# Competition and Efficiency within the Equity Markets


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**Introduction**

**As from late Eighties of the last century , what's called technical equity markets exist as spread of internet system in which make it possible that both supply and demand for goods and services are available within 24 hours a day. But so far a little attention has been given to improving the accuracy of price determination resulting from demand for immediacy and for too much importance has been attached to the supply of immediacy ( the ability to trade at any time in the continues market ).**

**Unfortunately, participants pay price to trade whenever they wish during trading section the components include the bid-ask spread, market impact and commissions. In addition the temporal fragmental of orders in one continuous market makes the market more opaque.**

**Thus for the assumption that participants demand transactional immediacy has gone practically unquestionable would some asset managers choose not paying the price of immediacy of the truly understood the cost of the service and if they had an alternative . Immediacy clearly important to a participant seeking to trade on information that has not yet been reflected in market prices and many participants most notably the mutual funds, do have to trade certain amount each day because of deposits redemptions or their cash flow needs. This does not mean however that they must be able to trade at any given moment in the day. It is conceivable that the provision of immediacy because it temporally fragments orders actually**

**makes it more difficult for these participants to "get the job done" at a reasonable cost by the end of the day.**

**On this presentation concentration will be devoted to the following topics**

**1- Transparency**

**2- Price Discovery**

**3-Taking decisions for immediacy demand**

**4-Consideration of the order flow**

**5-Market structure**

## 1-Transparency

**One of the main problem facing such these kind of markets is real situation that Transparency. It could be early anticipated that Transparency itself has largely been considered with regard to the reporting of trade and quote information, and the special integration of markets .Although little discussed participants reluctance to disclose their orders is perhaps the greatest impediment to Transparency.**

**Assume a set of traders each holding orders that the others can't see. At least some must announce the prices at which others can trade if a market is to form. But each participant while individually preferring that the market be transparent is reluctant to disclose his or her own orders. A bid that is too high, or an ask is too low will be picked off immediately an executed limit orders extends an option to others that may be exercised to the traders determined upon the arrival of adverse news or a limit order may fail to execute following the arrival of favorable news. Participants must therefore be compensated in some way if they are to announce the prices at which others can trade.**

**Commonly in dealer market public participants do not as a rule place priced orders.**

**Instead market makers post the quotes at which the public may trade. Accordingly, a dealer system is sometimes referred to is a "Quote driven market". Dealers are compensated for their services largely by the bid-ask spreads they set and the short-term trading profits they realize from their superior knowledge of the order flow. In an agency auction market such as (New York stock Exchange),public participants commonly to use limit orders. Their orders (along with those of the exchange specialist) establish the prices at which other public participants may transact by market order. Consequently, the exchange system is sometimes referred to as an "order driven market". Limit order traders can save paying the spread. Moreover, intraday price volatility, which is greater than it would be if prices followed a random price-Path, compensates the limit order traders by enabling their orders to execute at better prices. Price oscillation can simply explained when intraday price volatility is high (relative to longer term volatility) when volatility few limit orders have been placed and the book is thin and it is low when many limit orders have been placed and the book has depth and breadth. Because intraday volatility attracts limit orders and conversely, the limit orders are not desirable. When volatility is law, an equilibrium balance can exist between short-run volatility and the number of limit orders that are placed. In this equilibrium a relatively high intraday volatility(compared to a random dynamic environment) is necessary property of the continuous market.**

**Call auction, where orders are batched overtime for simultaneous execution at a single price, deals with the situation differently. Orders disclose can be rewarded by using time priorities and by charging lower commissions for order that have been placed earlier in the entry period that precedes a call (some stock exchange's electronic markets call uses both price and time**

**priority values for excursion and time dependent commission rates for their purpose. Further, because limit orders executed at a common clearing price, participants can put prices on their orders without extending an option to others, or risking being picked off (as long as enough participants are present at the call).**

**Moreover, the need for transparency is less with call market trading. Participants can more easily scale their orders (i.e., place an order in parts, at more than one price) , and put contingencies on their orders (i.e., make a buy orders contingent on the existence of a counterpart sell orders). Essentially, a trader can specify his or her parameters and then relay on the computer to work out the trades. A contingent order may not be revealed to other traders until its conditions have been satisfied but most importantly, it is entered into the system. Because the system knows of contingent orders on both size of the book, traders can be made that otherwise may not have been found.**

**If transparency is desirable, should it be legislated. Rules might be instituted that require posted quotes to be broadly displayed and last sales to be reported, but traders can not be forced to revel their intentions. However, the trading system, if properly designed, might encourage participants to display their orders. A trading system that handle this delicate design feature will prosper, and one that doesn't will lose order flow in a competitive environment. But an attempt to achieve the objective by legislative mandate risks being counterproductive.**

## 2-Price Discovery

**One might expect that the transparency would be an important determinant of the accuracy of price discovery in a market centre. That this is indeed the case is not always recognize. It has been often comment. " If a buy and sell order cross and a company's shares trade at 48.00 L.E the stock must be worth 48.00 L.E what does it mean for a stock to be worth 48.00 L.E?" . Many of markets analysts would interpret the statement as meaning, not simply that the stock's equilibrium is 48.00 L.E but that its shares have an intrinsic values of 48.00 L.E. If shares have intrinsic values share price used not be "Discovered" in the market place. They can be assessed by security analyst.**

**The converse is also true if shares do not have intrinsic values, they must be priced in the marketplace. One might believe that price discovery occurs as orders meet in the market. If so, this has major implications of market structure and regulation. A simple security valuation model, the dividend discount model (DDM), can be used to suggest that security analysts cannot individually determined the price of an asset.**

***The DDM Equation is**

$$\textbf{SHARE PRICE} = \frac{\text{NEXT PERIOD DIVIDEND}}{DISCOUNT\ RATE - GROWTH\ RATE}$$

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*Schwartz, R.A., Comptetion and Efficiency, Kenncteh Lahn and Robert Kambhuis, Editors, Strem School of Business, New York, University, December 1990.

**To have a practical example as follows:**

**Assume a dividend of 90.00 L.E a share has been paid and that shares has been traded in the 46.00 L.E - 48.00 L.E range consider 2 Funds:**

**Fund 1, which forecasts growth rate of 10%**

**Fund 2, which forecasts growth rate of 9.8%**

**Let both funds use 12.00% as the appropriate risk - adjusted discount rate for the stock. The "Intrinsic value", for the two funds would be as follows:**

**For Fund 1 =** $\frac{1.000}{0.12-0.10} = 50.00\ L.E$

**For Fund 2 =** $\frac{0.998}{0.12-0.10} = 45.36\ L.E$

**How many shares should each fund hold?. The dividend discount model (DDM) doesn't pay. One might presume that an asset which can be bought at a price less that its intrinsic value should be purchased in unlimited amounts, and that an asset which can be sold at a price higher than its intrinsic value should be sold in unlimited amounts. Should the first fund go infinitely long and the second infinitely short? .This would be absurd because of the risks involved.**

**Perhaps fund 1 will buy up to some fixed numbers at shares, say 200,000 if the price is less than 50.00 L.E, and the fund 2 will sell up to fixed number of shares, say 150,000 if the price is less than 45.36 L.E. How will the funds disclose their willingness for trading to each other?. As suggested above, their actions will depend on the trading environment within which they are operating (Dealer Markets, Continuous Action, Call Auction, ….. etc).At what price they will trade?. This can only be determined at marketplace.**

**If the case is that expectations are constant, a fund might also seek to acquire more shares at the stock's price as stock price falls, or to lighten its position as the price rises (requiring a lower price to hold more shares a simply a reflection of the fact that risk, and there for the fund's risk adjusted discount rate, increases with the size of its position). For instance fund 1 which to hold up 200,000 shares at a price of 50.00 L.E, up to 400,000 shares at price of 48.00 L.E and so on. Generalizing, have to be state using economic parlance, that the fund has a downward sloping demand to hold shares. These willingness to make incremental rather than all - or - nothing decisions is profitable in an environment where prices changes are not caused by informational alone(investors should not and don't accept that every charge in stock's price during a trading day is a reflection of new information . Prices also change with the receipt of orders that reflect participants individual re assessments of existing information, liquidity needs, and for desires to rebalance their portfolios. For the analyst who does not change his or her beliefs concerning the expected future value of stock, a price decline in the market that results in a cheaper),while many funds may not make such refine decisions with respect to individual shares, they commonly do so with respect to their aggregate equity position.**

**Whether investors individually seek to acquire more shares of a stock at lower share prices, or make all/or nothing decisions but at different prices, the market demand to hold shares is downward sloping. With this type at sloping market demand, share prices can be determined only in the marketplace. But trading is costly and equilibrium values are not known to participants before their orders are written and submitted to the market. Consequently, equilibrium values are not readily attained in the marketplace. Only when is this recognized with the regulators realize that the quality of price determination we are currently achieving in our major market centers an important issues.**

## 3- Taking decisions for immediacy demand

**Yet asset managers, including information less traders, demand immediacy. One can suggest that, this demand is a result of the continuous market, rather than the other way around. Trading decisions are commonly made not because of the receipt of news but because portfolio position has been reassessed. Whether the reassessment is made and implemented an hour sooner or an hour later not matter to the assist manager. However once a decision to trade has been made, participants are pressured to transact quickly in an environment where prices are continuously subject to change, and where orders can be front-run.**

**The process of "Transacting" should be unbundled from the provision of "Immediacy ". This can be accomplished by offering both call markets and continuous trading. Doing so could be likened to giving commuters the alternatives of trading between home and office by train or by private car. The call market is equivalent to commuting by train, everyone travels according to a common time table are relatively low cost. The continuous market is equivalent to commuting by car everyone travels according to his or her personal schedule, but at higher cost. One can suggest that a good transportation system, for both commuters and shares, should include both alternatives.**

## 4-Consideration of the order flow

**Consideration of the order flow is desirable so that counterparties to a trade might be more easily found, and for reasons relating to order exposure and price priority, the imposition of orderly secondary priority rules ( such as time priority ), the consolidation of the floor information, and price discovery. As more efficient trading system emerge, it would be best for those systems to be instituted in a major market center such as New York Stock Exchange or Cairo stock Exchange or any other similar globally. However, if the established market center choose not to adopt a system, the freedom must exist for that system to be introduced elsewhere.**

**It can commonly stated that, the consolidation fragmentation debate has focused virtually exclusively on the special consolidation of orders. Orders can also be consolidation temporally in call market trading( for these reason, proprietary system such as Arizona stock exchange that comulate orders for multilateral cross at a single price in fact consolidate the order flow temporally, and perhaps even spatially since a variety of trading, various currently exist*). The introduction of electronic call market trading into either an agency / auction market, or a competitive dealer market, would be one of the important steps that could currently be taken with regard to market design.**

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***i.e., the upstairs block trading market, the London local market, the regional exchanges and the over-the- counter market, …. etc**

**It could be suggest that an electronic call be used 3 times a day to open continuous market, at 12:00 noon, and to close the market.**

**The call is not just an opening/closing mechanism. It is an alternative trading environment. The environment is particularly suitable for computerization and , in fact, must be computerized to be efficient. The electronic call is highly cost efficient, is an explicit price discovery mechanism, and provide a suitable orders to be entered. These attributes are largely due to how order flow is consolidated in call market trading. With orders consolidated at the market calls, the computer is used to compute the appropriate clearing prices. When computer technology has been applied to continuous market, on the other hand it has served largely to accelerate the pace with which orders are submitted to the market and translated into trades. Under stressful conditions, this acceleration may be destabilizing.**

**If consolidation is desirable, must it be legislated? With regard to temporal consolidation. no market centre should be forced to instituted a call market if it chooses not to adopt the system. However, the call market should be allowed to compete in the marketplace. If it is responsive to customers and truly satisfies their needs it will gain order flow. If not, it will cease to exist. Again, competition not legislation should be relied on to drive the market toward greater efficiency.**

**Prices can be "Pirated" with relative ease in a continuous market both between markets and within a market centre. A trade in continuous market establishes a price, and posting of quotes gives the price continuing validation until new quotes and/or a new transaction price are set. Prices established, for instance, on the New York Stock exchange become the benchmarks against which orders can be executed on the regional exchanges or elsewhere and trades can be negotiated in the upstairs market. Floor trades also commonly negotiated transaction among themselves with reference**

**to the posted quotes. These trades do not contribute to price discovery, and are of no benefit to those participants who have actively participated in price discovery by posting quotes on the market.**

**Free riding occurs in the continuous market because trading actually takes place while prices are being set. In contrast, with call market trading, orders are batched together, a clearing price is found, the trades are made, and the market is closed. The indicated price after the call is only tentative and transaction price after the call is given no continuous validity. The simultaneity of the system result of all orders collectively determining the price, and eliminate free-riding on the price discovery.**

## 5-Market structure

**Does equity markets affected by market structure? Some say yes, the other say no. The costly trading and imperfect price discovery are attributable to broad structural deficiencies in the market design, not to the pernicious behavior of any individuals or groups of individuals. The trading system affect how orders are written, handled, and transacted into trades. This determines exactly which trades are made, just who participates in the trades, the prices that are set, and the trading cost that are incurred. In short , the trading system affects how efficiently information (both fundamental information and market information) is processed and translated into price.**

**The translation of information into prices is imperfect in our markets, and better system are needed. For investors, trading costs would be lower and portfolio performance improved. For the listed companies, share values will be higher and the cost of capital less. This in turn would benefit the aggregate economy, as more efficient financing would result in faster economic growth. Although, markets should not be designed for intermediaries, they themselves might also benefit, if payment for their services were properly structured, their income receipts could be less risky and their commission income higher.**

**However, impediments to change exist. One is technological internet .... the difficulty of switching people to a new technology, and difficulty for a new market to receive older flow when it does not have critical mass order flow. Another if vested interest of intermediaries ... the broker/dealer firms have become increasingly proficient at finding their profits inefficiencies of continuous market.**

# Conclusions

**Various arguments has been existed about if the equity market are efficient or not? And also if these markets create perfect or imperfect competitive situation? or is it true that these markets enhance the aggregate economic situation within its environments and also at macroeconomic levels or not?**

**In fact we can not get a definite and firm answers to such these questions. For instance, unfortunately, the prevailing academic opinions are that such these markets are efficient. On the other hand, other indications show that these markets are not produced as textbooks results, despite their extensive of computer technology, as most of the major market center have not yet automated the point of sale, the reason is that trading and price determination are very complex processes. Also, what will be going on when prices really followed random path? Would technical analysis be as prevalent as it currently is? What would be the economic value of trades on the exchange floors and upstairs trading disks if we really were operating in random systems worldwide.**

**For the trial to answer these essential questions, so as presented earlier have to enhance the major aspects, discussed before. Firstly, to maximizing transparency within these markets and stabilizing opaque in the least possible situation. Secondly, stabilizing efficient system for price discovery by letting it announced to all participants in the market in the right time. Thirdly, for supporting taking decisions is to make it possible as once a decision to trade had been made, participants are pressured to transact quickly in an environment where prices are**

**continuously subject to change, and where orders can be front-run. Fourthly, consolidation of the order flow, have to insure that, the simultaneity of the system results in all orders collectively determining the price and elements free-riding on price discovery. Lastly, for market structure, adding to participants it must enhance intermediaries role in such these markets and let them gain benefits, by letting payments for their services properly structured, in which their income receipts could be less risky and their commissions income higher.**

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**دراسة اقتصادية عن التنافسية و الكفاءة**

**فى اسواق البورصات العالمية**

**ورقة بحثية مقدمة من الاستاذ الدكتور/ وجدى هندى ابراهيم الدسوقى**

**شركة باتكو لتجارة و تصدير الاقطان**

**الملخص:**

**انه دائما ما يثار اسئلة عديدة عما اذا كانت اسواق البورصات العالمية يتميز بالكفاءة ام لا؟ و كذلك عما اذا كانت تلك الاسواق تعمل فى ظل منافسة كاملة ام فى اجواء غير متناسبة؟ و كذلك عما اذا كانت تلك الاسواق تحدث تحسنا اقتصاديا فى البيئة التى تعمل بها؟ و هل ذلك التحسين ان وجد يكون على المستوى الاقتصادى الكلى (Macroeconomic Level) ام لا؟**

**فى الحقيقة فانه لا يمكن الاجابة قطعيا بما يفيد او يؤيد الجانب الموجب لهذه الاجابات و ذلك لتعقد الظروف الاقتصادية و السياسية و الاجتماعية المحلية و العالمية التى تعمل داخلها مثل تلك الاسواق**

**ولكن على سبيل المثال و لسوء الحظ فانه غالبا من الوجهه الاكاديمية البحتة فان الراى الغالب للاكاديميين فى هذا المجال ان مثل تلك الاسواق يتميز بالكفاءة و التنافسية شبه الكاملة و على الجانب الاخر فان نسبة كبيرة من العاملين فى تلك الاسواق قد لا يرون ما رأى غالبية الاكاديميين فى هذا الخصوص و ذلك بالرغم من استخدام التقنيات الحديثة لمعظم هذه الاسواق و كذلك استخدام شبكات الانترنت وقد يعزى ذلك لان قدرا كبيرا من هذه الاسواق لم يتم ميكنتها بالكامل لتحديد النقط الكفاءة المناسبة للبيع اللحظى و ذلك يعزى غالبا لان تحديد مستوى الحجوم المناسبة لحجم التجارة فى نشاط معين وكذلك مستوى الاسعار اللحظى هو فى الواقع عملية غاية فى التعقيد و خاصة عندما تتخذ الاسعار سلوكا تصادفيا, و هذا يظهر الفرق بين كل من التحليل العلمى و السلوك الفعلى الذى تسلكه هذه الاسعار.وبمعنى اخر ما هى العلاقة التى تنشأ بين الاسعار الابتدائية (القاعدية) و الاسعار النهائية بعد اتمام حدوث الصفقات فى حالة السلوك التصادفى.**

**وللاجابة عن تلك الاسئلة المعقدة السابق بيانها يمكن تلخيص ذلك فى تحسين العمل على رفع الكفاءة فى كل من الشفافية، الاكتشاف المبكر لنمط السلوك السعرى، وكفاءة اتخاذ القرار فى الاستجابة للطلب اللحظى،وعلى كيفية العمل على تناسب انسياب البلاغات السعرية بانواعها المختلفة و أخيرا العمل على تحسين هيئة السوق.**