# Jens Dick-Nielsen

Email: jdn.fi@cbs.dk
Phone: +45 3815 3584
https://sf.cbs.dk/jdnielsen

Copenhagen Business School
Department of Finance
Solbjerg Plads 3, A.4.30

## Presentations and Invited Seminars

Swiss National Bank 2019, Bank for International Settlements 2019, DNRF annual meeting 2019, DFI conference 2019, MarketAxess (New York), Nationalbanken 2018, DFI annual conference 2018 (Copenhagen) EFA annual meeting 2018 (Warsaw), Macro Financial Modelling conference 2018 (New York), AFA annual meeting 2017 (Chicago), 14th Paris December Finance Meeting 2016 (Paris), Aalto University (Helsinki), Notre Dame conference on Financial Regulation 2016 (Chicago), MIT Golub GCFP 2016 (Boston), Heroit-Watt University (Edinburgh), OECD, IOSCO, DLR Kredit, BRF Kredit, Nationalbanken 2016, Danish CFA society, Financial Conduct Authority (London), Banking and Finance conference 2016 (Portsmouth), Financial Econometrics and Empirical Asset Pricing Conference 2016 (Lancaster), Corporate Bond workshop 2016 (Strasbourg), Danish FSA, Danish Ministry of Business and Growth, EFA annual meeting 2016 (Oslo), Nykredit, 4nations cup 2016 (Copenhagen), FINRA and Columbia conference on Corporate Debt Market Structure 2015 (New York), CREDIT conference 2015 (Venice), Young Scholars Nordic Finance Network Conference 2014 (Oslo), FMA annual meeting 2014 (Nashville), Annual Fixed Income conference 2014 (Charleston), Young Scholars Nordic Finance Network Conference 2013 (Copenhagen), MFA annual meeting 2013 (Orlando), ECB conference on Money Markets 2013 (Frankfurt), MFA annual meeting 2012 (Chicago), Annual Fixed Income Conference 2012 (Charleston).

## Refereeing

Econometrica, Journal of Finance, Review of Financial Studies, Journal of Financial Economics, Management Science, Journal of Financial and Quantitative Analysis, Journal of Financial Intermediation, Journal of Banking and Finance, The Financial Review, Journal of Money, Credit, and Banking, Journal of International Money and Finance, Deutsche Bundesbank's discussion paper series, FCA discussion paper series.

## Teaching Experience

Risk Management and Corporate Finance, M.Sc. course (2014- ), Copenhagen Business School
Corporate Finance, M.Sc. course, (2014), Copenhagen Business School
Corporate Finance, Diploma course (2010-2011), Copenhagen Business School
Credit Risk Modelling, M.Sc. course (2010-2015), Copenhagen Business School
Credit Risk Modelling, Executive education (2015), Copenhagen Business School
Time Series Analysis, M.Sc. course (2008-2009), Copenhagen Business School
Probability Theory and Statistics, B.Sc. course (2004-2007) Teaching Assistant, Copenhagen

## Ph.D. supervision and committees

**Supervision**

Andreas Brøgger, main supervisor, 2017-
Thomas Kjær Poulsen, secondary supervisor, 2016-2019, placement: BI Oslo, Norway.
Christoffer Thimsen (Aarhus University), secondary supervisor, 2016-
Pia Mølgaard, secondary supervisor, 2015-2018, placement: Danish Central Bank (fin stability).
Stine Louise Daetz, main supervisior, 2013-2018, placement: Danish Central Bank (research).

**Committees**

Alemu Chala, Lund University, 2017, Grading committee
Paul van Loon, Heriot-Watt University, 2016, External Examiner
Mikael Reimer Jensen, Copenhagen Business School, Chairman of assessment committee

## Awards and Scholarships

On the winning team in the 4nations Cup, 2016.
SPIVA Awards $2^{nd}$ prize (USD 15,000), 2012.
FSE 2-year PostDoc Fellowship, 2011.
Grant from Solar Fonden af 1978 (DKK 60,000), 2008.
Bikuben Academic Scholar, 2008.

## Other appointments

Study board for the education in Mathematical Business Economics (B.Sc. and M.Sc.) at CBS, 2013-
Academic Committee under the FSA regarding the certification of investment advisors, 2016-

# List of Publications

"The Cost of Immediacy for Corporate Bonds" (with Marco Rossi), 2019, ______________________,
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- RFS Lead article and Editor's choice.
- The study and results were discussed by Matt Levine in the Bloomberg blog, Money Stuff (Oct 10th, 2016).

**Abstract:** Liquidity provision for corporate bonds has become significantly more expensive after the 2008 crisis. Using index exclusions as a natural experiment during which uninformed index trackers request immediacy, we find that the cost of immediacy has more than doubled. In addition, the supply of immediacy has become more elastic with respect to its price. Consistent with a stringent regulatory environment incentivizing smaller dealer inventories, we also find that dealers revert deviations from their target inventory more quickly after the crisis. Finally, we investigate the pricing impact of information, changes in ownership structure, and differences between bank and non-bank dealers.

"Corporate Bond Liquidity Before and After the Onset of the Subprime Crisis" (with Peter Feldhutter and David Lando), 2012, _________________________
- The study and our results are discussed in New York Times (Jan 19th, 2012) and Financial Times (Feb 2012).
- Our results are used in a SIFMA study done by Oliver Wyman on the impact of the Volcker Rule on corporate bond liquidity.

**Abstract:** We analyze liquidity components of corporate bond spreads during 2005–2009 using a new robust illiquidity measure. The spread contribution from illiquidity increases dramatically with the onset of the subprime crisis. The increase is slow and persistent for investment grade bonds while the effect is stronger but more short-lived for speculative grade bonds. Bonds become less liquid when financial distress hits a lead underwriter and the liquidity of bonds issued by financial firms dries up under crises. During the subprime crisis, flight-to-quality is confined to AAA-rated bonds.

"Liquidity biases in TRACE", 2009, ____________________
- The filter forms the basis of the WRDS bond returns dataset provided by WRDS.
- WRDS supplies official filters for cleaning TRACE which are directly adapted from this study.

**Abstract:** The transactions database TRACE is rapidly becoming the standard data source for empirical research on US corporate bonds. This paper is the first to thoroughly discuss the assumptions needed to clean the disseminated TRACE data and to suggest that different filters should be used depending upon the application. 7.7% of all reports in TRACE are errors and in some cases up to 18% of the reports should be deleted. Failing to correct for these errors will bias popular liquidity measures towards a more liquid market. The median bias for the daily turnover will be 7.4% and for a quarter of the bonds the Amihud price impact measure will be underestimated by at least 14.6%. Further, calculating these two measures on the same data sample would potentially bias one of them.

## Book chapters and other finance publications:

"Corporate Bonds" (with David Lando), 2016, In Handbook of Fixed-Income Securities, edited by Pietro Veronesi, ch. 22, 541-560, Wiley.
- The chapter gives an overview of state of the art corporate bond modelling.

"Manglende likviditet i obligations markederne" (in Danish), 2017, Finans/Invest 1, 2.2017, 25-29.
- Explains the issues in detecting that bond liquidity has decreased after the 2008 crisis.

"How to clean Academic TRACE data", 2019, Discussion note and SAS code, joint with Thomas Kjær Poulsen (BI Oslo).
- Expands earlier filters to cover the academic versions of the TRACE data.

"How to clean Enhanced TRACE data", 2014, Discussion note and SAS code.

- Expands earlier filters to cover new versions of the TRACE data.

## Working Papers

"Arbitrage Crashes: Slow-Moving Capital or Market Segmentation?" (with Marco Rossi).

- Invited for Revise and Resubmit at the Review of Financial Studies

**Abstract:** The predominant explanation for arbitrage crashes is a lack of investor capital to exploit mispricing. This paper shows that slow-moving capital is only partially responsible for the past arbitrage crashes in the convertible bond market. Even when convertible bonds were severely underpriced, some investors continued to buy strictly dominated straight bonds from the same issuers. Our findings suggest that both market segmentation and slow-moving capital obstructed the recovery from the arbitrage crashes. Furthermore, exploiting the market segmentation with a long/short trading strategy provides positive abnormal returns after accounting for transaction costs.

"The Value of Bond Underwriter Relationships" (with Stine Louise Daetz and Mads Stenbo Nielsen).

- Presented at the EFA annual meeting 2018 (Warsaw).

**Abstract:** We show that corporate bond issuers benefit from utilizing existing underwriter relationships when rolling over bonds, but at the same time become exposed to underwriter distress. A strong relationship enables the underwriter to credibly certify the issuer resulting in lower direct issuance costs and lower underpricing. However, if the underwriter becomes distressed, this spills over to the issuer's credit risk, because it weakens the relationship and increases the risk of involuntary relationship termination. The credit risk spillover is more pronounced for risky, opaque issuers with high rollover exposure, i.e., those issuers most in need of certification by an underwriter.

"Safe and Liquid Mortgage Bonds: The Match Funding Principle" (with Jacob Gyntelberg).

- The study was cited by Reuters as the main argument for changing EU regulation in favor of Danish covered bonds (March 13th, 2013).
- Lead case in the CBS publication "Samfundsrelevant forskning på CBS", 2014.

**Abstract:** This paper shows empirically that match pass-through funding of covered bonds supported by strong creditor rights provides safe and liquid mortgage bonds. Despite a 30% drop in house prices during the 2008 crisis these mortgage bonds remained as liquid as comparable government bonds. The match funding principle effectively eliminates credit risk from the covered bond investor's perspective and funding liquidity therefore becomes the main driver of market liquidity. These findings have implications for the treatment of covered bonds in capital regulation and for how to design a robust mortgage bond system without the need for government sponsoring.

"The Cost of Capital for Banks" (with Jacob Gyntelberg and Christoffer Thimsen).

- The study presents empirical evidence in favor of the Modigliani-Miller theorem (1958).

**Abstract:** We use analyst earnings forecasts to extract cost of capital measures for banks. Both the cost of equity and debt capital are decreasing in the tier 1 ratio, whereas total cost of capital is independent of the tier 1 ratio. Our findings suggest that investors adjust their expectations in accordance with the conservation of risk principle (Modigliani and Miller, 1958), also around observed instances of equity issuance by banks. Extrapolating from our results; a 10 pp increase in the tier 1 ratio is associated with a 2-8 bps increase in customer borrowing rates due to a loss of tax shield. Finally, we find that off-balance sheet exposures and demand deposits lower total cost of capital.

## Work in progress

"Evaluating the calculation of common factors in corporate bond returns"
(with Peter Feldhutter)

"Optimal debt maturity structure"
(with Kritian Miltersen and Walter Touros)

"The tax asymmetry motive to holding corporate cash"
(with Ramona Westermann and Kristian Miltersen)

"Regulatory uncertainty and capital buffers"
(with Andreas Brøgger)

"Covenant arbitrage and bond holder activism"
(with Jean Helwege)

## In the media (primarily in Danish)

"Lynhurtig obligationshandel til investorer", Børsen, 09/05/2017.
"Gældsbombe under opsplitning af Mærsk", Fyens Stiftstidende, 17/07/2016.
"Mærsk-aktionærer kan blive gældstynget af opsplitning", Shippingwatch.dk, 11/07/2016.
"Gældsbombe under opsplitningen af Mærsk", Berlingske, 11/07/2016.
"Mærsk-aktionærer kan blive gældsbombet af opsplitning", Ritzau Finans, 11/07/2016.
"EU åbner for hjælp til danske boligejere", Dagbladet, 16/06/2016.
"Højest usædvanligt EU åbner for hjælp til danske boligejere", Finans.dk, 15/06/2016.
"EU åbner for hjælp til danske boligejere", Ritzau Finans, 15/06/2016.
"Denmark wins the 4nations cup 2016", cbs.dk, 02/05/2016.
"Strammere bankregulering rammer markeders likviditet", finanswatch.dk, 20/01/2016.
"Økonomiske problemer i Italien har givet danske boligejere højere renter", JP, 22/12/2015.
"Forskere: Usaglige EU-regler giver højere renter til boligejere", Jyllands-Posten, 22/12/2015.
"Forskere: Usaglige EU-regler giver højere renter til boligejere", Ritzau, 22/12/2015.
"Regulator's alarm rises on secondary market liquidity", The Banker by FT.com, 10/03/2015.