Paolo Pasquariello
John C. and Sally S. Morley Professor of Finance

Ross School of Business, University of Michigan
701 Tappan Street, Room R4434
Ann Arbor, Michigan 48109-1234
Tel 734-764-9286 Fax 760-268-3746
ppasquar@umich.edu
http://webuser.bus.umich.edu/ppasquar/

TRADING AND PRICE FORMATION

FIN 872

FALL 2024

Purpose:

A vibrant research (variously labeled as Financial Markets, Information Economics and Markets, or, more narrowly, Market Microstructure) analyzes, both theoretically and empirically, the impact of important (yet often ignored) trading frictions on the process of price formation in domestic and international financial markets (for equity, government and corporate bonds, currency, and real estate, among others).

This effort is motivated by the observation that over the last few decades, market efficiency – one of the dominant principles of modern Finance – has been challenged by several empirical "anomalies." Market efficiency states that prices are determined "fairly" in frictionless markets in which perfectly competitive agents are rationally driven by profit maximization. In such a setting, asset prices should "accurately" reflect assets' payoffs and "immediately" (or rapidly) adjust to any past and new information about them. However, many domestic and international financial markets have been experiencing high volatility, price bubbles, sudden, severe (and often deemed "excessive") downward price movements, drying liquidity, rapid reversals of capital flows, and contagious propagation of shocks across stocks, bonds, and currencies – as recently as during the global financial crisis of 2008-2009 or the coronavirus pandemic of 2020. These phenomena are pervasive and difficult to reconcile with standard asset pricing theory. Yet, because of their significant economic, financial, and social implications, a greater understanding of these phenomena is of increasing, even urgent, importance to academics, practitioners, and policy-makers.

The main goal of this Ph.D. course is to motivate students to pursue theoretical and empirical research in this exciting area of Financial Economics.

Instructor:

Name:	Paolo Pasquariello	**Office:**	R4434
Phone:	734-764-9286	**Email:**	ppasquar@umich.edu

Office Hours:

Tuesdays: 2:00 p.m. to 4:00 p.m. remotely, by appointment, via Zoom at the following link: https://umich.instructure.com/courses/383287/external_tools/27754

Course Structure & Requirements:

This course requires a joint, energetic commitment to learning. Over the course of the next six weeks, we will cover seminal (or simply interesting) papers on six topics within the broadly defined area of Trading and Price Formation. In the first part of each topic-centered session, we will discuss a (by no means comprehensive) set of theoretical contributions; in the second part, we will discuss empirical work on related insights. The list of topics and papers in this course may unavoidably reflect my (possibly idiosyncratic) tastes and preferences, but also current trends in the field. In any case, suggestions are welcome.

Depending on enrollment, I plan to put each student "in charge" of one theoretical sub-session (for a topic) and one empirical sub-session (for a different topic). When in charge of a sub-session, the student will present one to three (at the most) assigned papers. Of course, each of us has idiosyncratic presentation skills and preferences. With that in mind, I will expect each presentation to provide the following information, clearly and lucidly, for each of the assigned theoretical papers:

- The paper's main research question;
- The paper's main result(s);
- The step-by-step proof of that result;
- Comments, criticism, etc;

and for each of the assigned empirical papers:

- The paper's main research question, as related to existing theory and/or to a different field (e.g., asset pricing, corporate finance);
- The paper's main empirical strategy and data sources used;
- The paper's main empirical insights, as related to (or challenging) existing theory;
- Comments, criticism, etc.

I will provide some *suggestions* when describing each of the topics next; please feel free to add to them (but manage your time accordingly). The two students in charge of a session may benefit from jointly planning their presentations, as well as by meeting with me in advance.

Homework:

Six short homework problem sets will be assigned throughout the term. If you are in charge of the theory portion of a lecture, you don't have to submit the homework due for that lecture. The homework is available on the class website. Each problem set asks you to work through the proof of at least one important result of at least one of the theory papers we plan to discuss in class. Homework is due at the beginning of the corresponding lecture. Homework may be done individually or in groups. Nonetheless, homework assignments must be submitted **individually, on my class desk, prior to class-time on the due date**. Late homework will not be accepted. I will grade the homework on a Pass/Fail basis.

Grading Policy:

In addition to the homework, I will also grade students according to the quality of their presentations and overall class participation. Students' final grade will then depend on these dimensions as follows: homework (45%), presentation (45%), participation (10%).

Course Materials:

There are no required textbooks for this course. However, there are a few books with excellent discussions of many of the topics in the course. It may be worth consulting the

relevant chapters of each of these books either in preparation for a class session or just for future reference:

1. ***Information and Learning in Markets***, Xavier Vives, 2008, Princeton University Press [http://blog.iese.edu/xvives/publications/books/ for chapter slides];
2. ***Market Microstructure Theory***, Maureen O'Hara, 1995, Blackwell Business;
3. ***Empirical Market Microstructure***, Joel Hasbrouck, 2007, Oxford University Press [http://people.stern.nyu.edu/jhasbrou/Teaching/2011%20Fall%20PhD%20Microstructure/PhDMicro2011Fall.html for chapter slides and additional material].

I will provide the required papers for each topic on the Canvas class website (under Files). I also list below additional, optional readings for each sub-session.

Health and Safety - COVID-19

For the safety of all students, faculty, and staff on campus, it is important for each of us to be mindful of safety measures that have been put in place for our protection. By returning to campus, you have acknowledged your responsibility for protecting the collective health of our community. **Your participation in courses on an in-person basis is conditional upon your adherence to all safety measures mandated by the State of Michigan and the University at the time of the course, including maintaining physical distancing of six feet from others, and properly wearing a face covering in class.** Other applicable safety measures may be described in the Wolverine Culture of Care and the University's Face Covering Policy for COVID-19. **Your ability to participate in this course in-person as well as your grade may be impacted by failure to comply with campus safety measures.** Individuals seeking to request an accommodation related to the face covering requirement under the Americans with Disabilities Act should contact the Office for Institutional Equity. **If you are unable or unwilling to adhere to these safety measures while in a face-to-face class setting, you will be required to participate on a remote basis or to disenroll from the class.** I also encourage you to review the Statement of Students Rights and Responsibilities, which includes a COVID-related Statement

Addendum. Remember that these rules are for your own safety as well as for the safety of others!

Wellness and Mental Health

As a student, you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. University of Michigan is committed to advancing the mental health and wellbeing of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. You can learn more about the broad range of confidential mental health services available on campus here, including our campus' office of Counseling and Psychological Services ("CAPS"). You may also find helpful the well-being resources for students offered through the University's office of student life.

The Ross School of Business has a CAPS Embedded Counselor available to its students. Embedded Counselors are located in school/college buildings and services are tailored to the school's climate. For more information, please visit the CAPS Embedded Model site. caps.umich.edu/caps-embedded-model. To schedule, please email Julie Kaplan, LMSW. Also, the services offered by CAPS have been adapted to the unique needs of our community during COVID. You can schedule a tele-health appointment remotely from their home page. You may also find helpful their resources directly addressing mental health and wellness during COVID here. If you have an urgent matter when CAPS is closed, please call 734-764-8312 to connect with CAPS After Hours.

Academic Integrity and Community Values

This discussion of academic honesty and conduct is not exhaustive, and there may be areas that remain unclear to you. If you are unsure whether some particular course of action is proper, it is your responsibility to consult with the faculty immediately for clarification.

Personal integrity and professionalism are fundamental values of the Ross School community. You have a duty to be familiar with and understand the Ross School's Statement of Community Values, the Ross School Academic Honor Code, and the Ross School Code of Student Conduct including all campus public health policies. **In light of COVID our community has enhanced the Code of Student Conduct to include our commitment to each other and adherence to campus and School public health policies**. Each of these, including a Statement of Student Rights and Responsibilities, may be found in the Ross School Impact on Ross Community Values. In addition every student at the University of Michigan accepts the rights and responsibilities of membership in the University's academic and social community. These rights and responsibilities are clearly laid out in The Statement. By enrolling in this course you confirm that you have read and understood these statements and policies, and further that you agree to abide by them. The Ross Community Values site contains valuable information and links on writing and how to check to make sure you have not plagiarized the work of others. Claimed ignorance of these codes and policies will be viewed as invalid should a violation take place. In all cases if you have questions please address them with the professor as far **in advance** as possible.

Any violation of the Ross School Academic Honor Code such as plagiarism, otherwise passing off anyone else's work as your own, unauthorized collaboration, use of materials generated for use during past offerings of this course, or any form of cheating will be referred to the Community Values Committee. Possible penalties include course failure with a permanent notation of an honor policy violation on your transcript and even expulsion. As a community we are all still adapting and learning how this applies to hybrid and remote learning environments, but the same principles of academic integrity apply.

ChatGPT and other similar technologies are advancing rapidly and there are many instances where they will be key tools in your schoolwork and career. For the purposes of this class, **I am asking all students to pledge that they will not use these technologies**. I believe this is key for this learning environment because I want you to learn how to critically engage with the material I will be discussing, including learning how to search for and identify relevant sources, synthesize these materials, and make recommendations without the aid of

technology. Artificial Intelligence cannot do this learning for you. Students who are found to have used ChatGPT or the like to complete an assignment will receive a grade of zero for that assignment.

Policy Related to the Use of Class Materials

All materials generated for the course including slides, handouts, review materials and assignments, or any other materials prepared by you or the professor for this course, are intended for use by current students in this class only, unless you have the permission of your instructor. You are not permitted to use materials related to the class that were generated by the professor or students in previous versions of this course. A violation of this policy may be a violation of the Ross Community Values Code and may result in disciplinary action.

Accommodations

The University of Michigan is committed to providing equal opportunity for participation in all programs, services and activities. Students wishing to receive accommodations must register with the University of Michigan Services for Students with Disabilities (SSD) office as soon as possible.

Students must submit their official Accommodation Letter from the SSD office to the Ross Accommodations Coordinator at least two weeks prior to the first exam or quiz for which they require testing accommodations. Testing accommodation arrangements are not guaranteed for students who provide less than two weeks' notice.

Students verified for accommodations must submit their Accommodation Letter at the start of each semester through the electronic portal called Accommodate. This can be done using the Semester Request feature. For Ross courses, these letters will route directly to the Ross Accommodations Coordinator who will communicate and coordinate all accommodated needs with the student's instructors at Ross. The day the Accommodation Letter is sent will be used to determine two weeks' notice.

In rare cases, the need for a testing accommodation arises after the two week deadline has passed (example: a broken wrist). In these cases, the student should still contact SSD and the Ross Accommodations Coordinator. However, due to logistical constraints, we cannot guarantee that testing accommodations can be made with less than two weeks' notice.

Questions can be directed to the Ross Accommodations Coordinator: RossAccommodationsCoordinator@umich.edu

Laptop & Electronic Device Use and Zoom Connectivity in Class

Laptop and electronic device use will be necessary for learning for both in-person and remote courses. Naturally, for those attending courses remotely you will need an electronic device (e.g. desktop, laptop, tablet) with video camera (built in or external), audio device and a microphone to engage fully in the course. A stable and sufficient bandwidth connection will also be necessary.

All remote students are to have their camera on during class. Use of your laptop should be for learning and discussion in class with the class material. Please contact your faculty member if you encounter challenges with laptops/electronic devices/internet connectivity/remote learning environment which may impede your ability to learn in the course.

Recordings

Faculty may choose to record some or all of the delivery of the course material. These recordings may be made available to other students in your assigned course section to support learning of those affected by illness or unforeseen circumstances. If you have questions about class recording policies, please contact the faculty the first week of class.

Students may not record or distribute any class activity without written permission from the instructor, except as necessary as part of approved accommodations for students with disabilities. This applies to both the live recording of an actual class, as well

as the duplication of any recordings shared by the faculty with the course participants. Any approved recordings may only be used for the student's own private use.

Course Content & Class Schedule (tentative):

1. Competitive Rational Expectations Models (SESSION 1)

Theory:

- Grossman, S., and Stiglitz, J., 1980, On the Impossibility of Informationally Efficient Markets, *American Economic Review*, 70, pp. 393-408.
  - [*Suggestion*: Focus on the workhorse CARA-Gaussian model first (see Vives, Chap. 4.2.2) then extend it the endogenous information acquisition case (e.g., Figure 1)]
- Vives, X., 1995, Short-Term Investment and the Informational Efficiency of the Market, *Review of Financial Studies*, 8, pp. 125-160.
  - [*Suggestion*: Notions of (generalized) limit orders in the model, Propositions 1.1, Corollary 2.1, & comparative statics on market depth, price informativeness, trading volume; see also Vives, Chap. 4.3]

Empirical:

- Biais, B., Hillion, P., and Spatt, C., 1995, An Empirical Analysis of the Limit Order Book and the Order Flow in the Paris Bourse, *Journal of Finance*, 50, pp. 1655-1689.
  - [*Suggestion*: The notion of limit order book (e.g., Figure 1), & main empirical results (e.g., bid-ask spreads, order flow, book depth, supply of and demand for liquidity)]
- Chen, Q., Goldstein, I., and Jiang, W., 2007, Price Informativeness and Investment Sensitivity to Stock Price, Review of Financial Studies, 20, pp. 619-650.
  - [*Suggestion*: Focus mostly on Section 1.1 (price non-synchronicity measuring price informativeness), less so on Section 1.2 (PIN, covered in Session 2), main hypotheses, & empirical results]

- Kacperczyk, M., and Seru, A., 2007, Fund Manager Use of Public Information: New Evidence on Managerial Skills, *Journal of Finance*, 62, pp. 485-528.
  - [*Suggestion*: Empirical predictions as related to model (sketch), RPI measure, & main tests of Eqs. (11) and (12)]

Additional readings: Vives (Chap. 4); O'Hara (Appendix of Chap. 4).

2. Strategic Trading and Asymmetric Information (SESSION 2)

Theory:

- Kyle, A., 1985, Continuous Auctions and Insider Trading, *Econometrica*, 53, pp. 1315-1335.
  - [*Suggestion*: Theorem 1, & comparative statics for equilibrium variables]
- Subrahmanyam, A., 1991, Risk Aversion, Market Liquidity, and Price Efficiency, *Review of Financial Studies*, 4, pp. 417-441.
  - [*Suggestion*: Propositions 1 (Figure 1) and 4, & comparative statics for price efficiency; for the exposition, consider first the case of $k > 1$ risk-neutral speculators (versus $k = 1$); then assume they are risk-averse and repeat comparison]
- Pasquariello P., and Vega, C., 2007, Informed and Strategic Order Flow in the Bond Markets, *Review of Financial Studies*, 20, pp. 1975-2019.
  - [*Suggestion*: Propositions 1 and 2, & comparative statics for equilibrium variables]

Empirical:

- Hasbrouck, J., 1991, Measuring the Information Content of Stock Trades, *Journal of Finance*, 46, pp. 179-207.
  - [*Suggestion*: Permanent versus transitory price impact; use example of Section II for the intuition]

- Amihud, Y., 2002, Illiquidity and Stock Returns: Cross-Section and Time-Series Effects, *Journal of Financial Markets*, 5, pp. 31-56.
  - [*Suggestion*: ILLIQ versus price impact, & asset pricing tests]
- Pastor, L., and Stambaugh, R., 2003, Liquidity Risk and Expected Stock Returns, *Journal of Political Economy*, 111, pp. 642-685.
  - [*Suggestion*: Notion of liquidity risk, intuition and construction of the gamma measure, & main asset pricing tests]
- Chordia, T., and Subrahmanyam, A., 2004, Order imbalance and individual stock returns: Theory and evidence, *Journal of Financial Economics*, 72, pp. 485-518.
  - [*Suggestion*: Intuition of the model, Eq. (12), & accompanying tests]
- Pasquariello P., and Vega, C., 2007, Informed and Strategic Order Flow in the Bond Markets, *Review of Financial Studies*, 20, pp. 1975-2019.
  - [*Suggestion*: Measures of news and noise, Eqs. (12) and (13), & accompanying tests]

Additional readings: Bagehot (1971); Vives (Chap. 5); O'Hara (Chap. 4); Hasbrouck (Chaps. 7, 9).

3. Sequential Trade Models of Asymmetric Information (SESSION 3)

Theory:

- Glosten, L., and Milgrom, P., 1985, Bid, Ask, and Transaction Prices in a Specialist Market with Heterogeneously Informed Traders, *Journal of Financial Economics*, 13, pp. 71-100.
  - [*Suggestion*: Proposition 1, concept of "no regret," & comparative statics (Proposition 5)]
- Easley, D., and O'Hara, M., 1987, Price, Trade Size, and Information in Securities Markets, *Journal of Financial Economics*, 19, pp. 69-90.
  - [*Suggestion*: Bayes Rule, Propositions 1 to 6; see also Easley et al. (2002) below, Section II]

Empirical:

- Naranjo, A., and Nimalendran, M., 2000, Government Intervention and Adverse Selection Costs in Foreign Exchange Markets, *Review of Financial Studies*, 13, pp. 453-477.
  - [*Suggestion*: Section 1 (motivation), Section 2 (FX intervention and controls), & accompanying tests]
- Easley, D., Hvidkjaer, S., and O'Hara, M., 2002, Is Information Risk a Determinant of Asset Returns?, *Journal of Finance*, 57, pp. 2185-2221.
  - [*Suggestion*: Section I (motivation), Section II (PIN estimation), & asset pricing tests]
- Bharath, S., Pasquariello, P., and Wu, G., 2009, Does Information Asymmetry Drive Capital Structure Decisions?, *Review of Financial Studies*, 22, pp. 3211-3243.
  - [*Suggestion*: PIN in ASY, interpretation, & capital structure tests]
- Aslan, H., Easley, D., Hvidkjaer, S., and O'Hara, M., 2011, The Characteristics of Informed Trading: Implications for Asset Pricing, *Journal of Empirical Finance*, 18, pp. 782-801.
  - [*Suggestion*: Survey article, focus on PIN in asset pricing, notion of a firm's information risk (Section 2; see also above: Easley et al., 2002), time-series and cross-sectional implications, proposed tests and main results]

Additional readings: Stoll (1989); O'Hara (Chap. 3); Hasbrouck (Chap. 5).

4. Models of Multi-Asset Trading (SESSION 4)

Theory:

- Caballe, J., and Krishnan, M., 1994, Imperfect Competition in a Multi-Security Market with Risk Neutrality, *Econometrica*, 62, 695-704.
  - [*Suggestion*: Propositions 3.1 and 3.2]

- Kodres, L., and Pritsker, M., 2002, A Rational Expectations Model of Financial Contagion, *Journal of Finance*, 57, pp. 769-799.
  - [*Suggestion*: Propositions 1 to 3, & three-asset example of Eq. (17)]
- Pasquariello, P., 2007, Imperfect Competition, Information Heterogeneity, and Financial Contagion, *Review of Financial Studies*, 20, pp. 69-90.
  - [*Suggestion*: Notion of information heterogeneity, Proposition 1, Definition 2, contagion implications, & three-asset examples of Eqs. (2) and (20)]
- Pasquariello, P., and Vega, C., 2015, Strategic Cross-Trading in the U.S. Stock Market, *Review of Finance*, 19, pp. 229-282.
  - [*Suggestion*: Notion of information heterogeneity, Proposition 1, Remark 1, and Corollary 1, & intuition of the three-asset example of Eq. (5)]

Empirical:

- Pindyck, R., and Rotemberg, J., 1993, The Comovement of Stock Prices, *Quarterly Journal of Economics*, 108, pp. 1073-1104.
  - [*Suggestion*: Section II (intuition only), Section III (methodology), & main results (e.g., latent variable models) as they relate to Table II]
- Forbes, C., and Rigobon, R., 2002, No Contagion, Only Interdependence: Measuring Stock Market Co-Movements, *Journal of Finance*, 57, pp. 2223-2261.
  - [*Suggestion*: Derivation of Eq. (11), Tables III (East Asia in 1997), VI (Mexico in 1994), and VIII (October 1987 crash)]
- Barberis, N., Shleifer, A., and Wurgler, J., 2005, Comovement, *Journal of Financial Economics*, 75, pp. 283-317.
  - [*Suggestion*: Predictions 1 and 2 (intuition), & main results on S&P500 index inclusions (from Eqs. (14) and (15)]
- O'Hara, M., and Ye, M., 2011, Is Market Fragmentation Harming Market Quality?, *Journal of Financial Economics*, 100, pp. 459-474.

- [*Suggestion*: Discussion of literature and main hypotheses (especially Section 2; discussion of multi-market versus multi-asset notions), measures of market quality, main results, discussion and treatment of endogeneity concerns]

- Pasquariello, P., and Vega, C., 2015, Strategic Cross-Trading in the U.S. Stock Market, *Review of Finance*, 19, pp. 229-282.
  - [*Suggestion*: Estimation of direct and cross-price impact, Eqs. (8) and (9), proxies for fundamental linkages and information heterogeneity, Tables III and IV, & tests of comparative statics (especially Table X)]
- Kojien, R.., and Yogo, M., 2019, A Demand System Approach to Asset Pricing, *Journal of Political Economy*, 127, pp. 1475-1515.
  - [*Suggestion*: Sketch of the model, discussion of its relationship with Kyle's (1985, 1989) notion of price impact, equilibrium properties and predictions (see also Section V), notion of asset co-liquidity (Section V.A), empirical strategy and estimation of the demand system, novel insights, interpretation of Figure 6]

Additional readings: Boyer, Kumagai, and Yuan (2006); Greenwood (2007).

5. Fragility and Frictions (SESSION 5)

Theory:

- Chowdhry, B., and Nanda, V., 1998, Leverage and Market Stability: The Role of Margin Rules and Price Limits, *Journal of Business*, 71, pp.179-210.
  - [*Suggestion*: Proposition 1, & main implications (intuition)]
- Brunnermeier, M., and Pedersen, L., 2009, Market Liquidity and Funding Liquidity, *Review of Financial Studies*, 22, pp. 2201-2231.
  - [*Suggestion*: Proposition 1 and properties (e.g., fragility), Proposition 6 (commonality in liquidity and fragility), & Eq. (31) (funding liquidity risk is priced)]

Empirical:

- Garleanu, N., and Pedersen, L., 2011, Margin-based Asset Pricing and Deviations from the Law of One Price, *Review of Financial Studies*, 24, pp. 1980-2022.
  - [*Suggestion*: Intuition of main results (Eqs. (1) and (2)), & tests on the CDS-bond basis]
- Nagel, S., 2012, Evaporating Liquidity, *Review of Financial Studies*, 25, pp. 2005-2039.
  - [*Suggestion*: Intuition of model for returns of liquidity provision, discussion of liquidity proxies, relationship with VIX, & main tests]
- Adrian, T., Etula, E., and Muir, T., 2014, Financial Intermediaries and the Cross Section of Asset Returns, *Journal of Finance*, 69, pp. 2557-2596.
  - [*Suggestion*: Section 2 (motivation), measure of broker-dealer leverage, & main cross-sectional results]
- Pasquariello, P., 2014, Financial Market Dislocations, *Review of Financial Studies*, 27, pp. 1868-1914.
  - [*Suggestion*: Construction of MDI, interpretation, & main U.S., international asset pricing tests]

6. Behavioral Finance (SESSION 6)

Theory:

- Bhattacharyya, S., and Nanda, V., 2013, Portfolio Pumping, Trading Activity and Fund Performance, *Review of Finance*, 17, pp. 885-909.
  - [*Suggestion*: Intuition of utility function, main results (e.g., Propositions 1 to 3, and Remarks 1 to 3), & main empirical implications]
- Pasquariello P., 2014, Prospect Theory and Market Quality, *Journal of Economic Theory*, 149, pp. 276-310.
  - [*Suggestion*: Remark 1 versus Conclusion 1, Remark 2 versus Conclusion 5, & empirical implications]

- Mele, A., and Sangiorgi, F., 2015, Uncertainty, Information Acquisition and Price Swings in Asset Markets, *Review of Economic Studies*, 82, pp. 1533-1567.
  - [*Suggestion*: Proposition 1, comparison with Grossman and Stiglitz (1980), & empirical implications]

Empirical:

- Barberis N., and Huang, M., 2001, Prospect Theory and Asset Prices, *Quarterly Journal of Economics*, 116, pp. 1-53.
  - [*Suggestion*: Intuition of the model, calibration strategy, & main results]
- Grinblatt, M., and Han, B., 2005, Prospect Theory, Mental Accounting, and Momentum, *Journal of Financial Economics*, 78, pp. 311-339.
  - [*Suggestion*: Section 2 (sketches of the model), empirical design and variables (e.g., Eqs. (9) to (11)), & main results]
- Pasquariello, P., and Vega, C., 2009, The On-The-Run *Liquidity* Phenomenon, *Journal of Financial Economics*, 92, pp. 1-24.
  - [*Suggestion*: Intuition of the model's main results (Proposition 1, Corollary 1 and 2), empirical strategy (e.g., Eqs. (11) and (13)), & main results]
- Hendershott, T., Wee, M., and Wen, Y., 2022, Transparency in fragmented markets: Experimental evidence, *Journal of Financial Markets*, 59, pp. 1-20.
  - [*Suggestion*: Discussion of the use of experiments in Market Microstructure, notion of pre-trade-transparency, notion of "dark" versus "lit" markets, main research question and testable hypotheses (from Sections 1), main results, discussion of external validity]