



ISSN (E): 2320-3862  
ISSN (P): 2394-0530  
NAAS Rating: 3.53  
JMPS 2019; 7(1): 117-119  
© 2019 JMPS  
Received: 28-11-2018  
Accepted: 31-12-2018

**Arun Chauhan**  
Assistant Professor, SPC College,  
Baghpat, Uttar Pradesh, India

## The role of commodity derivatives and risk management especially in black pepper

**Arun Chauhan**

### Abstract

India, a commodity based economy where a two-third of the more than one billion population depends on agricultural commodities, surprisingly has an under developed commodity market. Commodities actually offer immense potential to become a separate asset class for investors, arbitrageurs and speculators. A commodity may be defined as an article, a product or material that is bought and sold. The commodities markets are one of the oldest prevailing markets in the human history. Commodity market is a place where trading in commodities takes place. It is similar to an equity market, but instead of buying or selling shares one buys or sells commodities.

Risk management is the process of identification, analysis and acceptance or mitigation of uncertainty in investment decisions followed by coordinated and economical application of resources to minimize, monitor, and control the probability or impact of unfortunate events or to maximize the realization of opportunities.

India is the most important producer of Pepper accounting for about 50 percent of the world production. Black pepper is the most important spice of India and world due to its day — to-day use. Black Pepper (*Piper nigrum* linn), known as the "King of Spices" had remained the most precious and valuable form of spice in the world. It is also called as "Black Gold" due its durability and value. Black Pepper is the 3<sup>rd</sup> most added ingredient in food among the all range of spices.

**Keywords:** management, agricultural commodities and economical

### 1. Introduction

The word 'Pepper' is derived from the Sanskrit name Tippall which is only one of the many names of pepper in Sanskrit language and that was transferred via Greek teperi and Latin 'piper'. It was the taste of the 'Black gold' pepper and the flavor of the 'Queen of spices'. The richness of the culture and the fragrance of the spices were the major sources of glory of the ancient India. It is really amazing to see that India could maintain her supremacy in the production and trade of spices even from the Vedic ages dating back to 6000 B.C, to the modern era of the third millennium. The vicissitudes of history made unbelievable changes everywhere but the Indian domination over the world spices market still remains unquestionable.

The Pepper plants thrive well under the following conditions.

- A temperature between 10-40 centigrade
- An attitude of about 1500 meters above sea level and
- An annual rainfall of 125-250 centimeters.

It was the search for spices, which tempted the Mariners like Vasco de Gama of Portugal, Christopher Columbus of Spain and many others to undertake hazardous voyages to the East. The significance of the spices in the history of the world is evident from the fact that even the discovery of American continent by Columbus was accidental during the search for spices.

### Definition

### Hedging

It was the search for spices, which tempted the Mariners like Vasco de Gama of Portugal, Christopher Columbus of Spain and many others to undertake hazardous voyages to the East. The significance of the spices in the history of the world is evident from the fact that even the discovery of American continent by Columbus was accidental during the search for spices.

### Speculators

A speculator utilizes strategies and typically a shorter time frame in an attempt to

**Correspondence**  
**Arun Chauhan**  
Assistant Professor, SPC College,  
Baghpat, Uttar Pradesh, India

outperform traditional longer-term investors. Speculators take on risk, especially with respect to anticipating future price movements, in the hope of making gains that are large enough to offset the risk.

### Arbitrageur

An arbitrageur is a type of investor who attempts to profit from market inefficiencies. These inefficiencies can relate to any aspect of the markets, whether it is price or dividends or regulation. The most common form of arbitrage is price.

#### Commodity future

Commodities futures are agreements to buy or sell a raw material at a specific date in the future at a particular price. The contract is for a set amount.

#### Benefits of commodities investment

#### a. Leverage

Commodity futures trade on margins. To meet the margin requirements of the exchange, you deposit a small fraction of the contract value with your broker. With this margin, you can make bigger trades than your resources permit. Bigger trades give you an opportunity to earn higher returns.

#### b. Liquidity

Commodity futures trade on exchanges. So, there is always an active market where you can buy and sell commodity futures in any quantity.

#### c. Diversification

Commodity futures are excellent for portfolio diversification. That is because commodities have a low correlation with other assets.

#### d. Hedge against Inflation

Inflation refers to an increase in prices. It is often the result of an increase in commodity prices. Since commodity prices frequently determine the inflation rate, commodity investments can help you to ride the inflation wave.

#### e. Physical gold

Besides its ornamental value, gold is a great store of wealth for the future. Owning a reasonable amount of gold jewelers is fine. But holding large amounts of gold bullion can be risky.

#### f. Commodities traded in commodities exchange

Many commodities trade on commodity exchanges around the world. These commodities can be classified based on their use and consumption or their characteristics.

### Review of literature

Suggests that achieving hedging efficiency is the main reason to opt for *futures* contract. According to him, the utility of a *futures* contract for hedging or, presupposes parallel or near parallel relationship between the spot and *futures* price over time. In other words, the efficiency of a *futures* contract for hedging, essentially envisages that the prices in the physical and *futures* markets move in close unison, not only in the same direction, but also by the same magnitude, so that losses in one market are offset by gains in the other.

According to the report submitted by the Energy Information Administration, America (2002) under the direction of the secretary of Energy in October 2002, a study was conducted on the role of derivatives in managing some of the risks in the production and consumption of petroleum, natural gas and

electricity. It was reported that business operating in the petroleum, natural gas and electricity industries are particularly susceptible to price risk, as a consequence of the extreme volatility of energy commodity prices.

In his study on commodity *futures* market in India, analyzed that the commodity *futures* trading in India, which was in a state of hibernation for four decades, due to the suspicion on the benefit of future trading has been replaced by policy, institutional and market activism in the last few years. According to him, this is partly a response to the predominant role being assigned to the market forces in price determination, and the consequent need for providing market based derricking tools. He is of the opinion that it is also the result of a growing awareness that derivative trading do perform substantial risk, mitigating functions to the stakeholders.

Concluded a study about the commodity market in India. He concluded that the commodity *futures* market has achieved a substantial growth in volume of trade. He found various factors considered to make commodity market as an efficient instrument for price discovery and risk management and suggested that policy makers should consider specific, affairs related with production, processing, marketing and export of agricultural commodities.

Studied about the elimination of ban on commodity *futures*. They conclude that as India is the top producers of agricultural commodities there is a high potential for future growth of Indian commodity *futures* market. Indian commodity market proves to be the efficient market at the world level in terms of price risk management and price discovery.

### Objective of the study

1. To study the hedging performance of commodity *futures*.
2. To study the commodity difference of price discovery and hedging in pepper.
3. To study the growth and structure of commodity derivatives market in India.
4. To study the operation of the derivatives exchanges and identify the problems in their working.

### Period of the study

### Export and import of black Pepper

Year	Export(tons)	Import(tons)
1996-97	95946	2294
1997-98	77305	2209
1998-99	75414	3621
1999-2000	94634	3333
2000-01	72458	6183
2001-02	85670	7436
2002-03	107275	17082
2003-04	101198	16702
2004-05	152868	16919
2005-06	142719	19929
2006-07	197205	18538
2007-08	267632	14179
2008-09	228196	12735
2009-10	229783	19128
2010-11	298763	14297
2011-12	26700	16284
2012-13	15363	15600
2013-14	21250	15680

From the table it is clear that the export and import is increasing over the years. The important market for Indian pepper is USA, UK, European countries and Arab countries. India imports from Vietnam, Indonesia, Malaysia and Thailand.

Factors that favor *futures* trading

1. Sign facing price volatility.
2. High degree of storability.
3. Fairly standardized quality.
4. More of an internationalized commodity.

### Conclusion

The commodity derivatives market has attained a remarkable growth rate in India. There are six national exchange and twenty two regional exchanges and they trade 113 commodities in India. The growth rate in the commodity derivatives market is substantially higher than the growth rate in the GDP of India. The volume in the financial derivatives of India is 109 trillion as against the volume of 182 trillion in 2012. Thus it can also concluded that the growth in the commodity derivatives as much higher than the growth rate in the financial derivatives of India. The Multi Commodity Exchange of India is the market leader of commodity exchanges. The bullion market holds around 45 percent followed by base metals, energy products and agricultural products. There are various problems in the working of derivatives exchanges namely, high transaction costs, inadequate warehousing facilities, low trading volume, illegal trade practices such as speculation, hoarding etc, mismatch between the grade specified in the *futures* contract and actual commodity available for delivery, policy interventions, possibility of arbitrage trade, low participation of hedgers etc.

### Reference

1. Ahuja NL. Commodity Derivatives market development, Regulation and future prospects, International Research Journal of finance and Economics. 2006; 2:153-162.
2. Anthony, Joseph H. The Interrelation of Stock and Options Market Trading- Volume Data, The Journal of Finance. 1998; 43(4):949-964.
3. Antoniou A, Holmes P. Futures trading, information and spot price volatility: evidence for the FTSE 100 stock Index and futures contract using GARCH, Journal of Banking and Finance, 1995.
4. Bhattacharya. Price changes of Related Security; The Case of Call Options and Stocks, The Journal of Financial and Quantitative Analysis. 1987; 22(1):1-15.
5. Bose S. The Role of Futures Market in Aggravating Commodity Price Inflation and the Futures of Commodity Futures in India, Money & Finance. 2009; 3(4):95-122.
6. Chisholm M Andrew. Derivatives demystified- A step-by-step guide to Forwards, Futures Swaps and Options (The Wiley Finance Series) 2010, 3-4
7. George CK, Mathew PG. Cardamom development past and present, Spice India March 1998; IX:9-11
8. Kumar SSS. Financial Derivatives: PHI Learning Private Limited, New Delhi, 2007