ISSN 2250-3153

Regulation and Accounting Treatment of Future and Option in Indian Derivative Market

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Abstract- The main objectives of this paper are to study the Regulation of India Derivative market along with the accounting for Future and Option. In first objective we discuss about the Regulation of Indian Derivative Market as per Dr. L.C. Gupta committee report and in second objective we describe accounting adjustment procedure of Future and Option at the time of payment or receipt of mark-to-market margin, initial margin, open interest as on balance sheet date, final settlement or square-up, daily settlement, at the time of default, discloser requirement and method for determination of profit or loss in multiple option situations.

Index Terms- Accounting for Future & Option and Regulation of Derivative Market

I. INTRODUCTION

The trading in derivative market comes under provision contained in the SC(R)A (Security Contract Regulation Act). The Security Exchange Board of India (SEBI) created rules and regulation related to the trading in derivative market segment. According to the need of time, SEBI changed or revised the rules and regulation of financial market to keep the investor secure or try to put the investor on safer side of the investment by reducing the level of risk with the help of different polices of regulatory frame work of derivative market.

Derivative market is basically a subset of capital market due to that reason controlling body of both the markets is same. To run this segment various expert group of people developed various derivative market products which run or executed under SEBI guideline, which are followed by every members who come under the agreement of derivative trade weather it is a client, banker, dealer, stock exchange, mutual funds companies and Foreign Institutional Investor (FII) etc.

II. LITERATURE REVIEW

The regulatory frame work of Indian derivative market is a critical or complicated part of overall capital market of India. Derivative market products itself contain the property of complicated structure in tem of working mechanism and valuation of price. This true fact will be clear when it discussed later on how the regulation, control, development and settlement of derivative market trading are take place by the suitable amendment to the bye-lows of stock exchange where derivative trading was permitted.

[1] Sahoo (1997), analysis the securities market reform in a development countries and he found that the role of state involvement in the functioning of markets is a matter of significant debate, it is generally agreed that regulation has a very important and key role to ensure the efficient functioning of markets and avoidance of systematic failure. [2] Hathaway (1998), notice that the major contributory factors for accomplishment or breakdown of derivative market are market culture, the underlying market including its depth and liquidity and financial infrastructure including the regulatory framework. [3] International Organisation of securities commissions (IOSCO) 1996a, also observed that the successful regulatory system can balance the incentives of self-regulation while reducing the incentives and opportunity for behaviour, which threatens the success and integrity of market.

[4] Dr. L.C Gupta committee (March 1998) developed appropriate regulatory framework for derivatives trading in India. [5] Prof. J.R Verma Committee (June 1998) study the risk containment measure for derivatives trading in Indian derivative market which is not covered by Dr. L.C. Gupta committee before implementation of derivative trading in India. [6] SEBI Advisory committee (September 2002) work on the development and regulation of derivative market in India after seeing powerful growth in this sector from 11 crores to 410 crores during the financial year 2000-01 to 2001-02, this committee cover some important issues such as: Physical settlement of stock option and stock future contract; Review of the eligibility criteria of stocks on which derivative products are permitted; Use of sub-brokers in the derivative market; and Norms for use of derivatives by mutual funds.[7]Shri K.R Ramamoorthy committee (February 2003) was appointed by SEBI to look on the participation of security brokers in commodity future market and his committee was examine the various aspects related to participation of securities market brokers in commodity market and it give specific focus on following issues: Weather securities brokers could participated in commodities market; What would be the risk containment measure if the risk of one market does not spill over to other; and whether the existing infrastructure of stock exchange could be used for the commodities futures market.

[8] The SEBI Group on Secondary Market Risk Management (March 2003) discussed the introduction of interest rate derivatives in India, this group basically covered the following important issues such as: The time table for introduction of exchange traded interest rate derivatives in India; The specification of the initial set of interest rate derivative contracts to be introduced; The road map for introduction of additional products; The risk containment systems for the initial set of derivatives; and The road map for research in fixed income analytics and the resulting refinement of product design and fine tuning of the margining system. The conclusion of these issues is put for public comments by this group and developed

consultative document. [9] In 2006 RBI draft comprehensive guidelines on derivatives instrument under which it cover most of terms and policy of derivative markets.
[10][11]The RBI-SEBI Standing Technical committee (2008 and 2009) draft policy and trading guideline for exchange traded currency future and interest rate future under which it covers various aspects under headings Product Design, Risk Management Measures, Surveillance & Disclosures, Eligibility criteria for setting up a currency and interest rate futures segment, Eligibility criteria for members of the currency and interest rate future segments and finally Design Regulatory & Legal Aspects.

III. RESEARCH METHODOLOGY

Research methodology used in this paper is based on '*Qualitative Research'*. In which, we study various government policies and regulation of Indian derivative market related to accounting treatments of Future and Option. On the basis of our understanding we define different type of accounting treatments, which take place during the life of Future and Option contract. Explanation of accounting treatments are done in such a manner while keeping in mind that it will be useful to all main kind who are interested to know about accounting for F&O.

IV. OBJECTIVES

- Regulation for derivative trading according to Dr. L.C Gupta committee;
- Accounting for Future; and
- Accounting for Option;

V. REGULATION FOR DERIVATIVES TRADING IN INDIA

SEBI create a 24 member committee under the supervision of Dr. L.C. Gupta. To developed a well organized regulatory framework for derivatives trading in India. SEBI accept the recommendation of this committee on 11 May 1998 and approved the phase introduction of derivatives trading in India beginning with stock index future. The requirements in the SC(R)A and the regulatory frame work developed there under preside over trading in securities. The modification of the SC(R)A to include derivatives within the frame work of that Act. Summary of derivative regulation are given blow on the basis of Dr. L.C Gupta committee recommendation.

1. Any exchange in India, who are interested to start derivative trading so they have to fulfil the eligible criteria as per Dr. L.C. Gupta committee report and apply SEBI for the purpose of approval for derivative trading under section 4 of SC(R)A 1956.
2. Derivative trading or clearing member should have a limit to maximum of 40% of total member council and the particular exchange should have separate governing council.
3. The exchange should have to obtain prior approval of SEBI before starting of trading in any derivative contract or product and would have to regulate the sales practices of its members.
4. The exchange has a limit up to 50 members.
5. The member of an alive segment would not become the member of derivative segment automatically. Every existing segment member should take permeation of SEBI and also fulfil L.C Gupta committee criteria to start derivative trading.
6. Clearing and any settlement of derivative contract or trade should be done through a SEBI approved clearing corporation or houses and every clearing corporation or houses should be came under the criteria of L. C. Gupta committee and also take approval for SEBI to start clearing and settlement process.
7. Every brokers, dealers and clearing members of derivative market should take approval along with registration in SEBI to start new derivative product.
8. least amount of net-worth of clearing member of derivative clearing corporation or houses shall be Rs. 3 Cr. and net-worth should be computed on the basis of given function:

$$f(N_w) = f(C_p) + f(F_r) - f(N_{A_{assets}}) \ldots (1)$$

Where
$N_w =$ Networth;
$C_p =$ Capital;
$F_r =$ Free Reserve; and
$N_{A_{assets}} =$ Non-Allowable assets;

Non-Allowable assets included the following items:

I. Fixed assets;
II. Intangible assets;
III. Prepaid expenses;
IV. Bad deliveries;
V. Unlisted security;
VI. Member's card;
VII. Pledged security;
VIII. Doubtful debts and advances; and
IX. 30% marketable securities;

9. The maximum contract value shall not be less than Rs 2 lakh;
10. Exchange should have submitted details of the futures contract they intend to introduce.
11. The initial margins obligation and introduction limit should be correlated to capital adequacy and marginal demands related to the risk of loss on the position will be approved by SEBI time to time.
12. L.C Gupta committee give more emphasis on 'know your customer' rule and prerequisite that every client shall be registered with the derivatives broker.
13. The member of derivative segment are also required to aware their client about the risk participation of derivative contract and risk awareness document are also attached with customer document, which generate alertness to customer or client about derivatives losses.

14. Every person of trading member should be qualified as per SEBI requirement and he or she also passed certification program approved by SEBI.

VI. ACCOUNTING FOR FUTURES

The Institute of chartered Accountant of India (ICAI) has issued guideline on accounting of Equity Index Future and Equity Stock Future. Accounting of future is based on regulation of exchange and typical trading mechanism of derivative contract. Before that, there were many issues relating to accrual of income, booking of losses, calculation of profit and disclosures. Now a day's most of the issues are solved or dealt with in guidance note issued by the institute. Equity derivative instrument are the type of instrument in which other parties are also involved in the trading process same as cash market or simple share market. These parties are brokers, trading members, clearing members, clearing corporations and client, so for that reasons proper accounting are also required to minimize the losses and to maintain proper working mechanism. Some of the technical terms are used in this section list are given blow:

- Clearing member;
- Clearing corporation and houses;
- Client;
- Contract month;
- Daily settlement price;
- Derivative exchange or segment;
- Final settlement;
- Long position;
- Open position;
- Settlement date;
- Short position; and
- Trading member;

Most of the above term itself define its meaning but few terms are not understandable such as Long position, Open position and Short position, which may be define as follow:

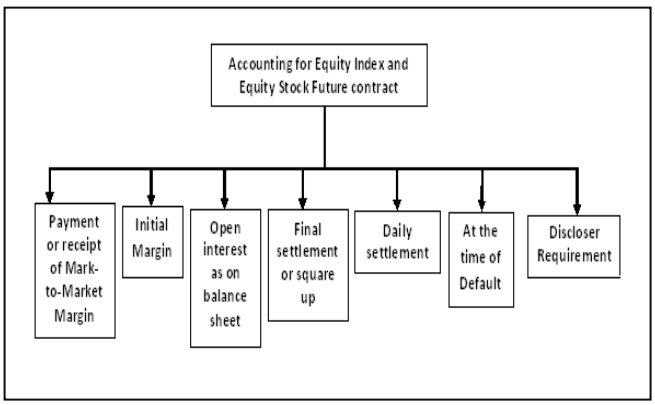
Long Position: Long position in an equity index future contract means outstanding purchase obligations in respect of the equity index futures contract at any point of time;

Open position: Open position means the total number of equity index future contracts that have not yet been offset and closed by an opposite position; and

Short Position: Short position in an equity index future contract means outstanding sell obligations in respect of the equity index futures contract at any point of time;

Accounting for Equity Index Future and Equity Stock Future include the following treatments

Figure 1.1



Accounting for the Payment or Receipt of Mark-to-Market Margin: Payment mode or received on account Mark-to-Market margin by the client would be credited or debited to the bank account and the subsequent debit or credit for the same should be made to an appropriate account, state, 'Mark-to-Market Margin in Equity Index Future account and Mark-to-Mark Margin in Equity Stock Future account as the case might be. The amount of Mark-to-Market Margin received into or paid from approximately deposit with the clearing or trading member should be debited or credited to the deposit for margin money account with the consequent credit or debit to the Mark-to-Market margin in Equity Future account or the Mark-to-Market margin in Equity Stock Future account as the case might be.

Accounting for Initial margin: When Futures Contract is entered into for purchase or sale of Equity Index or Equity Stock Future, then no payment is required to be prepared except for the initial margin. Clearing Corporation or Houses determines this margin from time to time and it serve as security deposit for the exchange. The margin can be paid either in cash or in the form of collaterals like bank guarantees, securities and fixed deposits. Basically Initial margin paid in cash shall be debited to 'Initial Margin Index or Stock Future account' and supplementary margin paid if any shall be accounted in the same manner. As the Balance Sheet date the balance in initial margin account shall be shown individually in respect of each progression under the head 'Current Assets'. The acknowledgment or receipt of initial margin in the form of collaterals shall be recorded in memorandum records and no entry is required to be made in the financial book. If any collateral is returned back the memorandum records shall be updated in view of that.

Accounting for Open Interests in Futures Contract as on the Balance Sheet Date: 'Mark-to-Market margin in Equity Index Future account or the Mark-to-Market margin in Equity stock Future account' are the debit or credit balance, which represent the net amount paid to or received from the clearing or trading member on the basis of the movement of in the prices of Equity Index Futures or Equity Stock Futures till the balance sheet date in esteem of open future contract. In another case the given accounts have a debit balance as the balance sheet date and the same should be shown as current assets or on the other case if given accounts have a credit balance on the balance sheet date, the same should be shown as a current liability. You should keep in mind that 'Prudence' as a consideration for the preparation of

financial statements, the provision for the anticipated loss in respect of open futures contract should be made. For this purpose the net amount paid or received on account of Mark-to-Market margin on open future contracts on the balance sheet date should be shown index wise or script wise. In this process the index wise or script wise balance is a debit balance representing the net amount paid and this condition should be made for the given amount. In another case where the index wise or script wise balance is a credit balance represent the net amount received and the same should be ignored keeping in view the consideration of 'Prudence'. To smooth the progress of these computations, the Mark-to-Market margin accounts may be maintained index wise or script wise. The provision which should be discussed on above lines should be credited to an appropriate amount under the heading 'Provision of loss on Equity Index Future Account' or 'Provision on loss on Equity Stock Future account' as the case might be. If in case of any opening balance in the 'Provision for loss on Equity Stock or Equity Index Future Account', the same balance should be adjusted against the provision required in the current year and the profit and loss account should be debited or credited with the balance provision required to be made or excess provision written back. The 'Provision for loss on Equity Index or Equity Stock Future Account' should be shown as a deduction from the balance of Mark-to-Market Margin of Equity Index or Equity Stock Future Account, if it disclosed as a current asset. On the other hand, if the above given treatment of margin accounts are disclosed as a current liability then the abovementioned provision accounts should be shown as a provision on the liabilities side of the balance sheet.

Accounting at the time of Final Settlement or Squaring up of the contract: At the time of expiry of the contract or squaring up the contract, the profit or loss is computed and acknowledged in the profit or loss account. The profit or losses in such cases is the difference between final account price and contract price. The entries describing to profit and loss shall be approved by consequent debit to credit to the Mark-to-Market margin account and the balance in Market-to-Market account for a particular progression of contract this will be documented as income or expenses on final settlement. Basically if balance exists in the provision accounts, which may have been created at the yearend for predictable loss and if any losses arising on such settlement shell be first charged to such provision account and the balance if any should be charged to profit and loss account.

Account at the time of daily settlement of the contract: This involves the accounting of payment or receipt of Mark-to-Mark margin money. Payment finished or received on account of daily arrangement by the client would be credited or debited to the bank and the subsequent debit or credit for the equivalent should be made to an account titled as 'Mark-to-Market margin Equity Index or Stock Futures contract account'. For a moment or sometime the client may deposit a approximate amount to the brokers or trading member in esteem of Mark-to-Market margin money as an alternative of receiving or paying mark-to-market margin money on every day basis. The amount should be paid is in the form of a deposit and it also debited to a suitable account, called: 'Deposit for Mark-to-Market margin account'. On that basis the amount of Mark-to-Market margin should be received or paid from such account and this account was credited or debited to Mark-to-Market margin of Equity Index or Stock Future account contract with a corresponding debit or credit to Deposit for Mark-to-Market margin account. At the financial year ending, any balance in the Deposit for Mark-to-Market margin account must be shown as deposit under the head 'Current Assets'.

Accounting at the time of default: When a client makes default in making payment in esteem of Mark-to-Market margin, then account should be closed out and the amount not paid by the client is adjusted against the initial margin already paid by the client. In the accounting book or ledger of the client, the amount of Mark-to-Market margin so adjusted should be debited to the Mark-to-Market margin of Equity Index or Stock Future account as the case may be , with a related credited to the initial margin of equity derivative instrument account. In case if amount paid on Mark-to-Market margin account will exceed to initial margin then this exceed amount is a liability and should be shown as such under the head 'Current Liability and Provisions and it also coded same on the balance sheet date. The amount of profit or loss in the given contract should be calculated and predictable under profit and loss account by corresponding debit or credit to the Mark-to-Market margin of Equity Index or Stock Future account as the case may be.

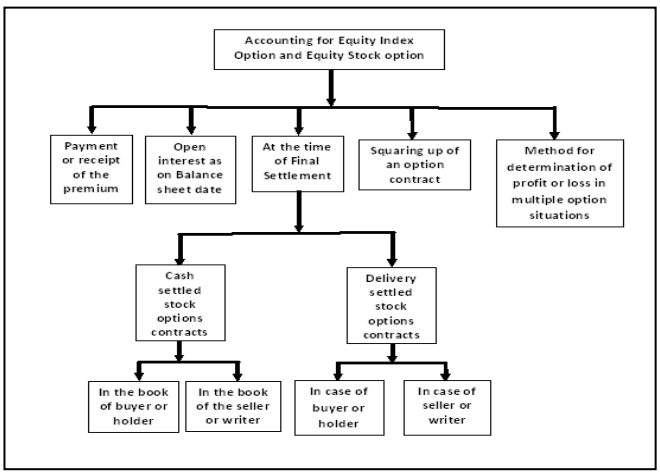
Disclosure requirement for Future Account: The amount of bank assurance and book value as also the market value of securities wedged should be disclosed in respect of contract having open positions at the year end. In this case initial margin money has been paid by way of bank assurance or wedged of securitises. The total number of valuable or non-valuable contracts entered and gross number of units of Equity Index or Stock future traded individually for purchase or sell of contract should be disclosed in esteem of each progression of Equity Index or Stock future contract. The numbers of Equity Index or Stock future contract have to maintain open position and number of unit of Equity Index or Stock future have to connect with those contracts which are traded. The daily arrangement or settlement price as of balance sheet date should be represented independently for long and short situation, in respect of each progression of Equity Derivative future market.

VII. ACCOUNTING FOR OPTIONS

The Institute of Chartered Accountants of India (ICAI) issued guidance note on accounting for Index Option or Stock Option for the view point of the parties who enter into such contract as buyers or holder and sellers or writer. Most of the technical terms used in this section are same as future accounting which are discussed above but the accounting process of option contract is little bit different from future contract due to its nature. Following are the guideline for accounting treatment in case of cash settled Index Option and Stock Option.

Accounting for Equity Index Option and Equity Stock Option include the following treatments

Figure 1.2



Accounting for payment or receipt of the premium: If client or any investor entering into an option contract, the buyer of the option is essential to pay the premium amount to the option exchange for placing the option contract. In this process the premium should be debited to an suitable account of buyer or holder, say, Equity Stock or Index Option Premium Account, as the case may be. In the ledger of seller or writer, such premium amount should be credited to an appropriate account, say, Equity Index or Stock Option Premium Account as the case may be.

Accounting for open interests in option contract as on the balance sheet date: In accounting process the 'Equity Index Option Premium Account' and 'Equity Stock Option premium Account' should be placed under the head 'Current Assets' or 'Current Liability' as the case may be. In the book of the buyer or holder, the provision should be made for the amount by which the premium paid for the option exceed the premium customary on the balance sheet date since the buyer or holder can reduce his loss to the extent of the premium traditional in the market, by squaring up the transaction. The provision so created should be so credited to an appropriate account, we say, 'Provision for loss on Equity Stock or Index Option Account' as the case may be. The provision made as above should be shown as deduction from the balance of the 'Equity Index or Stock Option Account' which is shown in the book of buyer or holder under the head 'Current Assets'. The excess of premium customary in the market on the balance sheet date over the premium paid is not predictable and keeping in view that the deliberation of carefulness. In the accounting book of the seller or writer, the provision should be made for the amount by which premium customary or prevailing on the balance sheet date exceed the premium amount get from the option. According to that this provision should be credited to 'Provision for loss on Equity Index or Stock Option Account' as the case may be, with a consequent or equivalent debit to profit and loss account. Equity Index or Stock Premium Account' and 'Provision for loss on Equity Index or Stock Option Account' should be or will be shown under 'Current Liability and Provisions'. If in case of multiple open options at the yearend, a index wise or script wise provision should be making an allowance for all the open options of any Strike Price and any expiry date under the script taking together. The amount of provision required in esteem of each script or index should be aggregated and a amalgamated 'Provision for loss on Equity Stock or Index Option Account' should be credited by debiting the profit or loss account. In case of any opening balance in the 'Provision for loss on Equity Stock or Index Option Account', the same should be suitable against the provision required in the current year and the profit and loss account be debited or credited with the balance provision obligatory to be made or excess provision written back. If we consider the case of multiple open options at the year ended, the 'Provision for loss on Equity Stock or Index Option Account as the case may be, should be shown as subtraction from the 'Equity Stock or Index Option Premium Account' respectively, if these have a debit balance and are disclosed under the head 'Current Assets' On the other hand if 'Equity Index or Stock Option Premium Account' have a credit balance and are disclosed under the book of account under the head 'Current Liabilities', due to that reason particular provision account should be shown 'Provision' under the head 'Current Liabilities and Provisions'

Accounting at the time of final settlement: In this section we have study the accounting process of Equity Index Option or Equity Stock Option in the final settlement of cash-settled stock options contracts and delivery-settled stock options contracts for buyer or holder and seller or writer.

In the process of cash settled stock option contract, two accounting books are deals:

1. *In the books of buyer and holder; and*
2. *In the books of the seller and writer;*

In the books of buyer and holder on the implement of the Option, the buyer and holder will identify premium as an outflow and debit the profit and loss account by crediting the 'Equity Index or Stock Option Premium Account'. Apart from the higher arrangement in the above discussed segment, the buyer or holder will receive favourable difference, if any, between the final settlement price as on the exercise or expiry date and the strike price, which will be acknowledged as income.

In the books of the seller or writer on the exercise of the option, the seller or writer will be acquainted with premium as an income and credit the profit and loss account by the debiting the 'Equity Index or Stock Option Premium Account' Apart from the higher arrangement in the above discussed segment, the seller or writer will pay the adverse difference, if any, between the final settlement price as on the exercise or expiry date and the strike price. Such kind of payment will be acknowledged as a loss.

In the process of Delivery settled stock option contract, two accounting books are deals:

If an option is not exercise and also expires, then accounting entries will be the same as those in case of cash settled options. If the option is exercised, securities will be transferred in deliberation for cash at the strike price. In such a case, the accounting treatment should be as suggested in the subsequent ways which are given blow:

1. *In case of buyer or holder; and*
2. *In case of seller or holder;*

In case of buyer or holder for a call option, the buyer or holder will receive the security for which the call option was entered into. The buyer or holder should debit the appropriate security account and credit cash or bank. For a put option, the buyer or holder will deliver the security for which the put option was entered into. The buyer or holder should credit the appropriate security account and debit into cash or bank. In additional to this

entry, the premium paid should be transferred to the profit and loss account, the accounting entries for which should be the equivalent as those in case of cash settled option.
In case of seller or writer for a call option, the seller or writer will deliver the security for which the call option was entered into. The seller or writer should credit the relevant security account and debit cash or bank. For a put option, the seller or writer will obtain the security for which the put option was entered into. The seller or writer should debit the relative security account and credit cash or bank. In addition to this entry, the premium received should be transferred to the profit and loss account, the accounting entries for which should be the same as those in case of cash settled option.

Accounting at the time of square up of an option contact: At the time when an option contract is square up by entering into a reverse contract, the difference between the premium paid and received, after adjusting the commission or brokerage charged, on the squared up contact should be transferred on the profit and loss account.

Accounting method for determination of profit or loss in the multiple option situations: In the case of outstanding multiple options to work out profit or loss we used the same script or index with the same strike price and the same expiry date, weighted average method should be followed on squaring-up of transactions. Similarly for working out profit or loss in case of remaining left multiple equity stock option of the same script with the same strike price and the same expiry date, weighted average method should be used where such options are executed prior to the running out date.

VIII. CONCLUSION

This paper discusses the Regulation of Indian Derivative market as per Dr. L.C. Gupta committee and also cover accounting for Future and Option. On the basis of our analysis we found that accounting for future and option are complicated in nature due to its adjustment process for 'Equity Index Future & Option' and 'Equity Stock Future & Option' in various books of account during the life of derivative contract from one point to another point and it also requires more transparency and financial stability in derivative transaction.

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