

## **Analysis on Market Maker System in the NEEQ**

**Weibin Luo**

Department of Accountancy  
Central University of Finance and Economics  
39<sup>th</sup> South College Road, Haidian District, Beijing  
China

### **Abstract**

*This paper introduces the development of the NEEQ and the present situation of listed enterprises in the NEEQ, explains the trading system of the market maker system, and analyzes the revenues and the risks of the market makers, and then points out the existing problems of the market maker system. This paper finally offers some proposals of countermeasures and suggestions on perfecting market maker system in the NEEQ.*

**Keywords:** Market Maker System, NEEQ, Quotation, Supervision.

### **1. Introduction**

The NEEQ (National Equities Exchange and Quotations) is the third national securities exchange in China after Shanghai Stock Exchange and Shenzhen Stock Exchange, and is the first company system securities exchange place which has been approved by the State Council. According to the objective of constructing a sound, multi-level, highly developed securities market, the securities market system in China should be composed by the Shanghai and Shenzhen main board market, the Shenzhen small and medium sized board and growth enterprise market, and the NEEQ over-the-counter market. These three levels of market form the shape of Pyramid, where the Shanghai and Shenzhen main board market is the top, the small and medium-sized board and growth enterprise board are the middle part, and the NEEQ over-the-counter market is the base of the Pyramid.

The NEEQ in China was established in 2006, and developed slowly before 2013. With the introduction of the national policy to support the development of the NEEQ, the market maker system was introduced for the first time, and the number of listed enterprises in the NEEQ increased rapidly. On July 21st 2015, the number of listed enterprises reached 2794, which exceeded the sum of companies listed in Shanghai and Shenzhen Stock Exchange for the first time. That was a memorable day for the NEEQ and even for the China's capital markets; because it was a sign that the pyramids of capital markets are taking shape. In 2015, over 3500 enterprises listed in the NEEQ, and in 2016 about 5000 enterprises listed. With the increasing number of listed enterprises in the NEEQ, its market positioning is gradually clear, and the mission is mainly to provide service for the innovative, entrepreneurial, small and medium-sized enterprises. It is gradually becoming the "incubator" and "reservoir" of the main board and the growth enterprise board. The rapid development of the NEEQ helps the small and medium-sized enterprises to use the capital market to solve the problem of financing and promote the industrial transformation.

### **2. Listed enterprises in the NEEQ**

In accordance with relevant policy provisions, the eligible enterprises of various forms of ownership and various industries in China can apply to be listed in the NEEQ. The enterprise which has no more than 200 shareholders may apply directly to the NEEQ for listing, and the others with more than 200 shareholders should apply for listing procedures after obtaining the approval documents of the CSRC(China Securities Regulatory Commission). Investors who meet the financial asset requirements of RMB 5 million and have more than 2 years of experience in securities or fund investment may participate in the stock trading in the NEEQ. Until the end of 2017, the number of listed enterprises in the NEEQ was up to 11630, and 1343 of which carried out the market maker system. The proportion of market-making increased from 3.8% to 11.5%, and the market-making accounts for 20% of the total volume of the stock transaction.

The market maker system has become the main trading system in the NEEQ. And the number of investor reaches 408 thousand, including 51 institutional investors and 357 individual investors.

**Table-1 Number of listed enterprises in the NEEQ**

RMB billion

YEAR	2017	2016	2015	2014
Number of listed enterprises	11,630	10,163	5,129	1,572
General capital	676	586	296	65
Market capitalization	4,940	4,056	2,458	459
Number of share issues	2,725	2,940	2,565	330
Number of shares	24	29	23	27
Amount of financing	134	139	122	13
Stock transaction amount	227	191	191	13
Number of stock transactions ( billion )	43	36	28	2
Turnover rate(%)	13.47	20.74	53.88	19.67
Price-earnings ratio	30.18	28.71	47.23	35.27
Number of institutional investor ( thousand )	51	38	23	5
Number of individual investor ( thousand )	357	296	199	44

**Table-2 Listed Enterprises Grouped by Industry**

Industry Category	2017		2016	
	Number	Proportion	Number	Proportion
Manufacturing industry	5804	49.91%	5153	50.70%
Information transmission, software and information technology services	2284	19.64%	2003	19.71%
Leasing and business services	607	5.22%	507	4.99%
Wholesale and retail trade	531	4.57%	436	4.29%
Scientific research and technology services	509	4.38%	459	4.52%
Construction industry	379	3.26%	330	3.25%
Culture, sports and entertainment	261	2.24%	228	2.24%
Agriculture, forestry, animal husbandry, fisheries	223	1.92%	173	1.70%
Water conservancy, environment and utilities management industry	198	1.70%	199	1.96%
Transport, warehousing and Post Office	197	1.69%	163	1.60%
Financial industry	144	1.24%	126	1.24%
Electricity, heat, gas and water production and supply	130	1.12%	101	0.99%
Real estate industry	97	0.83%	67	0.66%
Education	88	0.76%	72	0.71%
Health and social work	55	0.47%	47	0.46%
Residential services, repairs and other services	44	0.38%	40	0.39%
Mining industry	42	0.36%	30	0.30%
Accommodation and catering industry	37	0.32%	29	0.29%
<b>TOTAL</b>	<b>11630</b>	<b>100.00%</b>	<b>10163</b>	<b>100.00%</b>

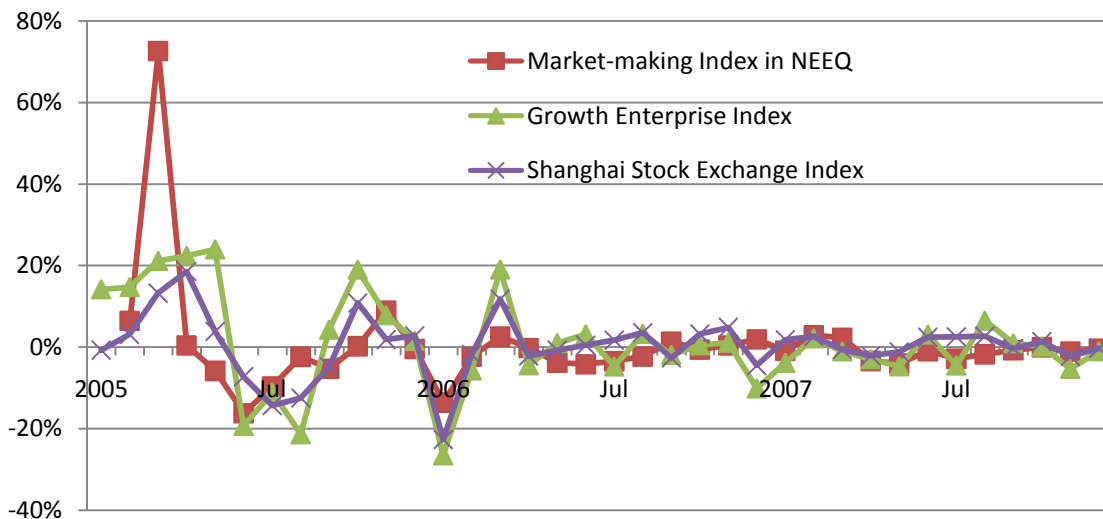
At the end of 2017, there were 96 market makers in the NEEQ and provided market-making service for 1243 listed enterprises. The Hing ye securities, Guotai Junan securities and Chung tai securities provided service for the largest number of market-making enterprises.

**Table-3 Market Makers and Market-making Enterprises**

NO	Market Makers	Market-making Enterprises
1	Hing ye securities co.,Ltd	258
2	Guotai Junan securities co.,Ltd	241
3	Chung tai securities co.,Ltd	237
4	Shenwan Hongyuan Securities Co.,Ltd	219
5	Kyushu securities co.,Ltd	214
6	Shanghai Securities Co.,Ltd	208
7	Changjiang securities co.,Ltd	183
8	Tianfeng securities co.,Ltd	181
9	Guangzhou securities co.,Ltd	177
10	Zhongshan Securities Co.,Ltd	174

### 3. Market Maker System in the NEEQ

In the market maker system, the market makers constantly issue the demand for buying and selling, and investors with purchase intention can strike a deal with a market maker, but the investors cannot trade directly with each other. According to the number of market makers, it can be divided into monopoly and competitiveness market maker system. The market maker system will improve the market liquidity, stimulate market activity, and becomes an important part of the trading system of securities markets in various countries. At present, many stock exchanges had adopted the market maker system, including New York Stock Exchange (NYSE), NASDAQ, Tokyo Stock Exchange (TSE), London Stock Exchange (LSE) and so on. In August 2014, China formally introduced the market maker system in the NEEQ. And since January 2015, the market-making index was issued. The index experienced large fluctuations in the initial stage, and after that it kept almost the same pace with the Shanghai Stock Exchange index and the Growth Enterprise Index.



#### 3.1 The Trading System

In the market maker system, the market maker has the obligation to provide a double direction quotation within the trading time, and the quotation is continuous, thus the investors can trade at any time according to the market maker's offer promise. The circulation of stocks can be realized without waiting for the appearance of counterparties, which greatly shortens the trading time and reduces the time cost of traders. Market makers also have the obligation to maintain the market liquidity, and it will be realized through the quoting obligation. The stock rules of the NEEQ stipulate that the market maker shall begin to issue the quotation at 9:30. The declared quantity of buying and selling stocks shall be 1000 shares or integral times of them. While selling stocks, if the balance were less than 1000 shares, it would be declared and sold at one time. If a market maker holds less than 1000 shares, it could exempt from the obligation of selling quotation. The time that the market maker provides quotation on each trading day should be no less than 75 percents of the trading time. An investor cannot sell the stock shares he has just bought in the same trading day. But the stock that a market maker buys in the course of market-making offer may be sold on that day. Investors cannot buy and sell shares between investors. But stock transfers can be made between market makers. They can declare and confirm transactions between other market makers at the time between 15:00 and 15:30 on each trading day.

#### 3.2 The Market Maker's Revenues

The market maker's revenues mainly include two aspects: the stock trading spread revenue and the inventory-related revenue. The stock trading spread revenue comes from the difference in buying and selling prices for all round-trip transactions that the market maker completes on the trading day. As the organizers and traders of the market, the market makers' obligation is to continue to provide the double direction quotation of buying and selling, and respectively complete the actual trade with investors in each side. If the buying price that the market maker quoted is equal to or higher than the selling price of traders, the market maker must buy securities at the price he has quoted unconditionally. If the selling price that the market maker quoted is equal to or lower than the purchase price of traders, the market maker must unconditionally meet the requirements of traders buying.

Each time a market maker submits a market declaration, it shall include both the buying price and the selling price, and the difference shall not exceed 5%. The spread between the purchase price and the selling price is the market maker's trading spread revenue. Meanwhile, in order to realize the continuous quotation and maintain the liquidity of certain stocks, the market maker must hold a certain amount of stocks. The trading revenue of these stocks is the inventory-related revenue. If the company has good performance, the market maker may earn a certain amount of revenue from share out dividends and rights or sending stocks of the company. When the market maker predicts that the stock price will rise, it will tend to increase the stock inventory in order to obtain a profit when the stock goes up. Besides, the market maker usually employs a large number of traders to make direct profits through frequent and large number of transactions, by taking advantages of the low handling fees and its full information.

### **3.3 The Risk of the Market Maker**

The market makers use their own funds to provide double direction quotation for certain stocks and influence the market, as a result, the risks of the market maker system are mainly focused on the market makers. Firstly, the market makers are not only the organizers of the market, but also the agents who pursue the maximization of their own benefits. They are both agents and dealers or market makers. Thus it may be possible that the market maker will use its own advantages or abuse of power, to defraud investors, make insider trading and manipulate the market, which will greatly damage the interests of investors.

Secondly, there will be some risks to the securities market caused by the risk arising from the market-maker's proprietary business. As the market maker has to make continuous double direction quotations, any price fluctuation of each direction will bring a great risk to the market makers. And it will also increase the moral hazard of the market makers. The third one is the potential loss risk of the price quoting obligation. When the stock price has a sharp fall, the market maker still has to buy in large quantities in order to maintain the stock price. In fact, the value of this part of the stock has actually been derogated, which will cause the sharp decline of the economic strength of the market maker, and affect the ability of making market subsequently. On the other hand, when the stock price goes up, the market maker must sell the stock in large quantities in order to stabilize the stock price, and then need to make up the stock at a higher price, which often brings huge losses to the market maker.

### **4. Problems of Market Maker System in the NEEQ**

The first is that it is difficult to implement market supervision. At present there are only 96 market makers in the NEEQ and on average about 4 market makers provide market-making service for one enterprise. It is so seriously insufficient that the trading is difficult to meet the needs of the market, and the scale of the overall market funds will be limited either. Since the number of market makers is less and the stock is more concentrated, the market makers may manipulate the price of a stock using insider trading or stock concentration and information advantage. Such as December 31, 2015, in order to control the profit of market making business, the market maker G sold out 16 stocks at a price significantly below the recent trading price, resulting in the stock price fluctuated sharply at the end of the day. In addition, the market-making business of a market maker and its self-run business may exist overlapping, which increases the difficulty of supervision.

The second is that the market maker system is still not perfect. There is still a large policy space to strengthen the potential risk prevention of market makers, increase the types of market makers, and relax the entry conditions of investors and so on. Due to the high threshold of qualified investors in the NEEQ in China, the investment demand is insufficient. In the case of huge shocks in the market, the liquidity is scarcer, and the risk of the treasury stock of the market maker is increased. As the risks cannot be effectively hedged, the market maker can only follow the volatility of the market, and the function of stabilizing stock price of the market maker is difficult to play. Meanwhile, the transaction prices offered by the market makers are sometimes unreasonable, and the ability to stabilize the price is also deficient. The market making business in the NEEQ is still regarded as innovative business for some securities firms. The research teams of securities firms in the NEEQ are not mature enough, and commonly lack of experience in the research of small and medium-sized enterprises, thus the pricing ability of the market maker is slightly insufficient. Besides, it is difficult to determine the reasonable valuation scope of the enterprise.

And on the other hand, it is hard to consider how to give effective quotation to activate the market when the market is relatively stable, and when the market fluctuates greatly, how to reduce the fluctuation of the market by providing market making service.

## **5. Suggestions**

In this paper we would like to offer some proposals of countermeasures and suggestions on perfecting Market maker system:

I. Construct a comprehensive supervision model. According to the Securities Act of 2015, the securities regulatory authority of the State Council shall exercise centralized and unified supervision and administration of the national securities market. Therefore, the CSRC (China Securities Regulatory Commission) shall be responsible for unified administrative supervision, and the Securities Industry Association and the NEEQ are authorized to perform their regulatory duties of self-discipline. The self-regulation is the basis, and the administrative supervision is fundamental. Specifically, the CSRC would be responsible for the access and withdrawal system of the market, formulating the rules of enterprises listing, transaction, regulatory framework and information disclosure. And it would be responsible for the administrative supervision of securities industry associations, the NEEQ, intermediary institutions and listed enterprises. The securities industry association should be responsible for examining the qualifications of the market makers and supervising their behavior. The NEEQ should be responsible for monitoring the transactions between market makers and investors, by using the trading platform and information system. The market makers, accounting firms and other intermediary organizations should be responsible for supervising the listed enterprises. This comprehensive supervision model is not only conducive to reducing the cost of supervision, but also conducive to improving the efficiency of supervision.

II. Improve the regulatory mechanism of information disclosure. The NEEQ has different regulations on mandatory disclosure and selective disclosure. The listed enterprises can selectively disclose information that the board regards having a significant impact on share prices. This requires regulation of disclosure should increase positive incentives in addition to the punitive measures that have been consistently applied. For mandatory disclosure of information, we should follow the principle of combining supervision and punishment, in order to reduce the possibility of violation fundamentally and reduce the supervision cost. For selective disclosure, incentive mechanisms should be designed to encourage listed enterprises to disclose more information that would have an impact on share prices, such as cash incentives for enterprises that actively disclose information.

III. Establish comprehensive evaluation system for market makers. In order to regulate the practice of market makers, it is necessary to evaluate regularly the internal control system and business level of market makers. We can learn from the experience of foreign mature OTC Markets, evaluate and rank the market makers by measuring whether the quotation is reasonable and whether the information of trading is comprehensive and so on. Besides, the ranking should be published regularly in the NEEQ or designated media, which will provide reference basis for listed enterprises and the proposed listing enterprises to choose market makers. In addition, it will provide the basis for investors to make decisions.

IV. Increase the number of market makers and improve the professional level. At present, the market makers in the NEEQ are mainly securities companies. We should increase the types of market makers reasonably to improve and perfect the structure of market makers. Many insurance companies and commercial banks in China usually have sufficient capital and rich experience of financial market participation. If they would be introduced as market makers in the NEEQ, it can be effectively reduced that the information asymmetry between small and medium-sized enterprises and insurance companies, commercial banks and other financial institutions. In addition, the market makers should strengthen their business training, improve their ability to read and analyze decision-making information, correctly evaluate the intrinsic value of market-making stocks, make reasonable quotations, and correctly judge the causes and trends of market price fluctuations. The market makers should guide the market behavior by making continuous quotation, and provide reasonable pricing benchmark for investors in the NEEQ.

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