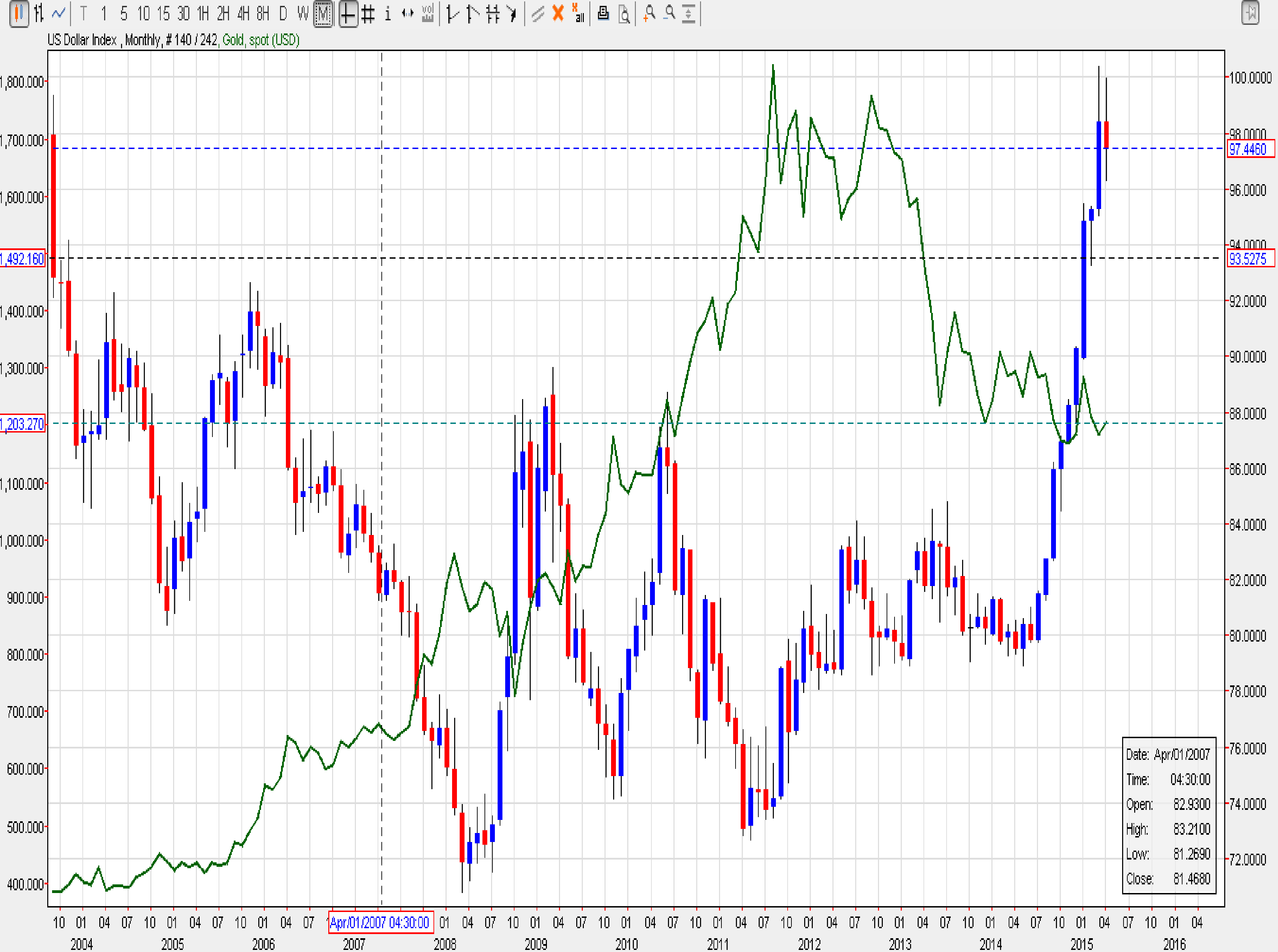


Sources: U.S. Energy Information Administration, Thomson Reuters

Economic Data Releases: key Indicators

- **Employment data –First Friday of month**
- **GDP–Last Friday of the month**
- **ISM Mfg. Index –First working day of month**
- **Trade Deficit –Third week of month**
- **Consumer price index-Third week**
- **Production price index –Third week**
- **Industrial production –Third week**
- **Retail sale –Third week**
- **Durable goods order –Last week**
- Federal bank meeting (8 times in a year)
- **Base metals inventory –every day**
- **Crude inventory –Wednesday**
- **Natural gas inventory –Thursday**

http://www.tradingeconomics.com



T 1 5 10 15 30 1H 2H 4H 8H D W M
US Dollar Index , Monthly, # 140 / 242, Gold, spot (USD)
1,800.000
1,700.000
1,600.000
1,492.160
1,400.000
1,300.000
1,203.270
1,100.000
1,000.000
900.000
800.000
700.000
600.000
500.000
400.000
100.0000
98.0000
97.4460
96.0000
94.0000
93.5275
92.0000
90.0000
88.0000
86.0000
84.0000
82.0000
80.0000
78.0000
76.0000
74.0000
72.0000
Date: Apr/01/2007
Time: 04:30:00
Open: 82.9300
High: 83.2100
Low: 81.2690
Close: 81.4680
Apr/01/2007 04:30:00
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016

Important Facts

- Gold and Silver have a strong inverse correlation with the US Dollar i.e. if the Dollar appreciates, prices of gold & silver can fall & vice versa

- Gold is used as an Hedge against Inflation. Therefore as inflation figures rise in US, prices of Gold can also appreciate.

- When the US economy slows down or is underperforming, investors tend to buy gold since it is considered as a safe haven. Similarly during times of uncertainty due to war or terrorism, prices of bullion and crude oil tend to go up.

- Key data released by US government has to be monitored carefully since they have a bearing on the movement of international commodities. The data include GDP, unemployment, retail sales, FOMC meet, inventory etc..

Gross Domestic Product (GDP)

- US data released on - Last Friday of Every month
- Relationship - Inverse

Narration

- A region's GDP is one of the several measures of the size of its economy. The GDP of a country is defined as the market value of all final goods and services produced within a country in a given period of time.

  GDP = consumption+inv'ment+government spending+(exports −imports)

- Gold has a strong inverse relationship with the US GDP growth.

- According to statistical tests done by Macquarie Research Commodities, the correlation between changes in gold prices and changes in GDP is -0.30 which shows that as the rate of GDP declines, gold prices generally rise, and vice versa.

Non Farm Payroll

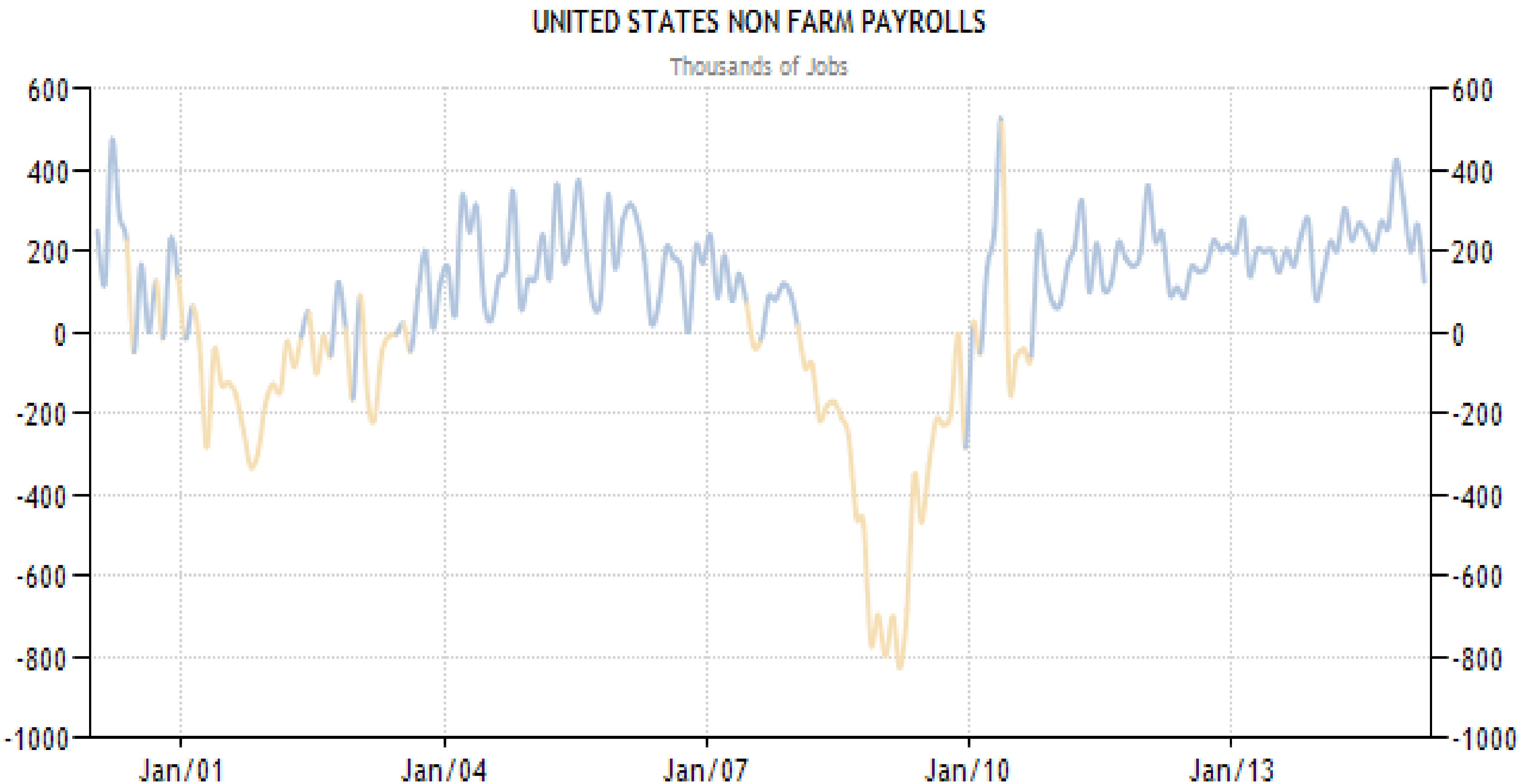
- US data released on - third Friday of Every month
- Relationship - Inverse

Narration

- A statistic researched, recorded and reported by the U.S. Bureau of Labor Statistics intended to represent the total number of paid U.S. workers of any business, excluding the following employees. general government employees, private household employee, employees of nonprofit organizations that provide assistance to individuals and farm employees

- This monthly report also includes estimates on the average work week and the average weekly earnings of all non-farm employees.

- Gold has a strong inverse relationship with the Non Farm Payroll Data



UNITED STATES NON FARM PAYROLLS
Thousands of Jobs
600
400
200
0
-200
-400
-600
-800
-1000
Jan/01
Jan/04
Jan/07
Jan/10
Jan/13

Jobless Claims

- US Data released on - Every Thursday
- Relationship - Direct

Narration

- New Jobless claims are compiled weekly to show the number of individuals who filed for unemployment insurance for the first time. An increasing trend suggests a deteriorating labor market.

- Jobless claims are an easy way to gauge the strength of the job market. The fewer people filing for unemployment benefits, the more have jobs, and that tells investors a great deal about the economy. A stronger job market generates a healthier economy.

- The higher the number of jobless claims persistent over a period of time and also an increase in the number of people filing claims weakens the dollar and this is a good sign for gold investors

Employment Data

US Data released on - First Friday of every month

Relationship - Inverse

Narration

- The unemployment rate measures the number of unemployed as a percentage of the labour force. Non-farm payroll employment counts the number of paid employees working part-time or full-time in the nation's business and government establishments.

- This data has a lot of significance on the price movement of gold. For e.g. if there is a rise in non farm pay rolls this will show that the industry is employing more and more people. This will boost the economy, which will lead to a stronger dollar and weaker gold prices. More number of jobs with increasing wages may lead to wage inflation due to which interest rates will be raised leading to fall in commodity prices

International Trade Balance

US Data released on - Second week of every month (Thursday)

Relationship - Direct

Narration

- The international trade balance measures the difference between imports and exports of both tangible goods and services. The data can directly impact all the financial markets, but especially foreign exchange value of the dollar. If imports are more than exports, it creates trade deficit which is harmful to the dollar.

- This data can also change the direction of the movement of gold prices in the markets. The worsening trade deficit has on many occasions provided a fillip to gold prices. The higher the trade deficit the better it is for gold.

FOMC Meetings

Meetings held eight times in a year

Relationship - Inversely proportional to interest rates

Narration

- The Federal Open Market Committee meets in order to determine the near-term direction of monetary policy.

- The interest rate set by the Fed serves as a benchmark for all other rates. A change in the fed funds rate translates directly to all other interest rates from Treasury bonds to mortgage loans. The bottom line is that higher interest rates are bearish for the financial markets, while lower interest rates are bullish.

- Decisions taken by the Federal Reserve has direct bearing on the prices of gold. For e.g. If the FOMC increases the interest rates in US, people will invest more in US backed securities thus increasing the demand for USD and pushing up the dollar and leading to downward pressure on Gold.

- FOMC in its meetings also discusses about the state of the economy and the solutions to the problems in the economy. These comments can also change the direction of prices of gold. For e.g. Fed Chairman's comments on worsening US trade deficit in his testimony to the House had sent Gold prices rallying upwards and touching its highs.

Retail Sales

US Data released on - Third week of every month

Relationship - Inverse

Narration

- Retail sales measure the total receipts at stores that sell durable and non-durable goods. Consumer spending accounts for two-thirds of GDP and is therefore a key element in economic growth. So when you know that your consumers are spending more, the economy is in for good times.

- Strong US economic growth may send prices of Gold downwards. Retail sales numbers have got high and inverse correlation with Gold prices. The higher the retail sales the better it is for US economy and gold prices fall as retail sales come good.

ISM Manufacturing Index

US Data released on - First working day of the month
Relationship - Indirect

Narration

- **The Institute for Supply Management** surveys nearly 400 manufacturing firms on employment, production, new orders, supplier deliveries, and inventories

- The ISM manufacturing data gives a detailed look at the manufacturing sector, how busy it is and where things are headed. Since the manufacturing sector is a major source of cyclical variability in the economy, this report has a big influence on the markets.

- More than one of the ISM sub-indexes provides insight on commodity prices and clues regarding the potential for developing inflation. The Federal Reserve keeps a close watch on this report that helps it to determine the direction of interest rates when inflation signals are flashing in these data.

- Gold has an indirect relationship with this data. If the ISM numbers are high i.e. if it indicates growth in the manufacturing sector thus leading to growth in US economy, gold prices will see a downward movement.

EIA Petroleum status report

US Data released on - Every Wednesday
Relationship - Direct

Narration

- The Energy Information Administration (EIA) provides weekly information on petroleum inventories in the U.S., whether produced here or abroad. The level of inventories helps determine prices for petroleum products.

- During periods of strong economic growth, demand would be robust. If inventories are low, this will lead to increases in crude oil prices. During a period of sluggish economic activity, demand for crude oil may not be as strong. If inventories are rising, this may push down oil prices.

- Since oil is such an important part of the economy, it can also help determine the direction of inflation. In the U.S., consumer prices have moderated whenever oil prices have fallen, but have accelerated when oil prices have risen.

- This report has got a lot of bearing on the way prices of crude oil will move. Crude oil traders keep a watch on this data. Gold has a direct & high correlation with prices of crude oil.

- High crude oil prices leads to inflation. During these times, investors can buy gold as it is a perfect hedge against inflation.

CPI & PPI

US Data released on - Around 15th of each month

Relationship - Direct

Narration

- The Consumer price index (CPI) is a measure of the average change over time in the prices paid by consumers for a market basket of consumer goods and services. The Producer Price Index (PPI) measures inflation at earlier stages of the production and marketing process;
- The CPI & PPI is a perfect measure of inflation and also indicates effectiveness of government policy
- Increase in CPI & PPI means rise in inflation which is good for Gold as it is used as a hedge against inflation. Gold prices tend to move up during periods of high inflation

Housing Starts

US Data released on - Around the middle of the month

Relationship - Direct proportional (for copper)

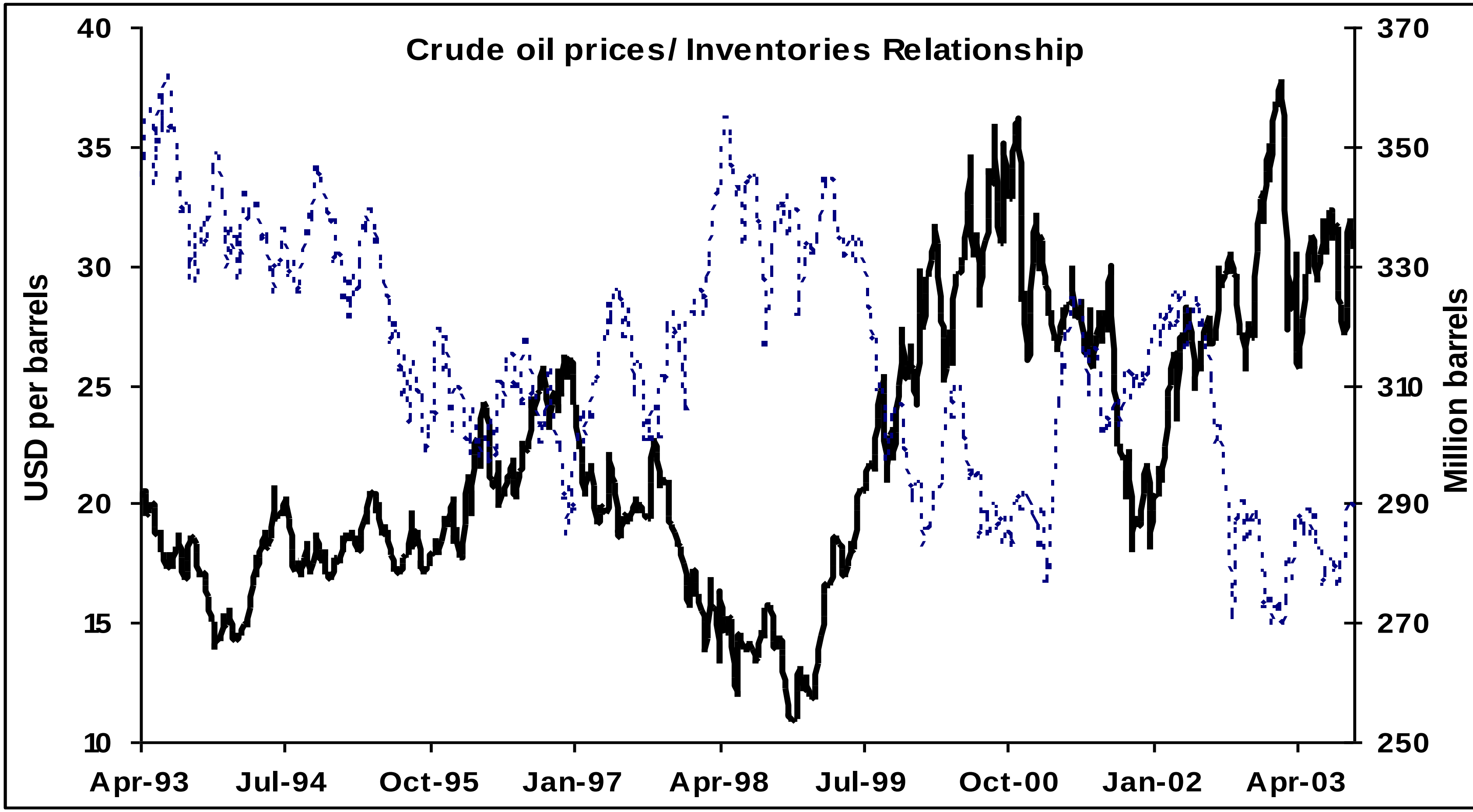
Narration

This economic indicator tracks how many new single-family homes or buildings were constructed throughout the month.

Housing starts detects trends in the economy looking forward. It is a significant indicator for copper wherein a rise in housing starts would signal increase in copper prices..

Event	Impacting Commodities	WEEKLY DATA RELEASES									
		Releases in week 1 (1st Mar to 7th Mar)					Releases in Week 2 (8th Mar to 14th Mar)				
US MBA Mortgage Applications	Commodities (in general)	4/3/2015 17:30	Week ending 28/2/2015	-	0.10%	-3.50%	11/3/2015 16:30	Week ending 7/3/2015	-	-1.30%	0.10%
Change in US commercial crude oil stocks (barrels)	Crude oil	4/3/2015 21:00	Week ending 28/2/2015	3888K	10303K	8427K	11/3/2015 20:00	Week ending 7/3/2015	4595K	4512K	10303K
US initial jobless claims	Gold, Crude oil (other metals)	5/3/2015 19:00	Week ending 28/2/2015	295K	320K	313K	12/3/2015 18:00	Week ending 7/3/2015	305K	289K	320K
Event	**Impacting Commodities**	**WEEKLY DATA RELEASES**									
		Releases in Week 3 (15th Mar to 21st Mar)					Releases in Week 4 (22nd Mar to 28th Mar)				
US MBA Mortgage Applications	Commodities (in general)	18/3/2015 16:30	Week ending 14/3/2015	-	-3.90%	-1.30%	25/3/2015 16:30	Week ending 21/3/2015	-	9.50%	-3.90%
Change in US commercial crude oil stocks (barrels)	Crude oil	18/3/2015 20:00	Week ending 14/3/2015	4111K	9622K	4512K	25/3/2015 20:00	Week ending 21/3/2015	4912K	8170K	9622K
US initial jobless claims	Gold, Crude oil (other metals)	19/3/2015 18:00	Week ending 14/3/2015	293K	291K	289K	26/3/2015 18:00	Week ending 21/3/2015	290K	282K	291K
Event	**Impacting Commodities**	**OTHER DATA RELEASES**									
China Mfg PMI	Base metals	1/3/2015 6:30	Feb 2015	49.70	49.90	49.80	1/2/2015 6:30	Jan 2014	50.20	49.80	50.10
US Change in Nonfarm Payrolls	Crude oil and metals	6/3/2015 19:00	Feb 2015	235K	295K	257K	6/2/2015 19:00	Jan 2014	228K	257K	252K
US Housing Starts	Base metals	17/3/2015 18:00	Feb 2015	1040K	897K	1065K	18/2/2015 19:00	Jan 2014	1070K	1065K	1089K
FOMC Rate Decision (upper bound)	Commodities (in general)	18/3/2015 23:30	-	0.25%	0.25%	0.25%	29/1/2015 00:30	-	0.25%	0.25%	0.25%
US Consumer Confidence Index	Gold, silver and base metals	31/3/2015 19:30	Mar 2015	96.50	n.r.	96.40	24/2/2015 20:30	Feb 2015	99.5	96.40	102.90

US crude oil inventories vis-à-vis Prices



How to hedge ….

A LONG HEDGE

OPEN A LONG FUTURES POSITION WHEN THE FIRM HAS A SHORT SPOT POSITION.

A SHORT HEDGE

OPEN A SHORT FUTURES POSITION WHEN THE FIRM HAS A LONG SPOT POSITION.

An Order of 1kg Gold Ornament received with price fixed @ Rs. 26210/10gms

(Buy MCX – Rs. 26151/10gms)

After 10 days ↓ *Exposed to price risk*

Would purchase gold to make jewellery (Sell MCX)

After 20 days ↓

Deliver the jewellery to the client

Scenario 1: Price Falls (Rs. Per 10gms)

	Spot	MCX
At the time of order	26210	26151
Purchase of Gold for making jewellery	25940	25878
Net effect	Profit 270	Loss 273
Net Effect Rs. 3/10gm loss		

Scenario 2: Price Rises (Rs. Per 10gms)

	Spot	MCX
At the time of order	26210	26151
Purchase of Gold for making jewellery	26385	26328
Net effect	Loss 175	Profit 177
Net Effect Rs. 2/10gm profit		

An Order of 1kg Gold Ornament received with order price not fixed

After 10 days

Would purchase gold to make jewellery @ Rs. 26843/10 (Sell MCX – Rs. 26928/10gm)

After 20 days

Exposed to price risk

Deliver the jewellery to the client

Scenario 1: Price Falls (Rs. Per 10gms)

	Spot	MCX
At the time of order	26843	26928
Purchase of Gold for making jewellery	26573	26655
Net effect	Loss 270	Profit 273
Net Effect Rs. 3/10gm profit		

Scenario 2: Price Rises (Rs. Per 10gms)

	Spot	MCX
At the time of order	26843	26928
Purchase of Gold for making jewellery	27018	27105
Net effect	Loss 175	Profit 177
Net Effect Rs. 2/10gm loss		

Hedging against Exports

Effective offset will be in either of 2 scenarios as follows –

Date	On MCX	Physical Leg
11-May-2012 (A)	Buy 40 lots @ 105	No physical purchases.
19-May-2012 (B)	Sell (cancel) 10 lots @ 108	Buy 10 Mts @ 108
26-May-20112 (C)	Sell (cancel) 10 lots @ 101	Buy 10 Mts @ 101
2-Jun-2012 (D)	Sell (cancel) 10 lots @ 113	Buy 10 Mts @ 113
9-Jun-2012 (E)	Sell (cancel) 10 lots @ 102	Buy 10 Mts @ 102

Have not considered the incremental cost of grade and location as those will be decided bilaterally. Here, basic Aluminium price gets hedged in local currency terms.

The eventual working in the company books…

Date	Cash flows from MCX	Payment for Physicals	Net cost in books
11-May	(B - A) = 108 - 105 = 3 * 10 * 1000 = 30,000/- (to receive)	10 Mts @ 408/- = 108 * 1000 * 10 = 10,80,000	= 10,80,000 – 30000 = 10,50,000 = 105/pKg (budget price)
26-May	(C - A) = 101 - 105 = (- 4) * 10 * 1000 = (- 40,000/-) (to pay)	10 Mts @ 101/- = 101 * 1000 * 10 = 10,10,000	= 10,10,000 + 40000 = 10,50,000 = 105/pKg (budget price)
2-Jun	(D - A) = 113 - 105 = 8 * 10 * 1000 = 80,000/- (to receive)	10 Mts @ 413/- = 113 * 1000 * 10 = 11,30,000	= 11,30,000 - 80000 = 10,50,000 = 105/pKg (budget price)
9-Jun	(E - A) = 102 - 105 = (- 3) * 10 * 1000 = (- 30,000/-) (to pay)	10 Mts @ 402/- = 102 * 1000 * 10 = 10,20,000	= 10,20,000 + 30000 = 10,50,000 = 105/pKg (budget price)

Important Websites

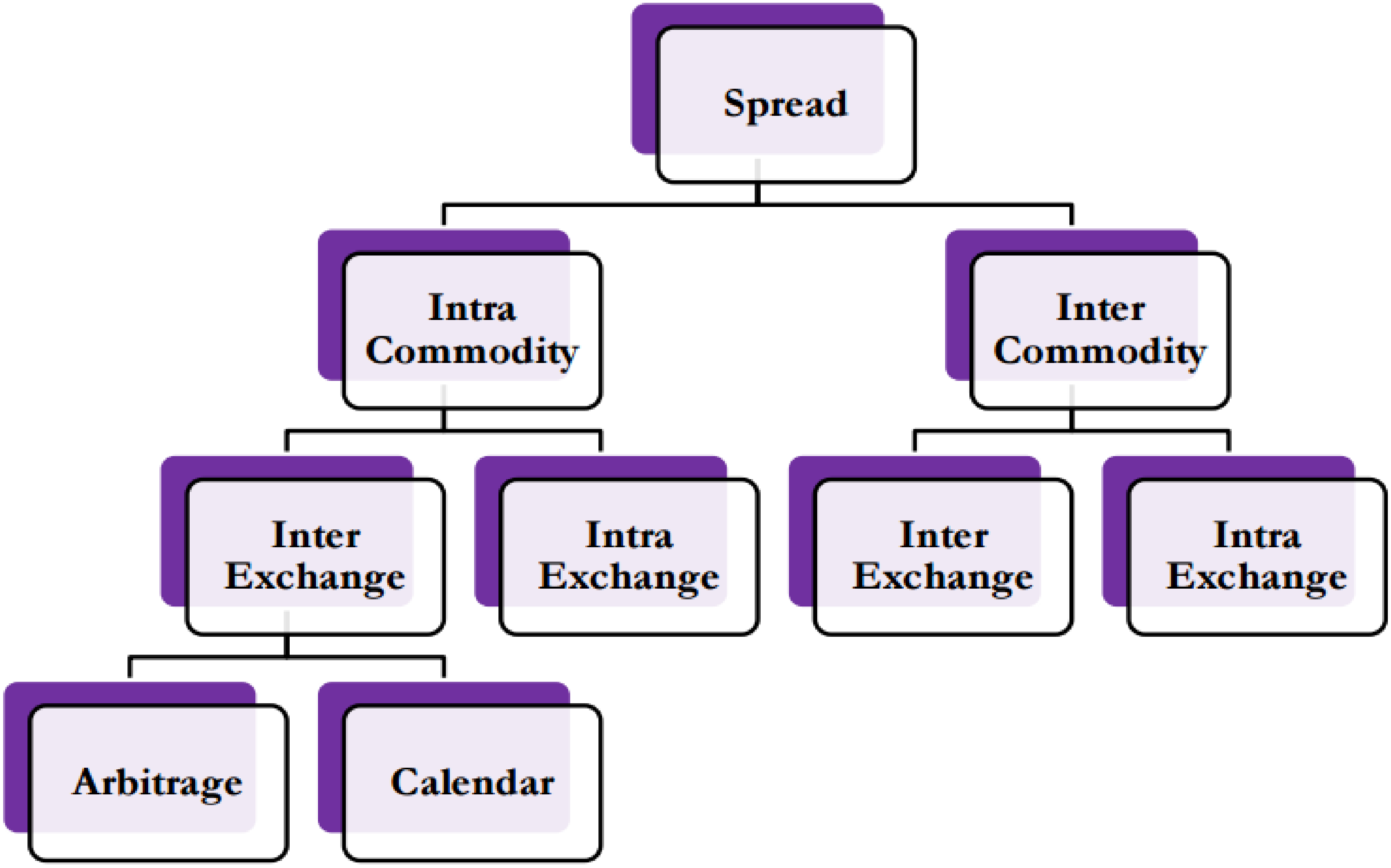
- www.thebulliondesk.com

- www.forexnews.com
- www.investopedia.com/university
- www.bloomberg.com
- www.gcitrading.com

Spread

- Spreads are strategies used by traders to profit from discrepancies in market price movements by taking a long and short position simultaneously in a single currency/commodity or between two different but correlated commodities/currencies

- To start with there are three different types of Commodity spreads. They are
  - Calendar or Intra commodity spreads
  - Inter commodity spreads
  - Inter exchange spreads


Spread
Intra Commodity
Inter Commodity
Inter Exchange
Intra Exchange
Inter Exchange
Intra Exchange
Arbitrage
Calendar

Calendar or Intra commodity spreads

- This is the most common spread strategy used by today's traders. It is also known as Intramarket or interdelivery or horizontal or time futures spread. The spread is executed by a trader or investor by taking long and short positions in two future contracts with different maturities but within the same commodity

  For example a calendar spread can be executed by going long in January 2010 wheat futures and short in March 2010 futures or vice versa. The short and long positions are taken simultaneously. Here again a question arises in a traders mind as to go long and short in which contract respectively
- The calendar spread is sub divided into two categories-
  - Bull Spread
  - Bear Spread

Bull Spread

- When a trader believes that the spread between two futures contracts in a particular commodity market may rise he/she will sell the near month contract and buy the deferred month contract

Example: If the trader expects the spread between Feb-March Guar futures to rise then the trader can capitalize the price movement by executing the following strategy

1 Feb 2011		15 Feb 2011 (Trader's Forecast)	
	Prices (per quintal)	**Contract**	**Prices (per quintal)**
Feb- 2011	2870	Feb- 2011	2940
March- 2011	2930	March- 2011	3000

- **Step 1**: The trader **sells** Feb 2011 Wheat future and **buys** March 2011 Wheat futures on 1st Feb 2011
- **Step 2**: Holds the contracts for 15 days
- **Step 3**: Squares off his positions in the respective contracts by going long and short in the Feb 2011 and March 2011 contracts respectively on 15th Feb 2010

Current spread between Feb & March contracts = Price of March 2010 Futures - Price of Feb 2010 Futures

Current spread = 2930-2870 = 60

Traders forecast for prices as on 15th Feb = Price of March 2010 Futures - Price of Feb 2010 Futures

=3030-2920 = 110

Profit realized from the strategy when spread rises:

	Feb 2011	March 2011	Change (March-Feb)
1 Feb 2011	Sell at 2870	Buy at 2930	60
15 March 2010	Buy at 2920	Sell at 3030	110
Profit	-50	100	
Net profit realized	50		50

- The strategy works as long as the spread between both the contracts rises

One should do Bull Spread- Why???

- For intra commodity spread one have to pay less margin (60-70%) money while taking the positions
- Prices of any commodity depends on its demand –supply situation. So if trader has an idea that the supply will be more in March while less in April then higher supply will pressurize the prices in current month. However, till the far month contract will become active supply pressure will ease down.
- Vice versa if demand is expected to come in far month compared to near moth them prices in current month will remain down compared to far month

Thus, trader can make profit by buying far month and selling near month

Bear Spread

- If the trader believes the spread between two contracts in a commodity will fall in the future he/she will buy the near month contract and sell the deferred month contract

  Example: If the trader expects the spread between Feb- March wheat to fall in the future then the trader can capitalize the price movement by executing the following strategy

1 Feb 2011		15 Feb 2011 (Trader's Forecast)	
Contract	**Prices (per quintal)**	**Contract**	**Prices (per quintal)**
Feb- 2011	1355	Feb- 2011	1300
March- 2011	1295	March- 2011	1220

- **Step 1**: The trader **buys** Feb 2011 Wheat future and **sells** March 2011 Wheat futures on 1st Feb 2010
- **Step 2**: Holds the contracts for 15 days
- **Step 3**: Squares off his positions in the respective contracts by going short and long in the Feb 2011 and March 2011 contracts respectively

Current spread between Feb & March contracts = Price of Feb 2011 Futures - Price of March 2011 Futures

Current spread = 1300-1215= 85

Traders forecast for prices as on 15th Feb = Price of Feb 2011 Futures - Price of March 2011 Futures

=1265-1160= 105

Profit realized from the strategy when spread rises:

	Feb 2011	March 2011	Change (March-Feb)
1 Feb 2011	Buy at 1300	Sell at 1215	85
15 Feb 2011	Sell at 1265	Buy at 1160	105
Profit	-35	55	
Net profit realized	20		

- The strategy works as long as the spread between both the contracts falls

One should do Bear Spread- Why???

- For intra commodity spread one have to pay less margin (60-70%) money while taking the positions
- Same as Bull spread prices of any commodity depends on its demand –supply situation. So for bear spread if trader has an idea that the supply will be less in March while more in April then higher supply will pressurize the prices in far month. However, till the far month contract will become active supply pressure will be more. Or
- If demand in current month will be more compared to far month then prices in near month will move up against far month.

Thus, trader can make profit by buying current month and selling far month

Inter commodity spreads

- This strategy involves taking long and short positions in futures contracts in **different but correlated commodities.** The trading contract can be same or different for both the commodities

Example: If the trader expects the spread between Lead mini and Zinc mini futures to rise then the trader can capitalize the price movement by executing the following strategy

1 Feb 2011		15 Feb 2011 (Trader's Forecast)	
Contract	**Prices (per quintal)**	**Contract**	**Prices (per quintal)**
Feb- 2011 (Lead mini)	120.20	Feb- 2011(Lead mini)	121.50
Feb- 2011(Zinc mini)	211.20	Feb- 2011(Zinc)	110.50

- **Step 1**: The trader **buys** Feb 2011 Lead mini futures and **sells** Feb 2011 Zinc mini futures on 1st Feb 2010
- **Step 2**: Holds the contracts for 15 days
- **Step 3**: Squares off his positions in the respective contracts by going short and long in Lead mini Feb 2011 and Zinc mini Feb 2011 contracts respectively

Current spread between Lead mini & Zinc mini Feb contracts = Price of Guar Feb 2011 Futures - Price of Chana Feb 2011 Futures

Current spread = 120.20-111.20= 9

Traders forecast for prices as on 15th Feb = Price of Lead mini Feb 2011 Futures - Price of Zinc mini Feb 2011 Futures

=121.50-110.50=11

Profit realized from the strategy when spread rises:

	Lead Mini Jan 2011	Zinc Mini Jan 2011	Change (Guar Gum-Guar Seed)
1 Feb 2011	Buy at 120.20	Sell at 211.20	9
15 Feb 2011	Sell at 121.50	Buy at 110.50	11
Profit	1.30	0.7	
Net profit realized	2		2

Inter exchange spread

- Consider that a single commodity is being traded on two different exchanges. However there is a variation in the prices quotation of the commodity on both these exchanges. This strategy involves taking long and short positions in same commodity in same contracts but in two different exchanges

  Example: Consider potato prices on NCDEX is at Rs 610 /quintal while the same on MCX is Rs 670/quintal. As result a trader can initiate an arbitrage by buying 1 contract of Potato on NCDEX and selling it on MCX. As a result the trader has earned a risk less profit of Rs 60/quintal. However, the price disparity will disappear as more arbitrage take place because with more buying the prices of the commodity on NCDEX will rise while at the same time as more sellers come to sell on MCX the prices will fall. As a result equilibrium will be established over a period of time.

NCDEX	MCX
Buy at Rs.610/ quintal(Low price)	Sell at Rs 670/quintal (High price)

- However, the price disparity will disappear as more arbitrage take place because with more buying the prices of the commodity on NCDEX will rise while at the same time as more sellers come to sell on MCX the prices will fall. As a result equilibrium will be established over a period of time.

Inter Commodity Ratio

- This a ratio between prices of commodities having good correlation or between the prices of commodity and its by-product / processed product derived from the supply-demand dynamics of that commodity

$$\text{Ratio} = \frac{\text{prices of one commodity}}{\text{Prices of other commodity or By product}}$$

Example: Price ratio between Guar Gum (a processed product) and Gaur seed . If prices of guar gum moves up ratio moves up and vice versa

Ratio moves up if: Trader will buy Guar Gum and sell Guar seed

- Numerators (Guar Gum) increases while denominator (Guar Seed) remain stable
- Denominator (Guar seed) decreases while numerator (Guar Gum) remain stable
- If Numerators increases and denominator decreases at the same time

1 March 2011		15 March 2011 (Trader's Forecast)	
Contract	**Prices (per quintal)**	**Contract**	**Prices (per quintal)**
Mar- 2011 (Guar Gum)	2850	Mar- 2011(Guar Gum)	2750
Mar- 2011(Guar seed)	8150	Mar- 2011(Guar seed)	8250

- Ratio at 1March = 8150/2850 = 2.85

	Guar Gum Mar 2011	Guar Seed Mar 2011	Change (Guar Gum-Guar Seed)
1 Mar 2011	Buy at 8150	Sell at 2850	5300
15 Mar 2011	Sell at 8250	Buy at 2750	5500
Profit	100	100	200
Net profit realized	200		

- Ratio at 15 March= 8250/2750 = 3.0

Ratio moves down if: Trader will sell Guar Gum and Buy Guar seed

-Numerators (Guar Gum) decreases while denominator (Guar Seed) remain stable

-Denominator (Guar seed) increases while numerator (Guar Gum) remain stable

-If Numerators decreases and denominator increases at the same time

1 March 2011		15 March 2011 (Trader's Forecast)	
Contract	**Prices (per quintal)**	**Contract**	**Prices (per quintal)**
Mar- 2011 (Guar Gum)	2850	Mar- 2011(Guar Gum)	2950
Mar- 2011(Guar seed)	8150	Mar- 2011(Guar seed)	8050

- Ratio at 1March = 8150/2850 = 2.85

	Guar Gum March 2011	Guar Seed March 2011	Change (Guar Gum-Guar Seed)
1 Mar 2011	Sell at 8150	Buy at 2850	5300
15 Mar 2011	buy at 8050	Sell at 2950	5100
Profit	100	100	200
Net profit realized	200		

- Ratio at 15 March= 8050/2950 = 2.70