ISLAMABAD
STOCK EXCHANGE
(GUARANTEE) LIMITED

Establishment of National Market System in Pakistan

Report prepared for ISE by Usman Hayat, CFA, FRM

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Executive Summary

Pakistan's stock market is giving its investors exceptional returns, thanks to the country's economic growth and reforms carried out in stock market. However, a fundamental structural issue that stock market has been facing for a long time remains unaddressed, which is its fragmentation. Stock market is fragmented because orders of investors entered into trading system of one exchange cannot be matched with those entered at another exchange, even if the security being traded is listed at both exchanges. Since most of the trading takes place at KSE, members of ISE and LSE telephonically route many orders of their client-investors to members of KSE, resulting in large inter-exchange trading.

ISE is now putting forth a win-win business proposal of National Market System (NMS) to end market fragmentation taking into account the interest of all stakeholders. NMS means that KSE, LSE, and ISE link their trading systems such that orders of investors entered in the trading system of any one exchange would be matched with those entered in any other exchange. NMS would cover all market segments and commonly listed securities. Each exchange would maintain its independent existence and identity and regulate its members and orders entered into its trading system. Members of exchanges with lesser turnover would pay market access fee of 2 paisas per share traded in every eligible trade to members of exchanges with greater turnover. Members of KSE would receive market access fee both from members of LSE and ISE. Members of LSE would receive market access fee from members of ISE.

Market access fee would be apply to "eligible" trades in which (a) one order (bid or offer) to a trade from comes from a trading terminal of KSE and the other from that of LSE/ISE or (b) one order to a trade comes from a trading terminal of LSE and the other from that of ISE. It would be distributed among the paying members based on their proportionate NMS turnover compared to other active members of their exchange. It could be distributed among the receiving members on the same basis or it may be distributed equally regardless of turnover. It would be settled daily through the NCSS along with other settlement obligations of members. NMS would cover five years to realize its benefits and there would be no increase in rate of market access fee during this period.

NMS would end market fragmentation and offer substantial advantages to all stakeholders. Advantages of NMS to the investors are greater liquidity, better price discovery, elimination of custody risks in inter-exchange trading, lower cost of trade, better quality of trade execution, and broader market access. There is no disadvantage of NMS to the investing public.

Core advantage of NMS to members of KSE is that they would receive large and recurrent market access fee. There is also a large potential for growth in market access fee because of a substantial room to increase in market access. Due to segregation of clientele served by members of KSE and neutrality of NMS towards assets of KSE, NMS can only increase the value of memberships of KSE. There would be some negative impact on trading fees of KSE because inter-exchange turnover in the current fragmented structure would then be routed through trading terminals of ISE/LSE and arbitrage business would be largely eliminated. Members of KSE who carry out inter-exchange trading and inter-exchange arbitrage would face a disadvantage. These members, however, make a relatively small proportion of overall 160 active members of KSE and their business is not entirely dependent on inter-exchange trading and arbitrage.

Core advantage of NMS to members of LSE is that they would be able to serve their clients better and expand their business because of direct access to a large market. Due to

segregation of clientele that members of LSE serve, there would not be an adverse impact of NMS on value of memberships of LSE. Trading fees of LSE would increase as most of orders currently routed by members of LSE to KSE would be routed through trading terminals of LSE. As in case of KSE, a few members would face a disadvantage as inter-exchange arbitrage business would be eliminated.

Advantages of NMS to members of ISE would be the same as those to members of LSE. Members of ISE, however, would not receive any market access fee but pay it to members of KSE and LSE.

Advantage of NMS to SECP and Government of Pakistan is that it would facilitate them in achieving broader policy objectives in the stock market. NMS would help in development of Pakistan's stock market in line with international practices, broaden investor base, improve trading transparency, and increase effectiveness of market surveillance. Since NMS would increase turnover and therefore traded value, it would also increase the amount of CVT paid to the Government of Pakistan and the regulatory levy on traded value paid to the SECP. There are no disadvantages of NMS to the SECP and Government of Pakistan.

Key issues in implementing NMS are modification of trading infrastructure, changes in regulations of exchanges and NCC, modification of NCSS, review of CFS regulations, modernization of corporate announcements mechanism, increase in listings at LSE and ISE, and sharing of implementation costs by the three exchanges.

Alternatively, if members of KSE decide not to join NMS, then ISE and LSE could from a common trading platform. Together LSE and ISE can produce a turnover in excess of 100 million shares per day. It would reduce reliance of members of ISE/LSE on members of KSE and help bring inter-exchange turnover back to LSE and ISE. Members of ISE would pay to members of LSE market access fee, on the same lines as in NMS. The alternative model would be resorted to only if members of KSE do not join NMS.

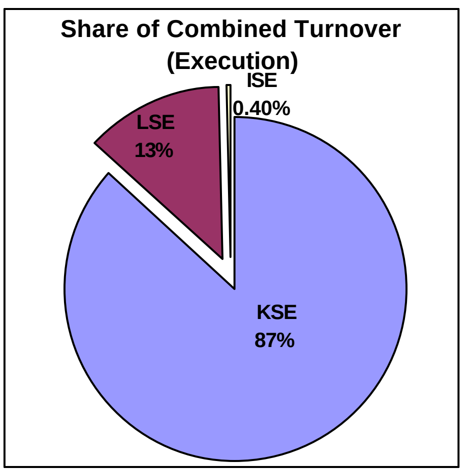
ISE believes that NMS is a win-win business proposal that can end market fragmentation to the advantage of all stakeholders. ISE would now like all stakeholders to study and discuss the NMS model so that an agreement can be reached on its implementation.

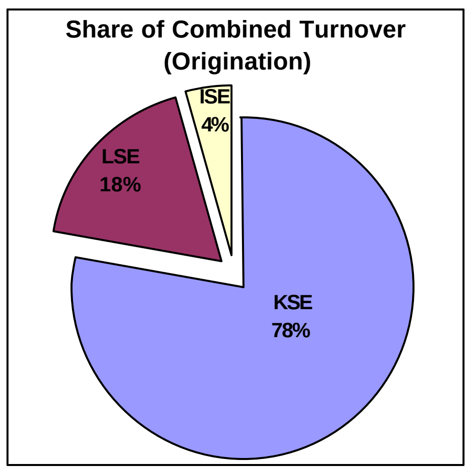
NMS
Market access fee payable by members of LSE to members of KSE = Rs 823.53 million
Market access fee payable by members of ISE to members of KSE = Rs 208.59 million
Total market access fee payable to members of KSE = Rs 1032.12 million
Market access fee payable by members of ISE to members of LSE = Rs 55.63 million
Impact on trading fees (or *laga*) of KSE = Rs (84.47) million
Impact on trading fees of LSE = Rs 20.97 million
Impact on trading fees of ISE = Rs 32.84 million
Implementation time is 6 months and IT related joint capital expenditure is Rs 250 million
Alternative Model of ISE-LSE Common Trading Platform
Market access fee payable by members of ISE to members of LSE = Rs 153.3 million
Impact on trading fees of KSE = Rs (19.72) million
No significant impact on trading fees of LSE
Impact on trading fees of ISE = Rs 26.28 million
Implementation time is 3 months and IT related joint capital expenditure is Rs 70 million

Pakistan's stock market is giving its investors exceptional returns, which are reflected in a more than 354% rise in KSE-100 index from 2002-05. Such returns were made possible due to economic growth in the country and many reforms carried out in stock market. The market is gaining international recognition and attracting portfolio investment from overseas investors. However, a fundamental structural issue that the stock market has been facing for a long time remains unaddressed, which is its fragmentation.

Stock market is fragmented because trading of listed securities at the Karachi Stock Exchange (KSE), Lahore Stock Exchange (LSE) and Islamabad Stock Exchange (ISE) takes place separately. Bids (or buy orders) and offers (or sell orders) of investors entered into trading system of one exchange cannot be matched with those entered at another exchange, even if the security being traded is listed at both exchanges. Since most trading takes place at KSE, members of ISE and LSE telephonically route many orders of their client-investors to members of KSE, resulting in large inter-exchange trading, which lacks transparency.

In 2005, average daily turnover at KSE was 365 million shares, at LSE 71.5 million shares, and at ISE 2.25 million shares. Futures market is only active at KSE where on the average it accounted for a turnover of 117 million shares per day in 2005. Taking combined turnover in Ready and Futures across the three exchanges, the share of LSE and ISE based on "execution" of turnover is about 13% while that of KSE is 87%. However, if we take into account inter-exchange turnover estimated at a little more than 50 million shares per day, then based on "origination" of turnover, market share of LSE and ISE is 22% while that of KSE is 78%.





ISE is now pleased to put forth **a win-win business proposal** of National Market System (NMS) to end market fragmentation taking into account the interest of all stakeholders.

1 NMS

NMS means that KSE, LSE, and ISE link their trading systems to integrate the market and members of exchanges with greater turnover would be given a clear economic incentive to give access to their market to members of exchanges with relatively lesser turnover.

I. Orders of investors entered in trading system of any one exchange would be matched with those entered in the trading system of any other exchange, using the same price-time priority rules as at present.

II. Members of exchanges with greater turnover would receive from members of exchanges with lesser turnover a market access fee of 2 paisa per share traded. Members of KSE would receive market access fee from both members of LSE and ISE. Members of LSE would receive market access fee from members of ISE. Members of ISE would not receive any market access fee.

III. Each exchange would maintain its independent existence and identity and regulate its members and orders entered into its trading system.

IV. Members of each exchange would have equal and direct access to a single market and each investor, wherever he may be located in Pakistan, would be able to trade with every other investor in the country. **Trading terminal of one exchange would not have any disadvantage compared to trading terminal of another exchange,** particularly in the speed with which trades are executed and information is disseminated.

1.1 Market Access Fee

Market access fee would apply to "eligible" trades, in which (a) one order to a trade from comes from a trading terminal of KSE and the other from that of LSE/ISE or (b) one order to a trade comes from a trading terminal of LSE and the other from that of ISE. Specifically:

I. For every trade executed on NMS in which one order (bid or offer) to that trade came from a trading terminal of KSE and the other from a trading terminal of ISE, members of ISE would pay to members of KSE a market access fee of 2 paisa per share traded.[1] For instance if a trade of 10,000 shares is executed in which bid came from a trading terminal of ISE and the offer came from a trading terminal of KSE, then market access fee payable by members of ISE to members of KSE would be Rs 200 (2 paisa x 10,000 shares). The same market access fee would apply if the offer came from trading terminal of ISE and the bid came from trading terminal of KSE. No market access fee would be payable on a trade where both orders (bid and offer) came from trading terminals of ISE.

II. For every trade executed on NMS in which one order (bid or offer) to that trade came from a trading terminal of KSE and the other from a trading terminal of LSE, members of LSE would pay to members of KSE a market access fee of 2 paisa per share traded, as in (I) above. No market access fee would be payable on trades where both orders (bid and offer) came from trading terminals of LSE.

III. For every trade executed on NMS in which one order (bid or offer) to that trade came from a trading terminal of LSE and the other from a trading terminal of ISE, members of ISE would pay to members of LSE a market access fee of 2 paisa per share traded, as in (I) above. No market access fee would be payable on trades where both orders (bid and offer) came from trading terminals of ISE.

[1] In market access fee, a distinction needs to be made between "members of exchange" and "trading terminal of exchange" because there is some overlap in memberships of the three exchanges. An active member at KSE may also be an active member at LSE but at LSE he would not have direct access to a KSE trading terminal.

Market access fee is confined to "eligible" trades because only in these trades is access to a larger market being provided to members of smaller exchanges.

Market access fee is fundamentally different from the commission being charged by members of KSE to members of ISE/LSE in inter-exchange trading. Brokerage commission is a service fee and to earn this commission members of KSE have to commit financial resources and people and also take the risks inherent in inter-exchange business. They also have to incur different costs, such as trading fee of KSE, CDC charges, salary of staff, communication bill, bank remittance costs, etc. To earn market access fee, members of KSE do not have to provide any service to members of ISE/LSE nor do they have to incur any cost or take any risk.

Rate of market access fee has been kept uniform for all shares traded regardless of their value because changing fee with respect to price-thresholds would make the system unnecessarily complex.

Since the fee is being paid for market access, it need not have any link to the ever changing stock prices. This is why it has been set in terms of paisa/share on turnover rather than a percentage of traded value because in case of the latter NMS would increase (or decrease) with the stock prices and change with the mix of traded value.

Market access fee would be paid and received by active members of one exchange to active members of another exchange and not by one exchange to another exchange. Since inactive members play no role in making the market, they would neither pay nor receive any market access fee.

1.2 Scope of NMS

Scope of NMS is as follows:

I. In Ready market, NMS would cover those securities that are listed at all three exchanges and have been inducted in Central Depository System (CDS) of Central Depository Company (CDC) and National Clearing and Settlement System (NCSS) of National Clearing Company (NCC). NMS would cover both T+3 and T+1 trades.

   Securities that are listed at only one or two out of the three exchanges would not be a part of NMS because as per the legal framework, an exchange can only provide for trading in those securities that are listed at the exchange.[2]

   There are about 661 listed companies at KSE, 524 at LSE, and 238 at ISE. Trading is highly concentrated as securities of 30 companies accounted for 91% of turnover in Ready market at KSE in 2005. Out of these 30, 27 companies are already listed at all three exchanges. (See list of most heavily traded companies in Table 5 at the end of this report).

   Securities not brought on NMS would continue to be traded at the respective exchanges, as at present.

[2] Refer to section 8(2) of the Securities and Exchange Ordinance, 1960, "No business shall be transacted on a Stock Exchange in a security, other than a Government security, which is not listed on such Stock Exchange."

II. In futures market, NMS would cover all those contracts that are based on securities listed at all three exchanges.[3]

III. In Provisional/IPO market, NMS would cover a security if it is being listed at all three exchanges.

IV. In Odd Lot market, NMS would cover the same securities as in Ready market.

V. After implementation of NMS, members would still be free to carry out conventional telephone based inter-exchange trading because every security may not be covered by NMS. Inter-exchange turnover after implementation of NMS is expected to be insignificant.

1.3 Distribution of market access fee

Market access fee would be distributed among paying members of an exchange in proportion of their NMS turnover relative to other members of the same exchange, regardless of their counterparties. The greater the NMS-turnover of a member of ISE or LSE, relative to other members of same exchange, the greater would be his payment of market access fee. For instance if on a given day, NMS fee payable by members of ISE is Rs 300,000 and the share of NMS turnover of a member of ISE, relative to other members of ISE, is 5% then that member would pay Rs 15,000.

KSE and LSE may use any one of the following methods in distributing market access fee among their members:

I. Market access fee would be distributed among receiving members in proportion of their NMS turnover relative to other members of the same exchange, regardless of their counterparties. For instance, if on a given day, market access fee receivable by members of KSE is Rs 5 million and NMS turnover of a member of KSE is 2%, relative to other members of KSE, then that member would receive Market access fee of Rs 100,000; or

II. Market access fee would be distributed equally among all receiving members, regardless of their turnover. For instance if on a given day, market access fee receivable by members of KSE is Rs 5 million and there are 160 active members then each member would receive Rs 31,250.

Simply put, members of smaller exchange would pay market access fee in proportion of their use of the market while members of larger exchanges may receive market access fee in proportion to their contribution in creating the market or on an equal basis.

1.4 Settlement of market access fee

Market access fee would be settled on a daily basis in the rolling T+3 settlement cycle through the NCSS in the same manner in which other obligations of members are settled.

The system for calculation, collection, and distribution of market access fee used by the NCC would be highly transparent so that members of all exchanges can have full confidence in the NMS.

[3] One may also take the view that all future contracts can be brought on NMS regardless of the listing of underlying, as these are contracts and not listed securities.

NMS fee payable by members of LSE to members of KSE would be netted with fee payable to members of LSE by members of ISE.

1.5 Duration of NMS

Initial NMS contract arrangement would be for five years. This time horizon is necessary to encourage members to invest in expanding their business, particularly in opening new branch offices. Market access fee would remain fixed during these five years. The board of directors of the three exchanges may, from time to time, modify NMS regulations with mutual consent, to meet market requirements such that these modifications do not affect market access fee, its collection and distribution among members. A comprehensive review of NMS, including market access fee, would take place after five years.

2 Advantages & Disadvantages of NMS

NMS offers substantial advantages for each of the following:

I. Investors
II. Members of KSE
III. Members of LSE
IV. Members of ISE
V. SECP and Government of Pakistan.

2.1 Advantages & Disadvantages of NMS to the Investors

The core advantage of NMS for investors is that it would eliminate market fragmentation and the problems caused by fragmentation.

2.1.1 Greater liquidity and better price discovery

Stock market exists to provide liquidity and price discovery in listed securities and fragmentation restricts both of these functions.

In stock market, liquidity of a security means that investors can buy or sell relatively large volumes with minimal impact on prevailing price. Since orders placed by investors cannot be matched across exchanges, there are fewer orders in order book than would be the case if there were no fragmentation. Spreads (or differences) between bids and offers are also larger than they would be if orders could flow freely across exchanges. Similarly, prices of securities tend to sharply increase or decrease due to relatively large buy or sell orders.

Best price discovery takes places in the market with the largest order flows and investor participation, i.e. an integrated market. Since orders of investors entered into trading system of one exchange cannot be matched with orders of other investors entered into trading system of another exchange, price of security of a listed company can be different at the three exchanges. In volatile time, these differences become significant. At times, observed difference in certain securities has been more than Rs 1 per share. These differences are instantly captured by arbitrageurs who buy securities at a lower price from one exchange and sell them at a higher price in another exchange. Clearly, gains made in inter-exchange arbitrage are made at the cost of the investors. Differences in prices across exchanges tend to become most obvious at the close of the market. When three different closing price of the same security are published in newspapers, it leads to confusion in the minds of investors.

In NMS, there would be a single market, liquidity would improve and **investors would be able to trade relatively large quantities of a security with lower price impact**, than at present. Due to large number of orders flowing to a single system, price discovery would be facilitated and **at any one point in time there shall be only one price of a security**.

2.1.2 Lower trading costs and better trade execution

Due to market fragmentation, investors at ISE and LSE have to pay higher out of pocket brokerage cost. This is because instead of one, two members – one at ISE/LSE, one at KSE – are involved in executing a trade.

In inter-exchange trading, members of ISE/LSE have to bear the cost of maintaining a non-stop telephone connection with KSE members during market hours. Since securities have to move back and forth between members of ISE/LSE and members of KSE, CDC charges levied on movement of securities are also increased. Members of ISE/LSE also have to spend much more time and effort in daily record keeping and reconciliation of orders-placed with orders-executed because, unlike members of KSE, they cannot download trading data from trading terminals of KSE.

Fragmentation often results in poorer execution of trades in inter-exchange trading to the disadvantage of investors. Market is an extremely dynamic place and prices of securities change in split seconds. Precious time is often wasted when members of ISE and LSE have to relay orders through telephone to members of KSE, resulting in a poorer execution for investors.

Eventually, cost of all inefficiencies in stock market is borne by the investing public.

In NMS, out of pocket cost of trade to investors would come down as inefficiencies found in inter-exchange trading would be removed. Quality of execution available to investors would improve and opportunities would not be missed due to relaying of orders through telephone.

2.1.3 Reduced risks in custody

Market fragmentation subjects many investors to serious risks in custody of their securities. In inter-exchange telephonic trading, a member of ISE or LSE has to maintain about 30% margin with the member of KSE who executes his orders. These margin deposits usually include securities of investors. Executing member at KSE often deposits these securities as margin to KSE. In case that member of KSE fails to settle his obligations with the NCC, KSE liquidates all margin securities deposited by him. Thus it remains possible that securities of members and their client-investors from Islamabad and Lahore deposited as margin to KSE could be liquidated without any omission on their behalf. In the past a number of unfortunate incidents have taken place in inter-exchange trading that have caused large losses to some members of LSE/ISE and individual investors.

Since inter-exchange trading is informal, bonded only by word of mouth, there is insufficient legal recourse available to investors who may lose their securities due to custody risks in inter-exchange trading.

Investors are highly sensitive to safe keeping of their securities and risks in custody can keep them away from stock market. Investors' sensitivity in custody is reflected in the tremendous growth in investor accounts which are maintained by investors directly with the CDC, without the involvement of any member of a stock exchange. As of June 2004, there were 13,483 investor accounts carrying 3.15 billion securities whereas in February 2006, there were about 38,000 investor accounts with 6 billion securities.

In NMS, custody risks caused by the inter-exchange trading would be eliminated. Securities of an investor trading through a member of ISE/LSE would not have to be moved out of his sub-account to the account of any member of KSE.

2.1.4 Broader market access

Fragmentation is a key reason many members are reluctant to open branch offices and market access is not expanding. Opening branch offices without remote trading terminals that provide direct access to a large market and real time market information is often considered unfeasible. Most brokerage houses are located within Karachi, Lahore, and Islamabad, and within these cities, in the premises of the exchanges.

In NMS, due to a direct and equal access to a large market, members would have the incentive to expand their business by opening more branch offices.

It is assumed that there shall be no disadvantage to the investing public except that the investors of LSE and ISE members would eventually have to bear an additional cost of 'access fee' being proposed here.

2.2 Advantages & Disadvantages of NMS to Members of KSE

The core advantage of NMS to members of KSE is market access fee.

I. Members of KSE would receive large market access fee every trading day for five years.

Estimated Annual Market Access Fee Receivable by Members of KSE (Detailed estimation is shown in Table 1-A at the end of report)
Market access fee receivable by members of KSE from members of LSE = Rs 823.53 million
Market access fee receivable by members of KSE from members of ISE = Rs 208.59 million
Total market access fee receivable by members of KSE = Rs 1032.12 million

II. NMS would make it possible for members of KSE to earn market access fee on the turnover that is currently executed at LSE and ISE from which members of KSE derive no benefit.

III. Turnover under NMS would be more than the sum of turnover that takes place at KSE, LSE and ISE. **NMS would bring in incremental turnover** because NMS would make it possible for existing investors to trade more volumes. NMS would also help members of ISE and LSE in bringing new investors by expanding market access through new branch offices. As overall turnover by members of ISE and LSE would increase, so would market access fee for members of KSE.

IV. Since market access and investor base is quite narrow, after NMS **there is**

substantial potential for growth in turnover and thus market access fee.

It is clear that market access fee and its growth potential are the core advantages to members of KSE. However, members of KSE would like to know if there are any disadvantages due to NMS that may adversely affect value of memberships of KSE. Let's therefore carefully analyze financial impact of NMS on value of trading rights held by members of KSE and value of KSE, the two components embedded in value of membership.

2.2.1 Impact of NMS on value of trading rights of KSE

Value of trading right at KSE is a scarcity value as potential brokerage commission income from turnover at KSE is confined only to members of KSE. Scarcity value of trading right at KSE would not be affected because the clientele served by members of KSE is segregated from the clientele served by members of LSE and ISE.

Broadly, clients can be classified into two types, financial institutions and individuals. Most financial institutions are based in Karachi. They almost exclusively trade through members of KSE and share a long business relationship with them. These institutions require research and other services that most members of ISE and LSE do not provide. To serve financial institutions, a member also requires large net capital balance and liquid assets as these institutions take large exposures but do not deposit margin to members, who have to deposit margins to KSE. Moreover, to serve institutional investors, members need capital market professionals, which are largely hired by large corporate members of KSE. Neither the members of LSE nor those of ISE serve financial institutions or have the resources to serve them.

Individuals prefer to trade with a "local" broker. There is no reason why an individual investor in Karachi would wish to switch his trading from a local member of KSE to a member of LSE or ISE who is located in another city.

Members of KSE would receive market access fee from members of LSE and ISE, therefore, they would be more cost competitive than members of LSE and ISE.

Clientele of members of LSE and ISE predominantly consists of individual investors, most of whom can be descried as "small investors." Members of KSE have not shown interest in serving these clients in Lahore and Islamabad, which is reflected in the limited number of branch offices opened by them in these cities.

Thus due to segregation of clientele served by members of KSE, NMS would not affect value of trading right at KSE.

2.2.2 Impact of NMS on value of KSE

Members of KSE cannot derive any direct pecuniary benefit from income or assets of KSE in the present mutual structure of exchange. **It is only after demutualization, when members would become shareholders in KSE that they would be able to benefit from the value of exchange.** Since plans for demutualization are being drawn, we have covered the value of exchange in our analysis of the impact of NMS.

Value of exchange depends on two things:

I. Value of the assets of the exchange; and
II. Future cash flows that the exchange can earn.

NMS would have no effect on assets of KSE. Each exchange shall retain all its assets as at present.

In NMS, inter-exchange trades currently routed by members of ISE/LSE to members of KSE on telephone would instead be routed through the terminals of ISE/LSE. This would negatively impact KSE's income in the short term because presently KSE earns trading fees (or *laga*) from inter-exchange trades executed at KSE but in the long run, any growth in the business by LSE and ISE would also bring incremental revenue to KSE thereby offsetting the short term disadvantage.

In NMS inter-exchange arbitrage turnover would be eliminated because there would be a single market. This would also negatively impact KSE's income because KSE earns trading fees from arbitrage turnover.

Estimated Annual Impact on Trading Fees of KSE (Detailed estimation is shown in Table 2-A at the end of report)
Impact on KSE's trading fees due to routing of inter-exchange turnover through the terminals of ISE/LSE = Rs (62.43) million
Impact on KSE's trading fees due to elimination of inter-exchange arbitrage turnover = Rs (22.04) million
Total impact on KSE's trading fee = Rs (84.47) million

Total negative impact on KSE's trading fee of Rs 84.47 million is about 12% of KSE total income of Rs 713 million in FY2005. This impact is unlikely to be significant as KSE's trading fees are growing strongly due to increase in turnover and rising stock prices. In FY2005, trading fees grew by Rs 210 million or 64% to Rs 539 million from Rs 329 million in FY2004. Moreover, annual market access fee payable to members of KSE is substantially more than the total annual income of KSE in 2005. Net effect of NMS on value of KSE's memberships can only be positive.

Some of the negative impact on KSE's trading fees would take place even without NMS because if members of KSE do not join NMS, ISE and LSE would probably form a common trading platform. (See Alternative Model in item 4) Most of the orders routed by members of ISE to members of KSE would then be routed directly to ISE-LSE common trading platform through the trading terminals of ISE.

In sum, NMS is likely to increase the value of membership of KSE due to a large market access fee.

Those members of KSE, who carry out inter-exchange trading for members of ISE/LSE would face a disadvantage in NMS because members of ISE/LSE would be able to directly execute their trades through the trading terminals of their own exchanges. It is estimated that there are about 25-35 members at KSE, out of 160 active members at KSE, who carry out inter-exchange trading. In evaluating the disadvantage to these members of KSE, we need to consider that these members do not "own" inter-exchange business but have to compete for it with other members of KSE and inter-exchange business does change hands due to competition. Moreover, the members of KSE would lose inter-exchange business of members of ISE even without NMS because LSE and ISE would probably form a common trading platform if members of KSE do not join NMS.

Those members of KSE who carry out inter-exchange arbitrage would also face a disadvantage in NMS. Since there would be only one market, there would be a single price at any one point in time, eliminating the inter-exchange arbitrage. This, however, would not be a significant disadvantage because of the following reason:

- It is estimated that there are 5 to 10 members out of 160 active members at KSE who carry out most of the inter-exchange arbitrage business.
- Those members of KSE who carry out arbitrage also carry out regular brokerage business and their income is not entirely dependent upon arbitrage.
- Since the imposition of CVT, size and profitability of arbitrage business have reduced.

2.3 Advantages and Disadvantages of NMS to Members of LSE

Core advantage of NMS to members of LSE is that they would be able to better serve their clients and increase their business because of direct access to a large market.

Estimated Annual Market Access Fee for Members of LSE (Detailed estimation is shown in Table 1-A & Table 1-B at the end of report)
Market access fee payable by members of LSE to members of KSE = Rs 823.53 million
Market access fee receivable by members of LSE from members of ISE = Rs 55.63 million
Net market access fee payable by members of LSE to members of KSE = Rs 767.90 million

Due to segregation of clientele that members of LSE serve, there would be no adverse impact of NMS on value of memberships of LSE.

There would be a positive impact on LSE's trading fees. Increase in turnover due to routing of inter-exchange trading through the trading terminals of LSE would outweigh the decrease in turnover due to elimination of arbitrage business.

Estimated Annual Impact on Trading Fees of LSE (Detailed estimation is shown in Table 2-B at the end of report)
Impact on trading fees of LSE due to increase in turnover caused by routing of inter-exchange turnover through the terminals of LSE = Rs 50.32 million
Impact on trading fees of LSE due to elimination of arbitrage turnover = Rs (29.35) million
Net impact on trading fees of LSE = Rs 20.97 million

Members of LSE would have to pay market access fee to members of KSE. The only members at LSE who would face a disadvantage due to NMS are those who carry out inter-exchange arbitrage business.

2.4 Advantages and Disadvantages of NMS to Members of ISE

Core advantage of NMS to members of ISE is also that they would be able to better serve their clients and increase their business because of direct access to a large market. In NMS, they would be able to directly download data from their trading terminals and manual record keeping involved in their business would be greatly reduced.

Due to segregation of clientele that members of ISE serve, there would be no adverse impact of NMS on value of memberships of ISE. Members of ISE would have to pay market access fee to both the members of KSE and LSE. Since there is no significant arbitrage activity taking place at ISE, members of ISE would not be affected due to elimination of arbitrage business.

Estimated Annual Market Access Fee Payable by Members of ISE (Detailed estimation is shown in Table 1-A & Table 1-B at the end of report)
Market access fee payable by members of ISE to members of KSE = Rs 208.59 million
Market access fee payable by members of ISE to members of LSE = Rs 55.63 million
Total market access fee payable by members of ISE = Rs 264.22 million

Trading fees of ISE would increase in NMS as inter-exchange turnover routed by members of ISE to members of KSE through telephone would then be routed through the trading terminals of ISE.

Estimated Annual Impact on Trading Fees of ISE (Detailed estimation is shown in Table 2-C at the end of report)
Impact on trading fees of ISE due to routing of inter-exchange turnover through the terminals of ISE = Rs 32.84 million
No significant impact on trading fees of ISE due to elimination of arbitrage business

2.5 Advantages and Disadvantages of NMS to SECP & Government of Pakistan

It is the policy of SECP and the Government of Pakistan to develop Pakistan's capital market in line with international best practices and protect investors from market abuse to foster economic growth. NMS would help in achieving these policy objectives.

2.5.1 Development of market in line with international practices

Developments in information technology have transformed stock exchanges around the world. Technology has made it possible for investors and brokers to trade securities even if they are situated at a vast geographical distance from the premises of stock exchange. **International experience shows that due to geographical neutrality brought about by information technology, fragmentation of domestic stock market has largely become a thing of the past.**

Technological developments caused integration of domestic market and now increasingly it is integrating markets internationally. The world has moved on to cross border trading and listing. Cross border trading means that investors from one country have direct access to the market in another country. For instance, investors in Singapore and Australia can trade securities at Singapore Exchange and Australian Stock Exchange through their local brokers.

Cross border listing means that companies from one country list themselves or their depository receipts on an exchange located in another country, raising international capital and providing investors easier access. For instance, many companies from Canada are listed in USA.

Now there is an increasing trend of international operations, alliances and mergers. Euronext is operating in Belgium, France, Netherlands and Portugal. Through a strategic alliance known as NOREX, exchanges in Nordic and Baltic States - Iceland Stock Exchange, Oslo Börs and OMX Exchanges; Copenhagen Stock Exchange, Stockholm Stock Exchange, Helsinki Stock Exchange, Riga Stock Exchange, Tallinn Stock Exchange and Vilnius Stock Exchange - have implemented a joint system for equity trading and harmonized rules and requirements. In the recent past Deutsche Bourse was trying to acquire London Stock Exchange while currently it is trying to acquire Euronext.

If internationally, exchanges are integrating the market across countries, we cannot afford a situation in Pakistan where an investor based in the far flung area of the country is prevented from getting a best price of a scrip available at the national level.

Market fragmentation dates back to the time when KSE, LSE, and ISE did not have technological capacity to provide a single market. Exchanges relied on an open outcry system for trading, had to deal with large number of physical certificates of shares, and were operating independent clearinghouses to settle trades. If a member of ISE or LSE wanted to trade in Karachi, he had to do it through telephone. However, starting from mid nineties, a series of developments driven by information technology have changed the way Pakistani stock exchanges operate.

Now each exchange uses modern computerized trading instead of open outcry system. CDC has dematerialized physical certificates and it is providing geographically neutral depository services to all three exchanges. NCC is also working as a single clearinghouse for all three exchanges. **Technology has already made it possible to end market fragmentation.**

There is no legal or policy impediment to providing a single market. Neither the Securities and Exchange Ordinance 1969, the primary law under which exchanges are licensed and regulated, nor is any policy of an obstacle to ending market fragmentation.

NMS would put an end to market fragmentation and bring Pakistan's stock market in line with international markets.

2.5.2 Greater trading transparency

Fragmentation reduces transparency in trading. In records of KSE, trades of investors routed by a member of ISE/LSE appear to be trades carried out by a member of KSE on behalf of a single person. On the other hand ISE and LSE have no record of inter-exchange trading as these records are only kept by the concerned members. In disputes and investor complaints, lack of transparency in inter-exchange trading becomes a major problem.

In placing orders of their client-investors, members at ISE and LSE often have to aggregate orders of different clients to get the rates available at *that* moment. This aggregation, which is done to provide best possible execution to clients, is likely to become an obstacle to implementation of SECP's proposed system of Unique Identification Number (UIN), in which every order entered has to be readily traceable to the end investor.

Fragmentation is also an important obstacle to surveillance of trading to detect market abuse, such as price manipulation. In some of the past crises that have hit stock market, manipulators have taken advantage of the opaque nature of inter-exchange trading. Even in today's market, insufficient transparency in inter-exchange trading aids in manipulating price and turnover by carrying out wash trades, i.e. trades in which the same person is both buyer and seller but hides his identity by routing his bids and offers across exchanges. Investors are misled by wash trades as they appear to be genuine market activity.

In NMS transparency in trading would improve. It would facilitate SECP in implementing the UIN initiative and carry out more effective surveillance of trading activity. It would also allow the exchanges to expeditiously resolve investor complaints.

2.5.3 Broadening of investor base

By limiting market access, fragmentation has become an important reason that investor base in the country is narrow and it is growing at a fairly slow pace. Despite the capital market reforms and large public offers in privatization of State Owned Entities, gross number of shareholders who directly own listed securities is only about 2.3 million. Maximum estimate of gross number of investors who own units of open end mutual funds or shares of closed end mutual funds is 200,000. Therefore, total number of investors, whether individuals or companies, who directly or indirectly own listed securities is not more than 2.5 million. Clearly, this number is subject to multiple counting, as the same person who owns shares of PTCL could be a shareholder of OGDC and a unit holder of a mutual fund. If we assume that on average an investor owns only 5 different securities, then the net number of investors in the country is 500,000, which is less than 1% of Pakistan's adult population of 75 million.

Other evidence leads to even more sobering conclusion. For instance, the maximum estimate of number of sub-accounts and investor-accounts in the CDC, after taking out double counting, is only 150,000.

In NMS, market access would expand and due to increased market access, investor base would be broadened at a faster pace than at present.

2.5.4 Increase in levies

A regulatory levy of Rs 0.65 for every Rs 100,000 of traded value at the stock exchanges is paid to the SECP. In NMS, due to expected increase in turnover and therefore traded value, SECP's resources to regulate the market would increase. Similarly, total amount of CVT paid to the Government of Pakistan would increase.

3 Implementing NMS

Following are the key issues involved in implementation of NMS.

3.1 Regulations

Unlike merger or demutualization of exchanges, NMS does not require special legislation to be passed by the parliament. NMS can be implemented by signing an MOU by all the stock exchanges which could take care of all aspects such as risk management, inter-connectivity, sharing of capital costs and method of payment of NMS access fee etc. Thereafter, New NMS-regulations would be formed and existing regulations amended by the Board of Directors of the three exchanges and NCC with the approval of SECP.

In trading, it would be helpful to follow the same regulations in all three exchanges. Where it may not be possible to follow the same regulations, the concerned regulations would be harmonized.

3.2 Trading Infrastructure

As per our consultations with experts in IT, there is more than one way in which NMS can be created by investing in the existing IT infrastructure of exchanges. It has been estimated that required IT related capital expenditure for NMS would be Rs 250 million or less and time required to set up this trading infrastructure would be six months or less. Trading terminal of one exchange would have no operational disadvantage compared to that of any other exchange.

3.3 NCSS

Currently, NCC is clearing and settling trades for each exchange separately. Therefore, **NCSS would need to be modified for NMS**. As per our consultations with experts in this area, the NCSS can be modified to fit the requirements of NMS within four months without any significant capital expenditure.

3.4 Risk Management

Currently, each exchange is independently managing the settlement risk of trades executed by its members. None of the exchanges is guaranteeing trade settlement (or providing full novation) because in case one of its members fails to settle his obligations, NCC may pass the security-wise unsettled money obligations to other members of that exchange.[4]

Settlement risk at each exchange differs depending upon the strength of the risk management practices. Each exchange maintains its own margining system, clearinghouse protection fund, investor protection fund etc. In NMS, counter-members to a trade could be from two different exchanges, therefore, it would be necessary to amend NCSS regulations to avoid transfer of settlement risk across exchanges. It would be appropriate that **in case of a default by a member of any exchange, the NCC may only pass monetary shortfalls to other members of *that* exchange.** That is if after NMS, a member of ISE fails to meet his settlement obligations with the NCC, the NCC would only allocate his payment obligations to other members of ISE and NOT to any member of LSE or KSE.

3.5 CFS

After NMS, CFS would also have to be centralized and it would be necessary to review its regulations, including exchange-wise ceiling, to provide equal access to financing to all members and investors. It is understood that CFS may eventually be phased-out and replaced with other products. NMS would not be an obstacle in any such phase out.

3.6 Corporate Announcements

Corporate announcements play a critical role in price discovery. Since each exchange maintains its independent listing regulations and corporate announcement function, listed companies, which are listed at more than one exchange, find it

[4] Refer to NCSS Regulations, Chapter 13, "Failure of Settlement of Money Obligations by Clearing Member"

difficult to simultaneously fax their announcements to all exchanges. Internationally, corporate announcements systems have advanced considerably. Announcements are usually sent to the concerned exchanges online through a secure system and not through fax machines. Moreover, the concerned exchange ensures that the information received is disclosed to all investors simultaneously, so that no unfair advantage is given to anyone. Therefore, developing a centralized and modern corporate announcement mechanism would be necessary in order to fairly deal with all investors in NMS.

3.7 New Trading Products

In future, exchanges may introduce new trading products such as index futures or options. These would be brought within the scope of NMS from initiation. Market access fee for the new products would be set in line with the principles and spirit of NMS system. However, it is possible that many new products to be launched in future may be the proprietary products of any one of the participating exchanges. Therefore a part of the market access fee should be shared with the concerned exchange to act as an incentive for further product development.

3.8 Listings

Most of the active securities would fall within NMS because these are listed at all three exchanges. To extend scope of NMS to all active securities which may not be listed at one or more exchanges, the concerned exchange would take appropriate measures to get these securities listed.

3.9 Cost Sharing

All costs in implementation of NMS would be equally shared by ISE, LSE and KSE.

4 Alternative Model: ISE and LSE form Common Trading Platform

NMS is a proposal that takes into account both interest of the investors and economic and political realities on the ground. However, if members of KSE do not join NMS, then the ISE is also proposing an alternative model.

Under the alternative model, the LSE and ISE link their trading systems to make a common trading platform such that orders of investors entered into the trading system of the two exchanges can be freely matched. **This alternative ISE-LSE common trading platform is likely to result in a combined daily turnover in excess of 100 million shares per day.** This larger pool of liquidity would reduce the reliance of members of ISE/LSE on members of KSE. It would also help in the activation of a combined futures market besides enabling both the exchanges to launch new products.

It is expected that in the alternative model, members of ISE would route 80% of their inter-exchange turnover through the trading terminals of ISE. Members of LSE are not expected to route significant inter-exchange turnover through the trading terminals of LSE.

Members of ISE would pay to members of LSE market access fee at 2 paisa per share in every trade in which one of the counter-member to a trade would be a member of LSE. The fee would be paid and received on the same basis as in case of the NMS model.

Inter-exchange arbitrage business would not be affected in the Alternative Model.

Estimated Annual Market Access Fee Receivable by Members of LSE (Detailed estimation is shown in Table 3 at the end of report)
Market access fee receivable by members of LSE from members of ISE = Rs 153.3 million

Estimated Annual Impact on Trading Fees of KSE,LSE, & ISE (Detailed estimation is shown in Table 4-A, 4-B, & 4-C at the end of report)
Impact on trading fees of KSE due to routing of inter-exchange turnover through the terminals of ISE = Rs (19.72) million
No significant impact on trading fees of LSE
Impact on trading fees of ISE due to routing of inter-exchange turnover through the terminals of ISE = Rs 26.28 million

Alternative model would reduce the degree of fragmentation but not end it, as the number of trading platforms would be reduced from three to two. Since NMS would eliminate fragmentation in active securities, NMS is the preferred model and the alternative model may only be pursued by the ISE if NMS is not supported by KSE. Key issues involved in implementation of Alternative Model are the same as those in case of NMS. Capital expenditure in alternative model is Rs 70 million and it can be implemented within three months.

5 Conclusion

The ISE believes that NMS is a **win-win business proposal** offering many advantages to all stakeholders. It would bring our market in line with international markets and help prepare it for meeting the future competitive challenges at the regional level.

ISE would now like all stakeholders to study and discuss the NMS model so that an agreement can be reached on its implementation.

NMS		
Stakeholder	**Advantages**	**Disadvantages**
Investors	• Improved liquidity • Better price discovery • Safer custody • Reduced out of pocket costs • Better execution • Greater market access	None.
Members of KSE	• Receive market access fee from members of LSE and ISE • Large potential for growth in market access fee • Positive impact of market access fee on value of membership	• Inter-exchange turnover which some members carry out would be re-routed back to LSE and ISE terminals • Arbitrage business, which a few members carry out, would be eliminated.
Members of LSE	• Direct access to a large market • Opportunity to expand business • Receive market access fee from members of ISE • Large potential for growth in market access fee to be received by members of ISE	• Arbitrage business, which a few members carry out, would be eliminated. • Pay NMS fee to members of KSE
Members of ISE	• Direct access to a large market • Opportunity to expand business	• Pay NMS fee to members of KSE and LSE
SECP & Government of Pakistan	• Development of market in line with international practices • Increase in trading transparency • More effective market surveillance • Effective monitoring of broker capital adequacy limits • Broadening of investor base • Increase in levies, CVT for the Government and trading fees paid to the SECP	None.

6 Details of Estimates

Notes and Assumptions in Estimating Market Access Fee in NMS
• After NMS, turnover being executed at ISE and LSE would be executed on NMS. • Inter-exchange turnover being currently routed to members of KSE by members of ISE/LSE would be directly routed through trading terminals of ISE and LSE to NMS. • Arbitrage turnover would be largely eliminated. • Normal growth in turnover would continue. It has been assumed at 10%. In 2005, average daily turnover at KSE in ready market grew by 6.4%, whereas in 2004 it grew by 11.3%. • There would be an incremental growth in turnover due to NMS at ISE and LSE. • Records of inter-exchange turnover are only available to the concerned members. Its estimate is based on informal survey of members of ISE and LSE. • Records of inter-exchange arbitrage turnover are also only available to the concerned members. To estimate it, we used informal survey of members of LSE. No significant arbitrage activity takes place at ISE. • In 2006, stock prices are higher and turnover is greater than in 2005. To keep all estimates conservative, we have used the data for 2005. • Proportion of eligible turnover routed from trading terminals of ISE and LSE in which one counter-member would be from KSE has been taken in line with the share of combined turnover of members of KSE. It has been assumed that in NMS, due to greater growth in turnover of members of ISE and LSE, their share of combined turnover would increase to 25% from the current 22%. Share of combined turnover of KSE's members would be 75%. • During the implementation phase, LSE and ISE would be able to attract listing of any active company, which is not listed at all three exchanges. • Decrease in turnover in Ready market due to changes to CFS would be offset by an increase in turnover in futures. • Estimation is based only on Ready and Futures market. Provisional/IPO market and Odd Lot market would form a part of NMS but these have not been included in estimation due to their infrequent nature and insignificant size. • Trading days in a year have been taken as 250.
Notes and Assumptions in Estimating Market Access Fee in Alternative Model, which are Different from those in NMS
• 80% of inter-exchange turnover being currently routed to members of KSE by members of ISE would be directly routed through trading terminals of ISE. • Inter-exchange turnover being currently routed to members of KSE by members of LSE would continue to be routed to members of KSE • There would be an incremental growth in turnover at ISE due to ISE-LSE common trading platform, but it would be less than that in NMS. • Arbitrage business would remain unaffected in alternative model. • Proportion of eligible turnover routed from trading terminals of ISE to ISE-LSE common trading platform has been taken in line with the estimated share of combined turnover of members of LSE in the common trading platform.

Table 1-A: Estimate of Market Access Fee Payable by Members of ISE/LSE to Members of KSE			Units	Ready & Futures	
				ISE	LSE
1	Average daily two-side turnover executed on ISE/LSE in 2005		million shares	4.50	143
2	Proportion of inter-exchange arbitrage turnover				25%
3 = 1 x 2	Average daily two-side arbitrage turnover		million shares	-	35.75
4 = 1 - 3	Average daily two-side turnover at ISE/LSE net of inter-exchange arbitrage		million shares	4.50	107.25
5	Average daily two-side inter-exchange turnover that after NMS would be routed though trading terminals of ISE/LSE		million shares	40.00	61.29
6 = 4 + 5	Average daily two-side turnover executed at LSE/ISE plus the inter-exchange turnover that after NMS would be routed through trading terminals of ISE/LSE		million shares	44.50	168.54
7 = 6 * normal growth rate	Normal growth in daily two-side turnover without taking into account NMS effect	10%	million shares	4.45	20.43
8 = 6 x incremental growth rate	Incremental growth in daily two-side turnover due to NMS effect	15%	million shares	6.68	30.64
9 = 6 + 7+ 8	Average daily two-side turnover routed by ISE/LSE members to NMS		million shares	55.63	219.61
10	Proportion of eligible turnover assuming that it'd be same as the overall share of combined turnover of KSE members			75%	75%
11 = 9 x 10	Average daily two-side NMS turnover on which market access fee would apply		million shares	41.72	164.71
12	Rate of market access fee		paisa/share	2.00	2.00
13 = 11 x 12	Average daily market access fee		Rs million	0.83	3.29
14 = 13 x trading days	**Annual market access fee payable by members of ISE/LSE to members of KSE**	**250**	**Rs million**	**208.59**	**823.53**
Aggregate annual market access fee payable by LSE/ISE members to KSE members			**Rs million**		**1,032.12**

Table 1-B: Estimate of Market Access Fee Payable by Members of ISE to Members of LSE			Units	Ready & Futures
1	Average daily two-side turnover routed to NMS by members of ISE through trading terminals of ISE		million shares	55.63
2	Proportion of eligible turnover (LSE's expected market share)			20%
3 = 1 x 2	Average daily two-side NMS turnover on which market access fee would apply		million shares	11.13
4	Rate of market access fee		paisa/share	2.00
5 = 3 x 4	Average daily market access fee		Rs million	0.22
6	**Annual market access fee**	**250**	**Rs million**	**55.63**

NMS

Table 2-A: Estimated Impact on KSE's Trading Fees in NMS (excluding any normal or incremental growth in turnover)
Daily two-side inter-exchange turnover which after NMS would be routed through terminals of ISE/LSE= 101 million shares per day.
Daily two-side arbitrage turnover that would be eliminated = 36 million shares per day
Daily two side turnover affected due to re-routing and elimination of arbitrage = 137 million shares per day
Average price per share in traded value at KSE in 2005 = Rs 92
Trading fees at KSE (excluding the amount payable to SECP & NCCPL) = Rs 2.68 for every Rs 100,000 of traded value or 0.00268%
Trading days in a year = 250 Annual Impact = 137 million shares/day x Rs 92/share x 0.00268% x 250 days = Rs 84 million

Table 2-B: Estimated Impact on LSE's Trading Fees in NMS (excluding any normal or incremental growth in turnover)
Two side inter-exchange turnover, which after NMS would be routed through trading terminals of LSE = 61.29 million shares
Daily two-side arbitrage turnover which would be eliminated = 35.75 million shares
Net increase in daily turnover = 25.54 million
Average price per share in traded value at KSE in 2005 = Rs 92
Trading fees at LSE (excluding the amount payable to SECP & NCCPL) = Rs 3.57 for every Rs 100,000 of traded value or 0.00357%
Trading days in a year = 250
Annual Impact = 25.5 million shares/day x Rs 92/share x 0.00357% x 250 days = Rs 21 million

Table 2-C: Estimated Impact on ISE's Trading Fees in NMS (excluding any normal or incremental growth in turnover)
Two side inter-exchange turnover, which after NMS would be routed through trading terminals of ISE = 40 million shares
Average price per share in traded value at KSE in 2005 = Rs 92
Trading fees at ISE (excluding the amount payable to SECP & NCCPL) = Rs 4.60 for every Rs 100,000 of traded value or 0.0046%. It is assumed that in NMS, ISE would reduce its trading fee to the level at the LSE, i.e. 0.00357%
Trading days in a year = 250
Annual Impact = 40 million shares/day x Rs 92/share x 0.00357% x 250 days = Rs 32.84 million

Table 3: Estimate of Market Access Fee Payable by Members of ISE to Members of LSE in Alternative Model of ISE-LSE Common Trading Platform			Units	ISE
1	Average daily two-side turnover executed at ISE		million shares	4.50
2	Average daily two-side inter-exchange turnover that ISE members route to KSE members		million shares	40.00
3	Proportion of average daily two-side inter-exchange turnover of ISE members that after NMS would be routed through ISE trading terminals to ISE-LSE common trading platform			80%
4	Average daily two-side inter-exchange turnover of ISE members that after NMS would be routed through ISE trading terminals to ISE-LSE common trading platform		million shares	32.00
5 = 1 + 4	Average daily two-side turnover routed by ISE members through ISE trading terminals to ISE-LSE common trading platform			36.50
6 = 5 x normal growth rate	Normal growth in turnover without taking into account effect of ISE-LSE common trading platform	10%	million shares	3.65
7 = 5 x incremental growth rate	Incremental growth in turnover due to the effect of ISE-LSE common trading platform	10%	million shares	3.65
8 = 5 + 6 + 7	Average daily two-side turnover routed by ISE to ISE-LSE common trading platform		million shares	43.80
9	Proportion of eligible turnover assuming that it'd be same as the overall share of turnover of LSE members in the ISE-LSE common trading platform			70%
10 = 8 x 9	Average daily two-side turnover on which market access fee would apply		million shares	30.66
11	Rate of market access fee		paisa/share	2.00
12 = 10 x 11	Average daily market access fee		Rs million	0.61
13 = 9 x trading days	**Annual market access fee payable by members of ISE to members of LSE**	**250**	**Rs million**	**153.30**

Impact on Trading Fees in Alternative Model

Table 4-A: Estimated Impact on KSE's Trading Fees in Alternative Model (excluding any normal or incremental growth in turnover)
Daily two-side inter-exchange turnover which after NMS would be routed through terminals of ISE= 80% of 40 million shares per day = 32 million shares per day
Average price per share in traded value at KSE in 2005 = Rs 92
Trading fees at KSE (excluding the amount payable to SECP & NCCPL) = Rs 2.68 for every Rs 100,000 of traded value or 0.00268%
Average price per share in traded value at KSE in 2005 = Rs 92
Annual Impact = 32 million shares/day x Rs 92/share x 0.00268% x 250 days = Rs 19.72 million

Table 4-B: Estimated Impact on LSE's Trading Fees in Alternative Model (excluding any normal or incremental growth in turnover)
No significant impact on LSE's trading fees is expected in Alternative model. The arbitrage business would continue. Members of LSE are not expected to route significant inter-exchange turnover from the terminals of LSE.

Table 4-C: Estimated Impact on ISE's Trading Fees in Alternative Model (excluding any normal or incremental growth in turnover)
Two side inter-exchange turnover, which after NMS would be routed through trading terminals of ISE = 80% of 40 million shares per day = 32 million shares per day
Average price per share in traded value at KSE in 2005 = Rs 92
Trading fees at ISE (excluding the amount payable to SECP & NCCPL) = Rs 4.60 for every Rs 100,000 of traded value or 0.0046%. It is assumed that in NMS, IS E would reduce its trading fee to the level at the LSE, i.e. 0.00357%
Trading days in a year = 250
Annual Impact = 32 million shares/day x Rs 92/share x 0.00357% x 250 days = Rs 26.28 million

Table 5: Top 30 Symbols in Ready Market at KSE in 2005						
Rank	**Symbol**	**Turnover in Ready Market at KSE**	**Listed in ISE**		**Listed in LSE**	
			Yes	**No**	**Yes**	**No**
1	PTC	19.71%	Yes		Yes	
2	OGDC	13.43%	Yes		Yes	
3	NBP	6.89%	Yes		Yes	
4	DGKC	5.93%	Yes		Yes	
5	FFBL	4.87%	Yes		Yes	
6	BOP	3.48%	Yes		Yes	
7	MCB	3.46%	Yes		Yes	
8	PSO	3.25%	Yes		Yes	
9	POL	3.10%	Yes		Yes	
10	FCCL	2.92%	Yes		Yes	
11	PPL	2.48%	Yes		Yes	
12	SNGP	2.33%	Yes		Yes	
13	NML	2.24%	Yes		Yes	
14	PPTA	2.21%	Yes		Yes	
15	LUCK	2.12%	Yes		Yes	
16	HUBC	1.83%	Yes		Yes	
17	SSGC	1.36%	Yes		Yes	
18	PGF	0.99%	Yes		Yes	
19	DSFL	0.85%	Yes		Yes	
20	MLCF	0.84%	Yes		Yes	
21	PIAA	0.84%	Yes		Yes	
22	BAFL	0.79%		No	Yes	
23	TRG	0.72%		No		No
24	ACBL	0.67%	Yes		Yes	
25	BOSI	0.67%	Yes		Yes	
26	FABL	0.67%	Yes		Yes	
27	TELE	0.56%	Yes			No
28	KESC	0.52%	Yes		Yes	
29	FFC	0.46%	Yes		Yes	
30	ICI	0.44%	Yes		Yes	
Total		90.61%				

Top 30 companies accounted for almost 91% of total turnover in Ready market at KSE. Out of these companies, 27 are already listed on all three exchanges.