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August 15, 2012

Elizabeth M. Murphy Secretary U.S. Securities and Exchange Commission 100 F Street NE Washington, DC 20549-1090

RE: SR-NASDAQ-2012-043 and SR-NYSEArca-2012-37 / Order Instituting Proceedings To Determine Whether To Approve or Disapprove Proposed Rule Changes Relating to Market Maker Incentive Programs for Certain Exchange-Traded Products

Dear Ms. Murphy,

Thank you for this opportunity to comment on SR-NASDAQ-2012-043 and SR-NYSEArca-2012-37. My expertise is based on several publications and ongoing research on various economic and legal issues relating to market making. My commentary on several questions posed by the U.S. Securities and Exchange Commission³ is as follows:

Question 3

One empirical study that "ha[s] compared the market qualities of securities that did not participate in such a program to the market qualities of similar securities that participated in the same program"

¹ The views expressed in this comment letter are those of the author only, who is solely responsible for their content, and not necessarily those of the Lowell Milken Institute for Business Law and Policy at UCLA School of Law, UCLA School of Law generally, or any other of its faculty or staff.

² Stanislav Dolgopolov, Insider Trading and the Bid-Ask Spread: A Critical Evaluation of Adverse Selection in Market Making, 33 CAP. U. L. REV. 83 (2004); Stanislav Dolgopolov, Risks and Hedges of Providing Liquidity in Complex Securities: The Impact of Insider Trading on Options Market Makers, 15 FORDHAM J. CORP. & FIN. L. 387 (2010); Stanislav Dolgopolov, A Two-Sided Loyalty?: Exploring the Boundaries of Fiduciary Duties of Market Makers, 12 U.C. DAVIS BUS. L.J. 31 (2011); Stanislav Dolgopolov, Insider Trading, Informed Trading, and Market Making: Liquidity of Securities Markets in the Zero-Sum Game, 3 WM. & MARY BUS. L. REV. 1 (2012); Stanislav Dolgopolov, Providing Liquidity in a High-Frequency World: Trading Obligations and Privileges of Market Makers and a Private Right of Action (Aug. 2012) (unpublished manuscript), available at http://ssrn.com/abstract=2032134.

³ Order Instituting Proceedings To Determine Whether To Approve or Disapprove Proposed Rule Changes by NASDAQ Stock Market LLC and NYSE Arca, Inc. Relating to Market Making Incentive Programs for Certain Exchange-Traded Products, Exchange Act Release No. 67,4111, 77 Fed. Reg. 42,052 (July 11, 2012) [hereinafter Order Instituting Proceedings].

⁴ *Id.* at 42,068.

analyzed the introduction of designated market makers for less liquid equity securities traded on the Paris Bourse.⁵ The authors used a control sample "matched on stock price, market size, and trading volume." The study in fact found that the introduction of a designated market maker appears to improve market quality and company valuation relative to the control sample. The authors also argued that while "the listing firm makes direct payments to the market maker in part as an annual fee [compensation to the market maker is] mostly in the form of future investment banking business."

Question 8

Although there are some concerns that payments from an issuer / sponsor to a market maker represent a "subsidy," this term should not necessarily have a negative connotation. Several sources have pointed out that liquidity in securities market has characteristics of a public good / positive externality, and, accordingly, the function of providing liquidity has to be subsidized in certain situations in order to improve economic welfare. For instance, one study gave the following description of this concept: "In general, liquidity provision represents a positive externality in that traders who commit capital to make markets are not fully compensated for their liquidity services. While the usual solution to this inefficiency is a Pigovian subsidy, the form that this payment should take is less clear." In other words, a "subsidy" can increase "the size of the pie."

Historically, market makers have often enjoyed indirect subsidies in the form of time, information, fee, order flow allocation, and other advantages in exchange for their trading obligations, such as the affirmative obligation to maintain a proper market or the negative obligation to refrain from proprietary trading in certain situations, and this phenomenon is also consistent with the concept of liquidity as a

⁵ Kumar Venkataraman & Andrew C. Waisburd, *The Value of the Designated Market Maker*, 42 J. Fin. & Quant. Analysis 735 (2007). This study was previously referenced in one of the comments on the NASDAQ's proposal. Letter from Amber Anand, Assoc. Professor of Fin., Whitman Sch. of Mgmt., Syracuse Univ., to Elizabeth M. Murphy, Sec'y, U.S. Sec. & Exch. Comm'n 2 (Apr. 29, 2012), *available at* http://sec.gov/comments/sr-nasdaq-2012-043/nasdaq2012043-9.pdf.

⁶ Venkataraman & Waisburd, *supra* note 4, at 737.

⁷ *Id.* at 751, 753.

⁸ *Id.* at 740.

⁹ Order Instituting Proceedings, *supra* note 3, at 42,069.

¹⁰ An externality / public good is of course a textbook illustration of a market failure that might necessitate public or private regulation.

Wenkataraman & Waisburd, supra note 4, at 755; see also Kalman J. Cohen et al., The Impact of Designated Market Makers on Security Prices, 1 J. BANKING & FIN. 219, 245 (1977) ("[Price] stabilization [by designated market makers] is a public good type external economy to investors."); Jennifer Huang & Jiang Wang, Market Liquidity, Asset Prices, and Welfare, 95 J. FIN. ECON. 107, 109 (2010) ("In our model, trading and liquidity provision generate externalities. A trader's participation in the market also benefits his potential counterparties, and a market maker's supply of liquidity helps all potential traders. . . . [I]n general, market mechanism fails to properly internalize these externalities and thus leads to inefficient supply of liquidity in the market."); Wen Mao & Michael S. Pagano, Specialists as Risk Managers: The Competition Between Intermediated and Non-Intermediated Markets, 35 J. BANKING & FIN. 51, 64 (2011) ("A specialist's [order execution] risk management service has some attributes of a public good. . . . If specialists cannot recoup the full value of this service directly from their market-making activities, then . . . all market participants might benefit if some form of institutional support was provided to these specialists"); Johannes A. Skjeltorp & Bernt Arne Ødegaard, Why Do Listed Firms Pay for Market Making in Their Own Stock? 30 (Oct. 2011) (unpublished manuscript) (on file with author), available at http://ssrn.com/abstract=1944057 ("[G]iven the public goods nature of liquidity . . . it may be desirable to subsidize liquidity provision in equity markets.").

public good. Given that some of these indirect subsidies are subject to abuse, ¹² perhaps a direct subsidy in the form of regular payments from an issuer / sponsor to a market maker has a clear advantage in terms of transparency—especially when this compensation flows through and is monitored by the trading venue in question. Yet another piece of the puzzle is that indirect subsidies to market markets, which feed almost exclusively on trading volume, ¹³ tend to be less valuable in the case of less liquid securities. ¹⁴ For the same reason, even the maker-taker model, in which incentives for providing liquidity *are* transparent, may be supplemented by payments from an issuer / sponsor to a market maker as a means of increasing economic efficiency. ¹⁵

While one commentator focused on externalities during the initial stage of a security's lifecycle, ¹⁶ it is entirely possible that a continued subsidization of market making activities may be required at later stages—depending on the liquidity characteristics of the security in question—in order to increase economic efficiency. Accordingly, a time limit on participation in a market maker incentive program might not be necessary as a hard constraint.

Question 14

Although one study "suggest[ed] that *paying* multiple [market makers as] stabilizers for a security would be inefficient because of the 'free rider' possibilities inherent in the production of stabilization," this concern appears to be at least partially mitigated by the specificity of the eligibility criteria envisioned by the proposed programs. The same factor similarly mitigates the *opposite* concern in the context of the proposal by NYSE Arca – that having just one market maker participant in the program in question would be detrimental to competition – although there could be a mechanism

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One of the circular issues is that there's, in some of these [small cap] names, not—we're paying out all the revenue that we generate and it's not necessarily enough to help get the liquidity to where we would like it to be. That's part of the reason for why we think the experiment of also letting issuers compensate market makers could help, because in some circumstances, we're already paying all the revenue we have because most of that is on a per-transaction basis and these issues don't trade very frequently. It doesn't generate enough revenue to necessarily incentivize the liquidity providers.

How Roadblocks in Public Markets Prevent Job Creation on Main Street, Hearing Before the Subcomm. on TARP, Fin. Servs. & Bailouts of Pub. & Private Programs of the H. Comm. on Oversight & Gov't Reform, 112th Cong. 35 (2012) (remarks of Joseph Mecane, Executive Vice President and Chief Administrative Officer, U.S. Markets, NYSE Euronext).

16 See Albert J. Menkveld, Market Quality Program Proposal NASDAQ (SR-NASDAQ-2012-043): A Comment 2 (May 2, 2012), available at http://www.sec.gov/comments/sr-nasdaq-2012-043/nasdaq2012043-12.pdf ("If, at launch, a particular security's liquidity supply is uncertain, investors might be trapped in a 'bad equilibrium' [but if] future liquidity is less uncertain, and investors participate; the 'good equilibrium' is reached. This participation externality is well-understood in the finance literature").

¹² One famous illustration of such abuses is of course the scandal involving NYSE specialists. *See In re* NYSE Specialists Sec. Litig., 405 F. Supp. 2d 281 (S.D.N.Y. 2005), *aff'd in part, rev'd in part*, 503 F.3d 89 (2d Cir. 2007), *remanded to* 260 F.R.D. 55 (S.D.N.Y. 2009); Finnerty, Initial Decision Release No. 381, 96 SEC Docket 1098 (ALJ July 13, 2009).

¹³ Reduced fees or other subsidies to market makers offered by trading venues themselves may come from listing fees (i.e., ultimately borne by issuers) or market data revenues (i.e., ultimately borne by participants in the trading process).

¹⁴ As an illustration, if a market maker has a one-second "advance look" at incoming orders, this advantage is unlikely to be very valuable for an infrequently traded security, as opposed to a very liquid security.

¹⁵ This concern is illustrated by an NYSE executive's statement in the context of small cap stocks:

¹⁷ Cohen et al., *supra* note 11, at 243.

allowing an issuer / sponsor to pick another market maker or approach the trading venue with such a request even if the eligibility criteria are otherwise met.

Question 27

Several empirical studies argue that the imposition of market making obligations in exchange for certain privileges tends to enhance market quality, and this evidence points to improvements in economic efficiency rather than mere wealth transfers. Statements that question or attack the desirability of trading obligations of market makers—notably, the affirmative obligation —appear to be misguided, and they seem to overemphasize extreme scenarios. To the extent that the proposed market maker incentive programs promote the adoption of trading obligations that enhance liquidity and push it closer to the socially optimal level, these programs are likely to promote economic efficiency. Of course, there are certain conflicts of interest inherent in the mechanism of payments from an issuer / sponsor to a market maker, but the choice is among imperfect alternatives. Furthermore, while it is hard to predict the magnitude of the overall impact of the proposed programs on capital

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Paper12.pdf?version=1&modificationDate=1300056211000 (analyzing transactions in options on government securities on the Sydney Futures Exchange after the introduction of designated market makers, entities with affirmative obligations that receive fee discounts and direct cash payments from the trading venue, and finding improved market quality).

¹⁸ Amber Anand & Daniel G. Weaver, The Value of the Specialist: Empirical Evidence from the CBOE, 9 J. FIN. MKTS. 100, 102-04 (2006) (analyzing transactions in equity options on the Chicago Board Options Exchange after the introduction of designated primary market makers, entities with affirmative obligations and informational and order flow allocation privileges, and finding an improvement in market quality); Rafi Eldor et al., The Contribution of Market Makers to Liquidity and Efficiency of Options Trading in Electronic Markets, 30 J. BANKING & FIN. 2025, 2025, 2029-31 (2006) (analyzing transactions in foreign exchange rate options on the Tel Aviv Stock Exchange after the introduction of market makers, entities with affirmative obligations that receive rebates on trading and clearance fees together with direct cash payments from the trading venue, and finding an improvement in market quality and efficiency); M. Nimalendran & Giovanni Petrella, Do Thinly-Traded Stocks Benefit from Specialist Intervention?, 27 J. BANKING & FIN. 1823, 1829–30, 1851–52 (2003) (analyzing transactions in stocks on the Italian Stock Exchange and finding that the existence of specialists, entities with affirmative obligations that pay lower trading fees and may be directly compensated by issuers, is associated with improved market quality); Marios A. Panayides, Affirmative Obligations and Market Making with Inventory, 86 J. FIN. ECON. 513, 513 (2007) (analyzing transactions in stocks on the New York Stock Exchange, finding that affirmative obligations of specialists, entities that enjoyed several important privileges, are associated with better market quality, and arguing that their affiliated costs are covered by profits from discretionary trading); Narayan Y. Naik & Pradeep K. Yadav, Trading Costs of Public Investors with Obligatory and Voluntary Market-Making: Evidence from Market Reforms 1, 17, 35 (Eur. Fin. Ass'n, Annual Conference Paper No. 408, 2003), available at http://ssrn.com/abstract=424982 (analyzing transactions in stocks on the London Stock Exchange and arguing that the switch from obligatory to voluntary market making together with the abolition of certain informational privileges had an adverse effect on the price stabilization function played by dealers); Angelo Aspris et al., The Impact of the Introduction of Mandated Market Makers on Transaction Costs: Evidence from the Sydney Futures Exchange 2–5 (n.d.) (unpublished manuscript) (on file with author), http://www.sirca.org.au/download/attachments/131086/2006-Paper12.pdf?version=1&modificationDate=1300056211000 (analyzing transactions in options on government securities on

¹⁹ See, e.g., Examining the Efficiency, Stability, and Integrity of the U.S. Capital Markets: J. Hearing Before the Subcomm. on Sec., Ins., & Inv. of the S. Comm. on Banking, Hous., & Urban Affairs and the Permanent Subcomm. on Investigations of the S. Comm. on Homeland Sec. & Governmental Affairs, 111th Cong. 41 (2011) (remarks of Manoj Narang, Chief Executive Officer, Tradeworx, Inc.) ("I cannot think of any empirical evidence that market maker obligations actually matter in practice."); Hans R. Stoll, Reconsidering the Affirmative Obligation of Market Makers, FIN. ANALYSTS J., Sept. / Oct. 1998, at 72, 80 ("That an affirmative obligation reduces volatility or makes markets more efficient is not evident. . . . Markets will function will without an affirmative obligation. Market makers need no regulatory obligations and should not receive special privileges."); Harold Bradley & Robert E. Litan, Choking the Recovery: Why New Growth Companies Aren't Going Public and Unrecognized Risks of Future Market Disruptions 66 (Nov. 12, 2010) (unpublished manuscript, on file with author), available at http://www.kauffman.org/uploadedFiles/etf_study_11-8-10.pdf ("History shows that affirmative obligations affirm only intermediaries' profits.").

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formation with respect to component securities, this pilot-basis experimentation is still desirable. Perhaps some valuable lessons could be learned about the feasibility of such arrangements for small cap stocks, as opposed to exchange-traded products.

Thank you again for providing an opportunity to comment on this important issue.

Sincerely,

Stanislav Dolgopolov