ABSTRACT
Commodities and commodity markets are important part of any economy. Its impact on welfare of large sections of the society -both producers and consumers-is universal. Commodity is a generic term and includes a wide variety of groups of products, ranging from agricultural products to metals, precious metals, gas and crude oil, power. Commodities are those goods which are (largely) homogeneous products, are produces in large quantity and traded in natural state of production without value addition. They are purchased for direct consumption without processing (electricity) or after processing (agricultural products) or for further processing to manufacture value added products.

Keywords: Commodities, Homogeneous products

INTRODUCTION
Production of the commodities requires large specific inputs. Agricultural products are not technologically intensive but require land which is a scarce factor. Since agricultural products are essential goods, technology is sought to replace the land as a factor. Metals and precious metals, as commodities, are mined wherever they naturally occur. Vast lands are necessary and major producers are African countries, North and South America, Russia and Eastern Asia. Smaller landed countries, e.g., countries like Japan, European countries, Taiwan, import these commodities and many producers are dependent on a single metal commodity as a major contributor to national income. Oil and gas are indispensable but are exhaustible but are exhaustible. Their production requires not only natural occurrence but also very large capital investment. Hence the production is controlled, world over, by few countries and few companies. Managing oil and gas imports/exports is a major challenge to most economies. Electricity generation and distribution is dependent on availability of inputs and require large investment. Requirement of large investment result into natural monopoly. The demand for the product is continuous but varies with time during a day. Since intraday fluctuation could be high, managing production and distribution poses a challenge. Large capacities could result into idle capacity at some time during the day and small capacities could result in inadequate supply during other part of the day. Managing the production-consumption balance require developing sophisticated market mechanisms.

OBJECTIVE
1. To study about major exchanges trading in Indian commodity market.
2. To study about participants in Indian derivative market.
3. To understand the basics of commodity market and to discover the Emerging prospects (Gold, Copper and Silver) In the Indian commodity market.
4. To empathize trading and settlement mechanism for commodities (Gold, Copper and Silver) in Indian stock exchange.
HYPOTHESIS

Null Hypothesis

H0: The successive prices are dependent and passed prices have predictive content to forecast commodity price with respect to Gold, Copper and Silver.

Alternative Hypothesis

H1: The successive prices are independent and passed prices have no predictive content to forecast commodity price with respect to Gold, Copper and Silver.

REVIEW OF LITERATURE

Nirmal Kumar, R.T and Balaji, K in “An Empirical Investigation on the Investors’ Perception Towards Commodities Futures Trading in India with Special Reference to Puducherry, India” argue that since 2004, the growth of the commodity derivative market in the country has been impressive. With institutional players prevented from participating in the commodity futures market, the retail investors, as a group, have emerged as major players in the said market.

HYPOTHESIS TESTING

Analyse the impact of past prices of Gold on future prices of Gold

To analyse the impact of past prices of Gold on the future prices of Gold a regression equation can be framed as follows:

\[ Y = \alpha + \beta X \]

Where,

X = Past Prices of Gold and Y = Future price of Gold

To test the above model linear regression test is applied using Excel where future price of gold is taken as dependent factor and past prices of gold as independent variables. By analysis following tables were obtained:

<table>
<thead>
<tr>
<th>Regression Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
</tr>
<tr>
<td>R Square</td>
</tr>
<tr>
<td>Adjusted R Square</td>
</tr>
<tr>
<td>Standard Error</td>
</tr>
<tr>
<td>Observations</td>
</tr>
</tbody>
</table>

From the above table the R square value is .305 and adjusted R square value is 0.5693 and this enlighten us that the model account for 56.93% of variance in the predicting future gold prices. This is the clear indication that this model is a moderate model.

<table>
<thead>
<tr>
<th>ANOVA</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>Significance F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1</td>
<td>244022.497</td>
<td>244022.497</td>
<td>0.017702303</td>
<td>0.008946143</td>
</tr>
<tr>
<td>Residual</td>
<td>58</td>
<td>799517725.4</td>
<td>13784788.37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>799761747.9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
From the above ANOVA table it is inferred that the F value is 0.018 and the significance is .0089. As the significance is less than 0.05. It clearly reveals the fact that the model which is taken for study is statistically significant.

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1346.05868</td>
<td>4905.987207</td>
<td>2.745229066</td>
</tr>
<tr>
<td>Past Prices of Gold</td>
<td>0.37076</td>
<td>0.178185646</td>
<td>0.33050001</td>
</tr>
</tbody>
</table>

The above standardized beta coefficient table give a measure of contribution of each variable to the model. T value of past prices is 0.3305 and significance is .008 and the probability is less than .05. Thus, future prices are influenced by past prices.

Thus the above equation is redrafted as,

**Future Price of Gold = 1346.058 + 0.371 Past Prices of Gold**

**Analyse the impact of past prices of Silver on future prices of Silver**

To analyse the impact of past prices of Silver on the future prices of Silver a regression equation can be framed as follows:

\[ Y = \alpha + \beta X \]

Where,

X = Past Prices of Silver and Y = Future price of Silver

To test the above model linear regression test is applied using Excel where future price of Silver is taken as dependent factor and past prices of Silver as independent variables. By analysis following tables were obtained:

<table>
<thead>
<tr>
<th>Regression Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
</tr>
<tr>
<td>R Square</td>
</tr>
<tr>
<td>Adjusted R Square</td>
</tr>
<tr>
<td>Standard Error</td>
</tr>
<tr>
<td>Observations</td>
</tr>
</tbody>
</table>

From the above table the R square value is .504 and adjusted R square value is 0.4956 and this enlighten us that the model account for 49.56% of variance in the predicting future Silver prices. This is the clear indication that this model is a moderate model.
From the above ANOVA table it is inferred that the F value is 58.98 and the significance is 0.01. As the significance is less than 0.05. It clearly reveals the fact that the model which is taken for study is statistically significant.

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>32277.19</td>
<td>3283.624187</td>
<td>22.01140695</td>
<td>7.6530</td>
</tr>
<tr>
<td>X Variable 1</td>
<td>1.08538</td>
<td>0.141328281</td>
<td>7.679879198</td>
<td>0.0110</td>
</tr>
</tbody>
</table>

The above standardized beta coefficient table give a measure of contribution of each variable to the model. T value of past prices is 7.6798 and significance is .011 and the probability is less than 0.05. This states that future prices are influenced by past prices.

Thus the above equation is redrafted as,

**Future Price of Silver = 32277.19 + 1.085 Past Prices of Silver**

**Analyse the impact of past prices of Copper on future prices of Copper**

To analyse the impact of past prices of Copper on the future prices of Copper a regression equation can be framed as follows:

$Y = \alpha + \beta X$

Where,

$X =$ Past Prices of Copper and $Y =$ Future price of Copper

To test the above model linear regression test is applied using Excel where future price of Copper is taken as dependent factor and past prices of Copper as independent variables. By analysis following tables were obtained:

<table>
<thead>
<tr>
<th>Regression Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
</tr>
<tr>
<td>R Square</td>
</tr>
<tr>
<td>Adjusted R Square</td>
</tr>
<tr>
<td>Standard Error</td>
</tr>
<tr>
<td>Observations</td>
</tr>
</tbody>
</table>

From the above table the R square value is .557 and adjusted R square value is 0.546 and this enlighten us that the model account for 54.57% of variance in the predicting future Copper prices. This is the clear indication that this model is a moderate model.
From the above ANOVA table it is inferred that the F value is 32.17 and the significance is 0.04. As the significance is less than 0.05. It clearly reveals the fact that the model which is taken for study is statistically significant.

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>5201.878</td>
<td>197.8676</td>
<td>26.28969</td>
</tr>
<tr>
<td>X Variable 1</td>
<td>0.36872</td>
<td>0.065004</td>
<td>5.6722</td>
</tr>
</tbody>
</table>

The above standardized beta coefficient table give a measure of contribution of each variable to the model. T value of past prices is 5.6798 and significance is .039 and the probability is less than 0.05. This states that, future prices are influenced by past prices.

Thus the above equation is redrafted as,

**Future Price of Copper = 5201.878 + 0.36872 Past Prices of Copper**

Thus from the analysis of Gold, Silver and Copper, it is concluded that Future price of commodity are influenced by past prices hence the hypothesis “The successive prices are dependent and past prices have predictive content to forecast commodity price with respect to Gold, Copper and Silver” is accepted.

**FINDINGS AND CONCLUSIONS**

1. It was found during the research that most of the investors belong to age group of 18-30 years and 82% of the total respondents were Male, majority of them were salaried and professionals. Also majority of the respondents belong to the annual income of less than Rs. 5 lakhs being salaried and professionals.

2. 48% of the respondents said they invest less than 5% of their income, 26% said they invest 5 to 10% of their income, 12% said they invest 10 to 15% of their income, 8% said they invest more than 15% of their income and remaining 6% do not invest. Out of the above investors 34% of the respondents prefer to invest in Equities/Derivatives as well as Mutual funds, and remaining prefer to invest in Commodity Futures and Insurance (including ULIP). Also majority of the respondents like to invest in secondary market like stock exchanges and remaining in mutual funds, Futures and options and very few like to invest in primary market.

3. The objective behind the investment decision of the respondents was studied and it was found that majority of the respondents invest with an objective to earn high income generation as well as to earn long term growth, the other objectives found during the research were protection of capital and moderate investment growth. Further majority of the respondents said they achieved their objective of investment as per their set target, others said they were not able to achieve their objective or they have somewhat achieved their objective of investment since the duration of investment is not yet over.

Out of those who achieved their objective majority gave credit to their current income and capital appreciation, others said it’s because of good returns. Out of those who were not able to achieve their objective said its because their investment amount decreased as well as they were not able to make desired returns and they lost their money due to high volatility.

4. 50% of the respondents have invested in Equity only 28% of the respondents have invested in commodity only and remaining 22% have invested in both form of investment. Out of those who
prefer to invest in Equity only because they lack awareness of commodity trading as well as they feel that there is no benefit of capital appreciation in commodity market. Remaining said they have long term view specific to industry, exposure to specific sector as well as management of the company also the companies are following good dividend policy this attracts them to invest in equity only.

5. Out of those who said they invest in Commodity only, the reason for not investing in Equity market were asked and it was found that majority of the respondents feel that commodity market provides better price discovery and hedging, others feel that commodity market has longer bull and bear cycle, and very few said they invest in commodity only because it give exposure to specific sector only, they have Long term view in general is bullish as directly correlated with economic growth, also downside is limited in equity. Some of the respondents invest in commodity only because it always command some price and increased volatility in equity leads to less attraction of investors towards equity.

6. Out of those investors who invest in both the investment alternatives, majority said they invest in both because they get the benefit of asset allocation, as well as they get benefit of hedging against inflation and others feel that prices are determined globally in commodities. Few respondents said they invest in both because of the good dividend policy by the companies.

7. Majority of the respondents said they would like to invest in commodity derivatives because of Strong returns it has given over the recent years and they also feel that it contributes towards wealth creation. Others feel that it is one of the safest investment heaven also it is less volatile than equity and it has high liquidity. 46% of the respondents trade weekly in commodity market, 22% are daily traders, 18% trade monthly and remaining 14% trade occasionally.

8. For majority of the investors derivatives market is inefficient and few feel that the market is efficient. However, majority of the respondents agree that commodity futures provide hedging for investors also it requires knowledge beyond the reach of investors. Apart from this majority of the investors feel that commodity market is largely controlled by speculators which results in price volatility and ultimately leads to large price increases.

9. Due to high volatility and large price increase arbitration opportunity is created and the greed of earning high amount of arbitrage profits has attracted majority of the investors towards commodity market.

10. Commodity market is an attractive investment option for majority of the investors because it provides convenient transferability of risk, even though it has high investment cost but high liquidity.

11. It is observed from the study that majority of the respondents agree that commodity market is an attractive investment option, whereas majority of investors want to invest in commodity market for short term and only very few investors for long term it is because commodity market has high liquidity and more risk. Due to this investors prefer to invest for short term only. In commodity market, Gold is highly preferred investment option for majority of the investors followed by Silver, Copper and Crude Oil respectively.

12. It was observed during the research that Gold is the highly preferred commodity for hedging followed by silver and copper. Preference of Copper is less because of lack of awareness among
investors. However, 52% of the investors are satisfied with the returns earned from gold, 60% are for silver and 56% in case of copper

13. 44% of the respondents are satisfied with level of risk associated with investment in gold. This number is same in case of silver and 24% in case of copper. Apart from risk the level of satisfaction from diversification in case of copper is least i.e. 16% only which is 24% in case of silver.

14. 62% of the respondents are satisfied with the liquidity aspect of the gold investment whereas 64% of the respondents are satisfied in case of silver. But again the number is very low in case of copper which is only 24%.

15. The level of satisfaction from the information provided by broker is highest in case of gold investment which is 54% approximately. In case of silver it is 28% and in case of copper it is 24% only. 60% of the investors in silver are satisfied with the investors protection measures applied by the regulatory body, whereas only 20% of the investors have shown satisfaction in case of copper.

16. Level of satisfaction from the settlement of contract is again highest in case of gold which is 56% and 48% in case of both silver and copper. However, satisfaction level in case of size of contract in silver is highest among the three commodities i.e. 56% followed by gold which is 48% and least in case of copper i.e. 16% only.

17. Majority i.e. 44.5% of the investors in copper are satisfied with the role of commodity exchange followed by investors in silver which is 44% and investors in gold which is 32%. However, the investors in gold are highly satisfied with the role of broker where the number is 64%. In case of both silver and copper 48.5% each of investors are satisfied with the role of broker. 48% of the gold investors are satisfied with the margin requirement followed by investors in copper where the percentage is 30% and silver where the number is 28%.

18. 40% of the respondents said sensitivity in Gold prices is due to Historical Prices, whereas 32% of the respondents said it is due to discovery of new gold deposits. 20% of the respondents said sensitivity is due to irrationality of investors exposes long term investments to high frequency risks and remaining 8% said sensitivity is due to interplay of the international financial system.

19. Fluctuations in copper prices is due to Historical prices according to 44% of the respondents, 32% of the respondents said Copper prices are affected due to demand and supply, 12% of the respondents said fluctuation is due to supply disruptions and remaining 12% said it is due to inventory socks.

20. It was observed during the research that factors that influencing price of silver for 42% of the respondents is value of other currencies/commodities like gold, 38% of the respondents said price of silver is influenced by inflation. 12% of the respondents said price of silver fluctuates due to economic crises and remaining 8% said fluctuation is due to low interest rates charged by banks.

Hypothesis Testing

1. To analyse the impact of past prices of Gold on the future prices of Gold a regression equation was framed where linear regression test is applied taking future price of gold as dependent factor and past prices of gold as independent variables. The R square value obtained is 0.305 and adjusted R square value is 0.5693 and this enlighten us that the model account for 56.93% of variance in the predicting future gold prices. This is the clear indication that this model is a moderate model. Also
the F value obtained is 0.018 and the significance is 0.0089. As the significance is less than 0.05. It clearly reveals the fact that the model which is taken for study is statistically significant.

2. Similar process is applied to analyse the impact of past prices of Silver on the future prices of Silver, a regression equation was framed where linear regression test is applied taking future price of silver as dependent factor and past prices of silver as independent variables. The R square value obtained is 0.504 and adjusted R square value is 0.495 and this enlighten us that the model account for 49.56% of variance in the predicting future gold prices. This is the clear indication that this model is a moderate model. Also the F value obtained is 58.98 and the significance is 0.011. As the significance is less than 0.05. It clearly reveals the fact that the model which is taken for study is statistically significant.

3. To analyse the impact of past prices of Copper on the future prices of Copper a regression equation was framed where linear regression test is applied taking future price of copper as dependent factor and past prices of copper as independent variables. The R square value obtained is 0.556 and adjusted R square value is 0.5457 and this enlighten us that the model account for 54.57% of variance in the predicting future gold prices. This is the clear indication that this model is a moderate model. Also the F value obtained is 32.17 and the significance is 0.03989. As the significance is less than 0.05. It clearly reveals the fact that the model which is taken for study is statistically significant.

Thus from the analysis of Gold, Silver and Copper, it is concluded that Future price of commodity are influenced by past prices hence the hypothesis “The successive prices are dependent and past prices have predictive content to forecast commodity price with respect to Gold, Copper and Silver” is accepted.

RECOMMENDATIONS

1. Quarterly Commodity Market and their Forecasts Newsletter page should be made through various links and send through Digital media like What's App, Facebook, Email etc.

2. Current updates on Economic and Socio - Economic development and related occurrences includes months, times and years.

3. Develop some App related to Commodity market wherein Our "Each Development” is properly explained and informed so well related to Fundamental and Technical part.

4. Experts Lecture Video should be viral through What's App or make some group for the same.
5. Tie ups with Local company officials and arrange fortnightly some workshops free of cost for spreading awareness amongst the individuals.
6. Educate people through tie ups with NGOs.
7. Introduction of more Commodity Trading Exchanges

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