

**THE INFLUENCE OF MARKET MAKERS
IN THE CREATION OF LIQUIDITY**



OICJ-IOSCO

**Report by the Emerging Markets Committee
of the
International Organization of Securities Commissions**

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This survey consisted of a questionnaire (Annexure 1) sent to all IOSCO EMC members. Replies were received from 18 jurisdictions, and have been analysed to determine the incidence and impact of market makers. Additional literary research was also conducted.

Survey results

The value of the survey results was diminished by the fact that the legislation in the jurisdiction of most respondents does not specifically provide for market makers. This has resulted in no real collection or collation of information regarding either their incidence or impact. This means we did not receive sufficient data to either support or refute the findings made in the discussion below. The discussion is therefore based mainly on the research of information, hard empirical data and findings in the developed markets.

These findings will in all likelihood apply directly to emerging markets with one provision. The provision is that emerging market makers would need more financial muscle than their developed market counterparts to carry positions in less liquid markets. The discussion below illustrates the concepts and benefits of having market makers.

Discussion of market makers

Market makers are participants in quote-driven financial instrument trading environments, that fulfil the function of generating bids and offers. They create liquid markets by consistently quoting (buying and selling prices) -- thereby ensuring the existence of a two-way market.

Market liquidity is likely to be asymmetrical in that it is high in a bull market, but may be very thin in a bear market, or the majority of market participants may all favour buying or selling at the same time. Market makers need to have sufficiently large capital resources. This is particularly the case in developing markets, where the asymmetry is acute and potentially severe. They are therefore usually financial institutions or banks (particularly merchant and investment banks). They often have to buy large quantities of securities during a bear market phase, which they can then only off-load at a later stage (implying a healthy financial carrying capacity).

Market making may consequently be unprofitable (or even costly) during a bear run. To counter the pit-falls, exchanges normally grant certain privileges to market makers. This would include the right to trade in a dual capacity (i.e. either in the capacity of principal or agent) or to execute large orders away from the market (so-called "block" trades). These privileges are granted to attract market makers with sufficiently large capital resources in order to increase market liquidity. For these reasons, market makers are a desirable entity in emerging markets, and means should therefor be developed to encourage those with adequate finance to step forward and fulfil this role.

In summary, market makers do two things:

- First, they are required to make a market in a stock by buying and selling from their own inventory, when public orders to buy or sell the stock are absent.
- Second, they may keep the market book of orders, consisting of limit orders to buy and sell, as well as stop orders placed by the general market participants.

In developed and more liquid markets, the supply of suitable market makers is unlikely to be a problem. This means there are likely to be several market makers competing to create the market in a particular financial instrument, the market should be a more efficient one than a single specialist can provide.

Consequently, market makers are very likely to add to the liquidity and price discovery capabilities in a market. This translates to more market stability.

Conclusion

The market maker in general adds to the stability, liquidity and transparency (i.e. price discovery mechanism) of financial markets and is therefor a desirable participant in emerging markets.

Attachments

Annexure 1 -- Survey questionnaire

Annexure 2 -- Summary responses to survey.

Annexure 3 -- General literary research on market makers

Annexure 1

QUESTIONNAIRE: THE INFLUENCE OF MARKET MAKERS IN THE CREATION OF LIQUIDITY

THE INFLUENCE OF MARKET MAKERS IN THE CREATION OF LIQUIDITY

SURVEY ON MARKET MAKERS

1. Does legislation in your jurisdiction specifically provide for market makers?
 - 1.1 If so, provide the definition for a market maker.
2. If the legislation in your jurisdiction does not provide for market makers, indicate whether market makers are:
 - 2.1 specifically excluded in legislation
 - 2.2 not mentioned in legislation, but not prohibited.
3. Do market makers currently operate in the financial markets in your jurisdiction?
 - 3.1 If so, list each type of market and give the following details in relation thereto:
 - (a) Market instrument type (e.g. equities, futures, options, bonds or any combination or other classification).
 - (b) Market trading mechanism (e.g. open outcry, automated trading system or combination thereof or other system).
 - (c) The capacity in which market makers is allowed to trade in the various markets (e.g. principal, agent or both).
 - (d) The qualifying criteria or minimum requirements for operating as a market maker in your jurisdiction (For example do they need to hold a minimum amount of capital, do market makers need to have certain trading facilities in place, etc.).
 - (e) The obligations of market makers in terms of:
 - (i) bid and offer minimum quote lot sizes (i.e. what minimum quantity in terms of underlying value must be quoted); and
 - (ii) bid and offer incidences (i.e. what minimum quantity in terms of requests for quotes must be shown a bid – offer spread).

4. Does the existence of market makers assist in improving market liquidity?
 - 4.1 What was the contrast of your market's liquidity before the introduction of market makers versus the figure after the introduction of market makers?
 - 4.2 If available, provide statistics on the proportion of market turnover that is executed by market makers.
 - 4.3 If available, provide statistics on the OTC market turnover, and the proportion of this market turnover that is executed by market makers.
5. Does the existence of market makers assist in terms of improved market price discovery?
 - 5.1 Do your market makers act as a central point where the majority of bids and offers are shown?
6. Who regulates market makers in your jurisdiction? (i.e. are they regulated by a self regulatory organisation (SRO) for the market they operate in, or are they directly regulated by the official government regulator).
7. Indicate whether a Code of Conduct and a set of rules exist in terms of which market makers must conduct their business.
8. In what way do you ensure that market making activities do not impose systemic risk to the financial markets in your jurisdiction?
9. Do market makers enjoy preferential status in the:
 - 9.1 primary market?
 - 9.2 secondary market?
10. List the benefits and / or disadvantages that you believe market makers bring to your markets.
11. Is there a limit placed on the number of market makers in a particular security or segment of the market. If such a limit exists, how is it determined?

Annexure 2

REPLIES TO QUESTIONNAIRE: THE INFLUENCE OF MARKET MAKERS IN THE CREATION OF LIQUIDITY

18 responses in total

Question	
1. Does legislation in your jurisdiction specifically provide for market makers?	13 No ; 5 Yes
1.1 If so, provide the definition for a market maker.	No specific definitions
2. If the legislation in your jurisdiction does not provide for market makers, indicate whether market makers are: 2.1 specifically excluded in legislation 2.2 not mentioned in legislation, but not prohibited.	5 Yes (MM or specialist) 13 Not mentioned, and not prohibited
3. Do market makers currently operate in the financial markets in your jurisdiction?	13 Not official MM
3.1 If so, list each type of market and give the following details in relation thereto:	Very few have informal MM operating
(a) Market instrument type (e.g. equities, futures, options, bonds or any combination or other classification).	Equities 4 Futures & options 1 Bonds 6 Money markets 2
(b) Market trading mechanism (e.g. open outcry, automated trading system or combination thereof or other system).	Screen & phone mainly, one ATS.
(c) The capacity in which market makers is allowed to trade in the various markets (e.g. principal, agent or both).	Both
(d) The qualifying criteria or minimum requirements for operating as a market maker in your jurisdiction (For example do they need to hold a minimum amount of capital, do market makers need to have certain trading facilities in place, etc.).	Official MM has strict entry criteria Unofficial is exchange member

<p>(e) The obligations of market makers in terms of:</p> <p>(i) bid and offer minimum quote lot sizes (i.e. what minimum quantity in terms of underlying value must be quoted); and</p>	bid and offer spread
<p>(ii) bid and offer incidences (i.e. what minimum quantity in terms of requests for quotes must be shown a bid-offer spread).</p>	
<p>4. Does the existence of market makers assist in improving market liquidity?</p>	<p>3 yes, 1 no, and 1 no data</p> <p>Un-official : Yes 2</p> <p>Don't know 11</p>
<p>4.1 What was the contrast of your market's liquidity before the introduction of market makers versus the figure after the introduction of market makers?</p>	No specific data
<p>4.2 If available, provide statistics on the proportion of market turnover that is executed by market makers.</p>	None
<p>4.3 If available, provide statistics on the OTC market turnover, and the proportion of this market turnover that is executed by market makers.</p>	None
<p>5. Does the existence of market makers assist in terms of improved market price discovery?</p>	<p>13 no or no data</p> <p>Yes 5</p>
<p>5.1 Do your market makers act as a central point where the majority of bids and offers are shown?</p>	<p>No 1,</p> <p>no comment 17.</p>
<p>6. Who regulates market makers in your jurisdiction? (i.e. are they regulated by a self regulatory organisation (SRO) for the market they operate in, or are they directly regulated by the official government regulator).</p>	<p>SRO + Regulator where applicable</p>
<p>7. Indicate whether a Code of Conduct and a set of rules exist in terms of which market makers must conduct their business.</p>	<p>6 yes,</p> <p>12 no or no comment</p>
<p>8. In what way do you ensure that market making activities do not impose systemic risk to the financial markets in your jurisdiction?</p>	<p>Surveillance & rules 7</p> <p>No comment 11</p>

<p>9. Do market makers enjoy preferential status in the:</p> <p>9.1 primary market?</p>	<p>7 No, No comment 11</p>
<p>9.2 secondary market?</p>	<p>2 yes, 4 no - No comment 12</p>
<p>10. List the benefits and / or disadvantages that you believe market makers bring to your markets.</p>	<p>Benefits: 5 liquidity, transparency, price discovery</p> <p>Disadvantages: Widen spreads and cash mop-up.</p> <p>No comment 13</p>
<p>11. Is there a limit placed on the number of market makers in a particular security or segment of the market? If such a limit exists, how is it determined?</p>	<p>No</p>

Annexure 3

LIQUIDITY PROVIDERS IN SECONDARY MARKETS

Roles and Regulation

This note identifies some key considerations for emerging markets in reviewing the potential contributions of securities firms to secondary market liquidity.

- How securities intermediaries can provide liquidity to a secondary market.
- Issues in market practices raised by using intermediaries to provide liquidity.
- Some required capabilities for intermediaries to provide liquidity.
- Key regulatory issues.

1. How intermediaries can add liquidity.

Generally speaking, intermediaries can add liquidity to a market in three ways: (a) as a Dealer who uses its own capital to take proprietary positions in the market; (b) as a Market Maker who uses its own capital to take proprietary positions but who has obligations to provide liquidity, usually getting certain benefits in return; and (c) as a Specialist who provides liquidity to the securities in which it specializes. One of the major differences among market microstructures is whether there is a formal role for intermediaries to provide liquidity.

Over the years, there has been an on-going debate about whether intermediaries are needed to provide liquidity. Some say that automatic order-matching is sufficient, others that intermediaries are needed to bridge gaps between supply and demand. Some studies suggest that the appropriate market structure depends on the type of securities to be traded, as that influences the supply and demand characteristics of the securities. For example, small capitalized stocks are often thinly traded. An intermediary can bridge the gap to ensure that transactions occur within reasonable amounts of time and without large price changes. Trying to buy or sell a large block of securities creates a market imbalance; an intermediary can buy or sell pieces of the block, and place them in the market at reasonable order sizes and timing.

Intermediation, however, has its costs, as discussed in Part 2 below. To ensure that intermediation is available for securities that need intermediation, and that securities which do not need intermediation do not have to pay for it, many securities markets have been implementing hybrid systems within a single market institution. Automated order-matching is used for highly liquid securities with well-balanced order-flow and dealer-based systems are available for low-liquidity securities and block trading. The London Stock Exchange (LSE) has received the most publicity over its decision to introduce a hybrid system, although other markets, such as the Paris Bourse, have been introducing separate trading system modules for “sub-markets” or “secondary boards” for some time. Similarly, the current merger discussions between NASDAQ and AMEX are partly a reflection of the trend toward hybrid markets.

Another argument for encouraging intermediaries to be liquidity providers in the secondary market is that they can produce important ancillary benefits developing an active, vibrant capital market. For example, dealers that are active and skilled in providing secondary market liquidity will have the income, skill sets, and client

connections needed to build a successful sales, distribution, and placement capability and thereby promote an active primary market.

2. Issues in Market Practices

There has been much debate and discussion about whether having intermediaries provide liquidity results in high costs relative to order-matching systems, poor execution of trades, and lack of transparency. Recent hotly debated topics in the US include:

- **Costs of market making:** The NASDAQ market is said to have higher spreads than the NYSE and be more expensive than brokered markets. Some contend that the higher costs result from collusion among NASDAQ market makers; others that it is simply the legitimate price for obtaining liquidity.
- **Price collusion:** Within the debate about whether spreads charged by market makers are excessive, there has been considerable discussion concerning possible collusion among NASDAQ traders.
- **Transparency of Order Flow:** Some observers argue that the order execution process with dealer systems is less transparent, raising greater possibility for unfair practices such as frontrunning. Many commentators believe, however, that this is not a problem when using market makers.

3. Needs of, and concerns about using, intermediaries to provide liquidity.

Intermediaries need to be able to do the following if they are to be effective at providing market liquidity:

- **Front office activities:** Take positions, make markets, and generate sufficient transactions among other market makers and investors if they are to create liquidity. Intermediaries must be skilled in these areas to do them effectively and profitably.
- **Manage the back office:** Manage back office operations, particularly to separate client from proprietary accounts and support clearing and settlement of trades on a timely and accurate basis.
- **Profit from dealing and market making:** Clearly, intermediaries will not take positions and make markets if they cannot make money doing the business. The ability to make money is influenced by the costs associated with being a market maker; by benefits that may be provided, such as tax exemptions, to compensate the market maker for taking risks in doing its job; and by the ability to set spreads that cover market risks.

Many of these issues may be more pronounced in some emerging markets because of lack of knowledge and experience among market intermediaries and regulators who oversee their activities.

A related issue concerns allowing intermediaries to be both brokers and dealers under the same roof – taking customer orders and trading on their own account (the so called “dual capacity” firm). Separating the

two activities can reduce bad practices that abuse knowledge about client orders, such as front-running. The flip side is that causing firms to have Chinese walls between, and separate capital for, the two areas can reduce market participation and hence liquidity in countries where management capacity and financial capital are scarce.

4. Regulations that are needed to assure that intermediaries can and are encouraged to provide liquidity.

As usual, the overall regulatory issue concerns maintaining market confidence and prudence while not choking or significantly reducing market activity and development. In this context, regulations should set reasonable demands on the activities of liquidity-providing intermediaries, allowing them to make money and to take but also manage their risks. Some of the most important concerns are: (1) setting capital requirements that are not so onerous that they prevent intermediaries from taking positions and making markets; (2) setting licensing requirements that do not unnecessarily strain scarce capital and managerial resources; (3) allowing intermediaries to take positions; (4) allowing spreads that compensate market makers for their risk taking; and (5) allowing for short selling. Short selling is often an important risk-management mechanism for market makers and, if policymakers are interested in encouraging liquidity-providing intermediaries in their market, they should review the possible negative impact on professional market participants of limitations on short selling.

There is also a question of how intermediaries can finance their transactions—whether they can use their inventory as collateral and borrow against it, whether they can use their accounts at the depository for this purpose, whether they can borrow and lend securities (a must for short selling), and whether there is infrastructure to support those activities. Many emerging market regulators are concerned about using securities as collateral, but there are ways to manage the risks of this operation, particularly if a centralized depository is used.

It is important to note many securities market intermediaries in emerging market countries are owned by the local banks. If regulatory costs are too high — for capital, for management, etc.— these banks will be unwilling to provide the resources needed to create a viable securities industry. They may only provide resources to keep the business going in the most basic ways, such as securities firms that simply process client orders but that do not go after new investors or issuers and do not provide market liquidity. The risk of a securities industry with such a limited purpose is that it will not be able to support an active primary market, thereby failing to perform one of the most critical potential functions of an emerging market, capital-raising.

Market maker (or specialist)

Market makers are specialists in certain securities trading on a quote-driven exchange only. They create liquid markets in certain securities by continuously quoting buying and selling prices -- thereby ensuring the existence of a two-way market. As market liquidity is asymmetrical (it is high in a bull market, but may be very thin in a bear market), market makers are in need of sufficiently large capital resources. They are therefore usually securities firms or branches of banks (particularly merchant and investment banks). They often have to buy large quantities of securities during a bear market phase, which they off-load at a later

stage. Market making may therefore be unprofitable (or even costly) during a bear run. Exchanges normally grant certain privileges to market makers, such as the right to trade in dual capacity or to execute large orders away from the floor (so-called 'block' trading). These privileges are granted to attract market makers with sufficiently large capital resources in order to increase market liquidity.

In at least one respect, stock and listed option markets are similar. Stock markets use specialists to do two things:

- ◆ First, they are required to make a market in a stock by buying and selling from their own inventory, when public orders to buy or sell the stock are absent.
- ◆ Second, they keep the public book of orders, consisting of limit orders to buy and sell, as well as stop orders placed by the public.

When listed option trading began, the Chicago Board Options Exchange (CBOE) introduced a similar method of trading, the market-maker and the board broker system. The CBOE assigns several market-makers to each optionable stock to provide bids and offers to buy and sell options in the absence of public orders. Market makers cannot handle public orders; they buy and sell for their own accounts only. A separate person, the board broker, keeps the book of limit orders. The board broker, who cannot do any trading, opens the book for traders to see how many orders to buy and sell are placed nearest to the current market (consisting of the highest bid and lowest offer). (The specialist on the stock exchange keeps a more closed book; he is not required to formally disclose the size and price of the public orders.)

In theory, the CBOE system is more efficient. With several market makers competing to create the market in a particular security, the market should be a more efficient one than a single specialist can provide. Also, the somewhat open book of public orders should provide a more orderly market. In practice, whether the CBOE has a more efficient market is usually a subject for heated discussion. The strategist need not be concerned with the question.

The American Stock Exchange uses specialists for its option trading, but it also has floor traders who function similarly to market-makers. The regional option exchanges use combinations of the two systems; some use market-makers, while others use specialists.

Magazine: WALL STREET LETTER; JANUARY 26, 1998
NASDAQ TO RAISE STANDARDS FOR PRIMARY MARKET MAKERS

The Nasdaq Stock Market has a proposal in the works that would raise the bar for Wall Street firms seeking status as a primary market maker in any Nasdaq stock. The move could have a significant impact on the market because being a primary market maker brings potentially lucrative benefits, most notable of which is exemption from Nasdaq's short sale rule prohibiting dealers from bidding down the price of a stock in which they also hold a short position, a Nasdaq official explained. In addition, Nasdaq's plan to implement an integrated order execution and delivery system, commonly referred to as Next Nasdaq, also includes in its preliminary draft provisions that give primary market makers advantages that could mean more business for these firms. The changes could also be controversial by potentially pitting larger market makers against some of the smaller ones.

Approximately 70% of Nasdaq market makers now qualify to be primary market makers, the Nasdaq official said, acknowledging changes to the present standards could drop that figure to around 50%. Market makers from large, well established firms have so far lauded the imminent changes. But others have said the issue could become a divisive one, particularly once more details emerge about the potential benefits that are for now buried in the lengthy Next Nasdaq proposal.

Some traders are concerned the proposal would benefit market makers affiliated with large brokerage houses at the expense of smaller market makers without as much capital. But one official at a large market maker countered, "If we're going to have primary market maker status, it has to be meaningful." One benefit given to primary market makers is the ability to "sponsor" institutional clients so the clients can enter orders via their own Nasdaq workstations, a Nasdaq official said. Because institutions generally place orders in Nasdaq stocks by calling market makers on the phone, a firm's ability to offer direct access could become a powerful business draw.

The new standards are expected to be filed with the Securities and Exchange Commission during the next few weeks. If adopted, Nasdaq will determine primary market maker status by monitoring how much capital firms extend to keep markets efficient and liquid--how often a firm is executing orders against the prevailing investing trend, for instance--rather than quoting practices. Nasdaq is still ironing out how it will notify the firms of their status and whether that can be done on a real-time basis. Robert Colby, deputy director of market regulation at the SEC, did not return calls seeking comment.

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By Laura Santini

**Magazine: COMPLIANCE REPORTER; JULY 21, 1997**  
**NASDR TO OVERHAUL MARKET REGULATION DEPARTMENT**

NASD Regulation is reorganizing its market regulation department to increase the focus on its on-site trading and market maker surveillance program [TMMS], according to Jim Cangiano, senior v.p. of market regulation at NASDR. Effective Aug. 1, Steve Luparello, formerly v.p. of the office of disciplinary policy, will be formally installed as v.p. of market regulation, a new post. Luparello will report to Cangiano and oversee three new directors, Lynn Nellius, Tom Gira and Cam Funkhauser. Gira will leave his current post as associate general counsel at the Nasdaq Stock Market to join NASDR.

The reorganization is designed to help NASDR better manage the growing complexity of financial markets associated with a slew of new rules and practices implemented in the last year. One senior compliance official at a bulge bracket firm said the restructuring may represent an effort on the part of NASDR to take on a more corporate structure. The changes may also produce exams that are more thorough and intense, the official speculated.

"It is a good opportunity to work out interesting issues," such as the next generation of order handling, firm quote compliance, and trade reporting issues raised in the wake of the Securities and Exchange Commission's 21(a) report, Luparello told CR. The TMMS field program, launched in January 1996, will be centralized under Nellius. NASDR will hire a supervisor of examiners in New York to oversee an examination team. Gira will be director of the Quality of Markets and Legal Offices.

Luparello said the development of an order audit trail system would continue to be handled by Cangiano, who has spent much of the recent year working on the system. Last year's settlement between the NASD and the Securities and Exchange Commission mandates that intensive audit trail systems be in place for the Nasdaq and all stock exchanges by August 1998.

The reorganization comes amid a slew of structural and personnel changes this year at the top levels of management at the National Association of Securities Dealers. Frank Zarb became chairman of the NASD in February, replacing Joseph Hardiman, and Mary Alice Brophy, senior v.p. at Minneapolis-based Dain Bosworth, last week was named NASDR's senior v.p. of member regulation, replacing John Pinto. Additionally, the NASD Board of Governors has approved a Zarb proposal to revamp the structure of the NASD, shrinking the number of boards and making policy matters more efficient. Calls to NASDR President Mary Schapiro were referred to a spokesman, who said Luparello's position was created to help oversee the growing industry, declining to confirm the larger reorganization. Zarb did not return calls.

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By Siobhan Hughes

Magazine: Pensions & Investments, February 3, 1997
FUND TO PUT MONEY ON MARKET MAKERS

SAN FRANCISCO -- A new limited partnership is betting that the fortunes of market makers will provide a hedge against stock market risk.

MDNH Partners, San Francisco, is seeking to raise an initial \$5 million to \$10 million for a Market Maker Fund, with a minimum investment of \$500,000, by year-end 1997. Pension funds might comprise up to 30% of the total. In subsequent closings, the fund might raise up to \$50 million.

The fund's general partner is Douglas Engmann, president of Sage Clearing Corp, San Francisco, a clearing agent for stock specialists and options market makers. The fund will begin investing shortly, with the general partner's own capital.

The partnership will act as a fund of funds, investing in a mix of private funds that finance specialist firms on stock exchanges and market makers on options exchanges.

Mr. Engmann said both industries experienced a consolidation after the 1987 stock market crash, as investors, led by institutions, demanded greater liquidity.

"With the nervousness in the market, people at the casino wouldn't mind owning a part of the casino," he said.

Mr. Engmann raised a fund in 1988 to finance mergers and joint ventures of small market-making firms with successful track records. The new fund will invest among the 40 to 50 funds out there doing the same thing.

"Institutions don't want to spend the time and effort," investing in such small funds individually, he said, adding a fund of funds provides more diversification.

He said these are "market neutral-type investments with returns independently correlated with the market. The business of market making is not highly correlated with the market. It's correlated to volume."

He said even in the event of a sustained bear market, with a sharp drop in volume, returns of the fund "would be lower but not negative."

Mr. Engmann's first fund, which provided financing to these firms, earned an average annual 20% from the end of 1988 through Nov. 30, 1996.

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By Marlene Givant Star