1. What are the benefits for the mega-merger of the LSE and the Deutsche Boerse? You should answer this from multiple stakeholders' perspective.

REASONS FOR MERGERS OF STOCK EXCHANGES

Mergers and acquisitions are not new, can be quite common, and tend to occur in cycles. While there is often no single motivation to explain merger and acquisition behavior by firms, the more salient reasons would include: economy of scale; economy of scope; increased revenue or market share; cross- selling; cost reduction including taxation; geographical or other diversification; resource transfer; vertical integration (upstream or downstream); horizontal integration; employee or social capital acquisition; and absorption of similar businesses to reduce competition. These motivations all revolve around the realization of some synergy that would justify the purchase. Alternatively, mergers may result from less noble intentions related to the principal- agent concerns, such as managerial hubris, empire-building, and management compensation following successful mergers.

Stock exchange mergers incorporate elements from the different exchanges. For example, two exchanges coming together can readily become larger through being involved in the same business (horizontal merger-first wave), but can also improve the product mix by being involved in option trading with different technologies and platforms (vertical merger-second wave) and additionally, can cut across international boundaries (fifth wave). When stock exchanges merge, benefits can be significant for the exchanges, the listed companies, and the investors.

An example of this type of savings was the streamlining of operations that occurred when the NYSE merged with Euronext in 2006. The total savings were reported to be $375 million. This benefit was accomplished by integrating three cash trading systems and three derivatives systems into single global cash and derivatives platforms. As well, 10 data centers were reduced to four and the four existing networks were reduced to one. The mega-merger between London Stock Exchange (LSE) and Deutche Boerse (DB) may also reap these similar benefits.

An exchange merger also allows the opportunity for a greater number of financial instruments to be offered through one entity, which will be beneficial for investors who wish to do high-volume, high-frequency trading and wish to purchase stocks with large variety, large volume and a faster execution speed (i.e. investors who wish to shop in a "Financial Supermarket"-like stock exchange model). For example, in the case of the NYSE-Euronext merger, the NYSE was able to add a derivatives platform to its existing breadth of products, thereby improving its product mix. In the past, the Securities Exchange Commission (SEC) had been opposed to exchanges offering the trading of both equities and derivatives as it represented an unfair advantage from an informational perspective. This opposition limited the growth opportunities for exchanges.

In effect, the stock exchanges had one of two focuses when deciding to merge. In the first case, the exchanges focused their attention on benefiting from economies of scale through the amalgamation of diverse geographic markets. Exchanges can otherwise direct their attention to offering a diverse set of products to customers through the combination of different functions, such as the offering of equities and derivatives.

Benefits to the Listed Firms

For listed companies, impact of a merger between LSE and DB can be advantageous. The decision for a company to list on an international exchange in addition to its domestic exchange is based on the desire to reduce the cost of raising capital. These costs include the direct costs of listing fees, as well as the indirect costs related to compliance with international regulation. Dual listing can also result in attracting more cost-conscious investors seeking greater transparency. It can be argued that the information available to investors would be more reliable and exact under a dual listing framework, since the more stringent stock exchange would provide investors higher quality information.

Liquidity is important for firms aiming to control their cost of capital. Where the trading volumes are high, a particular stock becomes easier to sell with a reduced bid-ask spread. This also assists those investors who desire to sell their stock quickly and efficiently. Moreover, with a mega-merger of stock exchanges, bid-ask spreads can be reduced, thereby reflecting greater liquidity. Liquidity can also increase with the number of potential investors. A deeper market may mitigate the impact of large, individual trades on future price movements. Enhanced liquidity reduces information and non-monetary transaction costs (i.e. cost reduction related to combining of trading systems). Direct costs can also be reduced which may entice investors to increase their trading activity. Liquidity can be viewed as the ability of the market to execute orders in a timely manner without having noteworthy impacts on prices. Thus, liquidity is improved as the market uncertainty is diminished, allowing investors to trade more actively.

Furthermore, upon more in-depth analysis, there is a relation between the impact of liquidity and the various firm characteristics, such as foreign exposure, firm size and listing location. The primary measure of liquidity chosen as the response variable is turnover (the number of shares traded in a firm compared to the volume of outstanding shares). For firms with high visibility (foreign sales or assets) outside the domestic market, there is a greater chance that foreign investors will invest in that firm. Thus, for those firms with foreign exposure, this turnover measure will increase. For those firms who do not have visibility in foreign markets, a case can be made that turnover is relatively higher due to the likely reduction in transaction costs and a relatively higher degree of trading volume when compared to pre-merger activity.

In considering firm size, turnover may also increase to a greater degree for larger firms for several reasons. One reason is due to the familiarity that investors have with larger firms which may entice them to invest in those firms rather than smaller companies. As well, investors tend to have more qualified information on larger cap companies due to the greater amount of coverage

Benefits to the Stock Exchange

For the exchanges being merged, namely LSE and DB, there are opportunities to take advantage of the synergies that may be created. For instance, the transition by stock exchanges to electronic trading systems represents one of the greatest opportunities to reduce costs for individual exchanges and these savings are potentially greater when these two exchanges merge. As trading volumes increase, there has also been a tendency for those exchanges to increase their investment in new technologies that have the ability to satisfy the demands of sophisticated investors. These demands are namely: excellent execution price, price improvement, execution speed, and effective spread. All brokers are mandated to guarantee their clients the best available ask and sell price, also called the National Best Bid or Offer (NBBO). The NBBO is a consolidated quote calculated from the highest bid and lowest offer prices of a security across all exchanges and marketmakers. By showing that most of their trades fall at or very close to the NBBO, brokers can prove that they give their clients a good execution price. If, in fact, they show that in a significant number of trades, their price was better than the NBBO, then this means that they showed price improvement. Execution speed is particularly important due to the vicissitudes or price levels. Execution speed is the time which elapses between the time the broker receives an order to the time the order is executed. Finally, the effective spread is how often, and by how much, the broker improves the price of a trade over what was in the price order. Many brokers publish these statistics periodically to satisfy customer expectations. Although the cost to implement such technology into trading systems can be substantial as trades increase, the marginal cost per trade is reduced.

Additionally, larger firms would not be impacted by the visibility gained by smaller firms, since influential investors primarily trade in the largest firms.

Next, from a listing location perspective, it is postulated that turnover should increase for those firms that were originally small and more highly regulated. With size, it is expected that the market with the highest potential for growing its investor base will be rewarded with the greatest increase in liquidity. Those markets, with previous restrictive regulations, have the potential for a greater increase in trading volume as restrictions are removed.

Benefits to the Investor

For investors the greatest benefit to having LSE and DB merge is the opportunity to trade different financial instruments in different geographic markets with lower transaction costs. Merged exchanges that operate fewer trading platforms can simplify trading and provide a better economic outcome. As discussed previously, increased liquidity results in transparent pricing and efficiency. Similar to the listing companies, investors also benefit from having a broader selection of financial instruments, allowing greater risk reduction through effective diversification.

Contextually, this merger of LSE and DB would have provided a complementary product mix. Presumably, the DB lacked product solutions in issuer services for global and large cap companies, trading and post-trade services for cash, fixed income, and clearing, as well as information services related to index-products. Conversely, the LSE was mostly lacking in the areas of derivatives and energy within trading and post-trade services. The combined entity would have allowed for many of the deficiencies in product solutions to be reduced. It was the goal of the merged exchange to become a fully integrated, multi-geographical entity. The synergies created from increased product offerings can be approximated to reach above US$100M over the next five years following the merger. These would be achieved through the targeting of foreign listings, cross- marketing to complementary customers, and the utilization of existing expertise and technology.

2. What are some problems and challenges do you foresee for this merger? (20 marks)

Managing Technology Integration in lieu of Reluctance of MTS' Divestment
As mentioned in the article, LSE "struggles to sell MTS and that such a sale would harm its ongoing business". MTS is a fixed-income trading platform, presumably a proprietary trading software that is customizable to the business processes and trading functionalities of LSE. This problem is understandable because system integration and security can be a major issue due to possible system incompatibilities between trading platforms used by LSE and those used by DB. For example, the revised and newly-integrated clearing and settlement systems of this merged stock exchange may not be able to accommodate practices in other markets, such as including multiple settlement cutoffs.

Hence, the merged stock exchange must able to resolve the issue of aggregating a myriad of information and provide a single platform from these 2 different exchanges (ease of use of platform). Additionally, the integrated technology of this merged stock exchange must be able to provide real time information for traders in different time zones .

Managing Risks of Outsourcing

In lieu of the divestment of MTS, the merged stock exchange may consider outsourcing some of their business processes or trading platforms to external vendors. This decision has many inherent risks, such as:

- Misaligned interests of clients and vendors
- Increased reliance on third parties
- Lack of in-house knowledge of critical (though not necessarily core) business operations
- Loss of control
- Cost savings may not happen
- Held hostage by contractor

Outsourcing trading platforms such as MTS may have a variety of risks, such as:

Risks	Explanation
Country Risk	UK FCA's Considerations for firms thinking of using third-party technology (off-the-shelf) banking solutions
Strategic Risk	The third party may conduct activities on its own behalf which are inconsistent with the overall strategic goals of the regulated entity. (they know about your operations and can potentially jeopardize your plans) Failure to implement appropriate oversight of the outsource provider. Inadequate expertise to oversee the service provider.
Reputation Risk	Poor service from third party. Customer interaction is not consistent with overall standards of the regulated entity. Third party practices not in line with stated practices (ethical or otherwise) of regulated entity.
Compliance Risk	Privacy laws are not complied with. Consumer and prudential laws not adequately complied with. Outsource provider has inadequate compliance systems and controls.

Operational Risk	Technology failure. Inadequate financial capacity to fulfil obligations and/or provide remedies. Fraud or error. Risk that firms find it difficult/costly to undertake inspections.
Security Risks	Breach of information system security There is total dependence on the third party to deliver and may have high exit barriers
Concentration and Systemic Risk	Magnitude of any financial crisis is potentially accelerated if multiple banks goes to the same vendor

Outsourcing poses important challenges to the integrity and effectiveness of financial services regulatory systems. First, where outsourcing takes place by regulated entities, a firm's control over the people and processes dealing with the outsourced function may decrease. Nonetheless, regulators require that the outsourcing firm, including its board of directors and senior management, remain fully responsible (towards clients and regulatory authorities) for the outsourced function, as if the service was being performed in-house. In some jurisdictions, regulators impose restrictions on the outsourcing of certain functions where they believe the outsourcing introduces an unacceptable risk or is critical to the function of an intermediary. Second, regulators expect that they will have complete access to books and records concerning an outsourcing firm's activities, even if such documents are in the custody of the firm's service provider. Regulators must also take account of possible operational and systemic risks that may exist in the event that multiple regulated entities use a common service provider.

Managing Risks Inherent in Post-Trade Phase

Standardizing clearance and settlement process across the 2 countries (UK and Germany) for crossborder trading may be a hassle. Conventionally, this process is carried out in the country where the stock is listed. As a result, the use of the trading link does not reduce costs in the post-trading process. Which clearing party owns the rights to all the equities and securities may become a sensitive issue if LSE and DB is to merge.

Additionally, the merged stock exchange may face difficulty in handling multi-market, multi-currency (Pound Sterling & Euro) settlement & asset-servicing instructions.

Managing Customer Expectations

Another challenge for this merged stock exchange and their counterparts is that customer expectations are accelerating at almost warp speed. The demands of customers are growing in number and size on a daily basis. Whether trading is on an exchange or over-the-counter, there's a whole new level of innovation required of this merged stock exchange, and a much shorter time period to develop the kinds of capabilities the industry needs. And like customers, the merged stock exchange must be prepared for business 24/7, not just in one market, but in markets and time zones around the world.

Hence, there exists a challenge regarding how the merged stock exchange can serve multiple trading venues, accommodate new instruments and meet new regulatory concerns without driving up cost or risk. The challenge is especially urgent because, if the merged stock exchange cannot execute this or respond fast enough, customers will soon look elsewhere for solutions, since institutional investors nowadays look for convenience and immediacy when it comes to trading (so much so that some investors would like to have some control over what they trade, such as gaining access over Sell-Side Technology).

Managing Volatile Markets

Even the everyday business of processing securities transactions can significantly affect the technology needs of this merged stock exchange between LSE and DB. In 2007 for instance, the U.S. markets experienced a volatile five-day period beginning on February 27 when the Dow lost 416 points by market close that day. The DTCC processed a record 76.7 million transactions that day, worth more than $1.54 trillion, surpassing the 2006 transaction record by more than 53%. Each of the following four trading days after February 27 exceeded the 2006 record by an average of 34%. Therefore, managing technology capacity and being sensitive to abnormal surges in volume must be paramount in all technology plans of this merged stock exchange between LSE and DB, so that they are able to mitigate problems like volume surges faced by the DTCC in 2007. Unplanned events can and will cause tremendous volatility and volumes in the markets this merged stock exchange serve.

Ensuring that there is adequate capacity in the merged stock exchange's systems to handle unpredictable spikes in volume is mandatory. They should have an objective of being able to handle three time the normal volumes on any given day. Moreover, unpredictable spikes and huge volumes are recurring more often than ever before, and it's clear that pressures on clearing and settlement structures, including globalization and the increasing interconnection of markets, will alter securities markets and practices. The merged stock exchange must be ever-ready to mitigate these kinds of problems.

Managing Different Regulatory Requirements

Laws and regulations vary across countries. Hence, there may be a problem of standardizing them to increase the efficiency and reduce regulatory costs and increase ease of trading for investors when doing cross-border trading.

For example, in 2006, one the new compliance requirements is the implementation of Direct Registration System (DRS), which enables investors to register ownership of their shares electronically with either the issuing company or its transfer agent, eliminating the need to issue paper certificates, and hence saving the industry million of dollars each year. The Securities Industry and Financial Markets Association (SIFMA) stated that the annual cost of printing and issuing paper certificates costs the industry approximately $250 million a year, and that includes $49 million annually to replace lost or stolen certificates.

In response to this new regulatory requirement, The New York Stock Exchange, Nasdaq and the American Stock Exchange filed rule changes approved by the Securities and Exchange Commission (SEC) in 2006 that require that all newly-listed issues coming to market on or after January 1, 2007 be DRS-eligible. Issues that came to market before that date will have to become DRS-eligible by January 1, 2008. Regional exchanges in Chicago, Philadelphia and Boston followed suit this year and adopted the DRS-eligibility requirement.

Already within the US alone, there exist difficulties in implementing these mandated regulatory requirements in the different US states. This problem can thus be amplified with the merger of 2 stock exchanges based from 2 different countries: the UK and Germany. Moreover, with the UK exiting the European Union and the Germany still being a member of the EU, more amplified discrepancies in stock exchange/financial market-related rules and regulations may crop up due to differing laws & regulations of the 2 countries.

3. Do you think merger of this nature can occur within the ASEAN market? Provide reasons to support your answer. (10 marks)

I do not think merger of this nature can occur efficiently within the ASEAN market, as evident from the failing ASEAN Trading Link proposal.

Challenges

Market participants of ASEAN Trading Link cannot be convinced by benefits of the new three-market ASEAN Trading Link, believing without central clearing and a single platform, it will not make cross-jurisdictional trading easier.

Additionally, trading relationship is still through a sponsoring broker (i.e. an inter- broker) model instead of a separate exchange of board where the ASEAN stocks would be traded

One major benefit of the ASEAN Trading Link is that it provides a more sophisticated avenue for some local clients who were not previously looking at regional trading. However, there is no serious improvement in liquidity or ease of trading until there is an overriding regulation. In the ASEAN region there is no equivalent to Europe's MiFID or America's Reg NMS. This lack of a Central Clearingparty (CCP) will pose conflicting isssues. For instance, if you're a Singapore broker who is part of the ASEAN trading link, you cannot trade directly in any other market. If a Singapore broker has a Singapore client who wants to trade Malaysia with me, as an ASEAN Exchange member in Singapore I cannot take that trade. I would need to ask him to open an account with my Malaysian office.

Behind ASEAN countries' poor participation in the link lies latitude given to the nations on the process and timeline toward the integration. The leeway has been provided in the light of a difference among the countries in their development stage and size of capital market, but it obstructs the progress of integration. More specifically, a country whose capital market is less mature prioritizes developing its own market and securing a competitive edge, tending to become cautious about joining the link.

Furthermore, if all exchanges of ASEAN members participate in the link, stocks of companies listed on one exchange will be allowed to be traded on any other. Therefore, there is concern that listings could be concentrated in a few highly liquid and reliable exchanges, such as Singapore Exchange, and as a result, some bourses could suffer sluggish growth in the number of listed companies.

Another concern is that some ASEAN countries are not members of ASEAN Exchanges. Cambodia and Laos, for example, have exchanges but only a limited number of listings (as of Jan. 27, there were two in Cambodia and four in Laos). Myanmar is still preparing to set up an exchange. These countries will be late in participating in the trading link.

Benefits
However, some progress has been made in improving the trading environment in ASEAN.

First, with the FTSE ASEAN Stars Index, a new asset class has been launched. Consisting of ASEAN Stars stocks (30 companies from each ASEAN exchange, except for Vietnam, where 15 companies will come from two exchanges), it will lay the groundwork for encouraging investors at home and abroad to invest in ASEAN as a single market. Four other FTSE ASEAN indexes -- All-Share Index, Sector Indices, 40 Index and All-Share ex Developed Index -- have also been introduced.

Second, moves are underway to streamline and standardize clearance and settlement of cross-border trading. Currently, this process is carried out in the country where the stock is listed. As a result, the use of the trading link does not reduce costs in the post-trading process. But at a meeting in April 2014, ASEAN Exchanges member CEOs decided to appoint Deutsche Bank to provide depository and clearing services, with a common depository and clearing house to be created in the future.

Third, related laws and regulations, which vary among countries, must be brought into line. The ASEAN Capital Markets Forum, which consists of ASEAN members' securities regulators, is making efforts in this area. For example, for the prospectus that a company has to draw up when it offers shares or other securities in multiple ASEAN countries, a scheme allowing the use of common standards -- ASEAN Disclosure Standards -- has been adopted; the three nations participating in the trading link having already introduced it. Previously, under the ASEAN and Plus Standards Scheme, a company was required to prepare two kinds of prospectuses -- one based on common disclosure standards and the other on additional standards reflecting individual countries' regulations. Accordingly, the ASEAN Disclosure Standards are a big step forward.

Conclusion
As a range of actions are being taken toward revamping the trading environment to promote the ASEAN Trading Link, some bouts of optimism should be credited as to whether the effective integration of ASEAN capital markets (via a merger of various stock exchanges of countries in the ASEAN market) will advance through the standardization of institutions and in other ways.