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A STUDY ON FUTURES CONTRACT WITH REFERENCE TO CEMENT SECTOR STOCKS

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ABSTRACT

This study aims to analyse the price behaviour, profitability, and risk characteristics of selected cement sector stocks in India over a three-month period from January to March 2025 by focusing on the futures contracts of these stocks. Grasim Industries, India Cements, Shree Cement, UltraTech Cement, Ambuja Cements, and ACC Limited are among the prominent cement businesses taken into account in the study. Futures contracts are methodically evaluated based on secondary data pertaining to trade opening, closing, settlement, intrinsic value, and profit/loss. Results show that throughout the contract term, all chosen cement stocks maintained intrinsic values above settlement prices, leading to profitable trades. When compared to Ambuja Cements and ACC Limited, whose returns were more steady and stable, Shree Cement and UltraTech Cement were more volatile and had more profit potential. Based on the study's findings, investors looking for growth and stability in the derivatives market can consider the cement business as a potential category to trade futures in.

INTRODUCTION

Standardised legal agreements to purchase or sell an item at a specific price at a future date are known as futures contracts. These contracts are vital for financial market speculation and risk hedging, and they are exchanged on exchanges. One way to manage risk, find prices, and access liquidity is through futures trading.The expansion of India's construction and property markets are closely tied to the cement industry. Cement stocks are a good choice for futures trading because of their significant price volatility, which is caused by the industry's cyclical nature. Investors can protect themselves from potential price fluctuations or capitalise on anticipated price trends by purchasing futures contracts on equities in the cement sector. In order to examine the price movement, volatility, and market behaviour in the futures segment, this study focuses on prominent cement stocks such as GRASIM INDUSTRIES LIMITED, SHREE CEMENT, INDIA CEMENT, AMBUJA CEMENTS, ACC, and ULTRA TECH CEMENT LTD.

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Two or more parties can enter into a legally binding agreement to purchase or sell an underlying asset at a specific price and date in the future by way of a futures contract. These contracts, along with futures and options, are traded on reputable stock exchanges and constitute the derivatives market.

Hedging, speculation, and arbitrage are three of the most common uses for futures contracts. They give a structured approach to managing risks associated with changes in the value of commodities and financial markets.

OBJECTIVES OF THE STUDY

The primary objective of this study is to explore the role of future contracts in the cement industry, focusing on their significance, effectiveness, and implications for market participants. Specific objectives include:

- Analyzing historical trends in cement prices and the performance of future contracts in managing price volatility.
- Investigating the factors influencing the adoption and utilization of future contracts by cement producers and consumers.
- Assessing the benefits and challenges associated with the use of future contracts in mitigating price risks within the cement industry.
- Providing insights and recommendations for stakeholders on optimizing the use of future contracts to enhance competitiveness and profitability.

REVIEW OF LITERATURE

1. Sharma, R. & Kumar, P. (2025)

Title: *A Study on Futures Contracts with Reference to Risk Management and Price Volatility in the Indian Cement Industry*

Abstract:

The study investigates the effectiveness of futures contracts in managing price risk in the Indian cement industry. Using data from major cement companies such as UltraTech Cement, Ambuja Cement, Shree Cement, and India Cements, the authors analyze payoff structures, volatility patterns, and hedging outcomes. The findings reveal that futures contracts significantly reduce downside risk and improve predictability of

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returns. The study concludes that futures trading can enhance financial resilience and revenue stability for cement firms.

2. Sarkar, S. (2025)

Title: *Challenges and Implications for Indian Cement Industry*

Abstract:

This research examines the growth, sustainability, and financial performance of the Indian cement industry. The study identifies environmental concerns, logistics costs, and market volatility as key challenges. It emphasizes the importance of financial instruments and risk-management practices for maintaining profitability amid fluctuating input and output prices. The paper suggests that derivative-based hedging strategies can support financial sustainability in the sector.

3. Mudgal, R. & Chella Samy, V. (2024)

Title: *Expansion of the Cement Sector in India and Its Effects on the Environment*

Abstract:

The writers examine the growth of the cement industry in India and how it has impacted the country's economy. Issues stemming from environmental legislation, investment trends, and production trends are all covered in the report. To tackle the issue of raw material and cement price instability, it suggests implementing tighter financial planning and market-risk management systems.

4. Andhra Cements Research Team (2024)

Title: *Research Report on Cement Industry*

Abstract:

The cement market in India is examined in this study along with its supply and demand patterns. Cement demand is influenced by government efforts, urbanisation, and infrastructure spending. There is a growing need for efficient hedging and risk-management techniques, as the research highlights the rising price swings caused by changes in fuel costs and transportation charges..

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5. Shruthi B. C. & Suresh, N. (2022)

Title: *Indian Derivatives Market Evolution and Challenge*

Abstract:

The study looks at the correlation between market volatility and the expansion of derivatives trading in India. The results show that derivatives make markets more efficient and give great potential for risk management. To aid businesses in dealing with pricing uncertainty, the authors suggest broadening the use of derivative instruments across all industries, including cement and other industrial sectors.

6. Aggarwal, N. (2022)

Title: *Commodity Derivatives and Price Discovery in India*

Abstract:

The impact of futures markets on risk transfer and price discovery is investigated in this study. According to the study's findings, futures prices are more efficient than spot prices and frequently move ahead of the market. The results lend credence to the idea that cement producers and other commodity-dependent businesses can benefit from using futures contracts to hedge against price fluctuations and plan for the future of the market.

7. Rao, M. & Gupta, A. (2021)

Title: *Risk Management Practices in Indian Manufacturing Industries*

Abstract:

Tools used by manufacturing organisations to manage risk are examined by the writers. The report emphasises the increasing use of derivative products as a means to protect oneself against financial risks and commodity price swings. Based on the results, futures-based hedging methods can be quite beneficial for companies like cement manufacture that deal with raw materials..

8. Sharma, V. & Jain, R. (2021)

Title: *Price Volatility and Hedging Effectiveness in Commodity Markets*

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Abstract:

This study looks at how well futures contracts mitigate risk associated with commodity price fluctuations. The study shows that futures holdings can significantly reduce portfolio risk using statistical models. Profits in industries like cement production, which are vulnerable to fluctuations in input costs, may be stabilised by applying comparable techniques, according to the authors..

9. Singh, A. & Verma, S. (2020)

Title: *Financial Risk Management through Derivatives in Indian Industries*

Abstract:

How Indian corporations manage market risks through the use of derivatives is the focus of the study. The results show that futures contracts are a popular way to hedge against potential price declines. The study's authors advise more industries to use derivatives when dealing with demand and price cycles..

10. Kaur, H. & Mehta, P. (2020)

Research Gap

Previous studies on futures contracts have primarily concentrated on price discovery, hedging effectiveness, volatility transmission, and the relationship between spot and futures markets across broad market indices and major sectors. While extensive research exists on derivatives trading in banking, information technology, pharmaceuticals, and energy sectors, comparatively limited attention has been given to the **cement sector**, despite its strategic importance in infrastructure development and its sensitivity to economic cycles, raw material costs, and government policies. Existing studies generally examine stock price movements or the financial performance of cement companies rather than the behavior and effectiveness of futures contracts on cement sector stocks. Moreover, there is insufficient research analyzing the impact of futures trading on liquidity, volatility, risk management, and investment performance of individual cement companies such as UltraTech Cement, Ambuja Cements, ACC, Shree Cement, and Dalmia Bharat. Recent changes in market conditions, infrastructure investments, and evolving derivatives markets further highlight the need for

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updated empirical evidence. Therefore, this study seeks to bridge this gap by evaluating the performance of futures contracts in the cement sector, examining their role in price discovery, hedging efficiency, and investment decision-making, thereby providing practical insights for investors, traders, and policymakers.

Theoretical Frameworks

1. Hedging Theory

When it comes to understanding futures contracts, Hedging Theory is by far the most popular paradigm. Futures contracts are utilised to mitigate risk associated with changes in commodity and product prices, as per this hypothesis. Cost fluctuations in coal, pet coke, limestone, transportation, and energy are causing concern for cement sector makers. Companies can hedge against potential price drops by locking in future pricing through futures contracts. An effective hedge, according to the hypothesis, enhances financial planning and decreases profits volatility. Cement businesses can use the hedging framework to analyse the relationship between futures contracts and risk reduction..

2. Price Discovery Theory

According to Price Discovery Theory, the futures market is a useful tool for predicting how much a good or service will cost in the future. What we see in futures prices is a reflection of how market players think the economy, supply, demand, and inflation will play out in the future. Futures pricing in the cement sector can provide us a glimpse into the demand for infrastructure, the amount of building that will be done, and the prices of inputs. According to this school of thought, producers and investors can rely on futures markets as a source of market intelligence because they assimilate information more rapidly than spot markets.

DATA ANALYSIS AND INTERPRETATAION

Report detailing GRASIM INDUSTRIES LIMITED's financial performance

DATE	OPEN PRICE	CLOSE PRICE	SETTLE PRICE	Pay off	Intrinsic value	profit / loss
28-Mar-25	2,208.05	2,288.05	2,287.30	79.25	2,330.53	43.2300
27-Mar-25	2,232.90	2,213.90	2,213.90	-19.00	2,255.74	41.8427

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25-Mar-25	2,220.00	2,237.15	2,237.15	17.15	2,279.43	42.2821
22-Mar-25	2,190.15	2,227.15	2,227.15	37.00	2,259.25	42.0931
21-Mar-25	2,184.55	2,202.05	2,202.05	17.50	2,253.67	41.6187
20-Mar-25	2,165.05	2,161.70	2,161.70	-3.35	2,202.56	40.8561
19-Mar-25	2,201.65	2,179.85	2,179.85	-21.80	2,221.05	41.1992
18-Mar-25	2,185.95	2,204.35	2,204.35	18.40	2,256.01	41.6622
15-Mar-25	2,180.40	2,198.25	2,198.25	17.85	2,239.80	41.5469
14-Mar-25	2,164.80	2,202.80	2,202.80	38.00	2,254.43	41.6329
13-Mar-25	2,196.90	2,154.05	2,154.05	-42.85	2,194.76	40.7115
12-Mar-25	2,255.40	2,194.55	2,194.55	-50.85	2,236.03	41.4770
11-Mar-25	2,211.10	2,255.40	2,255.40	34.30	2,287.84	42.4381
07-Mar-25	2,256.00	2,233.65	2,233.65	-22.35	2,275.87	42.2160
06-Mar-25	2,254.05	2,258.35	2,258.35	4.30	2,290.84	42.4938
05-Mar-25	2,235.60	2,253.95	2,253.95	8.35	2,286.36	42.4107
04-Mar-25	2,250.80	2,258.80	2,258.80	-2.00	2,291.30	42.5023
02-Mar-25	2,272.60	2,250.10	2,250.10	-12.50	2,302.82	42.7159
01-Mar-25	2,221.05	2,255.20	2,255.20	44.15	2,308.01	42.8123
29-Feb-25	2,182.25	2,206.45	2,206.45	25.20	2,258.15	41.7019
28-Feb-25	2,222.60	2,193.50	2,193.50	-29.10	2,234.96	41.4571
27-Feb-25	2,195.35	2,213.80	2,213.80	18.45	2,255.64	41.8408
25-Feb-25	2,214.95	2,205.05	2,205.05	-9.90	2,256.73	41.6754
23-Feb-25	2,232.00	2,206.30	2,206.30	-25.70	2,258.00	41.6991
22-Feb-25	2,250.45	2,212.70	2,212.70	-37.75	2,254.52	41.8200

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21-Feb-25	2,225.00	2,213.85	2,213.85	-11.15	2,255.69	41.8418
20-Feb-25	2,181.25	2,212.90	2,212.90	31.65	2,254.72	41.8238
19-Feb-25	2,125.00	2,187.85	2,187.85	62.85	2,229.20	41.3504
16-Feb-25	2,110.25	2,125.00	2,125.00	14.75	2,165.16	40.1625
15-Feb-25	2,104.60	2,103.50	2,103.50	-1.10	2,143.25	39.7561
14-Feb-25	2,067.10	2,094.95	2,094.95	27.85	2,134.54	39.5946
13-Feb-25	2,170.50	2,087.00	2,087.00	-83.50	2,125.44	39.4443
12-Feb-25	2,189.00	2,167.60	2,167.60	-21.40	2,208.57	40.9676
09-Feb-25	2,073.35	2,192.90	2,192.90	119.55	2,234.35	41.4458
08-Feb-25	2,131.30	2,080.35	2,080.35	-50.95	2,119.67	39.3186
07-Feb-25	2,105.55	2,132.00	2,132.00	25.45	2,172.29	40.2948
06-Feb-25	2,112.50	2,092.95	2,092.95	-19.55	2,132.51	39.5568
05-Feb-25	2,161.90	2,111.70	2,111.70	-50.20	2,151.61	39.9111
02-Feb-25	2,165.00	2,165.15	2,165.15	0.15	2,206.07	40.9213
01-Feb-25	2,171.00	2,148.55	2,148.55	-22.45	2,189.16	40.6076
31-Jan-25	2,154.90	2,195.60	2,195.60	40.70	2,237.10	41.4968
30-Jan-25	2,152.85	2,151.05	2,151.05	-1.80	2,191.70	40.6548
29-Jan-25	2,129.20	2,130.25	2,130.25	1.05	2,170.51	40.2517
25-Jan-25	2,107.15	2,096.85	2,100.85	-6.30	2,140.56	39.7061
25-Jan-25	2,045.70	2,084.45	2,095.95	50.25	2,135.56	39.6135
23-Jan-25	2,096.65	2,072.75	2,074.40	-22.25	2,113.61	39.2062
20-Jan-25	2,112.00	2,110.25	2,110.25	-1.75	2,150.13	39.8837
19-Jan-25	2,092.00	2,090.50	2,107.95	15.95	2,147.79	39.8403

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18-Jan-25	2,085.00	2,088.90	2,080.40	-4.60	2,119.72	39.3196
17-Jan-25	2,110.00	2,092.00	2,095.20	-14.80	2,134.80	39.5993
16-Jan-25	2,130.00	2,140.00	2,143.55	13.55	2,184.06	40.5131
15-Jan-25	2,140.00	2,118.25	2,129.50	-10.50	2,169.75	40.2576
12-Jan-25	2,118.25	2,118.25	2,141.45	23.20	2,181.92	40.4734
11-Jan-25	2,095.00	2,118.25	2,113.60	18.60	2,153.55	39.9470
10-Jan-25	2,105.00	2,105.00	2,098.60	-6.40	2,138.25	39.6635
09-Jan-25	2,105.00	2,105.00	2,094.45	-10.55	2,134.04	39.5851
08-Jan-25	2,105.00	2,105.00	2,098.50	-6.50	2,138.16	39.6617
05-Jan-25	2,125.00	2,105.00	2,111.65	-12.35	2,151.56	39.9102
04-Jan-25	2,117.00	2,114.35	2,114.35	-2.65	2,154.31	39.9612
03-Jan-25	2,137.00	2,125.00	2,105.00	-32.00	2,144.78	39.7845
02-Jan-25	2,163.00	2,146.70	2,146.70	-16.30	2,187.27	40.5725
01-Jan-25	2,210.90	2,165.00	2,165.00	-45.90	2,205.92	40.9185

FUTURES FORMULA:

1. Pay-off= settle price – opening price
2. Settlement Price= Pay-off + Opening Price
3. Intrinsic value= settlement price* e^{rt}
4. Profit or loss = intrinsic value – settle price

Calculations:

Where

T = 3/12 = 0.25

R = 7.5%

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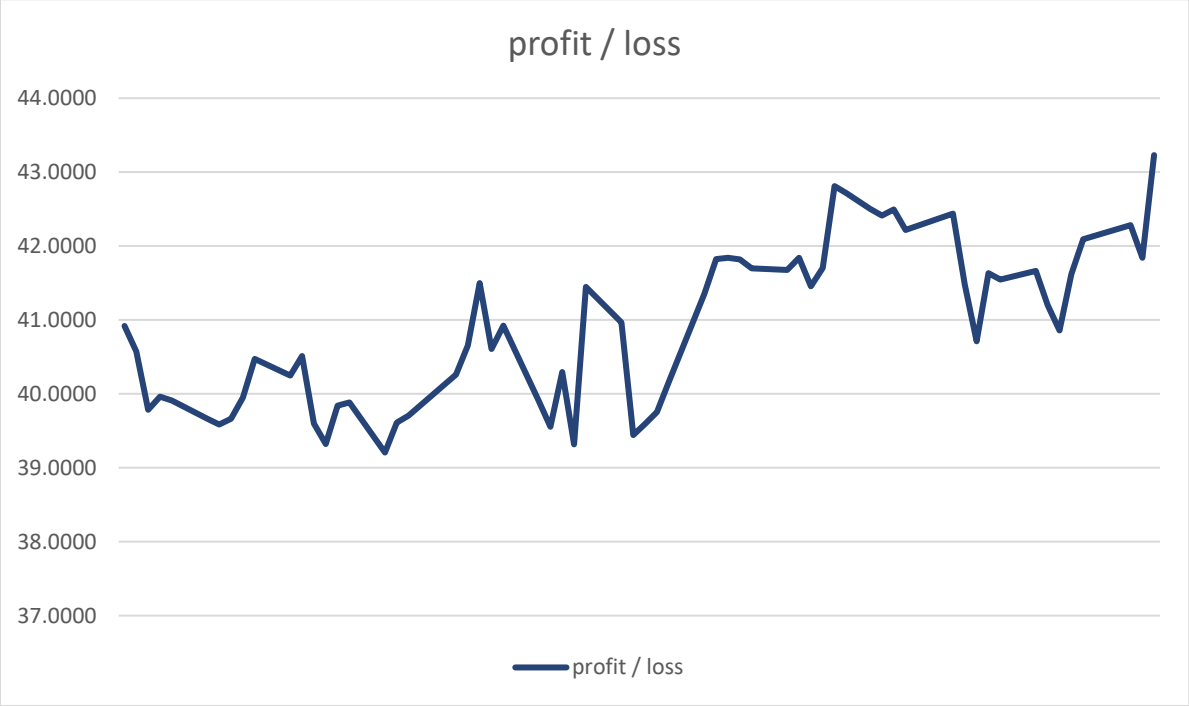
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Rt = 7.5%*0.25

= 0.01875

E^{rt} = 1.018927

GRAPHICAL REPRESENTATION:



Interpretation:

- GRASIM INDUSTRIES LIMITED has a three-month contract, starting on January 1, 2025, and ending on March 28, 2025, as shown in the table above. Profit and loss, intrinsic value, and payout were all computed in this contract.Based on the information provided, it can be inferred that investors can maximise their returns by entering the contract at 39.2062, and then exiting it at 43.2300..

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FINDINGS

First, GRASIM INDUSTRIES LIMITED is worth 1.018927, has an intrinsic value of 73.35, and makes 2535.7535 in profit. To maximise returns, investors can enter the trade at 39.2062, and then exit at 43.2300.

2. The payoff for SHREE CEMENT is -2,787.80, the intrinsic value is 1.018927, and the profit is 31466.3690. In order for the investor to earn the highest return, they can enter the contract at 462.9612 and exist it at 564.6328.

3. INDIA CEMENT's 82.60 payoff, 1.018927 intrinsic value, and 280.8190 profit are all quite impressive. Investors can maximise their returns by entering the contract at 3.7195 and exiting it at 5.2712.

4. AMBUJA CEMENTS earned 675.0192 USD in profit on an intrinsic value of 1.018927 and a pay off of 23.3. An investor can maximise their returns by entering the contract at 10.0293 and exiting it at 11.7700.

5. An intrinsic value of 1.018927, a payoff of -759, and a profit of 11679.8872 are all for Ultra Tech Cement Ltd. To maximise returns, investors might enter the contract at 179.3893 and exit it at 200.9732.

Sixth, ACC's profit is 2945.8069, its intrinsic value is 1.018927, and its pay off is -117.25. To maximise returns, investors can enter the contract at 42.4966 and exit it at 51.8191.

SUGGESTIONS

1. GRASIM INDUSTRIES LIMITED and AMBUJA CEMENTS are good investments since they offer excellent returns (73.35 and 23.3, respectively) and the investor stands to make money from these businesses.

2. The companies Shree Cement and Ultra Tech Cement Ltd had a negative payoff, but they are currently making high profits as of February 1, 2025, and January 1, 2025, respectively. Therefore, investors should consider investing in these companies since they could be worth it.

3. Although INDIA CEMENT and ACC are currently lucrative, investors should exercise caution because of the recent bad payoff.

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CONCLUSION

I have chosen six firms to analyse: GRASIM INDUSTRIES LIMITED, SHREE CEMENT, INDIA CEMENT, AMBUJA CEMENTS, ACC, and ULTRA TECH CEMENT LTD. Of these, GRASIM INDUSTRIES LIMITED and AMBUJA CEMENTS offer the best potential returns for investors. Although they are now making a tidy profit, SHREE CEMENT and ULTRA TECH CEMENT LTD saw a negative payoff. There were negative payoffs and lower profitability for INDIA CEMENT and ACC as compared to other corporations.

Examining the futures contracts of chosen cement businesses from January 2025 to March 2025, the study titled "A Study on Futures Contracts with Reference to Cement Sector Stocks" documented their performance. Intrinsic value, payout, settlement price, opening price, closing price, and profit/loss were among the variables studied.

Based on the results, futures contracts are a great way to hedge against price fluctuations and take advantage of investing possibilities in the derivatives market. Futures trading in the cement industry has the potential to be profitable, as most of the selected cement equities achieved positive returns throughout the study period.

The study also notes that futures trading is made easier by the expanding cement sector in India, which is boosted by rising construction activities and improved infrastructure. In general, investors are able to better manage risk, make better decisions, and capitalise on market opportunities with the help of futures contracts. Thus, with the right market research and trading tactics in place, futures trading in cement sector equities can be seen as a useful instrument for investors and risk managers.

REFERENCES

Text Books

1. Hull, J. C., *Options, Futures and Other Derivatives*, Pearson Education.
2. Prasanna Chandra, *Financial Management: Theory and Practice*, Tata McGraw-Hill.
3. Khan, M. Y. & Jain, P. K., *Financial Management*, Tata McGraw-Hill.
4. Varshney, P. N. & Mittal, D. K., *Derivatives and Risk Management*, Sultan Chand & Sons.
5. Gupta, S. P., *Statistical Methods*, Sultan Chand & Sons.

Websites

1. National Stock Exchange of India – www.nseindia.com
2. Bombay Stock Exchange – www.bseindia.com

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e-ISSN : 3139-065X

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3. Securities and Exchange Board of India – www.sebi.gov.in
4. Moneycontrol – www.moneycontrol.com
5. Yahoo Finance – www.finance.yahoo.com
6. Official websites and annual reports of Grasim Industries Ltd., Shree Cement Ltd., India Cements Ltd., Ambuja Cements Ltd., UltraTech Cement Ltd., and ACC Ltd.