BNP PARIBAS
CORPORATE & INVESTMENT BANKING

PRIVILEGED AND CONFIDENTIAL

February 14, 2011

Elizabeth M. Murphy
Secretary
Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549-1090

Re: Release No. 34-61358, File Number S7-02-10, Concept Release on Equity Market Structure

Dear Ms. Murphy:

BNP Paribas Securities Corp. ("BNPP") welcomes the opportunity to comment on the Securities and Exchange Commission's (the "Commission") concept release on equity market structure.[1] BNPP is an active participant in the U.S. equity markets and appreciates the Commission's ongoing evaluation of its regulatory framework in light of technological and other developments in equity market structure.

In this context, we are pleased to respond to the Commission's request for comment on the effect of Rule 612 of Regulation NMS on the trading of low-priced stocks.[2] Based on an empirical analysis of sub-penny executions, BNPP respectfully recommends that the Commission consider reducing the minimum price variation ("MPV") to one-tenth of a cent for stocks priced under $10. We believe that this would be an effective, market-based approach for encouraging displayed liquidity while also preserving opportunities for price improvement.

BACKGROUND

A key feature of U.S. equity market structure is the MPV, also called the tick size or the minimum pricing increment. In June 2000, the Commission issued an order directing the NASD and the national securities exchanges to develop a plan to convert their quotations in equity securities from fractions (usually 1/16 of a dollar) to decimals.[3] After a series of studies, the

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1 Securities Exchange Act of 1934 ("Exchange Act") Release No 61358 (Jan. 14, 2010), 75 Fed. Reg. 3594 (Jan. 21, 2010) (the "Concept Release").

2 Concept Release at 3613.

3 Exchange Act Release No. 42194 (June 8, 2000), 65 Fed. Reg. 38010 (June 19, 2000).

Commission approved rule changes from these SROs to establish a one-cent MPV.[4] The switch to a one-cent MPV resulted in a significant narrowing of quoted spreads, which created greater opportunity for price improvement and reduced trading costs for investors.[5] The one-cent MPV, however, did not apply in all trading venues and, in 2003, NASDAQ proposed a rule change to adopt an MPV of one-tenth of a cent to remain competitive with electronic communication networks.[6] Recognizing the need for consistency across trading venues, the Commission adopted Rule 612 of Regulation NMS, which sets a one-cent MPV for all NMS stocks priced at $1 per-share or greater. Rule 612, however, applies only to order and quote submissions and does not prohibit the actual execution of stocks at sub-penny prices.

In the Concept Release, the Commission seeks comment regarding the effects of the one-cent MPV on undisplayed market liquidity and asks whether the larger percentage spread in low-priced stocks leads to greater internalization and more trading volume in undisplayed markets.[7] For low-priced stocks, the one-cent MPV imposes an artificially wide bid-ask spread relative to the price of the stock. A wide spread incentivizes OTC market makers to internalize order flow because it allows them to profit by trading against customer orders or by executing sub-penny trades in undisplayed venues. At the same time, public liquidity providers are prevented from executing orders for low-priced stocks at a better price because of the one-cent MPV. The Commission proposes several measures that could address this situation, such as imposing a "trade-at rule" or decreasing the MPV to a sub-penny value for low-priced stocks.[8]

Responses to the Commission's request for comment generally fall into three groups. One group of comments emphasize that sub-penny executions enable investors to receive better prices than what is displayed in the market,[9] and argue that this price improvement for investors justifies the increase in undisplayed liquidity.[10] Those comments also generally oppose the introduction of sub-penny quoting, even for low-priced stocks, and argue that sub-penny quoting

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[4] Exchange Act Release No. 46280 (July 29, 2002), 67 Fed. Reg. 50739 (Aug. 5, 2002).

[5] *See id.* at 50739 ("[A] dramatic reduction in quoted spreads was observed in NASDAQ securities, with spreads narrowing an average of 50% following decimalization.").

[6] *See* SR-NASD-2003-121. NASDAQ subsequently withdrew the proposal.

[7] Concept Release at 3613.

[8] Concept Release at 3612-13.

[9] *See* letter from Ann Vlcek, Managing Director, Securities Industry and Financial Market Association, to Elizabeth M. Murphy, Secretary, the Commission, dated Apr. 29, 2010 ("SIFMA Letter"); letter from Leonard J. Amoruso, General Counsel, Knight Capital Group Inc., to Elizabeth M. Murphy, Secretary, the Commission, dated Apr. 25, 2010 ("Knight Letter"); letter from Kimberly Unger, Executive Director, Security Traders Association of New York, to Elizabeth M. Murphy, Secretary, the Commission, regarding the Concept Release, dated Apr. 30, 2010.

[10] *See* Knight Letter at 4 (stating that internalization provided over $63 million in price improvement on 26.3 billion shares in 2009).

would permit a participant to "step ahead" of a competing limit order on an exchange, without providing sufficient price improvement to justify obtaining priority over the next-best quote.[11]

A second group of comments argue that the ability for undisplayed venues to execute orders at sub-penny prices discourages liquidity providers from displaying limit orders and pushes trades, especially for low-priced stocks, into those undisplayed venues.[12] Some of these comments claim that there is little incentive to offer liquidity through published limit orders because those with internalization capabilities are able to execute orders at sub-penny prices based on the displayed national nest bid and offer ("NBBO") without taking the risk associated with displaying liquidity.[13] Some comments recommended that the Commission regulate internalization practices through some version of a "trade-at rule" requiring an internalizing firm to provide meaningful price improvement over the displayed NBBO.[14]

A third group of comments support some level of internalization and sub-penny executions, but note that reducing the MPV for low-priced stocks is a good way of encouraging orders in displayed markets.[15] Some of these comments recommend a pilot program to test the effect of smaller tick sizes for a select number of stocks under $10.

ANALYSIS

While commenters generally agree that the current one-cent MPV encourages sub-penny executions in undisplayed markets, they disagree on the empirical question of whether sub-penny executions are beneficial for investors. Furthermore, the comments presented to the Commission to date do not provide the empirical analysis necessary to resolve this debate.

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[11] These comments claim that this will reduce the incentive for liquidity providers to display limit orders, which could result in thinner order books. *See, e.g.*, Knight Letter at 6-7. Some of these comments also expressed concern that sub-penny quoting would pose operational and technological risks and that it would create perverse incentives under the current structure for access fees. *See, e.g.*, SIFMA Letter at 15-16; Knight Letter at 7.

[12] *See, e.g.*, letter from George U. Sauter, Managing Director and Chief Investment Officer, the Vanguard Group, Inc. to Elizabeth M. Murphy, Secretary, the Commission, dated Apr. 21, 2010.

[13] *See* Letter from Robert A. Bright, Chief Executive Officer, Bright Trading LLC, to Elizabeth M. Murphy, Secretary, the Commission, dated June 23, 2010 ("Bright Letter"). This comment also argues that sub-penny executions create a "two-tier market," in which the few actors with access to internalization and other sources of undisplayed liquidity have an unfair advantage over everyone else.

[14] *See* Bright Letter at 6 (recommending that internalizing broker-dealers be subject to an MPV that is a function of the average bid-ask spread in the security); *see also* letter from Karrie McMillan, General Counsel, the Investment Company Institute to Elizabeth M. Murphy, Secretary, the Commission, dated Apr. 21, 2010, at note 32 (making a similar recommendation, and questioning whether providing price improvement to internalized orders in very small increments provides any meaningful price improvement for investors).

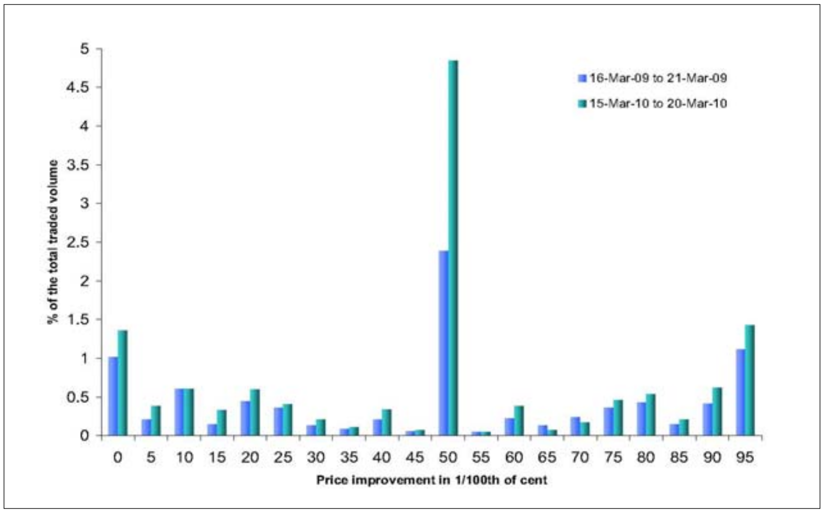
[15] *See* letter from Janet Kissane, SVP – Legal & Corporate Secretary, NYSE Euronext, to Elizabeth M. Murphy, Secretary, the Commission, dated Apr. 23, 2010; letter from John McCarthy, General Counsel, GETCO, to Elizabeth M. Murphy, Secretary, the Commission, dated Apr. 27, 2010.

Based on an empirical analysis by Romain Delassus and Stephane Tyc (the "Delassus-Tyc Study"),[16] BNPP's view is that, while sub-penny executions generally provide meaningful price improvement for stocks priced above $10, they do not do so for low-priced stocks. Rather, the results of the Delassus-Tyc Study strongly suggests that, for low-priced stocks, sub-penny executions reflect a "queue jumping" strategy, where market participants provide *de minimis* price improvement over the NBBO in order to obtain price priority.

By analyzing Thomson-Reuters tick-by-tick historical data for stocks listed in the NASDAQ100 index, the Delassus-Tyc Study evaluated the prevalence of sub-penny executions, their historical evolution and, most importantly, whether they provided meaningful price improvement or simply a means for queue jumping. The analysis shows that there are essentially two kinds of sub-penny trades: mid-price crossing and queue jumping. Mid-price crossing, on the one hand, provides meaningful price improvement for investors. Queue jumping, on the other hand, involves executions at prices a *de minimis* amount (*e.g.*, $0.0001) better than the NBBO used to buy price priority at a negligible cost to the market maker (and accordingly lower benefit to the investor). It is this second kind of sub-penny executions that is criticized in many of the comments in response to the Concept Release.

The graph in Figure 1 below depicts the price improvement distribution for sub-penny executions on all NASDAQ100 stocks. It was calculated by analyzing all executions in the third week of March in 2009 and 2010. This graph shows a significantly higher percentage of mid-point crossing executions (approximately 2.5-5%) with half a cent in price improvement. A smaller percentage of queue jumping executions (approximately 1-1.5%) with a price improvement between $0.0001 and $0.0004 per- share is represented by each of the bars at either end of the graph.

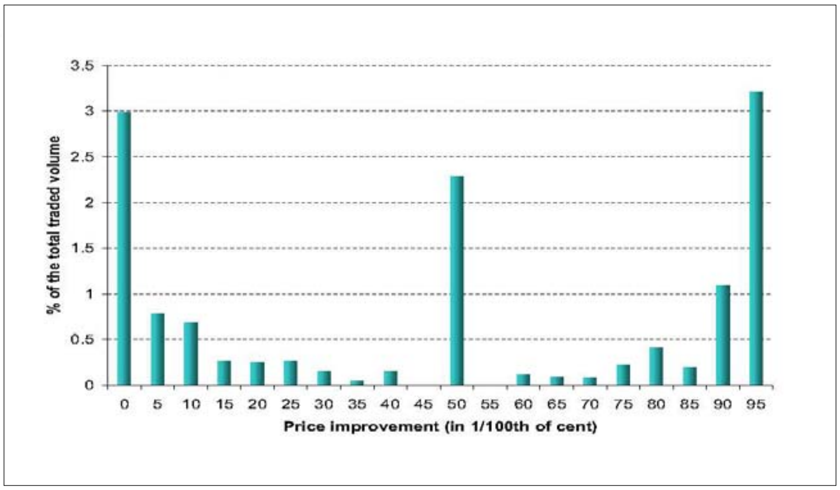
Figure 1: Price Improvement Distribution on NASDAQ100 Stocks



[16] Romain Delassus and Stephane Tyc, *Sub-Penny Trading in U.S. Equity Markets*, July 30, 2010, *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1651201.

Figure 2, below, is a graph showing a price improvement distribution for executions during the third week of March 2010 in those NASDAQ stocks priced between $1 and $5.[17] In contrast with Figure 1, the first and last bars of this distribution (*i.e.*, the ones representing queue jumping) reflect a much higher percentage (approximately 3-3.25%) of executions.

Figure 2: Price Improvement Distribution on 440 NASDAQ Stocks between $1 and $5

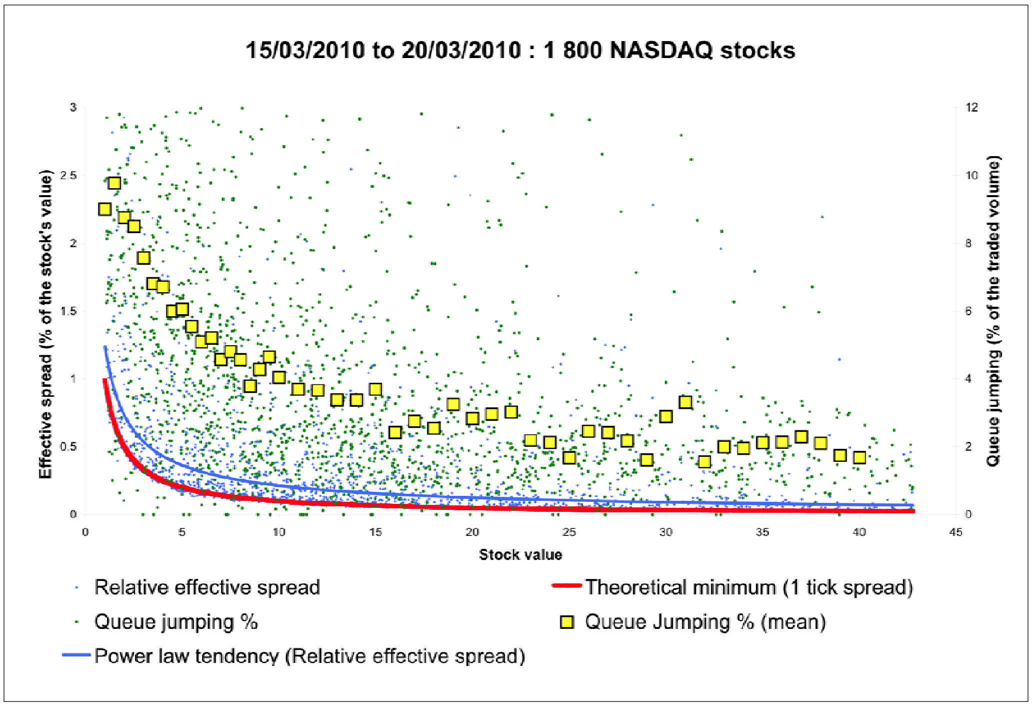


By comparing the distribution of sub-penny executions for all stocks listed in the NASDAQ100 index to the distribution for only those NASDAQ stocks between $1 and $5, the Delassus-Tyc Study shows that, as stock price decreases and the spread increases as a percentage of price, the incidence of queue jumping also increases. An intuitive interpretation of this result is that, the lower the stock price, the higher the size of the spread relative to price, and, therefore, the more profitable market making becomes. However, since the one-cent MPV puts a limit on price competition in the displayed markets, it encourages market makers to engage in queue jumping strategies in undisplayed markets. This decreases the quality of displayed markets.

[17] This distribution was calculated using a list of more than 440 stocks quoted on the NASDAQ and priced between $1 and $5.

The prevalence of queue jumping as a function of stock price for all NASDAQ stocks priced up to $40 is shown on Figure 3. The yellow squares represent average percentages of queue jumping by price bucket and show the trend of higher queue jumping for low-priced stocks. For high-priced stocks, the percentage of orders executed with *de minimis* price improvement is fairly stable around 2 percent. For stocks priced under $10, the prevalence of queue jumping increases rapidly.

Figure 3: Prevalence of Queue Jumping



The Commission and commenters have suggested two ways to address this: (1) ban sub-penny executions for everyone (this could be done by implementing the trade-at rule), or (2) allow sub-penny executions for all actors (by reducing the MPV for low-priced stocks). BNPP, along with many other commenters, believes the first solution would unnecessarily limit the possibilities for price improvement.[18] Moreover, a trade-at rule could stifle competition and innovation among trading venues by dictating the manner in which broker-dealers must trade.

[18] *See, e.g.*, SIFMA Letter at 12-14; Knight Letter at 5-6.

BNPP, therefore, respectfully recommends that the Commission change the MPV for stocks valued between $1 and $10 to one-tenth of a cent.[19] This simple change would recreate the same conditions for low-priced stocks as currently exist for higher-priced stocks. It also would benefit investors by tightening spreads that have been artificially kept wide by the current MPV and level the playing field between those who can execute trades at sub-penny prices and those who are currently at a disadvantage because they can only trade in displayed markets.[20]

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BNPP supports the Commission's efforts to improve equity market structure. BNPP is particularly pleased that the Commission is considering making adjustments to the MPV for low-priced stocks, and we appreciate the opportunity to offer the Commission empirical analysis relevant to this inquiry. Please do not hesitate to contact the undersigned at (212) 841-2336 with any questions or if we can be of assistance to the Commission.

Sincerely,

Andrew Alter
General Counsel and Secretary
BNP Paribas Securities Corp.

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[19] While the graphs above only demonstrate the increase in queue jumping for stocks priced between $1 and $5, the Delassus-Tyc Study also shows that there is a noticeable shift from queue jumping to meaningful price improvement trades around the $10 per share price mark. *See* Delassus-Tyc Study at 15-17. Thus, BNPP believes it would be beneficial to have an MPV of one-tenth of a cent for all stocks priced below $10. Using a one-tenth of a cent MPV for stocks under $10 would also create equivalent conditions for stocks priced from $1 to $10 and for stocks priced from $10 to $100.

[20] BNPP recognizes that the diminution of the MPV for low priced stocks may create problems due to the fee structures of many exchanges. For example, decreasing the MPV to a value lower than twice the liquidity rebate given to liquidity providers would compromise the NBBO and create a so-called "crossed market." We believe, however, that this problem could be resolved by switching to rebates proportional to the traded volume price, or by making exchange fees proportional to the MPV.