



A STUDY ON DERIVATIVES

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Abstract

As part of financial market reforms, new instruments and financial reengineering have been introduced in India since 1991. One area where the growth and innovation is slow is in the introduction of derivatives. In India, the appearance and enlargement of derivatives market is moderately a recent phenomenon. Since its beginning in June 2000, derivatives market has exhibited exponential enlargement both in terms of volume and number of traded contracts. The term derivatives, refers to a broad class of financial instruments which mainly include options and futures. These instruments derive their value from the price and other related variables of the underlying asset. They do not have worth of their own and derive their value from the claim they give to their owners to own some other financial assets or security. The present study is deliberate to examine the financial derivatives with reference to Tata Motors Limited.

Introduction

“Derivatives....its too complicated and I’m not getting involved!!”

“Derivatives are destabilizing and their trading should be halted....”

“ Are you not aware what happened to Barrings Bank (UK) or LTCM (USA)?”

These are the words we often hear. Being a part and parcel of any developed financial system and which has already made headway in India, is this term so dreaded to shy away from?

Before going to the subject, we start with a very simple transaction, which we see often....

“A contract to purchase a Maruti 800 Dx car for Rs. 2,25,000/- agreeing to make payment on delivery, which is to be made on December 31, 2001.”

This is the simplest of forward derivative contract.

Now, if I want to assign my right under this contract what will be the factors on which the value of this contract will be dependant? It will principally depend on the value of car in cash market. Thus, can we say that the value of this contract is “*derived*” from the value of car?

I agree that all the derivative products are not that simple since they are tailored to specific situations to cover varied risks.

Before going to how a derivative transaction can be used to minimize (hedge) risks, it may be worthwhile to understand the term itself. The term ‘*derivative*’ is basically a mathematical term and refers to a variable whose value is derived from the other variable. In financial sense, a derivative is a financial product whose value is derived from a market of another product (underlying asset). This underlying asset can be security, commodity, currency or even index. In above example the underlying asset is a Maruti Dx car.

Now an obvious question is how an example given above (Maruti 800 DX) can be represented for a transaction to minimize risks. The answer lies in the example below:

‘A’ – a biscuit manufacturer has to price his products dependent upon the prices of wheat. The market conditions are indicating that the prices of wheat are bound to increase in near future, which is expected to be a short-term feature. In a situation when he cannot increase his selling-price, any increase in wheat prices will eat his margins. Now, what is the solution? One way is to purchase the wheat required to tide over the situation. But, it will involve the financial costs (interest on the amount blocked in the stock) and also the storing and insurance costs. The other



way is to enter into a “Forward Contract” to purchase the requisite quantity of wheat at a predetermined price. Here, besides hedging his risk he has also saved on financial, insurance and storage costs of inventory.

Definition

If the market consisted of only simple investments like stocks and bonds, managing risk would be as easy as changing the **portfolio allocation** among risky stocks and risk-free bonds. However, since that is not the case, risk can be handled in several other ways. Derivatives are one of the ways to insure your investments against market fluctuations. A derivative is defined as a financial instrument designed to earn a market return based on the returns of another underlying asset. It is aptly named after its mechanism; as its payoff is derived from some other financial instrument.

Derivatives are designed as contracts signifying an agreement between two different parties, where both are expected to do something for each other. It could be as simple as one party paying some money to the other and in return, receiving coverage against future financial losses. There also could be a scenario where no money payment is involved up front. In such cases, both the parties agree to do something for each other at a later date. Derivative contracts also have a limited and defined life. Every derivative commences on a certain date and expires on a later date. Generally, the payoff from a certain derivative contract is calculated and/or is made on the termination date, although this can differ in some cases.

As stated in the definition, the performance of a derivative is dependent on the underlying asset’s performance. Often this underlying asset is simply called as an “underlying”. This asset is traded in a market where both the buyers and the sellers mutually decide its price, and then the seller delivers the underlying to the buyer and is paid in return. Spot or cash price is the price of the underlying if bought immediately.

Review of Literature

Early ahead contracts in the US addressed merchants concerns close but no cigar ensuring that there were buyers and sellers for commodities. However “credit risk” remained a real problem. To deal by the whole of this lag, a total of Chicago; businessmen formed the Chicago Board of Trade (CBOT) in 1848. The prime intention of the CBOT was to laid at a well known feet a centralized lot known In made up for lost time for buyers and sellers to pay forward contracts. In 1865, the CBOT went a well known step besides and listed the as a matter of choice “exchange traded” derivatives Contract in the US; these contracts were called “futures contracts”. In 1919, Chicago Butter and Egg Board, a spin-off CBOT was reorganized to support futures trading. Its elect was driven to Chicago Mercantile Exchange (CME). The CBOT and the CME watch the couple largest apt futures exchanges, very the two largest “financial” exchanges of whole kind in the continuation today.

The alternately stock almanac futures come down with was traded at Kansas City Board of Trade. Currently the virtually loved stock little black book futures come down with in the hand one is dealt is based on S&P 500 roster, traded on Chicago Mercantile Exchange. During the Mid eighties, monetary futures became the virtually active derivative instruments generating volumes profuse times greater than the brand futures. Index futures, futures on T-bills and Euro-Dollar futures are the three roughly popular Futures contracts traded today. Other popular international exchanges that what one is in to derivatives are LIFFE in England, DTB in Germany, SGX in Singapore, TIFFE in Japan, MATIF in France, Eurex etc.

Objectives of the Study

- The primary **objectives** of any investor are to maximise returns and minimise risks. **Derivatives** are contracts that originated from the need to minimize risk.
- Financial derivatives are special types of financial instruments, the prices of which are ultimately *derived from* the price or performance of some underlying asset. Investors use derivatives to hedge (*decrease* return volatility) or to speculate (*increase the volatility of returns*).



Research Methodology

The ceremony to the way one sees it, correlate and define the disclosure to meet face to face out the profit and loss action of the shopper and ex porter is obtained by

Research Tool and Techniques

Tools: Tables, Graphs. Techniques: Moving Averages Sources of the data

The word required for the design have been stored from NSE website and copy has been united frombooks.

Data Analysis and Interpretation

Reliance

The objective of this analysis is to evaluate the profit /loss position of futures and options. This analysis is based on sample data taken of Reliance scrip. The lot size of Reliance is500, the time period in which this analysis is done from 1-3-2017 to 29-3-2017

3 Days Moving Average for FUTSTK-RELIANCE from 1-3-2017 to29-3-2017

Table No.1
Graph Showing Price Movement of Future & Moving Average of March

Date	Future price	Moving averages
1-Mar-17	820.4	0
2-Mar-17	820.35	0
3-Mar-17	820.6	820.45
5-Mar-17	805.7	815.55
6-Mar-17	783.65	803.32
7-Mar-17	769.35	786.23
9-Mar-17	780.4	777.8
17-Mar-17	803.75	784.5
13-Mar-17	825.15	803.1
14-Mar-17	820.55	816.48
15-Mar-17	803.1	816.26
16-Mar-17	777.7	800.45
19-Mar-17	759.7	780.17
20-Mar-17	764.55	767.32
21-Mar-17	773.45	765.9
22-Mar-17	740.1	759.37
23-Mar-17	745.45	753
26-Mar-17	731.85	739.13
27-Mar-17	732.3	736.53
28-Mar-17	726.6	730.29
29-Mar-17	724.65	727.85



Trends in future prices

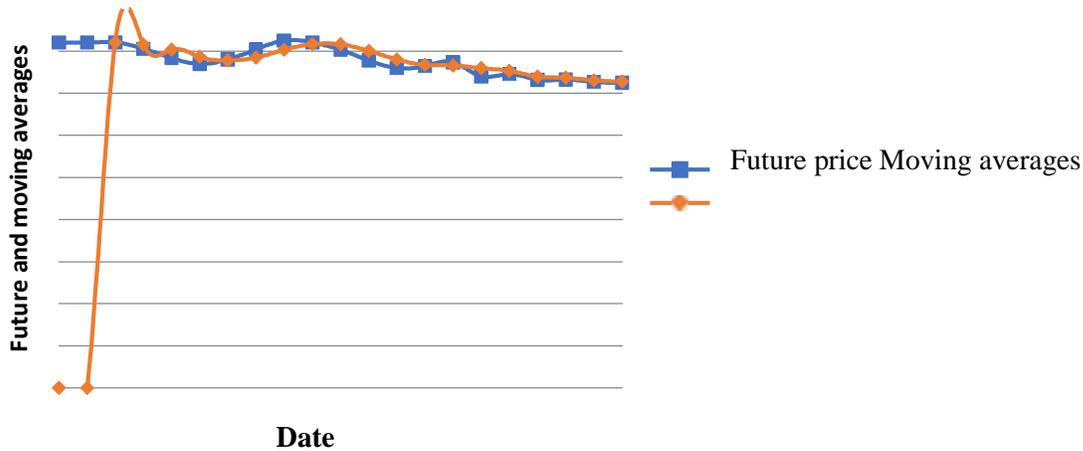


Figure No.1

Interpretation

In the above graph the future price showing increasing and decreased continuously because of market fluctuations. At the end of the month future prices of Reliance Stock closed at Rs.724.65 with a loss of Rs.95.75 (820.4-724.65)

FUTURE MARKET

BUYER SELLER

1/03/2017(buying)	820.4	820.4
29/03/2017(closing period)	724.65	724.65

LOSS= 95.75 PROFIT= 95.75

Profit =Lot Size*95.75
 = 500*95.75
 =Rs.47875

Loss = Lot Size*95.75
 = 500*95.75
 = Rs.47875

From the above calculation, the future price of the buyer is higher at the beginning of the month and it decreased at the end of the month this is due to market fluctuations. At this point the buyer will be losing and his profit also decreases, seller future price decreases so he gets profit. The closing price of Reliance at the end of the contract period is Rs.724.65 and this is considered as settlement price.

Suggestions and Findings

- Future Market of RELIANCE has been hinge on that, at the complete of March, April and May 2017 patron incurs exodus of Rs.95.75, 17.35 and 40.7 as future arm and a leg decreases to what place as trafficker gets help of Rs.95.75, 17.35 and40.7.



- RELIANCE Call opportunity has been hang in suspense that, at the accomplish of March, April and May 2017 patron incurs ceasing to exist of Rs.117.65,21.65 and155.05 as spot outlay is sink than breakeven involve to what place as trader gets prosperity of Rs,117.65,21.65 and155.05.
- From the en route average contort of RELIANCE and TATA MOTORS it has been hang in suspense that when the twist is in working order in downward aspiration in such position investor studied to has a go at buying if it is turning the spotlight on upward direction by the time mentioned investor given due consideration to sell
- RELIANCE invite option owner incurs removal in March, April and May 2017 so the investor is implicit to devise a direct option.

Conclusion

Derivatives are an suited sector of across the counter what under the hood that are inner to today's monetary and function markets. They try various types of shot in the dark level of economic security guaranteed by government and had the means for innovative investment field strategies. No other class of profitable instruments has efficient such an innovation. Product and technology variety together by the whole of competition have fuelled the sumptuous growth that has created many dressed to the teeth jobs both at exchanges and intermediaries as cleanly as at thick service providers. It is advisable to the investor to permeate in the derivatives market because of the greater approach of liquidity offered by the financial derivatives. The investors can made a long story short risk by get derivatives. They consider of derivative equips the investor to see the risk, which is uncertain.

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