

Kumar Venkataraman PhD James M. Collins Chair in Finance

August 9, 2016

Brent J. Fields Secretary Securities and Exchange Commission 100 F Street NE Washington, DC 20549-1090.

Re: SR-FINRA-2016-024 Proposed Rule Changes to Amend FINRA Rule 7730 (Trade Reporting and Compliance Engine (TRACE)

Dear Mr. Fields:

I am pleased to submit these comments supporting FINRA's proposal to create a new data set to enhance academic research in the area of fixed income markets. My primary area of research expertise is market microstructure. I have published research articles on equity, fixed income and derivative markets in the top academic finance journals. In addition to my academic appointment, I serve as a visiting scholar in the Office of the Chief Economist at FINRA. The attached resume provides additional background information.

Historically, academics have shared important insights on the costs and benefits of many regulatory initiatives and identified market structure issues that affect the proper functioning of financial markets. As an example, a study by Christie and Schultz (1994) on collusion among NASDAQ dealers in the early 1990s led to significant market structure reforms in the U.S. equity markets.

In comparison to equity markets, academic research on the fixed income markets has been lacking due to paucity of good data. With the introduction of the TRACE system in 2002, academic researchers had access to transaction-level data to conduct research on the corporate bond market. Subsequent academic studies using TRACE data provided important new insights on this market. For example, Edwards, Harris and Piwowar (2007) document that more than 40% of the customer trades are in retail-sized transactions (less than 100,000 dollars), thus

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emphasizing the importance of understanding the needs of retail investors who directly invest in corporate bonds. Other studies (including my own) show that introducing post-trade transparency in corporate bonds via the TRACE system has improved market quality by reducing the bid-ask spread paid by buy-side institutions and retail investors.¹

While the Historic TRACE system has played an important role in promoting academic research, it is still difficult for academic researchers to construct many liquidity metrics that describe the health of the bond market. The Historic TRACE dataset allows researchers to measure dealer mark-ups or mark-downs on trades with customers; however it does not provide sufficient information to examine carefully how regulatory initiatives, or market conditions, impact the behavior of bond dealers. Understanding the main drivers of the dealers' propensity to supply liquidity is important because dealers play a central role in facilitating transactions in the bond market.

Many popular press articles as well as industry reports have pointed out that recent regulations concerning the banking industry, such as the Volcker Rule and Basel III, have reduced the willingness of bank-affiliated bond dealers to supply liquidity to their customers. These articles point to a latent "liquidity problem" in the bond market. To study the impact of banking regulation on bond dealers, it is necessary to obtain information on the identity of dealers associated with each transaction. The Historic TRACE data product does not contain this information but the new Academic Corporate Bond data product proposed under SR-FINRA-2016-024 contains masked dealer identifies associated with each transaction.

In 2011, FINRA asked a few academic teams to undertake a study of the potential impact of introducing transparency in the structured credit markets. As part of this FINRA initiative, my co-authors and I wrote an academic paper studying the behavior of corporate bond dealers between 2003 and 2014 using Enhanced TRACE data with masked dealer identifies that was provided to us by FINRA, along the lines of the new Academic TRACE dataset (see Bessembinder, Maxwell, Jacobsen, and Venkataraman (2016)). We find that customer trade execution costs have declined over time; however, alternate measures of market quality, including intraday and overnight dealer inventory capital, particularly surrounding stressful days, have failed to return to pre-crisis levels and in many cases have worsened in the most recent years. The reduction in dealer capital commitment are largely attributable to bank-affiliated dealers, supportive of the reasoning that post-crisis regulations focused on banking regulation has contributed to the decline.

Thus an analysis of trading costs based on Historic TRACE data points to one conclusion on bond market liquidity while an analysis of dealer behavior based on the new Academic TRACE dataset with enhanced dealer identifiers points to a more nuanced, opposite conclusion on another attribute of market quality. This is an example of the advantages offered by the new

¹ See Bessembinder, Maxwell and Venkataraman (2006), Edwards, Harris and Piwowar (2007) and Goldstein, Hotchkiss and Sirri (2007).

Academic TRACE dataset over the Historic TRACE dataset. I expect that FINRA's new Academic data initiative will lead to an explosion in academic research on corporate bonds and provide new insights on the functioning of the bond market.

The new proposal contains a number of measures to address the concerns expressed by SIFMA and the Bond Dealers of America. One of their recommendations is to aggregate dealers into reportable groups. However, this recommendation has the potential to stifle academic research for the following reason - it is important to design a research study based on the underlying research question, implying that different academic teams should have the ability to aggregate individual dealers into groups based on different dealer attributes. Some dealers are active market makers with high market share while other dealers are not. Some dealers specialize in high yield bonds while other dealers specialize in investment grade bonds. Some dealers step up liquidity provision when volatility is high while other dealers withdraw participation when volatility is high. The specific dealer attribute that the academic study uses to aggregate dealers should depend on the research question. Therefore it is very important that the new Academic TRACE dataset provide dealer identifies at an individual dealer level so that academic research design.

To summarize, the U.S. corporate bond market is growing at a record breaking pace in recent years. Bond dealers play a central role in supplying liquidity in corporate bonds. It is important to understand the determinants of dealer behavior, and in particular, how regulatory initiatives and market conditions influence dealers' propensity to supply liquidity. The new Academic TRACE dataset is an important step in the right direction. I applaud the efforts of FINRA and SEC to support academic research on fixed income markets.

Sincerely,

Kumar Venkataraman James M. Collins Chair in Finance Edwin L. Cox School of Business Southern Methodist University Webpage: http://people.smu.edu/kumar Phone:

References

- Bessembinder, H., W. Maxwell, and K. Venkataraman, 2006, Market transparency, liquidity externalities, and institutional trading costs in corporate bonds. *Journal of Financial Economics*, 82(2), 251-288.
- Bessembinder, H., Jacobsen, S.E., Maxwell, W.F., and K. Venkataraman, Capital Commitment and Illiquidity in Corporate Bonds (July 20, 2016). Available at SSRN: http://ssrn.com/abstract=2752610
- Christie, W.G., and P. Schultz, 1994, Why do NASDAQ market makers avoid odd-eighth quotes?, *The Journal of Finance*, 49 (5), 1813-1840.
- Goldstein, M.A., Hotchkiss, E.S, and E.R. Sirri, 2007, Transparency and Liquidity: A controlled experiment on corporate bonds, *Review of Financial Studies*, *20*, 235-273.
- Edwards, A, L. Harris, and M. Piwowar, 2007, Corporate bond market transaction costs and transparency, *Journal of Finance*, v63i3, 1421-1451.

Resume of Kumar Venkataraman

APPOINTMENTS:

James M. Collins Chair in Finance, Edwin L. Cox School of Business, Southern Methodist University, 2011-2012, 2014 – .

Professor of Finance, 2013 - .

Previous appointments at Southern Methodist University

Chairman of the Finance Department, 2012-2015.

Fabacher Endowed Professor in Alternative Assets, 2009-11, 2012-2014.

Academic Director, ENCAP Investments & LCM Group Alternative Asset Management Center, 2009-2012.

Marilyn and Leo Corrigan Endowed Professor, 2007-08, 2008-09.

Associate (with tenure) and Assistant Professor of Finance, 2000-2013.

Visiting Scholar, Office of the Chief Economist, Financial Industry Regulatory Authority (FINRA), 2016 –.

EDUCATION

Ph.D. in Business Administration (Finance), 2000, Arizona State University.

M.M.S., 1994, Birla Institute of Technology and Science (BITS-Pilani), India.

EDITORIAL APPOINTMENTS

Associate Editor, Journal of Financial and Quantitative Analysis, 2010 – . Associate Editor, Journal of Financial Markets, 2016 – . Associate Editor, Journal of Financial Research, 2011 – . Associate Editor, Journal of Empirical Finance, 2016 – . Associate Editor, FMA Survey and Synthesis Series, 2013 – 2016. Associate Editor, Financial Management, 2006 – 2011 (two terms).

OTHER APPOINTMENTS

Board of Trustees, Investment Committee, SMU Endowment, 2011 –. Board of Directors, Texas Hedge Fund Association, 2011 – 2015.

RESEARCH AND TEACHING INTERESTS

Financial Markets – including market design and trading costs; stock markets; fixed-income markets; derivative security markets; energy markets; risk management; trading strategies; best execution; market manipulation.

CONTACT INFORMATION

Address: Edwin L. Cox School of Business, 6212 Bishop Blvd, Southern Methodist University, Dallas, TX 75275-0333.

Phone: E-Mail: Web Page: http://people.smu.edu/kumar

EXPERT WITNESS AND CONSULTING WORK

U.S. Commodity Futures Trading Commission Financial Industry Regulatory Authority (FINRA) Analysis Group

HONORS

2011 <u>Poets and Quants</u> ranking "The Best 40 Business School Professors Under the age of 40."

- NASDAQ Best Paper Award in Market Microstructure, Financial Management Association, 2013, "Should Exchanges impose Market Maker obligations?"
- NASDAQ Best Paper Award in Market Microstructure, Financial Management Association, 2010, "Institutional Trading and Stock Resiliency."
- Best Paper Award (2nd place), The 20th Conference on the Theories and Practices of Securities and Financial Markets, 2012, "Predatory versus Sunshine Trading."
- Best Paper Award, Spring Conference of the Multinational Finance Society, 2015, "Informed Trading and Price Discovery before Corporate Events."
- Gerald J. Ford Senior Research Fellowship, S.M.U., 2009.

Research Excellence Award, S.M.U., 2004, 2013, 2016.

Boghetich Family Distinguished Award for Teaching, S.M.U., 2010, 2015.

Outstanding Teaching Award in the MBA program, S.M.U., 2007, 2009, 2014.

Outstanding / Distinguished Teaching Award in the BBA program, S.M.U., 2011, 2012, 2014.

PUBLICATIONS: Major Journal Articles

Informed Trading and Price Discovery before Corporate Events, *Journal of Financial Economics*, 2016, forthcoming (with Shmuel Baruch and Marios Panayides).

Market Conditions, Fragility and the Economics of Market Making, *Journal of Financial* <u>Economics</u>, 2016, Volume 121 (2), 327-349 (with Amber Anand).

• <u>NASDAQ Best Paper Award</u> in Market Microstructure, Financial Management Association, 2013.

Liquidity, Resiliency and Market Quality around Predictable Trades: Theory and Evidence, <u>Journal of Financial Economics</u>, 2016. Volume 121 (1), 142-166. (with Hank Bessembinder, Al Carrion, and Laura Tuttle).

- Trading Activity and Transaction Costs in Structured Credit Products, *Financial Analyst Journal*, 2013. Vol. 69 (6), 55-67. (with Hank Bessembinder and Bill Maxwell).
- Institutional Trading and Stock Resiliency: Evidence from the 2007-09 financial crisis. *Journal of* <u>Financial Economics</u>, 2013. Volume. 108, 773-797. (with Amber Anand, Paul Irvine, and Andy Puckett).
 - <u>NASDAQ Best Paper Award</u> in Market Microstructure, Financial Management Association, 2010.
- Does Earnings Quality affect Information Asymmetry? Evidence from Trading Costs, <u>Contemporary Accounting Review</u>, 2013, Vol. 30 (2), 482-516. (with Neil Bhattacharya and Hemang Desai).
- Performance of Institutional Trading Desks: An Analysis of Persistence in Trading Cost, <u>Review</u> <u>of Financial Studies</u>, 2012, Vol. 2 (25), 557-598. (with Amber Anand, Paul Irvine, and Andy Puckett).
- Hidden Liquidity: An Analysis of Order Exposure Strategies in Electronic Stock Markets. <u>Journal of Financial Economics</u>, 2009, Volume 94, 361-383. (with Hank Bessembinder and Marios Panayides).
- The Value of the Designated Market Maker, *Journal of Financial and Quantitative Analysis*, 2007, Vol. 42, No.3, pp. 735-758. (with Andy Waisburd).
- Market Transparency, Liquidity Externalities and Institutional Trading Costs in Corporate Bonds, <u>Journal of Financial Economics</u>, 2006, Vol. 82, 251-288. (Lead Article) (with Hank Bessembinder and Bill Maxwell).
- The Impact of Legal and Political Institutions on Equity Trading Costs: A Cross-Country Analysis, *Review of Financial Studies*, 2006, Vol.19, No.3, pg. 1081-1111. (with Venkat Eleswarapu).
- Do Short Sellers target firms with poor Earnings Quality? Evidence from Earnings Restatements, <u>Review of Accounting Studies</u>, 2006, Vol. 11, pg. 71-90. (with Hemang Desai and Srini Krishnamurthy).
- Does an Electronic Stock Exchange need an Upstairs Market?, *Journal of Financial Economics*, 2004, Vol. 73, pg. 3-36. (Lead Article) (with Hank Bessembinder).
- The Impact of Regulation Fair Disclosure: Trading Costs and Information Asymmetry, *Journal of* <u>Financial and Quantitative Analysis</u>, 2004, Vol. 39, No. 2, pg. 209-225. (Lead Article) (with Venkat Eleswarapu and Rex Thompson)
 - Abstracted in *The CFA Digest*, Vol. 34, No. 4 (Nov 2004), pg. 9-10.
- Automated versus Floor Trading: An analysis of execution costs on the Paris and New York Exchanges, *Journal of Finance*, 2001, Vol. 56, No. 4, pg. 1445-1885.
 - Abstracted in *The CFA Digest*, Vol. 32, No. 1 (Feb 2002), pg. 65-66.

BOOK CHAPTERS / NON-REFEREED PUBLICATIONS

Bid-Ask Spreads: Measuring Trade Execution Costs in Financial Markets, in *Encyclopedia of Quantitative Finance*, edited by Rama Cont, John Wiley & Sons, 2010. (with Hank Bessembinder)

COMPLETED WORKING PAPERS

- Capital Commitment, and Illiquidity in Corporate Bonds, 2016 (with Hank Bessembinder, Stacey Jacobsen, and Bill Maxwell).
- Very Low Frequency Trading and Security Design, 2015 (with Andra Ghant and Ross Valkanov).

The Role of Fundamental Analysis in Information Arbitrage: Evidence from Short Seller Recommendations, 2007 (with Hemang Desai and Srini Krishnamurthy).

RESEARCH PROJECTS IN PROGRESS

Bessembinder, H., Carrion, A., Fong, K., Venkataraman, K., The Determinants of Stock Market Resiliency.

RESEARCH PRESENTATIONS SINCE 2010

• presentation by co-author

2016: University of New South Wales, University of Sydney.

- **2015**: Wilfred Laurier University, University of Cincinnati, Commodity Futures Trading Commission (CFTC), Oklahoma University Energy Finance Research Conference, Commodity Derivatives Markets Conference in Firenze, Financial Intermediation Research Society Conference, Multinational Finance Society (*), Baruch College.
- **2014**: Hong Kong University of Science and Technology, National University of Singapore, National Technological University, Singapore Management University, University of New South Wales, University of Sydney, University of Technology, Texas Christian University.
- **2013**: University of Houston, Securities and Exchange Commission (*), Northern Finance Association, Arizona State University, Sixth Erasmus Liquidity Conference, European Finance Association conference (two papers), Western Finance Association conference (two papers), SFS Cavalcade, Stern Microstructure Conference, Commodity Futures Trading Commission (CFTC), Securities and Exchange Commission, Southern Methodist University, Rice University.
- **2012:** 20th conference on the Theories and Practices of Securities and Financial Markets, 2012 Commodities Futures Trading Commission (CFTC) Research Conference, Securities and Exchange Commission(*), Liquidnet's Annual Institutional Trading Summit (*), 8th Central Bank Workshop on Market Microstructure, Second CNMV Conference on Securities Markets, National Institute of Securities Markets, Erasmus University, Tinbergen Institute, Syracuse University, Queens University.

2011: Western Finance Association, Chicago Quantitative Alliance / Society of Quantitative

Analysis Trading Conference, SAC Capital, Finance Intermediation Research Society Conference (*), Bank of America Merrill Lynch Trading Desk (*), Quorum 15 - New York Equities Trading Group.

2010: NBER Market Microstructure Conference, AIM Investment Center Institutional Investor Conference, Financial Management Association Conference, NYSE-Euronext and Université Paris-Dauphine Workshop on Financial Market Quality, Securities and Exchange Commission (SEC (*), Commodity Futures Trading Commission (CFTC) (*), Mid-Atlantic Research Conference (MARC) in Finance (*), CREATES Symposium Market Microstructure (*), Utah Winter Finance Conference, American Finance Association Meeting.

PROFESSIONAL ACTIVITIES

Professional Memberships:

American Finance Association, Western Finance Association, Financial Management Association, Society for Promotion of Financial Studies, Financial Intermediation Research Society, Texas Hedge Fund Association.

Program Committee Member:

- AIM Investment Conference, 2016.
- Society for Financial Studies (SFS) Cavalcade, 2013-16.
- Western Finance Association Conference: 2015, 2016.
- Singapore International Conference on Finance, 2012.
- FMA Conference: 2001-2010, 2014 (Track Chair).
- FMA Europe Conference: 2003, 2004, 2006-2009, 2015, 2016.
- FMA Microstructure Best Paper Award, 2000, 2004, 2010 & 2015 (Chair).
- FMA Asia Pacific Meeting: 2016.
- Financial Intermediation Research Society (FIRS) Conference, 2009-2016.
- Napa Conference on Financial Markets Research: 2009-2016.
- European Finance Association Conference: 2010-2016.
- Mid-Atlantic Research Conference (MARC) in Finance: 2008 (Track Chair).
- Southern Finance Association (SFA) Conference: 2008
- Lone Star Finance Symposium: 2005.
- Tel Aviv University Finance Conference, 2013-15.
- Midwest Finance Conference, 2015.

Discussions provided at conferences

- Financial Intermediation Research Society (FIRS) Conference, 2016.
- Third Annual (SEC/Lehigh/Maryland) Conference on Financial Market Regulation, 2016.
- Lone Star Finance Conference, 2015.
- FSU SunTrust Beach Conference, 2015.
- Texas Finance Festival, 2015.
- Tel Aviv University Finance Conference, 2013.
- European Finance Association Conference, 2013.
- Western Finance Association Conference, 2004, 2005, 2009, 2011.
- Financial Management Association Meeting, 1998, 2004-2009.
- Finance Intermediation Research Society Conference, 2008.
- American Finance Association Meeting, 2008.
- Theories and Practices of Securities and Financial Markets, 2012.

- NBER Market Microstructure Conference, 2003, 2001.
- NASDAQ-Notre Dame Microstructure Conference, 2000.

Conference Session Chair:

- Financial Management Association Meeting, 2002, 2005, 2008-09.
- Theories and Practices of Securities and Financial Markets, 2012.

Panel Discussion:

- Securities and Exchange Commission, Round Table on Fixed Income Markets, Washington D.C., April 16, 2013.
- Financial Management Association Conference, Session on *Market Integrity: The Missing Stepchild*, New York, 2010.
- Financial Management Association Conference, Doctoral Student Consortium, Reno, 2009.
- IMN's Asset-Backed Securities Conference, Orlando, November 4, 2007. Other panelists include Former Chief Commissioner of Securities and Exchange Commission (SEC) Arthur Levitt, Executive Vice-President of FINRA Steven Joachim, CEO of Saber Partners Joseph Fichera, and Senior Managing Director of SIFMA Michael Decker. For Panel Discussion: <u>Click here</u>

Reviewer for:

Journal of Finance, Journal of Financial Economics, Journal of Financial and Quantitative Analysis, Review of Financial Studies, Financial Management, Journal of Financial Markets, Journal of Financial Intermediation, The Accounting Review, Review of Accounting Studies, Management Science, Journal of International Money and Finance, Journal of Banking and Finance, Journal of Empirical Finance, Pacific-Basin Finance Journal, The Financial Review, Journal of Financial Research, European Financial Management, Journal of Applied Finance, Review of Finance, International Review of Finance, Journal of Economics and Business, International Review of Finance.

Promotion and Tenure Review:

University of Oklahoma, University of Texas El-Paso, Southern Illinois University, Indian School of Business, Rutgers University, University of North Carolina, Charlotte, Cornell University, Erasmus University.

Other External Reviews:

- Research Grants Council, Hong Kong: 2008, 2009, 2010, 2016.
- Social Sciences and Humanities Research Council, Canada: 2009, 2010, 2015.
- Ph.D. Examiner, University of New South Wales, Australia, 2009, 2010.
- Ph.D. Examiner, Tel-Aviv University, 2010.
- Ph.D. Dissertation Committee, Allen Carrion (University of Utah), 2012.

UNIVERSITY TEACHING

Southern Methodist University

- Portfolio Theory and Asset Pricing (Graduate)
- Hedge Funds (Graduate)
- Alternative Assets (Undergraduate honors)
- Financial Management (Undergraduate)

Arizona State University

- International Finance (Graduate)
- Financial Management (Undergraduate)

Executive Education @ SMU

Graduate Certificate program in Finance, Women-in-Finance and Economics program, Management Certificate program, Certificate in Leadership program, Tolleson-Cox School Strategic Legacy Planning Wealth Management, Pioneer Natural Resources program, Summer Business Institute.

RESEARCH COVERAGE

Select research cited by Regulatory Agencies:

- Securities and Exchange Commission's (SEC) Report on the Comparison of Order Executions Across Equity Market Structures, January 8, 2001. <u>Click here</u>
- Financial Services Authority (European Regulatory Body) Report on Trading Transparency in UK Secondary Bond Market, September 2005. <u>Click here</u>
- Remarks by Securities and Exchange Commission (SEC) Chief Economist Chester S. Spatt, on January 6, 2006. <u>Click here</u>
- Remarks by Securities and Exchange Commission (SEC) Commissioner Annette L. Nazareth, on February 7, 2006. <u>Click here</u>
- Remarks by Securities and Exchange Commission (SEC) Economist Amy K. Edwards, on April 26, 2006. <u>Click here</u>
- Center for Economic Policy Research (CEPR) Report on European Corporate Bond Markets, May 2006. <u>Click here</u>
- Remarks by Securities and Exchange Commission (SEC) Commissioner Roel C. Campos, on June 8, 2006. <u>Click here</u>
- Remarks by Securities and Exchange Commission (SEC) Commissioner Elisse B. Walter, on October 28, 2010. <u>Click here</u>

Select research cited in the Business Press:

- *Economist*, Whiter than White: A new formula for bond-market transparency, Feb 21, 2006. <u>Click here</u>
- *Bloomberg News*, Bond Dealers lost \$1 Billion after disclosing prices, September 22, 2006. <u>Click here</u>
- Financial Times, Sweet clarity, October 2, 2006. Click here
- *Bloomberg News*, Bond Traders lose \$ 1 million incomes on transparency, October 24, 2006. <u>Click here</u>
- *Bloomberg News*, Regulator of Bonds bows to Banks, blocks transparency, November 20, 2006. <u>Click here</u>
- *International Herald Tribune*, EU bows to pressure from banks; Market regulator decides against more disclosure, November 22, 2006. <u>Click here</u>
- *Wall Street Journal*, NASD Bond System helps to reduce costs, November 25, 2006. <u>Click here</u>
- *Bloomberg News*, Levitt says that Asset-backed Bonds needs more disclosures, November 5, 2007. <u>Click here</u>
- Asset Securitization Report, Could TRACE bring ABS pricing into focus?, November 19, 2007. <u>Click here</u>
- Barron's, Short these stocks, July 6, 2009.
- Financial Times, Meal ticker for commodity traders ends, December 4, 2012.