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**Review of Regulations for
Derivatives Exchange in India**

**Financial Institutions Reforms and
Expansion (FIRE) Project**

April 7, 1997

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**Price Waterhouse LLP
1616 North Fort Myer Drive
Arlington, VA 22209
Tel (703) 741-1000
Fax (703) 741-1616**

Price Waterhouse LLP



April 7, 1997

Mr R H Patil
Managing Director
National Stock Exchange of India Ltd
Mahindra Towers, A Wing
1st Floor, RBC
World
Mumbai 400 018

Dear Mr Patil,

Re: Review of Regulations for Derivatives Exchange in India

As per the request of NSE and as part of the contract with US AID, in January 1997, Mr Paul Litteau, consultant to Price Waterhouse Capital Markets provided assistance to NSE in reviewing the preparation of the National Stock Exchange of India Ltd (NSE) for introduction of trading in the NSE 50 Stock Index Futures Contract. Special emphasis was laid on regulatory requirements for derivatives trading. During this trip Mr Litteau met with representatives of NSE and SEBI, NSE member organisations, financial institutions, software developers, and the academic community.

Purpose of the Activity

The review was conducted to assist NSE, SEBI and other concerned parties make an informed decisions relative to the trading of exchange traded derivatives in India. The focus of the report is towards regulatory requirements for introduction of Index based Futures Contracts. **This report discusses the accomplishments of NSE and further reviews several essential steps which remain to be completed by NSE and others in preparation for the launch of such trading.**



Activities Undertaken

Review of NSE Preparation for Introduction of Futures

The NSE has developed drafts of Trading Regulations - Futures, Procedures for Clearing and Settlement - Futures, Risk Disclosure Statement and other disclosure/marketing materials. At the request of NSE, Mr Litteau reviewed these drafts. As part of this review, NSE provided presentations, explanations and demonstrations of various facets of their existing operations in their Capital Markets (scrip) segment, as well (to the extent that they have been developed) in their Futures and Options segment.

Review of Market Structure and Preparation

Mr Litteau also met with NSE Member organisations and non-member financial institutions who would be expected to be participants in the index futures market to discuss their expectations and preparation for such activities.

NSE arranged presentations by software developers and vendors in which they demonstrated sophisticated educational materials on the characteristics of certain derivatives (options) as well as brokerage accounting and recordkeeping systems for the capital markets (cash scrip) markets. None of this material had yet been specifically adopted to the unique needs of the Index Futures market.

As the NSE's index futures market will also be operating under SEBI rules and oversight, a meeting was conducted with SEBI representatives to consider these matters.

Follow up Actions

Mr Litteau will remain available to review revisions in the drafts of NSE regulations and other materials, as well as to provide assistance as appropriate in the various facets of this project. Specific recommendations are detailed in the report.

Ms McFadden of Price Waterhouse was provided a briefing on Mr Litteau's initial observations, and she has commenced a related review of the requirements for introduction of trading of these instruments in the Indian market.

Mr Melamed of Price Waterhouse has commenced a review of the overall capital adequacy and related rules and procedures of the Indian market. In this regard he was provided a briefing on observations in these areas relevant to the futures market.



The studies conducted by Ms McFadden and Mr Melamed will likely provide additional insights into the matters discussed by Mt Litteau. Relevant portions of the findings of these three reports should be considered together.

Please find enclosed the details of Mr Litteau's January Trip findings and recommendations.

Please get in touch with us at FIRE project for any clarifications or further information you may require.

Thanking You

Sincerely,

W. Dennis Grubb
Principal Consultant

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I. EXECUTIVE SUMMARY

This report is a review of the preparation for the establishment of the derivatives exchange in India with special emphasis laid on regulatory requirements for derivatives. This report was prepared after review of the NSE developed drafts of Trading Regulations - Futures, Procedures for Clearing and Settlement - Futures, Risk Disclosure Statement and other disclosure/marketing materials. As part of this review, NSE provided presentations, explanations and demonstrations of various facets of their existing operations in their Capital Markets (scrip) segment, as well (to the extent that they have been developed) in their Futures and Options segment. Meetings were also conducted with NSE member organisations, non-member financial institutions and other relevant parties.

The NSE should be complimented on their efforts and achievements to date in preparation for launch of trading of their index future. Although additional work remains for NSE to prepare themselves for this market, they have accomplished much. The other parts of the market do not appear to be nearly as ready for trading in these instruments as does the NSE itself. Further, several structural problems which had been identified by Dr. Barclay in his March, 1996 report and which were further discussed by Mr. Litteau in his report of his October, 1996 visit remain present in the Indian market.

Below is a summary of the findings of the current review, which includes discussions on several key capabilities essential to the successful launch of exchange-traded derivatives in India.

A. Critique of NSE drafts: NSE Trading Regulations - Futures, and Procedures for Clearing and Settlement - Futures

Set forth in the report are several observations and suggestions, several of which relate to the structural problems and key capabilities discussed above. These will be included in the discussion of these key points, as well as being itemised in the section detailing the review of these procedures. These would be priority consideration, which should be addressed prior to launch of derivatives trading.

Other observations and suggestions on the procedures are of a detail and/or technical nature, which should be addressed on a second priority basis.

It was noted that in many cases the material in the NSE trading regulations for the Futures segment duplicated the material in their trading regulations manuals for their other segments. Rather than establishing separate trading regulations manuals for each segment of the market, we recommend that NSE establish one manual for Trading Regulations and one manual for Clearing and Settlement. Nuances of each segment of the market could then be covered in attachments to these manuals.

B. Structural Problems and Key Capacities Essential

- 1 For purposes of protecting market integrity and viability, in addition to protection of the exchange and its clearinghouse, exposure to constituents and other creditors must also be addressed. This is ordinarily accomplished by establishing a "Net Capital Rule" providing standards for minimum capitalisation and liquidity, and maximum leverage. Members must be in continuous compliance with such rule, and to document such compliance at least monthly with a trial balance and computation of net capital. Reports should be made to the appropriate regulatory agency on a regular basis (non-audited reports at the end of each quarter and an audited report at the end of the fiscal year). Such reports should be on timely basis (within three weeks of the quarter end, and within two months of the fiscal year-end).

NSE and/or SEBI should ensure that, for purpose of determining financial adequacy, all of the brokerage house's accounts and positions, regardless of the exchange or market on which that took place, are aggregated into one general ledger, and made part of one trial balance and one net capital computation.

- 2 Margin requirements for index futures should be set at sufficiently high level to cover several days of "worst case" adverse market movement. Requirements for issuing and collecting initial as well as maintenance margin should be understood by both brokers and customers. Procedures should be in place to ensure that initial margin has been received from the constituent prior to establishing any opening position in a stock index futures contract. It should be clear that the member should be REQUIRED to collect at least the amount of margin which is required to be deposited on behalf of the client. The member should have the RIGHT to demand ADDITIONAL margin above these minimum levels as he should so require. Also in case where the constituents fails to timely meet margin calls (two days) market orders to close out positions should be entered immediately.
- 3 Proper segregation of customer funds is required by NSE rules, which specify separate bank accounts for constituent funds and for the member's own funds. In this regard we recommend that the rule further require that the Member have a contract or agreement with the bank, in a form acceptable to the exchange (or SEBI) providing that the bank has been advised by the member that all funds deposited in the account are being held by the bank for the exclusive benefit of customers of the member in accordance with this rule, that these funds shall be subject to no right, charge, security interest, lien or claim of any kind in favour of the bank. Such account shall be titled "Special Account for the Exclusive Benefit of Customers of (Member's Name)". The member shall be required to maintain records documenting all financial transactions with and for customers, evidencing that such transactions were properly conducted through this Special Account.

Proper consideration should be given to the definition of the term constituent as would be relevant to this rule and other rules. Paragraph 1.3.8 of the Draft "Trading Regulations - Futures" would indicate that accounts of officers, directors and/or major owners of the Member, as well as accounts of the Member itself, would be treated as "constituents". In order to ensure that bona-fide "customers" are being afforded the protection intended by

these rules, accounts of "insiders" and members should be excluded from the definition of "constituents" or "customer" for these purposes

- 4 In addition to the records currently required to be maintained by the member, additional records should be required - customer account record, stock record, margin calls made and met, information regarding account and loan guarantees, documentation of Letters of Credit (LOCs) and signed risk disclosure documents. In addition to providing a list of titles of books and records that members are required to make, a guide to the content and form standards of such records are needed. Prior to launch of derivatives trading it is essential that all Members have in place complete and adequate recordkeeping systems. These systems should be tested through mock trading and evaluated by NSE (under SEBI oversight) prior to approval of such Member for trading.
- 5 Audit trail information for order entry / execution and order cancellation / correction / modification (with documentation of reason for change and supervisory approval for any post-execution changes) should be in place prior to launch.
- 6 The NSE should ensure that the bank issuing the LOCs or Guarantees has the financial capacity to honour such commitment. A list of banks approved for such purpose should be established (recognising that this would be a very short list at present, but this would allow new banks to be added as appropriate). Further, standards should be established as to the total amounts of such instruments which a single bank could issue or guarantee (either as an absolute value or as a percentage of the bank's capital).

Standards should be established for third party guarantees provided to a Member on behalf of a constituent's account. These guarantees should be documented in a form acceptable to SEBI & the guarantor should maintain an account with the Member with adequate equity (marked to market and given appropriate haircuts) to satisfy the potential exposure from the guarantee.

- 7 NSE member firm should be required to document their supervisory procedures as well as their operational procedures. Recognition could well be given to the size and complexity of the firm in determining the level of detail required for such documentation. NSE should determine the adequacy of these procedures. To ensure the operational readiness of the Members, mock trading exercises should be used. Data from these exercises should be downloaded to the member to test their systems, procedures and controls. No Member should be allowed to participate in this market until they have proven that they are operationally ready.

NSE members should be required to advise the Exchange of the name of the officer with specific supervisory responsibility for derivatives activities.

- 8 NSE expects a significant volume of index futures trading to result from arbitrage activity. Arbitrage trades will result in long and short positions. Physical delivery of such shares would only increase and compound strains on operational capacity. Both with

regard to operational efficiency and to market integrity, immobilisation of certificates of those issues comprising the index through a depository must be a priority goal

- 9 Earlier in 1997 SEBI announced new regulations which would recognise at least some types of short sales. Prior to launch of trading of stock index futures a determination should be made as to the adequacy of the short sale function as well as of the availability of stock for loan purposes to support proper functioning of the index arbitrage related short sales in the cash market
- 10 Proper evaluation and selection of risk control software to be used by the Clearing Corporation should be completed. If one of the existing programs is to be chosen (SPAN, TIMMS or other) it is necessary for personnel from the NSE and NSE Clearing House as well as the Members to be trained in the use of such system. If NSE determines that it will develop its own system this should be thoroughly documented and tested prior to launch. Appropriate training would also be required in use of such NSE developed software
- 11 Educational Activities should be continued. Education and training should be given to NSE members and their personnel, both "front office" (sales) and "back office" (operations) as to their roles and responsibilities in these markets. Mock trading, including processing of such mock trades should be included in these activities. Training and education of potential "end users" both in and outside of Mumbai also needs to be done
- 12 The Exchange should approve, prior to use, all risk disclosure and additional disclosure documents prepared by their Members. These should be provided to each constituent prior to the first transaction in derivatives
- 13 The question of who has the contact with the "customer" is under consideration in related FIRE studies, and is relevant to the NSE's proposed futures market as well. Indications are strong that in many if not most cases the NSE Members' "customers" are in fact unregistered intermediaries who in turn have their own "customers" (for whom they maintain an omnibus account with the Member). As such, they are operating as sub-brokers, performing the various services and functions of a broker without registration and regulation by SEBI or NSE. To the extent that this class of non-registered and non-regulated intermediaries exist, and are the interface between the market and the actual "customer", a very large hole exists in the regulatory schema. This should be closed prior to introduction of trading in these instruments
- 14 Broker qualification and registration should be a priority concern, particular for those persons performing roles in the futures market. Supervisors should also be required to demonstrate their technical competence with regard to industry rules, regulations and compliance procedures. Qualification examinations should be developed for both brokers and sub-brokers as well as for supervisors, and successful completion of such examination should be required in order to act in these capacities

- 15 A "central registration depository" capturing all relevant information and history on registrants with NSE as well as all other exchanges should be developed as soon as possible. NSE should work with the other exchanges and SEBI to establish this data bank.
- 16 In addition to the specific issues covered above, overarching questions should be addressed. What is the economic justification for this contract? What is the expected impact on the cash market of the introduction of trading in the index future? Provision should be made for monitoring any possible impact of the futures contracts on liquidity and price discovery on the NSE 50 stocks as well as on the lower tier issues. Provision should be made in order to capture hedge versus speculative positions in order to determine when and how this type of activity develops. Capacity for the close review and monitoring of initial index futures trading activity should be in place to allow determination as to anticipated and/or adverse effects. Consideration should be given to remedies to be available in the event of negative observations in this regard.

II. NSE PREPARATION

During this project we were provided a copy of the NSE's draft of their "Trading Regulations - Futures" as well as drafts of educational and risk disclosure statements and documents for review. As part of this review, the NSE reviewed with us their trading, clearance and settlement, and compliance surveillance functions.

At the outset of this report the NSE staff should be commended for their commitment to developing this market, and the progress they have achieved to date. They treated this review in a consistently professional and courteous manner. Although questions and concerns remain, they should be seen in this same light.

A. Review of "Trading Regulations - Futures"

The NSE has developed an extensive draft of their "Trading Regulations - Futures" and "Clearing and Settlement - Futures". Much of the text has been adopted from the existing Trading Regulations in the Capital Market (ordinary share) segment of the NSE. To this extent, these regulations have had some "seasoning", and can be considered to have been tested. Still, trading in futures will result in additional exposure, and will require further strengthening of these draft regulations.

To the extent that the NSE trading regulations for their Futures segment have been adopted from the Capital Market trading regulations, modification of the Futures trading regulations may require commensurate modification of the Capital Market procedures to avoid inconsistency. Although not an immediate priority, it is recommended over time that those regulations which are common to Futures, Capital Markets and any other segment of the NSE be identified and made part of one common regulations manual. Each segment then should have its own companion procedures dealing with any features unique to its products and activities. This would allow modifications to be made more efficiently in the common procedures, and minimise the possibility of inconsistencies.

Comments with respect to specific portions of this draft are

"Part A - Trading Regulations - Futures"

1. Definitions

1.3.3 Authorised Person

This portion of the definitions would appear to allow, under explanation (1) therein, for any person "who is undergoing any kind of training or assigned any project work in pursuance of the requirements of any university or other academic body" to function as an "Authorised Person", able to function on behalf of a Trading Member. In prior reports, the FIRE Project has recommended specific qualification and registration standards for representatives of brokerage firms in India. These

recommendations would be even more relevant to persons acting as representatives in the derivatives markets. Holding an academic degree, much less pursuing "any kind of training or assigned any project work in pursuance" of such degree could not establish such standards of technical competence in these fields.

This definition should be revised in the Futures Regulations (and as appropriate in the Capital Markets and Debt Securities Regulations) of the NSE to provide that only those persons who have the appropriate qualifications would be allowed to function as an "Authorised Person".

1 3 6 Branch Office

This draft definition would appear to allow for some business activities of a Member to be conducted at a location other than the main office, without such location being required to be registered as a "branch office" as long as that it does not conduct "the same or substantially the same activity as that carried on by the head office". This would appear to allow for a lot of room for creative interpretation. Would a location at which customer orders are gathered to be forwarded to the main office for entry be required to be considered as a "branch office" under the argument that since they are not entering the order, they are not engaged in "substantially the same activity as that carried on by the head office"? Would a location at which research activities are conducted be considered a branch if no research were otherwise being conducted at the main office?

A more general definition of branch office for Futures (as well as for the NSE's other segments) would include any location at which any business activity of the member is being conducted. The NSE's legal department should consider the specific language to be used. In this regard, they may find the definition of the National Association of Securities Dealers to be useful as an example (NASD Manual, Rule 3010(g)(2) in the current edition, paragraph 2177(g)(2) in older editions). This definition, in relevant part, reads

"Branch Office" means any location identified by any means to the public or customers as a location at which the member conducts an investment banking or securities business. "

1 3 8 Constituent

The explanation to this definition states that the term "constituent" (customer) includes a "Participant as defined in the Bylaws of the Exchange unless stated otherwise". This would indicate that accounts of officers, directors and major owners of Members, as well as accounts of Members themselves, would be treated as customers. (This is consistent with observations made elsewhere during this project and discussed elsewhere in this report). While this may result in treating these accounts more conservatively (as, for example, in margin), it would also give them at least parity protection in segregation and other protection systems with accounts of bona-fide customers. Regulations in most futures/options as well as equity securities

markets exclude accounts of members as well as "insiders" of members from the definition of "customer" for such purposes

2. Dealings on the Exchange

2.3.4 b) Opening Period

This paragraph states that "all trades pertaining the pre-opening period shall be executed at a single trade price which is the price of the last trade during the pre-open period" This appears to contradict the prior paragraph, which states that during the pre-open period "no execution of the orders can take place" These paragraphs should be reviewed, clarified, and made consistent

2.3.4 c) Open Period

This paragraph provides that during this period "orders would be matched according to the price/time priority" Two questions would be indicated here

- 1 Would the same price/time priority be afforded to orders received in the pre-open period? Assuming that the single price auction contemplated for the opening might not fill all orders on both sides of the market equal to or better than the opening price, it would be important to know the priority for these orders as well as for those received during the open period
- 2 Orders for the Member as well as for persons associated with the Member would appear to get parity treatment with orders for customers, being subject only to price and time priority consideration In some markets, orders from bona-fide (non affiliated) customers are given priority to those of the Member, other brokers trading through the member, or persons affiliated or associated with such brokers or members In the interest of promoting both the reality as well as the perception of fair dealing with customers, consideration of such priority for bona-fide customer orders would be appropriate in the futures and options segment (as well as in the capital markets and debt instrument segments)

2.6.7 Position/turnover limits

This paragraph states that the Exchange "shall lay down turnover and position limits from time to time" Such limits are currently being observed in the capital markets, with positions being held to a maximum of ten times the clearinghouse deposit, and turnover at 33 times this deposit The Exchange notifies its members of such limits by bulletin which appears to be satisfactory procedure Such position/turnover limits apply to the totality of the member's trading

Particular attention should be given to position limits in derivatives. Position limits as to number of contracts long or short should be established for other than bona-fide hedging purposes for all accounts acting alone or in concert. Further, these limits should be applicable not only account by account, but in aggregate for any person/entity trading with or through any Member directly or indirectly, alone or in concert. This would indicate the need for the NSE to provide a facility for reporting and surveillance of large positions from each member so as to monitor inter as well as intra-member position limits.

3. Dealings in Contracts

3.2.1 Records of order instructions

This paragraph provides that "relevant records or documents" of order instructions from constituents be kept, along with records of the completion of such orders. Observation, as well as discussion, suggests that this rule is, at best, being honoured in breach in the capital markets segment. Most orders appear to be transmitted by telephone, and entered into the system by the Member's authorised person. No written record of the receipt of such order is typically made.

While order memoranda are an appropriate record to be required to be made and kept, any rule in this regard should be practical in light of trading methods and practices. Possible solutions which were suggested included taping orders received by phone (with appropriate time stamp on the phone message) - which would not cover orders transmitted in person or via fax or other method, and maintaining a "traffic log" of messages entered into the system which would include time of such entry - which would not cover orders which were not immediately entered, such as orders in which the broker was given time and price discretion.

This may be an appropriate situation in which to seek Member's comment and assistance in framing a rule which meets the regulatory requirement and customer disclosure while comporting with the reality of the market.

3.2.2 Confirmation/Modification Slip

The requirement here that the "Trading Member shall make available to his constituent copies of the order/trade confirmation slip/modification slip wherever applicable" seems to require clarification. Must the confirmation slip be given to all customers for all trades? The answer should be yes. The modifier "wherever applicable" would appear to provide exceptions, and allow for self-serving interpretation by a Member. This regulation should be revised to require these records to be provided to all customers for all such activities.

3 2 8 Cancellation Slip

Similar to 3 2 1 above, this rule should be reviewed in light of regulatory requirements, customer disclosure needs, and market practicality

3 3 5 Matching Rules

d) (1) price-time priority for orders

See discussion of 2 3 4 c), above we recommend consideration of giving priority to customer order be given priority over those of Members and their affiliates and associated persons

d) (11) matching best buy and sell price

This should be clarified to indicate that the best buy order shall match with the best sell order at an equal or lower price, and that conversely the best sell order shall match with the best buy order at an equal or higher price As generally understood, as long as there is a spread between the best buy and best sell order, there will not be an execution

3 4 1 Contract Note to be issued

The "Contract Note" appears to be the complete record of the terms on which the contract was executed, including gross price, commissions and charges, and net price This rule provides that this record shall be issued "in such manner and within such time as prescribed by the exchange" Discussion and observation indicates that the contract notes are not always being promptly issued, and due to their commission structure, some Members cannot issue them until it is known whether the position will be squared off before settlement or not (a lower commission may be charges on a "round trip" basis for square off activity than for trades resulting in positions carried over settlement - which are given a higher commission on both entry and exit) If a complete confirmation is provided in all cases to all customers within one business day of execution, delivery of the Contract Note within one business day of settlement date might be sufficient The NSE should review its own and its members' procedures in this regard in order to ensure that complete and timely reporting is being made to customers in this regard

3 4 2 Contract Note to be signed

This provides that the contract note shall be signed by "a Trading Member or his Authorised signatory or constituted Attorney" The terms "Authorised signatory" and "constituted Attorney" are not defined in these regulations (though they may well be generally understood in the Indian business context, there should be some definition or reference in this regard)

Further, unless there is some legal requirement imposed on the Exchange and its Members that these reports be signed, consideration should be given to the need and purpose being served for this requirement. In many other markets, system generated confirmations of contract terms suffice, and eliminating the signatory requirement would allow more timely dissemination of these reports. Some suggestion was made that in signing the contract note the Member was making a last check for accuracy. The NSE should expect that its members have systems and procedures in place to detect and correct any such inaccuracy well before the contract note is signed. Local custom and market expectation may not support elimination of this requirement at this time, but such should at least be considered.

3.7 Deposit Requirements

This appears to be the Exchange's priority focus in the Capital Markets cell, and would quite probably be its priority focus in the Futures/Options segment. While protection of the Exchange and its clearinghouse is an appropriate concern, this does not necessarily accomplish protection of other market participants, notably the customer. This concern will be discussed later in this report, in section III.

3.7.3 Form of deposit

This paragraph indicates that the requirements as to amount and form of such deposit will be established by the "relevant authority". As this term is not defined in the regulations, it would be clearer to specify that such requirements will be established by the NSE (or by SEBI).

3.8 Margin Requirements

It will be of utmost importance that margin requirements for index futures be set at high enough level and that procedures for issuing and collecting margin be understood by both brokers and customers, and consistently enforced by the Members.

It appears that margin rules are not being consistently enforced for Capital Markets (equity) trading. Rationales offered are that it is impractical to require margin, since other brokers do not do so; this would place the members who attempt to follow such standards at a competitive disadvantage. Further, accounts are often assumed to be carried on behalf of persons or entities who are "well known" and whose creditworthiness is understood. We would suggest that this is inadequate control for general securities accounts, and would be a woefully inadequate approach to apply to accounts trading index futures or other derivatives.

A more complete discussion of concerns in this regard are provided later in this report, in section III.

3 8 5 Exemptions from Margin for Members

This paragraph provides that "The Exchange shall at any time exempt any Trading Member/Participant or category of Trading Members/Participants from all or any of the margin requirements stipulated or modify the specific requirements for a Trading Member/Participant" Discussions with exchange staff indicate that the intent of this paragraph is to provide the NSE with the ability to exempt Custodial Participants from margin requirements Assuming for this purpose that this is an appropriate exemption (which the NSE and SEBI should satisfy themselves is so), the language here is far broader The operative word "shall" without modifier would indicate a requirement that the NSE provide such exemption to "any Trading Member/Participant" This is not the intent, and the language should not so indicate

3 8 (sic) Margin from the Constituents

This should either be numbered 3 8 8, or (preferably) 3 9, reflecting that it is a new topic (with the prior 3 8 being labelled Margin Deposits from the Members)

3 8 a) herein indicates that the Member shall "have the right to demand from its constituents the Margin Deposit which the member has to provide under these Trading Regulations in respect of the business done by the Member for such constituent Requiring margin should be a duty, not just a right, for the member The member should be REQUIRED to collect at least the amount of margin which is required to be deposited on behalf of the client The member should have the RIGHT to demand ADDITIONAL margin above these minimum levels as he should so require

This paragraph further indicates that "The Trading Member may not, if so desire, collect such a margin from Financial Institutions, Mutual funds, and Foreign Institutional Investors" (sic) While the syntax may call for some clarification, the more important concern is the premise Margin requirements should be uniformly enforced for all accounts, particularly those dealing in derivatives This should be clearly established in these regulations, both for retail as well as institutional clients, both on the opening buy as well as on the opening sell side

3 8 b) Constituent in default

This paragraph provides that for opening purchase positions in which the constituent fails to meet the margin obligations within two days "for the execution of the full contract within two days of the contract note having been delivered" (sic), the member "shall be at liberty to close out the transactions by selling contracts" This provision is inadequate in two respects first, by delaying delivery of a contract note, the member may delay the day on which close out action is expected Further, although there may be some situations in which a close out cannot be accomplished (market limit up or limit down), without specific approval for truly exceptional circumstances (which

such approval should be documented and maintained as part of the records of the member), market orders to close out positions for defaulting purchasers should be entered promptly (i.e. within two business days of the trade). This, of course, would require that the constituent be promptly advised of the required margin before or promptly after the execution of the trade, and that a record that such margin call was made, and when and how the call was met be made and kept by the member.

4. Conduct of Business by Trading Members

4.2 Supervision

4.2.1 Procedures to be followed

NSE Member firms should be required to document their supervisory procedures (as well as their operational procedures). Recognition of the size and complexity of the firm could well be given in determining the level of detail required for such documentation. Nonetheless, the NSE should determine that such procedures are documented, and are adequate for the member's organisation and business.

NSE members should be required to advise the Exchange of the name of the officer with specific supervisory responsibility for futures and other derivatives activities.

4.2.2 Internal inspections

The requirement for internal review of the member's activities is positive. There should be a further requirement that this review be documented and appropriate records maintained.

In some markets this type of requirement has caused controversy as to whether the records of such internal review would be available to the regulators (or are they eligible for "privilege"). This issue should be considered and resolved by the NSE's legal department, SEBI and other authorities as appropriate.

4.2.3 Written approval

The requirement for supervisory review and approval of transactions and correspondence is also positive. As with 4.2.2 above, there should be a further requirement that this review and procedure be documented and appropriate records maintained.

4.2.4 Qualifications investigated

The requirement that each Member investigate the good character, business reputation, qualifications and experience of potential registrants as Users with the Exchange is

positive. There would, however, appear to be limitations on the effectiveness of such measures in the current environment. Without availability of a "central registration depository" to capture and report on each registrant's history, an applicant could provide an incomplete record of prior employment, conveniently omitting those employers with whom he/she experienced regulatory or other problems.

Development of a "central registration depository" capturing all relevant information and history on registrants with NSE as well as all other exchanges should begin as soon as possible. NSE should work with the other exchanges and SEBI to establish this data bank.

4.3 Relations with Constituents

4.3.1 (Relationship Agreement)

This rule requires an agreement between the Trading Member and its "constituent". It is then provided that the term "constituent shall not include a Participant" for purposes of this rule. The term "constituent" is defined in Section 1.3 of these Regulations, but the term "Participant" is not so defined therein.

For purposes of this rule (as well as for other rules) this should be clarified. Does the term "Participant" mean only the Trading Member? Would it also include other member organisations? Would it include members of other exchanges? Persons associated with member organisations? A definition of the term "Participant" should be provided in section 1.3 to address these questions generally, and clarification provided as necessary where the term is used later in the rules.

Further, it should be specified that the agreement provided in Annexure 3 shall be required of each constituent intending to trade derivatives notwithstanding execution of any other agreements between such constituent and the Trading Member. It should also be specified that this agreement shall be executed by the constituent and the Trading Member prior to approval for or initiation of trading in derivatives by such constituent.

4.3.2 ("Know Your Customer" investigation)

The requirement that the Trading Member make an inquiry into the essential facts and investment objectives of each new client is positive. The rule should require that a record be maintained of such information as provided by the client.

Further, this inquiry should not be limited to "new clients". Such inquiry should be made, and records maintained of such information for all clients which are approved to trade derivatives, even if such clients have a prior constituent relationship with the Member.

4 3 3 (Risk Disclosure)

This rule calls for disclosure of "the precise nature of the Trading Member's liability for business to be conducted, the risk associated with business in derivatives trading including any limitation on that liability and the capacity in which the Trading Member acts and the constituent's liability thereon "

The objectives of disclosure of risk as well as of the capacity in which the Member is acting are appropriate. Such information is essential, and the rules should require that such be provided to the "constituent". The text as written seems to focus more on the "Member's liability" and the risk associated with "business in derivatives trading". Short of a textbook on the law, it is difficult to imagine how disclosure could be made of the "precise nature of the Member's liability". Further the constituent should be advised of the risk of trading in derivatives, whether this is as a "business" or otherwise.

We would recommend simplifying this rule to say

"Each Trading Member shall provide to each constituent, prior to the approval of such account to trade derivatives, a disclosure of the risks of such activities. Such disclosure shall be in a form acceptable to the Exchange. The Trading Member shall maintain a record of the date of delivery of this risk disclosure document to each such constituent"

4 3 4 (Additional Disclosures)

This rule requires the Member to provide "extracts of relevant provisions governing the rights and obligations of constituents as constituents of Trading Members. relevant manuals, notifications, circulars any additions (*sic*) or amendments thereto etc of the Exchange, or of any regulatory authority, to the extent it governs the relationship between Trading Members and constituents, to the constituent at no extra cost "

- This rule seems cumbersome and imprecise. To the extent that it is determined that disclosures of such matters are necessary, it is recommended that the Exchange require each Member to develop a disclosure form which would be subject to Exchange approval, and would be required to be provided to each such constituent prior to the first transaction.

An amended form for such disclosure should be required to be developed whenever indicated by adoption or amendment to a rule covering this relationship. Such amended disclosure form should then be provided to all existing clients. A record should be required of the delivery of each such disclosure form.

The draft rule further provides that "The Trading Member shall also bring to the notice of his constituents, including Participants, any indictments, penalties etc imposed on him by the Exchange or any other regulatory authority. This should be clarified to provide that this disclosure should be provided to each existing constituent in a form acceptable to the exchange in a timely fashion (in this regard the NSE should establish a time requirement that is both practical and meets the objective of timely disclosure to the market)

Finally, we would recommend that the rule require a copy of the rules and regulations of both SEBI and the Exchange be available to constituents at each place at which the Member conducts business

4.3.5 Recommendations to the Trading Member

Note This should be titled "Recommendations BY the Trading Member

Paragraph 1) requires that the Member make disclosure of "material information" in his dealings with his constituents. The context suggests that this disclosure should be with regard to recommendations made. The objective of disclosure of "material information" is laudable, but the draft rule is vague and would appear to invite conflicting interpretation by both constituent and Member. Does the information become "material" when it is used by the Member in making the recommendation? Or would the information be "material" if the constituent would have considered it so, whether or not it was used by the Member? As an example, the Member may make a recommendation purely on a technical basis. Could the constituent say that he was given incomplete disclosure since all fundamental data was not provided? And who would define what fundamental data was "material" (except in hindsight?)

In place of the draft of this rule, the following is suggested

"In recommending to a constituent the purchase or sale of any derivative, a Member shall have reasonable grounds for believing that the recommendation is appropriate for such constituent upon the basis of the facts disclosed by such constituent as to his objectives, financial situation and needs"

There should be a further prohibition in this or another section against a member or person associated with a member from sharing in the profits of a customer (other in a bona fide joint account or partnership account in which such entity has made a capital contribution to the account, the participation is documented, and both profits and losses are shared in direct proportion to the percentage of capital contributed)

4 4 Guidelines Governing Relationship Between Member and Constituent

4 4 2

This paragraph seems unclear. Assuming that it is intended to address those trades with a constituent in which the Member is itself the contra party, the focus should be on ensuring that the client received the best price available in the market as well as being provided with disclosure of market information.

4 4 3 (Discretionary Accounts)

The rule provides that "Where the Trading Member manages a discretionary account for or on behalf of constituents, he should abide by the Securities and Exchange Board of India (Portfolio Managers Rules and Regulations, 1993)." This seems weak and imprecise ("should" would suggest less than an absolute requirement, for example).

Assuming that the intent is to ensure compliance with such SEBI requirements, we would suggest consideration of the following as a redraft of this rule:

"No Member or person associated with a Member shall exercise any discretionary power in a constituent's account unless such constituent has given prior written authorization for such activity, and such activity is conducted in accordance with Securities and Exchange Board of India Portfolio Managers Rules and Regulations, 1993"

4 4 6 (order placement/modification) and 4 4 7 (order cancellation)

These rules require the Member to obtain order entry, modification and/or cancellation information from the constituent in writing. Based on discussion with market participants as well as observation of Member order desk activities, this requirement does not appear practical. Instructions from constituents are routinely obtained verbally (over the phone or in person). Rather than establish a requirement that would likely be routinely violated, we would recommend that these rules require that the member make a record of order terms, modifications and cancellations. These records should be reviewed and approved on a daily basis by a senior officer of the Member, and a record of such review and approval be maintained.

4 4 9 (accumulation/bunching of orders)

This draft rule appears self-contradictory. In the first sentence it establishes that the Member "shall not accumulate constituent's order/unexecuted balances specified for that contract by the Exchange (*sic*)". In the second sentence it requires that "The Trading Member shall place forthwith all the accumulated orders".

If a Member is prohibited from accumulating orders, he should not be in a position to "place forthwith all the accumulated orders" The Exchange should determine the intent of this rule and adjust the text accordingly

Further, the last phrase in the first sentence "balances specified for that contract by the Exchange" It is unclear what is meant here or how this fits into the rule This should be clarified or deleted

4 4 10 (order entry/execution discretion)

This rule appears to be intended to provide the Member with the ability to accept verbal authority (as opposed to requiring written authority) for the time at which an order is to be entered Query as to whether the intent is to provide for "time and price discretion" as is available in many markets

It is recommended that this rule be redrafted to read

"The Trading Member shall, to the extent that the Exchange trading system can accept them, promptly enter all constituent's orders in accordance with their instructions The Member may, however, accept and act in accordance with verbal or written instructions from constituents which provide the Member with discretion as to the time and/or price at which such order will be entered for execution

4 4 11 (Confirmations/Contract Notes)

Note this appears to partially duplicate 3 2 2 of these regulations The comments for 3 2 2 should be reviewed, the requirement clarified, and the redundancy between these two paragraphs resolved

4 4 12 (Client Bank Account)

This rule requires separate bank accounts for constituent funds and the member's funds In this regard it is recommended that the rule further require for the bank account maintained for constituent funds

-a contract or agreement in a form acceptable to the exchange (or SEBI) providing that the bank has been advised by the member that all funds deposited in the account are being held by the bank for the exclusive benefit of customers of the member in accordance with this rule that these funds shall at no time be used directly or indirectly as security for any loan to the member by the bank, and that these funds shall be subject to no right, charge security interest, lien or claim of any kind in favour of the bank

-such account shall be titled "Special Account for the Exclusive Benefit of Customers of (Member's Name) "

-the member shall be required to maintain records documenting all financial transactions with and for customers, evidencing that such transactions were properly conducted through this Special Account

(Note, this paragraph should reference the requirements of 6 1 4 1 and 6 1 4 2 herein)

4 4 13 (Margin Deposits from Customers)

This draft rule provides that if the member is required to pay margin to the Exchange it "may" collect the same from its constituent, but further provides that the member may not collect more from the client than the amount actually paid or payable to the Exchange

In this regard it is recommended

-that at any time sufficient funds are not available in a constituent's account to meet margin deposit requirements with the Exchange, a call shall be issued requiring the constituent to promptly deposit at a minimum sufficient funds to meet such requirement

-each member may require constituents to maintain balances in their accounts, or to deposit funds in excess of the amount required to be deposited by the member with the Exchange in connection with such accounts Any such balances or excess margin deposits shall be kept by the member in the "Special Bank Account for the Exclusive Benefit of Customers"

4 4 14 (Cancellation of Trades)

This draft rule establishes procedures for cancellation of trades which have been executed Such cancellation would require the approval of the Exchange

We concur with the requirement that the constituent's request for cancellation should be in writing We would further recommend that the member document the reason provided by the constituent for such request, and that approval by a senior officer of the member be recorded prior to further processing

The second and third sentences in this paragraph are unclear It is assumed that the intent is to require the member to promptly advise the contra-party to the transaction as well as the Exchange of the request for cancellation This could be more clearly stated

It is recommended that this paragraph be redrafted to read

"Any request by a constituent for cancellation of an executed trade must be made in writing to the Member, who shall maintain a record of the reason(s) given for such request as well as approval or disapproval by a senior officer

The Member shall promptly advise both the Exchange and the contra-party to the transaction of any such requests for cancellations which have been so approved

The member shall advise any constituent making such request that the Exchange maintains final authority to approve or reject cancellations of such executed trades"

4 5 3 (Members' Responsibilities for "Employees")

This paragraph provides that "The Trading Member/Participant shall ensure-

(i) that any employee who commits (the Member) to a transaction has the necessary authority to do so, and

(ii) that employees are adequately trained in operating in the relevant market segment in which they deal "

In this regard it is recommended that these requirements be made applicable to any person or entity acting on behalf of a Member/Participant, rather than limiting these rules to "employees" The term "employee(s)" in (i) and (ii) above should be replaced by "any person or entity acting on behalf of a Member/Participant"

4 5 3 g)(Misrepresentations)

The term "great care" appears unnecessarily subjective It is recommended that this paragraph be redrafted to read

"When recommending, arranging for or entering into a transaction a Member or person registered with or associated with a member may not misrepresent, in any way, the nature of the transaction "

4 5 4 d)Use of information obtained in a fiduciary capacity

This paragraph prohibits the Member from making use of information obtained in various fiduciary capacities for "soliciting purchases, sales (*sic*) except at the request of and on behalf of the issuer"

The phrase "purchase, sale" (above) should be replaced with "purchase, sale or exchange"

4 6 Note there is no section 4 6 in this draft The text skips from 4 5 to 4 7

4 7 Unfair Trading Practices

We concur with the prohibitions set forth in 4 7 1 through 4 7 3 (manipulation and wash sales) We further recommend a prohibition against "front running" be added

"No Member or person associated or registered with a Member, for an account which such Member or person has an interest or for which such Member or person exercises investment discretion, shall cause to be executed any order to buy or sell any security or derivative while in possession of material, non-public information concerning an imminent block transaction in such security, derivative, or underlying security(ies) for such derivative No Member or person associated with a Member may provide to any customer any such material information regarding such imminent block transactions Such information regarding imminent block transactions must be maintained in a confidential manner by such Member or person associated with such Member "

5. *Arbitration*

Although the NSE has a provision for resolution of disputes through arbitration, there appears to be little experience in using this procedure No data, files or other records were provided for review

FIRE office has for reference a video tape created by the National Futures Association (NFA) to educate the public about availability of their arbitration function, as well as a tape to educate arbitrators as to their responsibilities FIRE office also has samples of information packages provided by the National Association of Securities Dealers (NASD) to potential claimants in an arbitration process These packages included the forms required as well as pamphlets describing the process and setting forth the arbitrators' duties These materials should be useful as references to the Exchange and other authorities as arbitration processes are reviewed

Beyond this, we recommend that the Arbitration process and function be the subject of a separate study by the FIRE project

6. *Records, Annual Accounts & Audits*

6 1 Records

6 1 3 (Records Required)

This paragraph lists certain records required to be maintained by the Member. Certain additional records should be required and made a part of this list, including

-customer account record (ledger/statement) listing all activity (buys and sells, receipts and deliveries of securities, receipts and disbursements of funds, and any other debit, credit or other adjustment to the account

-margin calls made and met

-stock record (securities position record) reflecting separately for each security all "long" and "short" positions carried by such member for his account or for the account of constituents or others and showing the location of all securities owned and the offsetting position to all securities short

-information regarding account guarantees, including the name and account being guaranteed, the identity and authorisation of the guarantor, and documentation of the security, funds or other property being pledged to secure the guarantee

-information regarding loan guarantees, including the account(s) being guaranteed, the identity and authorisation of the guarantor, and documentation of the security, funds or other property being pledged to secure the guarantee

-documentation of Letters of Credit, in a form acceptable to (or provided by) the Exchange detailing the bank issuing the LOC, the amount of the LOC, and the expiration date

(note that if the intent of paragraphs 6 1 9 and 6 1 10 is to cover account and loan guarantees as well as Letters of Credit, these paragraphs should be expanded to reflect the above

-risk disclosure documents executed by each constituent approved to trade in futures or other derivatives (as discussed in II B , below)

6 1 4 1 and 6 1 4 2 (Accounting for Customer Funds)

These paragraphs should be cross referenced and co-ordinated with 4 4 12. The requirement that an audit trail be created and maintained as part of the Members records should be explicit

6 1 11 (preservation of constituent account records)

This paragraph sets forth a requirement to keep constituent account records for six years after the account is closed. Other record keeping requirements are five years (e.g. 6 1 3). Is there a reason for the difference?

6 1 14 (Customer complaint records)

In addition to maintaining the record of written complaints of constituents, the Member should be required to keep a copy of the actual complaint document (letter or other written notice from the constituent) as well as a record of the resolution of the matter by the Member.

6 2 Annual Accounts and Audits

Two modifications appear in order to this paragraph:

1. Standards should be established as to who can certify the Member's audited financial statement. This should provide that this function can be performed only by a chartered accountant who is in good standing and is independent of the Member.
2. As written, this paragraph allows six months for the audit to be performed and filed. This means that the information will be stale by the time it is in the hands of the regulators. The annual audit should be completed and filed with the Exchange within sixty days of the Member's fiscal year end. Extensions, if any, should be granted by the Exchange and approved by SEBI (and would be an indicator of the need for more frequent and thorough examination by the Exchange).

7. *Inspections*

7 2. Notice

- Although paragraph 7 2 2 allows for the Exchange to conduct examinations of Members without prior notice, this would be an exception. Paragraph 7 2 1 establishes a norm of prior "reasonable notice" to the Member before undertaking any such inspection.

The Member will already know the date on which this year end audit (required by 6 2, above) will be conducted. Exchange examinations should, other than in exceptional circumstances, be conducted on an unannounced basis.

_7.3 Obligations of a Trading Member on Inspections

Several times in this section the terms "reasonable" or "reasonably" are used to qualify the access to records and other information to which the Member must give the examiner, or the level of assistance to be provided by the Member in this regard

These terms seem unnecessarily subjective. The Exchange should instruct its staff (or other professionals which it might appoint for this purpose) as to the standards of professionalism expected. Any grievance by the Member in this regard should be referred to the Exchange. The Member should not, however, be invited to determine what level of access or co-operation is "reasonable", and these terms should be deleted from this section.

7.4 Submission of Report

7.4.3 (Action taken)

This paragraph sets forth procedures to be followed prior to any action taken by the Exchange on the findings of the inspection. The formal procedures set forth here are appropriate in the event of serious deficiencies or rule violations. A less formal procedure should be established to deal with "de-minimums" exceptions, allowing the Exchange to write a letter of caution detailing the deficiency and warning against future such problems as appropriate. This "de-minimums" procedure should not require prior notice to the Member (other than the informal discussion provided at the completion of the inspection), or prior explanation from the Member (though the Member could be invited to provide such explanation in response to the cautionary letter).

B. Review of NSE draft of risk disclosure and educational materials.

1. Draft Risk Disclosure Document.

The NSE has developed an initial draft of a risk disclosure document, modelled after the examples of such documents as used in the US market, which were provided as illustrations in the seminars conducted by Price Waterhouse in September, 1996.

The US risk disclosure examples were designed to cover both futures and options on a wide range of underlyings (including, but not limited to stock indexes). Although the general risks are well articulated, several of these specific risks are detailed which would not be applicable to the Indian market while it limits its activities to stock index futures. (Examples of such risks which would not be immediately applicable to the Indian market at this time would include currency risk, off-exchange transactions, and transactions in other jurisdictions.)

As these products will be new to the market, We recommend that the risk disclosure document address only the general risks of futures trading, as well as specific risks of stock index futures trading. Each constituent proposing to trade these instruments should execute a

copy of this disclosure document prior to the initial trade and the Member should be required to maintain this as part of their books and records under section 6.1 of Part A - Trading Regulations - Futures

When new instruments (e.g. options) and/or new underlyings are introduced, the Exchange should ensure that appropriate risk disclosure documents are in place and in use. This could be accomplished by either

a) modifying the existing document to reflect the new instruments/underlyings and requiring execution of such document by any new account wishing to trade derivatives as well as any account previously approved for derivatives trading

or

b) creating a separate risk disclosure document for the new instrument/underlying and require that either or both the previous as well as the new document be executed as appropriate to the type of derivatives activity to be undertaken by the constituent

(Note, alternative 1 would appear the more efficient way to address this matter.)

In this regard we recommend that the NSE redraft their "Risk Disclosure Document", focusing on general risks of futures trading, and specific risks associated with futures on stock indexes, as applicable to the NSE and the Indian market

2. Educational Materials

The NSE has drafted a pamphlet "An Investor's Guide to Futures and Options", which would be intended to serve as a basic educational document. This initial draft provides a good start toward the kind of materials which should be made available to the public. Nevertheless, certain modifications should be made in order to allow this document to serve its intended purpose

a) This draft appears to have a "marketing" rather than a "disclosure" orientation. While it is appropriate to discuss the possible benefits of derivatives, this should be balanced with presentation of commensurate risks. Examples and illustrations of such risks should be provided as well.

b) A major theme repeated in the text is "Derivatives are instruments which are used mainly for hedging risks". While it is true that the economic justification for introduction of a derivative contract is (or should be) to serve a hedging function, most participants in the derivatives market will be speculators. It would be more appropriate to say that the derivatives market affords the opportunity for hedging, and that speculators seeking to profit from market movement will provide liquidity and price discovery for the hedgers.

c) _ This document covers both futures and options. As discussed in 2 a) above, it would be appropriate, especially during the initial phases of trading, to focus on those instruments and underlyings which will actually be traded. As such, we recommend that this document be redrafted and limited to futures contracts on stock indexes.

Further, a disclosure/educational document should be developed modelled after the pamphlet "Understanding Opportunities and Risks in Futures Trading" (US National Futures Association). Copies of this pamphlet were provided in the seminars held by Price Waterhouse in September, 1996.

Delivery of such basic disclosure/educational document to any constituent proposing to trade these instruments should be required prior to approval of the account for such activity. A record of the date of delivery of this document to the constituent should be maintained by the Member. A paragraph should be added to the "Risk Disclosure Document" discussed in 2 a) above through which the constituent acknowledges receipt of, and opportunity to review a copy of such pamphlet.

C. NSE Educational Activities with Members and Potential Users.

In addition to participating by making presentations at seminars sponsored by Price Waterhouse, the NSE has conducted a "Members Training Program" through a three day seminar. The outline and materials used at this program indicate good coverage of topics such as index futures basics along with trading systems and trading practices. Educational efforts in these areas should be continued, and should include mock trading exercises using the same facilities as are used for Capital Markets trading.

The outline of this NSE seminar indicates one hour on the first day devoted to "Back Office", and two hours on the third day to "Clearing System" and "Margining System". These subjects will require continued and increased emphasis as the NSE prepares for introduction of index futures trading. It will be of vital importance for the NSE to educate its Members as to the Exchange's trading and clearance systems, as well as to assist their Members in establishing their own necessary systems and procedures.

Prior to introduction of index futures, mock trading exercises should be expanded to include downloading of data to the Members, as well as Member processing of such data. NSE should, under SEBI oversight, review each Member in order to determine the adequacy of their systems and procedures as well as the competence of their back office and administrative personnel prior to approving the Member's participation in index futures activity.

III. SYSTEMATIC CONCERNS

Update on comments and observations made in Mr. Litteaus's earlier report - "Review of the Establishment of Derivatives Exchange in India".

A. Comments on Recommendations in Barclay Report.

In his Feasibility Study of a Derivatives Exchange in India dated March 18, 1996, Dr Barclay of the Chicago Board Options Exchange made 15 separate recommendations as to steps which should be taken as "the most important capabilities and enhancements that should be completed prior to equity derivative launch" in India" Dr Barclay further stated that the estimated time for completion of these recommendations would be eighteen months from that date "assuming no unexpected delays at either the legislative or regulatory level" He further noted that the assumption of no such delays "has not proved realistic in the experience with other derivatives markets where there has invariably been one or more delay"

A detailed review of the status of completion of each of Dr Barclay's recommendations was beyond the scope of either Mr Litteau's visit of September/October, 1996 or January, 1997 Nonetheless, based on our observations and discussions with market participants, NSE and SEBI managers, and FIRE project personnel, we find no reason to disagree with any of the recommendations or with the anticipated time required to complete them

In Mr Litteau's earlier report - "Review of the Establishment of Derivatives Exchange in India", he made comments with respect to the status of implementation of Dr Barclay's recommendations As a result of his January, 1997 visit, he has made the following additional comments with respect to certain of these recommendations

(Note the following numbers are the recommendation numbers from the March, 1996 Barclay report)

Barclay Recommendation #2:

"A Separate clearing house should be established for derivatives products with the capability to undertake portfolio risk analysis, when the components of a portfolio contain both derivative and cash positions This will require acquisition of portfolio risk assessment software such as those currently applied in existing derivative markets"

At the time of Mr Litteau's September 1996 visit NSE personnel indicated that they had reviewed various clearing systems and risk control software particularly the SPAN system offered by the Chicago Mercantile Exchange) NSE indicated that they intended to develop their own system and software in this regard

During his visit of January, 1997 personnel from NSE Clearing expressed an interest in reviewing the rules and regulations of the Options Clearing Corporation (OCC), as well as the TIMMS risk control system offered by OCC Subsequently FIRE procured a copy of the

OCC manual as well as material developed by them which describes and explains the TIMMS risk control system. Such material has been delivered to NSE Clearing for their review and consideration.

There has been substantial progress in developing the facility for clearing derivatives activity on the NSE. This should be completed and tested (including the interface with clearing Members) prior to launch. Further, prior to launch a decision should be made as to the risk control software to be used. If one of the existing programs is to be chosen (SPAN, TIMMS or other) it is necessary for personnel from the NSE and NSE Clearing as well as the Members to be trained in the use of such system. If NSE determines that it will develop its own system this should be thoroughly documented and tested prior to launch.

Barclay Recommendation #3.

A depository for immobilisation of shares (at least those subject to derivatives trading either as components of an index product or as the underlying stock for individual stock option) should be in place prior to launch of derivatives trading. The current paper-based system for stock clearance will not support derivatives transactions, from either an operational or pricing efficiency standpoint."

The NSE expects a significant volume of index futures trading to result from arbitrage activity. Experience in other markets suggests that this will be the case. Since the arbitrage pricing model may dictate buying or selling the cash instrument (stocks comprising the index), but not unwinding that position within the settlement cycle, many (most?) arbitrage trades will result in long or short positions. Physical delivery of such shares would only increase and compound strains on operational capacity.

Further, reports continue of problems of "bad paper" (counterfeit, stolen, duplicate or otherwise non-transferable certificates). Increased volume of trades and of resulting deliveries would only increase the potential for such abuses.

Both with regard to operational efficiency and to market integrity, immobilisation of certificates of those issues comprising the index through a depository must be a priority goal.

At the same time, pending immobilisation of all such shares (a status which may never be totally accomplished) a review should be made to determine the adequacy of existing procedures and regulations in dealing with the bad paper problem.

Barclay Recommendation #8.

"A document disclosing the risks of investment in derivative products should be developed that would be provided to all accounts seeking to trade derivatives. This document is primarily targeted towards individual investors but should be provided to institutional investors as well."

As noted in Section II B, above, the NSE has drafted a risk disclosure document patterned after the examples provided during the seminars conducted by Price Waterhouse in September, 1996. This draft should be modified to focus on the instrument and underlying which will be introduced at this time (i.e. stock index futures contracts) rather than attempting to cover all derivatives on all possible underlyings. There are also several risks discussed in this draft which would not be relevant to the Indian market at this time (e.g. foreign currency risk). Given that these will be new instruments and markets this document should, for the sake of clarity, be limited to the applicable risks of stock index futures.

As new instruments and/or new underlyings are introduced, a decision can be made as to the form with which additional risk disclosures should be made. This could be accomplished by either expanding the previously adopted document, or by developing a supplemental document to disclose additional relevant risks.

Barclay Recommendation #9:

"A short sale and stock borrow/lend capability needs to be established. This is essential for fair pricing of equity derivatives. The legal authorization for short selling has often taken a considerable period of time, despite apparent recognition of such strategy, e.g. more than two years in the case of Hong Kong."

Efficient stock index futures pricing is based on an arbitrage between the cash and the derivatives market. When the futures sell at a discount to their theoretical "fair market value" (which is a function of the cash market price) the arbitrage is accomplished by buying the undervalued asset (the futures contract) and selling the cash instrument(s). In the event that the arbitrageur does not own the cash, the arbitrage is accomplished by short selling the underlying securities. The type of temporary "short position" which is typical in the Indian market in which sales are accomplished but "squared off" during the settlement period will not be satisfactory to accomplish this "arbitrage" function since the short seller will be in the position of having to unwind his position regardless of economic advantage or disadvantage. The bona-fide arbitrage necessary to efficiently price the stock index future will require that the arbitrageur be able to hold short positions in the cash instruments at known costs for extended periods of time. Any impediment to the ability to affect such short sales will inhibit the arbitrage function, and will make it more likely that the future will become "uncoupled" from the cash market.

In order to facilitate short sales, the seller must have access to securities in order to make delivery. This is ordinarily accomplished by a "stock borrow/stock loan" function. In this regard a party who owns the stock, or who holds the stock as collateral for a loan made to the owner, in turn loans the stock to the short seller. The loan of stock is secured by deposit with the stock lender of the full value of the securities which have been short sold. This deposit is then regularly (daily) adjusted (market to market) and the amount of deposit increased if the value of the stock has increased. In this regard the stock lender is secured, and in the event that the stock borrower is unwilling or unable to return the borrowed securities he can buy them in the open market charging the stock borrower's account.

Earlier in 1997 SEBI announced new regulations which would recognise at least some types of short sales. At the time of this visit it was unclear how these new short sale procedures would be accepted by the market. Further, it appeared that although domestic (Indian) institutions would be able to participate as stock lenders, foreign institutions would be precluded from this activity.

Prior to launch of trading of stock index futures a determination should be made as to the adequacy of the short sale function as well as of the availability of stock for loan purposes to support such activities.

Barclay Recommendation #11:

"An educational effort regarding the uses and functions of derivatives should be undertaken, probably by the NSE (and other interested exchanges) in conjunction with SEBI. The orientation and purposes of such effort are not primarily exploration of particular strategies but of the role and function of derivatives in a modern capital market."

Seminars have been conducted over the past year, both by Price Waterhouse and by the NSE. These educational activities should be encouraged and continued, and should be directed to both the "end user" (retail or institutional constituent) as well as to the Members who will be participating in these markets. In this regard we recommend emphasis be given to education and training for

-NSE members and their personnel both "front office" (sales) and "back office" (operations) as to their roles and responsibilities in these markets. Mock trading, including processing of such mock trades should be included in these activities.

-potential "end users" outside of Mumbai. In this regard seminars should be presented in person or via television or video tape in order to afford such participants with the information needed in order to understand the opportunities, risks and procedures of the stock index futures market. (In this regard, in-person presentations would be preferred, as they would afford the opportunity for the constituents to raise questions, and for the presenters to gain insights into the adequacy of preparation for launch of trading.)

Barclay Recommendation # 12:

"Brokers should be licensed and registered both for the right to offer their services in the underlying cash equity market and also, with additional qualifications, for those seeking to offer derivatives trading to their clientele. This licensure process will allow Indian regulatory agencies to track the performance record (customer complaints and their resolution) of brokers over time and take appropriate action against "rogue" brokers.

Broker qualification and registration should be a priority concern overall, and in particular for those brokers acting in the futures market. Supervisors should also be required to

demonstrate their technical competence with regard to industry rules, regulations and compliance procedures. Qualification examinations should be developed for both brokers and supervisors, and successful completion of such examination should be required in order to act in these capacities. In this regard, copies of the study outlines developed by the U.S. National Futures Association for Series 3 (Futures Broker) and Series 30 (Branch Manager-Futures) may provide illustrative examples.

The Indian market has not established a "Central Registration Depository" to maintain information on brokers. As discussed above in Section II A, 4.2.4 (Qualifications investigated), lack of this data base limits the Member's ability to fulfil the requirement to investigate the "good character, business repute, qualifications and experience of potential registrants". Steps should begin to build such a data base which would provide Members of NSE (as well as other exchanges and SEBI) this type of information.

Finally, the sub-broker issue should be resolved prior to initiation of trading of index futures. The official NSE position is that their members do not deal with unregulated sub brokers, and that each "constituent" is dealing for his own account. Observation as well as discussion with market participants suggest that the NSE position represents a state of denial. It appears that sub brokers are prevalent throughout the market, and provide the interface between the retail client and the Member. Unless the sub broker is brought into the scheme of regulation, the public will not be getting the protection needed to ensure a level playing field and a credible market.

B. Comments on other recommendations made in the Mr. Litteau's earlier report - Review of the Establishment of Derivatives Exchange in India":

Four additional recommendations were made in this report under the heading of "Market Financial Integrity", in addition to the 15 made by Dr. Barclay. As a result of Mr. Litteau's January, 1997 visit, the following observations are appropriate with respect to these four recommendations:

(headings below are from the above mentioned report)

1. Margin Rules

The NSE has indicated an intent to set the initial margin requirement with a Rupee value at approximately 15% of the value of the underlying index. This requirement would be applied to both speculative as well as to hedged positions. After considerable experience has been obtained a determination could be made to lower the initial margin and/or to apply a lower margin requirement to hedged positions.

The proposed level for initial margin is appropriate. Procedures should be in place to ensure that initial margin has been received from the constituent prior to establishing any opening position in a stock index futures contract.

Of comparable importance to the initial margin requirement is establishment of maintenance margin levels and margin call/close out procedures. Observation as well as discussion with market participants indicates that current margin and deposit requirements are not uniformly enforced by brokers. The common explanations given for this deficiency are that the constituent is "well known" by the broker (or that his account has been "guaranteed" by another party, which will be discussed in section IV, below) or that due to competitive pressures it is impossible for them to enforce margin/deposit standards ("if I do so the account will go to another broker who is not so demanding")

As discussed in Mr. Litteau's earlier, whatever latitude has been given to (or taken by) brokers in enforcing margin standards in non-derivative accounts should not set a precedent for any laxity in applying such standards to derivatives accounts. In fact, since most constituents will likely have both capital markets (equity) accounts as well as derivatives accounts, it would be necessary to uniformly apply margin requirements to both to preclude one type of account from inappropriately financing the other.

Procedures should be in place, understood and enforced by all Members as well as by the NSE to ensure that appropriate levels of equity are maintained in derivatives accounts, and that maintenance calls are timely made and timely met. Close out procedures should be in place and utilized in the event that such calls are not promptly met.

After launch, any modification as to the levels of initial or maintenance margin, or of any other aspect of the margin rules and procedures should be made as a result of documented study by the NSE with approval by SEBI.

2. Segregation of Customer Funds.

This topic was discussed under II 4 4 12 and 6 1 4 1-2, above. In summary, the NSE should ensure that its Members have in place the appropriate Client Account(s), that there is documentation (bank contract or agreement) that ensures that the carrying institution will not use these funds for other than customer purposes, and that an audit trail is made to demonstrate the proper use of deposit or withdrawal of all funds to or from such account.

3. Net Capital Requirement

As discussed previously in this report (Section IA under 3 7-Deposit Requirements) NSE's financial responsibility rules appear to focus on the potential exposure to the Exchange from the financial failure of a Member. This is currently by an exchange deposit requirement for its Members.

For purposes of protecting market integrity and viability, exposure to constituents and other creditors must also be addressed. This is ordinarily accomplished by establishing a "Net

Capital Rule" providing standards for minimum capitalisation and liquidity, and maximum leverage

It is of particular importance that an adequate Net Capital rule be in place prior to introduction of index futures trading providing among other requirements, charges to capital for unsecured client debits and/or constituent margin calls which are not timely met

Subsequently, Mr Harry Melamed of Price Waterhouse has conducted a study on this subject The report of Mr Melamed's study should be considered along with the recommendations earlier made in the report - "Review of the Establishment of Derivatives Exchange in India"

Further, it was noted that Members are reporting their financial condition to the NSE only once a year (after the completion of their annual audit) and that the auditors are allowed six months to complete this report As a result, the NSE will be working with "stale data" in their surveillance of the financial health of their Members

As earlier recommended, a program of more frequent summary financial reporting should be implemented, particularly for participants in the derivatives market

Net capital requirement should be set at a high enough level to provide adequate protection to both constituents and other market participants against loss caused by the financial failure of a Member Members must be in continuous compliance with this standard, and should be required to document such compliance at least monthly with a trial balance and computation of net capital

4. Books and Records

Comments with respect to the NSE's books and records rules are made in response to II 6, above These comments should be read in connection with Mr Litteau's comments on this subject made in his earlier report

Although both SEBI and NSE have recordkeeping rules these in general are only lists of titles of books and records that the Member is required to make What is needed is a guide to the content and form standards of such records (such as made available by the National Association of Securities Dealers in their commentary to the US Securities and Exchange Commission's Rule 17a-3, or by the American Institute of Certified Public Accountants in their "Guide to Audits of Brokers and Dealers in Securities")

Prior to launch of derivatives trading it is essential that all Members have in place complete and adequate recordkeeping systems These systems should be tested through mock trading and evaluated by NSE prior to approval of such Member for trading

IV. CUSTOMER PROTECTION

In addition to the concerns expressed above with respect to net capital, segregation of customer's funds, margin standards and books and records additional concerns have been noted as a result of this visit, and should be addressed

A. Deposit and Margin requirements being met by Bank Guarantees (Letters of Credit).

Such instruments are being used in many cases by NSE Members to satisfy these requirements for both their own and their constituent accounts. In this regard two concerns should be addressed

1 The NSE should ensure that the bank issuing the LOC or Guarantee has the financial capacity to honour such commitment. A list of banks approved for such purpose should be established (recognising that this would be a very short list at present, but this would allow new banks to be added as appropriate). Further standards should be established as to the total amounts of such instruments which a single bank could issue or guarantee. Since it is likely that banks would be providing these services to exchanges and Members of other than the NSE such requirements should be established by the appropriate bank regulators. NSE should require that the Member obtaining such service from a bank also obtain an undertaking (as part of the instrument) that the bank is in and will remain in compliance with such limits

2 There is no evidence of a "firewall" preventing the bank from having a claim against the assets of a broker's constituents in the event that the broker is unable to satisfy its obligations to the bank resulting from use of such instrument(s) (i.e. performance is required of the bank as a result of issuance of such instrument. What recourse does the bank have against the broker? The NSE should ensure that the bank has undertaken to limit its claim to the assets of the broker, and is precluded from claiming against the assets of constituents.)

Similarly, to the extent that the Member is allowing constituents to use such instruments to meet margin or deposit requirements, there should be a "firewall" by agreement precluding the bank from making claim against any constituent's assets other than in connection with a guarantee or letter of credit issued to that same constituent

B. Third Party Guarantees.

It was noted during this visit that Members are in some cases not obtaining margin or deposit requirements from constituents claiming instead that such accounts are "guaranteed" by a party other than a bank. Based on a very limited sample (supported by more extensive discussion) it appears that such "guarantees" are problematic

1 There is a lack of documentation. If a Member is going to recognise such guarantee, there must be a formal documentation of the terms and conditions of such undertaking. The form of such agreement should be approved by the NSE and a limit as to the maximum level of such guarantees for each broker (as a percentage of its net capital) should be established.

2 In many cases the party providing the guarantee does not have an account with the broker. In this case the broker would have a difficult time enforcing the agreement short of legal action. This would not meet the standards of ready liquidity which are the underpinnings of financial responsibility rules in the securities industry. NSE should require that the guaranteeing party have an account with the broker carrying the account being guaranteed, and that adequate equity is maintained in the account to satisfy potential exposure.

V. GENERAL POLICY/PHILOSOPHICAL ISSUES

Two overarching questions should be asked, and a consensus reached as to answers in order that the launch of trading in the index futures contract may be effectively monitored

- a) First, what is the economic justification for this contract?
- b) Second, what is the expected impact on the cash market of the introduction of trading in the index future?

These questions are necessarily related, and it is clear that answers will overlap

Regarding a), the economic justification for the index futures contract, the four possible answers which have been suggested (and our comments on each of these answers) are

- 1 Introduction of trading in the NSE 50 Index will enhance liquidity and price discovery in the underlying cash market
- 2 The index futures contract will be used for hedging and asset allocation purposes by domestic investors particularly institutions
- 3 Speculative activity will be drawn away from the cash market to the index futures market, where it can be better monitored and controlled
- 4 The index futures contract will afford foreign investors particularly FII's the opportunity for convenient access to exposure to the Indian market

With regard to the first of these possible answers, the NSE has taken great trouble to demonstrate the liquidity and efficiency of pricing for the issues which comprise the index. Assuming their analysis to be correct, it would appear that the objectives of price discovery and liquidity have been satisfied. Is there any incremental efficiency expected from the introduction of the index futures contract? For the entire market, or only for the top tier?

The second answer above is the traditional economic justification for introduction of any futures contract, i.e. that it serves a hedging purpose, and that speculators (though they may well provide a far greater number of participants and volume of trading) provide ongoing market to which the hedgers may have ready access. Although some domestic institutions have indicated an interest in using the contract for hedging (including anticipatory hedging in an asset allocation approach), the general expectation is that the early activity in trading in this contract will be primarily speculative and that the hedgers will take a wait and see approach before becoming a significant presence. This may well be a pragmatic approach, but it should be determined prior to commencement of trading that there is sufficient interest in hedging (both on the sell and the buy side) from a sufficient number of potential hedgers to establish this function as an (the) economic justification for introduction of this contract.

Thereafter, a provision should be established to capture hedge versus speculative positions in order to determine when and how this type of activity develops

The third answer above is intriguing, given the apparent consensus that speculative activity currently dominates the cash market. Speculators may well be attracted to the index future, which might then result in a greater proportion of long term "investment" activity in the top tier issues. The question then would be is it expected that the speculative activity would have been drawn away from these same shares or would it have been drawn away from the lower tier issues many of which have already limited liquidity. Provision should be made for monitoring the impact of introduction of the index future not only on the NSE 50 components, but on other segments of the market

The fourth answer, facilitating possible exposure to the Indian market for FII's appears reasonable. As with domestic hedgers, it appears likely that such sophisticated investors would take a "wait and see" approach prior to any significant presence in this market. Provisions should be established to monitor such participation, similar to that suggested for surveillance of hedging activity suggested above

b) Regarding the anticipated impact on the cash market consideration should be given to existing inefficiencies which appear in to be caused part by

- 1 Trading of many issues on multiple exchanges without having an intermarket trading system
- 2 A large proportion of settlements requiring physical delivery without ready access to stock loan facilities
- 3 Lack of co-ordination between settlement procedures and cycles on the various exchanges

While efforts are underway to address these points attention should be focused as well on the impact of the index futures contract. Is it expected to relieve or to exacerbate these problems with regard to the NSE 50 and other top tier stocks? Provisions should be made for monitoring the efficiency of pricing on the NSE and between the exchanges prior to and subsequent to the introduction of trading of the index future in order to determine any such positive or negative impact

Also, as noted in the discussion under a) above provisions should be made for monitoring any possible impact of the futures contract on liquidity and price discovery on the lower tier issues

Appendices

Appendix A

Study Outline
for
The National Commodity Futures Examination



STUDY

OUTLINE

FOR THE

NATIONAL

COMMODITY

FUTURES

EXAMINATION

NFA

NATIONAL FUTURES ASSOCIATION
200 W MADISON CHICAGO IL 60606



INTRODUCTION

The following outline is intended to serve as a study aid for persons preparing for the National Commodity Futures Examination ("NCFE"). It provides an indication of the subject matter that should be concentrated upon in studying for the examination but does not list specific test items. The outline presents those areas in which National Futures Association ("NFA") and its Educational/Testing Advisory Committee feel persons involved in opening and handling customer accounts in futures contracts and options on futures should be able to exhibit knowledge and proficiency in order to effectively serve their customers. The purpose of the NCFE is to test basic entry level knowledge of the candidate. Please note that candidates do not need to memorize information relating to the terms and conditions of particular futures contracts.

Anyone applying for registration as futures commission merchant, leverage transaction merchant, introducing broker, commodity pool operator, commodity trading advisor, or as an associated person ("AP") of any of the foregoing, must supply to NFA satisfactory evidence that they have taken and passed the NCFE. The NCFE is objective in format and contains 120 true/false and multiple choice questions. The NCFE will be presented as

one exam but is graded in two sections: one section dealing with general industry knowledge and the other concentrating on regulatory requirements. Candidates are required to pass both sections at the same sitting. Two and one half (2-1/2) hours time is allotted for completion of the examination. A minimum score of 70% on both sections of the examination is required for passing.

Upon completion of the examination, the PLATO system promptly scores and displays the candidate's exam grade on the terminal screen. Written verification of the exam results should be received by the candidate's sponsoring firm (or by the candidate) from NASD within 10 business days of the test date. It is *strongly* recommended that the candidate maintain a copy of their test results.

Passing the exam does not mean the candidate is registered as an AP. To be registered as an AP, the candidate must first file the proper forms and fees with NFA and, in most instances, be sponsored by an NFA Member firm. For more information on registration requirements, please call NFA's Information Center at 1-800-621-3570 (outside Illinois) or 1-800-572-9400 (Illinois only).

EXAMINATION SUBJECT AREAS

The following is a general listing of the major subject areas of the examination and related topics covered. Possible reference materials are listed in the following section of this study outline.

PART 1

FUTURES TRADING THEORY AND BASIC FUNCTIONS TERMINOLOGY

A. General Theory

- 1 Development of futures markets
- 2 Futures and securities compared
 - Rights
 - Obligations
 - Transfer of ownership

B. The Futures Contract

- 1 Futures and forward contracts compared
- 2 Offset provisions
- 3 The clearinghouse function
 - Clearing members
 - Non-clearing members
- 4 Delivery provisions
 - Basis grade
 - Premiums
 - Discounts

C. The Structure of Futures Markets

- 1 Normal markets
 - Carrying charges
 - "Full carry" markets
- 2 Inverted markets
 - Supply shortages
 - Other factors

D. Hedging Theory

- 1 Risk reduction
 - Unhedged position
 - Effect on pricing of cash markets
- 2 Short hedging
 - Typical short hedgers: farmers, producers, holders of inventory
 - Effect on pricing of cash markets
- 3 Long hedging
 - Typical long hedgers: processors, manufacturers, exporters
 - Protection against price rise

E. Speculative Theory

- 1 Leverage
- 2 Risk
- 3 Market liquidity
- 4 Price volatility

F. General Futures Terminology

Associated Person	Floor Broker
Basis	Forward Contract
Bucketing	Introducing Broker
Carrying Charges	Inverted Market
Churning	Limit Up/Down
Clearinghouse	Lock Limit
Convergence	Long
Commodity Pool	Normal Market
Operator	Put
Commodity Trading	Position Trader
Advisor	Retender
Deferred	Scalper
Discount	Short
Expir	Spot
Futures Commission	Variation Call
Merchant	Warehouse Receipt
First Notice Day	

G. General Options Terminology

At-The-Money	Out-Of-The-Money
Call	Premium
Conversion	Put
Delta	Spread
Exercise	Straddle
Expiration	Strangle
Grantor	Synthetic
In-The-Money	Options/Futures
Intrinsic Value	Time Value
	Winter

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FUTURES MARGINS, OPTION PREMIUMS, PRICE LIMITS, FUTURES SETTLEMENTS, DELIVERY, EXERCISE, AND ASSIGNMENT

A. Margin Requirements

- 1 The nature of futures margin
 - Performance bond
 - Comparison with securities margin
 - Authority of exchanges to establish and revise requirements
 - Initial and maintenance requirements
 - Documentation margin agreement, transfer of funds agreement
- 2 Margin calculations
 - Initial
 - Maintenance/variation
 - Effects of substantial price movement
 - Effects of change in requirements on new and existing positions
 - Withdrawal of excess equity
- 3 Alternative calculations
 - Hedge margin
 - Spread margin

B. Option Premiums

- 1 Intrinsic value
- 2 Time value
- 3 The delta
- 4 Premium quotations
(Note where different from underlying contract, e.g. T-Bonds and municipals)

C. Price Limits

- 1 Effect of limit-up/down price change
- 2 Expanded limits
- 3 Effects on margin of limit moves
- 4 "Lock limit"
- 5 "Circuit breakers"

D. Offsetting Contracts, Settlements, Delivery

- 1 Liquidating long and short positions
- 2 First notice day
- 3 Trading in the spot month
- 4 The clearinghouse role in the delivery
- 5 Delivery notices
- 6 Retenders/"stopped" notices
- 7 Physical delivery, warehouse receipts
- 8 Cash settled contracts, how settlement is computed
 - Stock indexes
 - Municipal bonds
 - Eurodollars

E. Options Exercise, Assignment, Settlement

- 1 Process of assignment
- 2 Margin requirements upon exercise
- 3 Final trading/exercise dates

TYPES OF ORDERS, CUSTOMER ACCOUNTS, PRICE ANALYSIS

A. Basic Characteristics and Uses of

- 1 Market orders
- 2 Stop orders
- 3 Stop-limit orders
- 4 Market-if-touched orders

B. Additional Orders

- 1 Good till canceled (GTC)
- 2 Fill-or-kill
- 3 "On close"
- 4 "One cancels the other" (OCO)

C. Technical Price Analysis

- 1 Charts bar, point and figure
- 2 Trendlines
- 3 Support/resistance levels
- 4 Congestion areas
- 5 Gaps

- 6 Triangles: ascending and descending
- 7 Double tops and bottoms
- 8 Volume and open interest
- 9 "Liquidating markets"

D. Fundamental Price Analysis

- 1 Effects of economic or political instability
- 2 Supply and demand elasticity
- 3 U.S. agricultural policies
- 4 "Crop years"
- 5 Hog/corn ratio

E. Interest Rate Analysis

- 1 Yield curves positive, inverted, flat
- 2 Effects of governmental policies
 - Tax policy
 - Monetary policy

BASIC HEDGING, BASIS CALCULATIONS, HEDGING FUTURES

A. Short Hedging and Long Hedging

- 1 "Anticipatory hedges"
- 2 Long the basis/short the basis

B. The Basis

- 1 How determined
- 2 Effect of basis charge on
 - The short hedger
 - The long hedger
- 3 Effect on price of commodity actually delivered or purchased
 - Transportation costs
 - Variation in deliverable grades
- 4 The basis in financial markets
 - Short term rates vs long term rates
 - "Implied repo rate"

C. Hedging Calculations

- 1 Net result of hedge
- 2 Net price received upon purchase or sale

Examples

Grains	T-Notes, T-Bonds
Livestock	T-Bill, Eurodollars
Foodstuff	Municipals
Metals	Currencies
Energy	Stock indices
Lumber	

SPREADING

A. Spread Trading

- 1 Order execution
- 2 Expectations
 - Narrowing or widening basis
 - Normal or inverted market strategies

B. Common Types of Spreads

- 1 Carrying charge or "limited risk" spreads
 - Intra-market
 - Inter-delivery
- 2 Bull and bear spreads
- 3 Intermarket spreads

SPECULATING IN FUTURES

A. Profit/loss calculations for speculative trades (including spreads)

- 1 Gross profit on speculative trades, single or multiple contract positions
- 2 Effect of commissions on gross profits
- 3 Return on (margin) equity calculations

Examples

Grains	T-Note, T-Bonds
Livestock	T-Bill, Eurodollars
Foodstuff	Municipals
Metals	Currencies
Energy	Stock indices
Lumber	

B. Trading Applications

- 1 Recommend appropriate speculative trades given certain economic or technical circumstances
- 2 Use appropriate orders both to initiate and protect position

OPTION HEDGING, SPECULATING, SPREADING

A. Option Theory

- 1 Long
 - Limited risk
 - Increased leverage
 - Total loss of investment (premium) possible
- 2 Short
 - Increased risk
 - Earn premium
 - Loss may exceed premium received

B. Option Hedge Strategies/Calculations

- 1 Long put as alternative to short futures hedge
- 2 Long call as alternative to long futures hedge
- 3 Allows for increased profit once breakeven point is reached

C. Option Speculative Strategies/Calculations

- 1 Long call as substitute for long futures
 - Risk limited to premium
 - "Breakeven point"
 - Profit and return on equity
- 2 Long put as substitute for short futures
 - Risk limited to premium
 - "Breakeven point"
 - Profit and return on equity
- 3 Long call to protect short futures (synthetic long put)
- 4 Long put to protect long futures (synthetic long call)
- 5 Long futures-short call (covered call)
- 6 Conversions
- 7 Reverse conversions (reversals)

D. Option Spread Strategies/Calculations

- 1 Call bull spreads
 - Spread to widen
 - Maximum profit/loss
- 2 Call bear spreads
 - Spread to narrow
 - Maximum profit/loss
- 3 Put bull spreads
 - Spread to narrow
 - Maximum profit/loss
- 4 Put bear spreads
 - Spread to widen
 - Maximum profit/loss
- 5 Calendar spreads
- 6 Arbitrage spreads

PART 2

REGULATIONS

A. General

- 1 NFA/CFTC Registrations
 - Floor broker ("FB")
 - Associated person ("AP")
 - Commodity pool operator ("CPO")
 - Commodity trading advisor ("CTA")
 - Introducing broker ("IB")
 - Futures commission merchant ("FCM")
 - Exemptions from registration
- 2 Futures account opening requirements
 - "Know Your Customer Rule" (NFA Rule 2-30)
 - Verbatim risk disclosure statement
 - Commodity customer agreement
 - Discretionary accounts
 - Written authorization
 - Account supervision and review
 - AP minimum experience requirement
- 3 Futures options account
 - Specific disclosure of strategies employed in discretionary accounts
 - Confirmation mailing requirements
- 4 Position reporting requirements
 - Set by CFTC or exchanges
 - Daily reports
 - Applicable to both speculators and hedgers
- 5 Speculative position limits
 - Maximum net long or short position specified by CFTC or exchanges
 - Bona fide hedgers' exemption

B. FCM/IB Regulations

- 1 Guaranteed and non-guaranteed IBs
 - Responsibilities of guarantor FCM
 - Rules for acceptance of customer funds
- 2 Net capital requirements
- 3 Quarterly and annual financial reports
- 4 Collection of margin deposits
- 5 Customer complaints
 - Options-related complaints
 - Adjustments to accounts
- 6 Time-stamping requirements
- 7 Advertising rule (NFA Rule 2-29)
- 8 Disclosure by FCMs and IBs required for costs associated with futures transactions

C. CPO/CTA

1. Disclosure documents
 - Upfront fees
 - Performance records
 - Disclosure statements
 - Trading program
 - Five year business background
 - Conflicts of interest
- 2 Records to be maintained
- 3 Advertising rule (NFA Rule 2-29)

D. Arbitration Procedures

E. NFA Disciplinary Procedures

- 1 Written complaints
- 2 Warning letters
- 3 Hearings
 - Offers to settle
 - Appeal process
- 4 Member responsibility actions (MRA)
- 5 Penalties for violators
 - Fine
 - Cease and desist order
 - Expulsion

STUDY REFERENCES

The following list includes books that may be helpful in preparing for the National Commodity Futures Examination, noted as to availability at bookstores* and/or direct from the publisher** Although not all-inclusive, this list is representative of the types of books available for studying

•• **Commodity Trading Manual** 1989

Chicago Board of Trade
LaSalle at Jackson
Chicago, IL 60604

•• **CTM Home Study Course Workbook** 1990

Chicago Board of Trade
LaSalle at Jackson
Chicago, IL 60604

• **The Futures Game 2nd Ed.**

Richard J. Teweles and Frank J. Jones 1987
McGraw-Hill Book Company
New York, NY 10020

• **FIJ Futures Trading Course** 1988

Futures Industry Institute
1001 Pennsylvania Avenue
6th Floor
Washington, D C 20006

•• **Futures: A Personal Seminar** 1989

New York Institute of Finance
15 Columbus Circle
18th Floor
New York, NY 10133-0040

• **Futures Market**

Daniel R. Siegel, Diane F. Siegel 1990
Dryden Press
Hinsdale, IL 60621

•• **How the Futures Market Works**

Jake Bernstein 1989
New York Institute of Finance
15 Columbus Circle
18th Floor
New York, NY 10133-0040

•• **Trading in Options on Futures**

James T. Colburn 1990
New York Institute of Finance
15 Columbus Circle
18th Floor
New York, NY 10133-0040

• **Understanding Futures Markets**

Robert W. Kolb 1991
Kolb Publishing
Miami, FL 33155

EXCHANGE RULE-BOOKS AND MARKET LITERATURE

In addition to the official rulebooks of the exchanges, literature on trading futures, options on futures, and on individual markets, is helpful in preparing for the examination. Please contact individual exchanges in order to obtain pricing lists, publication catalogs and order forms. Various departments within each exchange may be of assistance: Public Relations, Marketing, Literature, Member Services and Education.

Chicago Board of Trade

141 West Jackson Boulevard
Chicago, Illinois 60604
(312) 435-3500

Chicago Mercantile Exchange

30 South Wacker Drive
Chicago, IL 60606
(312) 930-1000

Coffee, Sugar & Cocos Exchange, Inc.

Four World Trade Center
New York, NY 10048
(212) 938-2800

Commodity Exchange, Inc.

Four World Trade Center
New York, NY 10048
(212) 938-2900

Kansas City Board of Trade

4800 Main Street
Kansas City, MO 64112
(816) 753-7500

MidAmerica Commodity Exchange

141 West Jackson Boulevard
Chicago, IL 60604
(312) 341-3000

Minneapolis Grain Exchange

150 Grain Exchange Building
400 South 4th Street
Minneapolis, MN 55415
(612) 338-6212

New York Cotton Exchange

Four World Trade Center
New York, NY 10048
(212) 938-2000

New York Futures Exchange

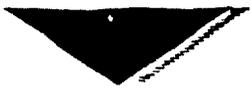
30 Broad Street
New York, NY 10004
(212) 623-4949

New York Mercantile Exchange

Four World Trade Center
New York, NY 10048
(212) 938-2222

Philadelphia Board of Trade

1900 Market Street
Philadelphia, PA 19103
(215) 496-5000



OTHER PUBLICATIONS

NATIONAL FUTURES ASSOCIATION NFA MANUAL (SOFTBACK EDITION)

WHAT THIS MANUAL CONTAINS — This edition contains NFA's Articles of Incorporation, Bylaws, Compliance Rules, Code of Arbitration, Member Arbitration Rules, Financial Requirements and Registration Rules

To order a copy contact NFA's Information Center at (312) 781-1410, or use 1-800-621-3570 (outside Illinois) or 1-800-572-9400 (inside Illinois)

See enclosed brochure for information on ordering other NFA publications

THE COMMODITY FUTURES TRADING COMMISSION

NFA's relationship to the CFTC

The Commodity Futures Trading Commission ("CFTC") oversees the regulatory activities of NFA. The CFTC also retains regulatory responsibility for the futures exchanges, floor brokers and floor traders. NFA does not regulate these industry participants.

The rules and regulations of the CFTC are encompassed in the **Commodity Exchange Act as Amended and Regulations Thereunder** Updated regularly. Current editions may be ordered directly from the publisher.

Commerce Clearing House
4025 West Peterson Avenue
Chicago, Illinois 60646
(312) 583-8500

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EXAMINATION PROCEDURES

ENROLLMENT

The National Commodity Futures Examination is administered for NFA by the National Association of Securities Dealers, Inc ("NASD")

The application form ("U-10" to be used by non-NASD members and "U-4" to be used by NASD members) should be completed by the applicant and sent with the \$75.00 fee payable to

NATIONAL ASSOCIATION OF SECURITIES
DEALERS, INC
P O Box 9401
Gaithersburg, MD 20898-9401
(301) 590-6500

IDENTIFICATION

In order to gain admission to a test center, a candidate must provide the center with two forms of personal identification, both of which must contain the candidate's signature. In addition, one document must contain either a picture or a physical description of the candidate. This requirement can usually be met by presentation of a driver's license, a military identification, a passport, or a similar type of official document. In situations where this identification requirement cannot be met by a candidate, the sponsoring firm should call the Examinations Section of the NASD Membership Department prior to the appointment date so that alternate arrangements can be made.

GENERAL INFORMATION

A candidate may use a pocket electronic calculator provided it has an independent power source, has no print mechanism, and has no alphabetic keys or displays.

COMPUTER- DELIVERED EXAMINATIONS

In the U.S., the examination is given at PLATO system computer terminals at more than 50 Control Data Learning Centers located in major cities. After applying for the examination, the candidate normally receives a written notice of enrollment within 10 business days and a brochure ("Your NASD Examination and the PLATO System")* of the U.S. learning centers, addresses, and telephone numbers. The candidate can then make an individual appointment for the exam at the learning center of his choice on regular business days, during normal business hours.

The brochure which the candidate receives with the notice of enrollment explains the simple procedures used in taking the exam at the computer terminal. Typing skills are not required.

*This brochure is revised quarterly (January 1st, April 1st, July 1st and October 1st). Please refer to a current issue for accurate and timely information.



PAPER AND PENCIL WRITTEN EXAMINATIONS

Persons in areas of the U S not reached by the PLATO System should contact the NASD to receive a schedule of examinations and to make application. Please refer to the PLATO brochure for a list of exam locations.

GENERAL INFORMATION

DATE AND TIME

Examinations are given on the first Saturday of each month.

Candidates must report to the examination center by 8:30 a.m. local time. Examinations begin promptly at 9:00 a.m. local time. No candidate will be admitted once the examination session starts.

BY APPOINTMENT ONLY

Appointments will be necessary for all candidates who wish to take these examinations. Appointments may be made by telephoning the Information Services Section of the NASD Membership Department in Rockville, Maryland at (301) 590-6500. The caller must specify the name and social security number of the candidate, the name of the firm, the series number of the examination and the test center location desired.

CANDIDATES MUST MAKE APPOINTMENTS WITH THE NASD EIGHT (8) FULL BUSINESS DAYS PRIOR TO THE EXAMINATION SESSION DESIRED AS EXAMINATION BOOKLETS ARE SENT TO EACH CENTER ON THE BASIS OF APPOINTMENTS MADE.



FOREIGN-ADMINISTERED EXAMINATIONS

SCHEDULE OF FOREIGN EXAMINATION CENTERS

All NASD examinations are administered abroad on the third Saturday of the month

Candidates must report to the examination center by 7:30 a.m. local time. Examinations begin promptly at 8:00 a.m. local time. No candidate will be admitted once the examination session starts.

For information contact
NASD Membership Department
Examinations Section
9513 Key West Avenue
Rockville, MD 20850

FOREIGN APPOINTMENT REQUEST FORM

In order to request an appointment at a foreign examination center, the foreign appointment request form must be submitted to the NASD with the foreign appointment fee for each candidate. The foreign appointment request form can be obtained from the NASD. Also, you must file the appropriate application form and testing fee with the NASD. With the exception of the General Securities Registered Representative Examination (Test Series 7), a candidate may request to sit for two examinations on the same day.

Each candidate must have a valid appointment confirmation in order to be admitted to the examination center. The foreign appointment confirmation will be honored only at the location and date and for the examination(s) specified.

The foreign appointment request form and fee must be submitted to the NASD *one month* prior to the desired test date to the following address:

NASD Treasurer's Department
9513 Key West Avenue
Rockville, MD 20850

The required forms and fees must be re-submitted to the NASD in order to re-apply for the examinations and/or foreign appointment.

FOREIGN EXAMINATION LOCATIONS

See the PLATO brochure for locations and dates of examinations.

NOTES REGARDING FOREIGN-ADMINISTERED EXAMINATIONS

All candidates taking NASD exams overseas will be given an extra hour.

An English/Native language dictionary may be used at all foreign examination sites after approval by the proctor.

**BRANCH MANAGER EXAM - FUTURES
SERIES 30**

Study Outline

This guide is intended to be an outline of the subject areas covered by the examination and does not represent an exhaustive list of the actual test questions

Section 1:

General

- books and records, preparation and retention
- order tickets, preparation and retention
- written option procedures
- handling of customer deposits
- NFA Compliance Rule 2-9, supervision of employees
- registration requirements - who needs to be registered, sponsor verification, NFA Bylaw 1101, AP termination notices, temporary licenses
- NFA's disciplinary process
- reportable positions
- NFA Arbitration Rules
- on-site audits of branch offices
- bona fide hedging transactions
- trading on foreign exchanges

Section 2:

CPO/CTA General

- registration requirements
- books and records to be maintained
- reports to customers
- block orders and order allocation

Section 3:

CPO/CTA Disclosure Documents

- management and incentive fees
- performance records
- how long can a CPO or CTA use a disclosure document
- conflicts of interest
- pool units purchased by principals
- business backgrounds of principals
- amendments to disclosure documents
- disclosure of disciplinary actions
- NFA/CFTC review of document before use

Section 4:

NFA Know Your Customer Rule

- client information required
- responsibility to obtain additional client information
- risk disclosures

Section 5:

Disclosure by CPOs and CTAs Required for Costs Associated with Futures Transactions

- disclosure of upfront fees and expenses
- effect of upfront fees and organization expenses on net performance

Section 6:

Disclosure by FCMs and IBs Required for Costs Associated with Futures Transactions

- explanation of fees and charges to customers

Section 7:

IB General

- accepting funds from customers
- guarantee agreements
- responsibilities of guarantor FCM
- minimum net capital requirements
- timestamping of order tickets
- books and records to be maintained

Section 8:

General Account Handling and Exchange Regulations

- Risk Disclosure Statement
- margin requirements
- stop loss orders
- preparing orders
- block orders
- proprietary accounts
- position limits and reporting requirements
- trade confirmations

Section 9:

Discretionary Account Regulation

- requirements relating to discretionary accounts
- supervision and review of discretionary accounts

Section 10:

Promotional Material (Rule 2-29)

- definition of promotional material
- standardized sales presentations
- use of a third party consulting or advertising firm
- reprints of articles from industry publications
- recordkeeping of promotional material
- past performance
- hypothetical trading results
- written procedures for promotional material
- supervisory review of promotional material

Appendix B

**“Other exchanges not buying freed futures trading” -
Chicago Tribune Newspaper Clipping**

FUTURES ON INDIVIDUAL STOCKS IS AN IDEA WHOSE TIME SHOULD NEVER COME!

Business

TUESDAY, FEBRUARY 25, 1997

PROBLEMS INCLUDE THE T CONVENTION

WHEN CFTC AND SEC DECIDED TO BUY THE WATCH

IN EARLY/MID 80'S THEY DETERMINED NOT TO PERMIT THIS, TO AVOID JURISDICTION QUESTIONS.

("JOHN STON (SHOD) A RECORD")

Other exchanges not buying freed futures trading

By George Gunset
BUREAU STAFF WRITER

The open road to deregulation sought by Chicago's world-leading futures exchanges could soon resemble Michigan Avenue or Lake Shore Drive—blocked off for 'repair' and 'improvement.'

There is a fear that unregulated trading in futures by big players could lead to the same freedom to trade in stocks and other securities instruments by

institutional investors, with unknown consequences for markets and the economy

Last week, Alan Greenspan, the ultimate Washington arbiter of financial markets and national lender of last resort as chairman of the Federal Reserve Board gave the green light to the idea of freeing from government regulation much of the trading on the Chicago Board of Trade and Chicago Mercantile Exchange

But caution flags are being

waved in other quarters over a bill proposed by Sen. Richard Lugar (R-Ind.), chairman of the Senate Agriculture Committee, and Sen. Tom Harkin (D-Iowa), the ranking Democrat

The bill is designed to right what the futures exchanges contend is a disadvantage in competing with foreign exchanges and the unregulated over-the-counter market in swaps and derivatives

While opposition from the industry's federal regulator—the

Commodity Futures Trading Commission—was to be expected, roadblocks to an overhaul of futures legislation have been thrown up by stock and options exchanges and Securities and Exchange Commission

SEC Chairman Arthur Levitt said in an interview over the weekend that caution is needed in moving toward deregulation of derivatives markets. Derivatives such as futures are first

SPF FUTURES, PA

USE KEEP ASKING ABOUT THIS -

NOT A GOOD

IDEA FOR THEM OR US!

Futures

CONTINUED FROM PAGE 1

cial instruments whose value is tied to price movements of an underlying commodity, currency or interest rate

Levitt told Bloomberg News that eliminating regulation of those markets 'could easily extend to problems for America's investors'

He said he had reservations about professional markets. If you deregulate institutional trading in futures, a level playing field would call for deregulating institutional trading in equities as well

He said he would oppose such a change

The biggest complaint about the bill as now written by the stock-related exchanges is their contention that it would lift the prohibition against futures trading on individual stocks

Speaking for 10 securities

exchanges, the chairman of the Chicago Board Options Exchange, Alger B. "Duke" Chapman, told Lugar's committee that all are concerned about problems that might arise from totally unregulated derivatives markets in equity products

'We know that a market in which regulators have no legal ability to require trading reports, to impose 'circuit breakers,' position limits, trading halts or margin requirements if they should prove necessary, to obtain the information required to monitor the markets, or to mandate fair competition among participants is a market that could present great potential dangers to the nation's regulated securities markets,' Chapman testified earlier this month

He added that "to preclude regulators from having the means to step in if necessary to address systemic risk is neither wise nor necessary in order to achieve the primary objectives of this bill'

Appendix C

Interviews Conducted

Interviews Conducted

Securities and Exchange board of India

O P Gahrotra, Senior Executive Director
N Parakh, Division Chief

National Stock Exchange

AshishKumar Chauhan, Assistant Vice President
Raghavan Putran, Vice President
Famroze Pochara, Manager
Sandip Mehta, Officer
Kiran Mulgoakar, Officer
T S Jagadharini, Assistant Manager
Shekhar Jain, Officer
V Balasubramahiam, Assistant Manager

Shreepati Holdings & Finance, Pvt , Ltd

K C Jain, Managing Director

UTI Securities Exchange, Ltd

H Y Malhotra, Assistant Vice President

Unit Trust of India

Sandeep Asthana, Assistant General Manager
Paresh Sharma, Manager
T R Sundraramen, Manager

Morgan Stanley India

Anil Narang, Executive Director

XLRI Jamshedpur

Dr H K Pradhan, Associate Professor

Rite Choice Technologies Private Limited

S Rangarajan

R P K Investment & Consultancy

Vikrant S Vijayakar, Director
R Anath

Jaipur Stock Exchange

K L Jain, President
Dr J N Dhankhar, Executive Director