

Electronic trading and transparency in the canadian bond market

[Finance](#), [Market](#)



Market microstructure as a branch of economics and finance explains what is behind exchanges that take place in a given market. It focuses on the exchange of financial assets and examines their nature made easy by the availability of abundant transaction data from the various financial markets. Maureen O'Hara (1995) defines market microstructure as " the study of the process and outcomes of exchanging assets under a specific set of rules. While much of economics abstracts from the mechanics of trading, microstructure theory focuses on how specific trading mechanisms affect the price formation process."

Area of interests in market microstructure studies are how markets are structured and designed, where the focus is, whatever assets are being bought and sold, how does the market structure affects the trading cost, and which structure is more efficient among the available ones. In addition, the area of interest includes a study of the process of price determination, what kind of transaction, as well as timing cost is involved, and what its effect is on return on investment. How information is disseminated, whether the transaction is transparent or not, and how it affects the behavior of the participants would also be part of the study.

When looking at asset pricing, which is the main thrust of market microstructure and see it in parallel to what is going to be examined, which is the financial market microstructure, the vital part of asset pricing is determined by the kind of information that goes into the process. The efficiency of prices and their volatility are also important elements that require looking at.

That is because it is always possible that there will be a link between private information and the prevalent spreads. Amihud, Yakov, and Mendelson (1986) have argued that price should be attached to liquidity simply because stocks or other financial instruments that are illiquid do not have an immediate appeal simply because they lack liquidity, hence it is possible to conclude by saying liquidity has some kind of price attached to it. Whereas many others that include Chen and Kan (1995) have argued the opposite where price is not attached to liquidity, which led to the ambiguity whether the liquidity of financial market assets affects their return or not unresolved.

Consequently, the question that needs answering is, how could microstructure factors such as information have impact on financial market assets? Further, extrapolate this out leads to examining how market makers would rely on such data or information to make decision about buying, selling, or holding on stocks or other assets. But the finding according O'Hara is none of the models such as the capital asset pricing model (CAPM), the Fama-French three factor model, which is better, but still lacking are not effective and this weakness has led to the coming up of the alphabet-pricing model that did not resolve the problem either, requiring a further consideration what the best economics of asset prices are and how could they be arrived at.

In order to study the financial market microstructure effectively it is important to look at the corporate finance. Because factors such as where a company's stock is listed affects the company's bottom line, hence if that is the true, the premise that there has to be a correlation between the cost a

company incurs based on the particular market where the company's stock is listed could shed light if these elements have effect on the price of stocks. In other words, it is possible to surmise that asymmetric information has a role to play in determining the price of a company's stock price, as well as the kind of dividend paid out, and the overall capital structure.

The market behavior also has an impact on how a given company's stock performs. Not only that different markets such as a dealer market like NASDAQ and an auction market like NYSE and AMEX affect the cost of trading somewhat and that could be attributed to how things are done in respect to the quoting process and the routing. Furthermore, it is possible to consider securities placement as another factor that will affect the cost of capital that easily translates into what kind of cost the company has to grapple with.

Another area to look at while studying the financial market microstructure could be the market microstructure and their positive effects on the participants. The kind of positive effect highlighted could focus on market design and the prevalent practice introduced in it. A market's being transparent had always been a forerunner preference by many simply because that is what made the financial market a success, since participants do not have to shoot in the dark and could make an informed decision. This might be lacking in bond markets as discussed a bit further for various reasons, but it is vividly and effectively prevalent in the equity market.

However, there had been effort to highlight the advantages and disadvantages of being transparent to the point where those functioning in a

transparent market could be at a disadvantage when compared to their counterparts in the nontransparent market that could be in a better position to make profits. It is so because the traders participating in the non-transparent market always deal with information that is not shared with others enabling them to know special advantages such as the inside spread.

Whereas those who do not have access to such information have no choice other than guessing what direction the spreads would take and could end up in the wrong side of the market, where the recommendation had been to eliminate non-transparent markets since they avail advantage for few participants only.

There might also be a focus on the sequence of market timing where it might be preferable to introduce a system that meets special needs or all participants should get equal treatment. Referencing was also an issue where eliminating time priority requires implementing.

What takes place in the financial market microstructure is the executing of trades in financial assets such as bonds, stocks, and commodities. Demsetz (1968) had revealed that there is immediacy in the market where an investor would like to buy or sell by anticipating transaction execution using the available best price. Accordingly, the entities that will forward a bid and ask prices could be professional dealers or investors.

The financial sector has three vital elements and they deal with information, the securities available in the market, and those responsible to carry out transactions.

- The information section deals mainly with the supply and demand aspect of the particular financial market, as well as what kind of information is available that pertains to the securities in question. Whatever is available in this section directly affects the nature of the transaction since execution takes place based on the kind of information the participants have at their disposal and affects the cost of the trade.
- The security section deals with the determinants of the securities prices, hence it focuses on trading costs and market frictions if they are prevalent.
- The transaction deals on what take place between bids and ask spread and the commission that would ensue because of the transaction.

Another trios to be aware of while looking at a financial market microstructure are the investors, the brokers and dealers, and the particular market where the transaction is going to take place, because all of them have different roles to play (Bank of Canada).

The investors are source of the immediacy and the brokers would facilitate and tend to their immediacy, whereas the design of the particular markets where all this will take place also makes a difference since they all have a different price tag attached to them according to the mode of how they handle trades and transactions. Furthermore, each group could be from different subgroups where investors could be pension plans, mutual funds, insurance, institutional investors, as well as individuals.

There are two types of brokers in a given market setup and those who cater to the investors need are upstairs brokers, whereas those who are trading on

the floors of the various exchanges are called downstairs brokers and both generate income through commission. Whereas the dealers could function independently for the accounts that they are in charge of and make money from the difference of the buying and selling price.

Markets are there to bring both buyers and sellers together and had been the same from their inception except that over the years they had gone through changes, one of the main introducers of change being technology. One such case is the introduction of electronic trading that could operate with the absence of brokers of any kind and could execute transaction in real time.

Market Design The two main market designs are the auction and dealer markets. In the auction market, there is no need for dealers since investors can trade among themselves through a broker. Usually there is a call auction that will place the price of a given security, then investors can start placing orders accepting the stated price, and what volume they are willing to buy.

As a result, in a continuous auction, investors trade with floor traders based on orders placed earlier by other participants and that is exactly what takes place at the NYSE. The whole process is a continuous auction market with a crowd, where the new arrival electronic trading is a continuous auction market without a crowd since what investors looking at are the bid and put price only without having the knowledge of the number of participants.

On the other hand, dealer markets are where the dealers put bids and offers that interested parties can use for trading. Although investors cannot deal with each other directly they can trade through the dealers' ask and sell

price that being how the dealers are making their money, from the difference of the buy and sell.

Another characteristics of dealer market is they are not present at one location similar to floor traders and investors can buy and sell securities over the phone or using computers. In fact, the difference had started blurring a while back because of the introduction of technology to the point where computers can handle all auction trading in the long run. The end result is most exchanges have a mixed structure where they can handle all kinds of transactions.

Mode of Transactions Market order and limit orders are the types of transaction that take place in most of the securities exchange. The first one the market order instructs an immediate trade at the available best price. Whereas the limit order has a maximum and a minimum threshold to buy and sell that requires observing strictly. It is only the dealer who knows that limit and would become effective if the bid or ask of the dealer warrants it. However, some exchanges such as Nasdaq require the dealers to attend to the request of the investor's limit when it is the same or better than the level of what the dealers deal for their own account.

Various Traders Type When it comes to classifying traders there are a good number of varieties that are worth looking at in order to give a balanced coverage to the financial market microstructure. There are active versus passive traders and the main catalyst between them is not whether they are trading frequently or not, in fact, it has to do with the kind of impact they have on the market. Active traders have the tendency to place market

orders more than the passive traders who could mainly want to get by, by simply applying limits.

Both have advantages where the active ones with the demand immediacy have the power to set the direction of the trade simply because they require for an immediate action to take place. The passive ones will always be satisfied if in the course of trading as long as attaining a certain level is possible so that the execution of their orders could take place. The end result is it could be the passive traders who will make profit on the activity of the active traders simply because all they need is the transaction to make it to their limit.

The other types of traders are those looking for liquidity only and always go against informed traders. The first group exists to profit from the ups and downs of the stock market in such a way that if they need money or if they see they can make a profit they will sell their position. Alternatively, if they believe that the price of certain securities will go up in the long-run, they would take a chance on such securities or if their risk tolerance level hits bottom they will get rid of securities quickly. On the other hand, informed traders have more reasons than price ups and downs of securities that they own, which in most cases is a private information that they would obtain from a given source.

Hence, instead of focusing on a portfolio of assets they tend to focus on those that they hold privileged information about that they do not have to share with anyone. Informed traders could put liquidity traders at a

disadvantage although that cannot be always true since both are speculators and whatever asset they have at their disposal could take either directions.

The other group is individual versus institutional investors and it is not difficult to point out who the individual investors are as it is not neither difficult to point out who the major institutional investors are. Individual traders tend to trade lightly due to their capability whereas institutional investor that includes pension funds, mutual funds, insurance, etc. trade in large blocks and might not trade frequently, although guaranteeing that is not possible.

Because of that, the markets have the capability of handling both small and large investors with their particular kind of trade volume. An individual trader can buy or sell one stock or bond for example as long as the transaction cost is covered that would allow the same investor to trade in a much larger volume of assets.

The other group is public and professional traders and the public traders always use the service of a broker whereas professional investors could trade for their own account and can execute the transaction from a floor or their own terminals from offices and other similar locations that include exchange floors (Boston College, 2002).

Procedures to Follow In all this there is a procedure every participant is expected to follow, and one of the rules stipulate that orders that have best prices should get the priority and have to be executed ahead of orders posted earlier, but their price is not the best. In practice it is possible traders could override this procedures since there are situations that will compel

them to do so. This is so because the rule of thumb is price priority should rule, but at times the dealers cannot help looking at time priorities if they see an advantage where every price priority does not have to be looked after.

One good example is a larger block of stocks could sell slightly less than the one that has the price priority and not to fragment such a sale it is possible to sell the big block for the lesser price and go on tending the transactions that have price priority. If there is a twist it is with price matching and payments that are common among those who are trading through a satellite system with a central market that could promise to match the best price if the order find its way to them directly instead of to a central hub.

In a situation like this, brokers that direct such transactions to particular market makers could make a few cents per share from the market maker. Doing so will violate both the price and time priority where the one that had posted the highest price first cannot be guaranteed to be sent to the market matcher. Unless such activities are not regulated they could derail the whole arrangement that includes limit placing simply because the drivers will be the matchmakers who can choose a particular price level that meets their needs.