December 2021

DNB Research Newsletter

DeNederlandscheBank
EUROSYSTEEM

Research highlights

1. 24th Annual Research Conference

The 24th Annual Research Conference took place virtually on 5 November 2021. The conference theme was: "The Economy in Transition: Efficient and Sustainable Policies to Support Business Dynamism". Here you can get a quick glimpse that will enable you to pretend you were there. Read more

2. Surprising effects of inflation expectations on consumer spending

This forthcoming publication uses a randomized control trial (RCT) design to investigate the impact of inflation expectations on household consumption decisions. The RCT approach generates exogenous variation in inflation expectations thereby addressing a fundamental issue in this strand of literature: the endogeneity of inflation expectations. Our findings show that inflation expectations do affect consumption decisions but in a different way than commonly predicted in macroeconomic models. Read more

3. Monetary policy, productivity, and market concentration

In this forthcoming publication we identify a new channel through which monetary policy affects productivity. We consider publicly-traded firms, covering all sectors of the U.S. economy, over the period 1966-2014. We find that an unexpected monetary easing initially reduces average labor productivity, which then overshoots its pre-shock level. At the same time, the firm entry rate rises in response to the shock and then it undershoots. Market concentration matters for the monetary transmission mechanism: in low concentrated markets, the policy shock has a negligible effect on productivity, while a more sizeable one on entry. To address these empirical findings we develop a New Keynesian model with entry and exit of heterogeneous firms. Read more

4. Floods and financial stability: a stress test for the Netherlands

This working paper uses a stress test to understand under which conditions floods could threaten financial stability in the Netherlands. Focusing on banks, the paper finds that this sector is capitalised sufficiently to withstand floods in unprotected areas, where there is relatively little real estate. However, capital depletions would increase quickly in case more severe floods hit the densely-populated western part of the Netherlands. Read more

5. Not all data are created equal - Data sharing and privacy

The COVID-19 pandemic has increased our online presence and unleashed a new discussion on sharing sensitive personal data. Upcoming European legislation will facilitate data sharing in several areas, following the lead of the revised payments directive (PSD2), which enables payments data sharing with third parties. However, little is known about what drives consumers' preferences with different types of data. Using a discrete-choice survey approach among a representative group of Dutch consumers, we find that preferences differ according to the type of data, type of usage, type of firm using the data and the financial incentives given by firms. Read more

6. Guido Ascari joins DNB as economic advisor and head of monetary policy research

Guido has over two decades of experience in academia, and published widely on macroeconomic and monetary issues. He combines this function with a position as professor of economics at the university of Pavia. Read more

7. Alternative factors driving pension fund investments

On November 26, Matteo Bonetti defended his PhD thesis titled "Alternative factors driving pension fund investments" at the Maastricht University. Read more

Publications (since October 2021)

Working Papers

732 - Price diffusion across international private commercial real estate markets
Bing Zhu, Colin Lizieri and Dorinth van Dijk

731 - Populist attitudes, fiscal illusion and fiscal preferences: evidence from Dutch households
Jante Parlevliet, Massimo Giuliodori, Matthijs Rooduijn

730 - Flood risk and financial stability: evidence from a stress test for the Netherlands
Francesco Caloia, David-Jan Jansen

729 - Pension fund equity performance: herding does not pay off
Matteo Bonetti

728 - Not all data are created equal - data sharing and privacy
Michiel Bijlsma, Carin van der Cruijsen, Nicole Jonker

727 - Recourse and (strategic) mortgage defaults: evidence from changes in housing market laws
Alin Marius Andries, Anca Copaciu, Radu Popa, Razvan Vlahu

726 - Corporate acquisitions and bank relationships
Steven Poelhekke , Razvan Vlahu, Vadym Volosovych

Occasional Studies

Op weg naar een duurzame balans
Rosa van As, Justin Dijk, Loes van der Jagt, Danijela Piljic, Joris van Toor, Annelotte Zwemstra

DNB analyse

Impact aanbodbeperkingen op de Nederlandse economie in internationaal perspectief
Yannick Hemmerlé, Ilona van Schaik

Euro area inflation and the pandemic
Gabriele Galati, Marco Hoeberichts

Vier ingrediënten voor een evenwichtigere woningmarkt
Edi Vording, Cindy Biesenbeek, Mauro Mastrogiacomo

Estimating initial margins: The COVID-19 market stress as an application
Bernard van den Boom, Robert Hofman, Kristy Jansen, Iman van Lelyveld

Toekomst van de arbeidsmarkt
Marco Hoeberichts, Maikel Volkerink, Cindy Biesenbeek , Gaston van der Meulen

Published journal articles

Bank instability: interbank linkages and the role of disclosure
Christian König-Kersting, Stefan Trautmann and Razvan Vlahu
Journal of Banking & Finance, 2022, 134, 106353

Information sharing in a competitive microcredit market
Ralph de Haas, Matteo Millone and Jaap Bos
Journal of Money, Credit and Banking, 2021, 53(7), 1677-1717

The long-run effects of pandemics on inflation: will this time be different?
Dennis Bonam and Andra Smădu
Economics Letters, 2021, 208, 110065

Heterogeneous wealth effects
Dimitris Christelis, Dimitris Georgarakos, Tullio Jappelli, Luigi Pistaferri and Maarten van Rooij
European Economic Review, 2021, 137, 103805

Populist and nativist attitudes: does in-group/out-group thinking spill over across domains?
Matthijs Rooduijn, Bart Bonikowski and Jante Parlevliet
European Union Politics, 2021, 22(2), 248-265

Testing the multivariate regular variation model
John Einmahl, Fan Yang and Chen Zhou
Journal of Business and Economic Statistics, 2021, 39(4)

Enhancing banknote authentication by guiding attention to security features and manipulating prevalence expectancy
Frank van der Horst, Joshua Snell and Jan Theeuwes
Cognitive Research: Principles and Implications, 2021, 6(73)

A realistic transfer method reveals low risk of SARS-CoV-2 transmission via contaminated euro coins and banknotes
Daniel Todt, Toni Luise Meister, Barbora Tamele, John Howes, Dajana Paulmann, Britta Becker, Florian H.Brill, Mark Wind, Jack Schijven, Natalie Heinen, Volker Kinast, Baxolele Mhlekude, Christine Goffinet, Adalbert Krawczyk, Jörg Steinmann, Stephanie Pfaender, Yannick Brüggemann, Eike Steinmann
iScience, 2021, 24(8), 102908

Forthcoming journal articles

Capital and labor misallocation in the Netherlands
Maurice Bun and Jasper de Winter
Journal of Productivity Analysis

Monetary policy, productivity, and market concentration
Andrea Colciago and Riccardo Silvestrini
European Economic Review

How does consumption respond to news about inflation? Field evidence from a randomized control trial
Olivier Coibion, Dimitris Georgarakos, Yuriy Gorodnichenko and Maarten van Rooij
American Economic Journal: Macroeconomics

Banks' net interest income from maturity transformation and other interest income: communicating vessels?
Raymond Chaudron, Leo de Haan and Marco Hoeberichts
Journal of Financial Services Research

Published books/articles in books

Room to move: why some industries drive the trade-specialization nexus and other do not
Jaap Bos and Lu Zhang
In: C. Parmeter and R. Sickles (Eds.), Advances in Efficiency and Productivity Analysis, 2021, Springer: Proceedings in Business and Economics, pp. 265-302

Other publications

Public trust only partly immune to COVID-19 pandemic
Carin van der Cruijsen, Jakob de Haan and Nicole Jonker
SUERF Policy Brief, No 246, December, 2021

ECB Consumer expectations survey: an overview and first evaluation
Katarzyna Bańkowska, Ana Maria Borlescu, Evangelos Charalambakis, António Dias Da Silva, Davide Di Laurea, Maarten Dossche, Dimitris Georgarakos, Juha Honkkila, Neale Kennedy, Geoff Kenny, Aleksandra Kolndrekaj, Justus Meyer, Desislava Rusinova, Federica Teppa and Veli-Matti Törmälehto
ECB Occasional Paper Series, No 287, December, 2021.

Business dynamism, sectoral reallocation and productivity in a pandemic
Guido Ascari, Andrea Colciago and Riccardo Silvestrini
SUERF Policy Brief, No 238, December 2021

Occupational pensions, macroprudential limits and the financial position of the self-employed
Francesco Caloia, Mauro Mastrogiacomo and Stefan Hochguertel
Netspar Design paper 193, November 22, 2021

Earnings expectations signal a heterogeneous recovery after COVID-19
Joost Bats, William Greif and Daniel Kapp
SUERF Policy Brief 229, November 2021

Europees monetair beleid wordt groener
Dirk Broeders, Jan Willem van den End and René Rollingswier
Economisch Statistische Berichten, October 26, 2021

The effect of the Dutch financial assessment framework on the mortgage investments of pension funds
Mauro Mastrogiacomo and Yeorim Kim
Netspar Design paper 189, October 18, 2021

Trust in the ECB during the pandemic
Carin van der Cruijsen and Anna Samarina
VoxEU column, October 2021

Negative interest rates and the erosion of banks' interest margins
Jorien Freriks and Jan Kakes
SUERF Policy Brief, No 196, October 2021

Demand for central bank reserves and monetary policy implementation frameworks: the case of the Eurosystem
Pontus Åberg, Marco Corsi, Vincent Grossmann-Wirth, Tom Hudepohl, Yvo Mudde, Tiziana Rosolin and Franziska Schobert
ECB Occasional Paper Series, No. 282

Risk assessment of banknotes as a fomite of SARS-CoV-2 in cash payment transactions, Jack Schijven, Mark Wind, Daniel Todt, John Howes, Barbora Tamele and Eike Steinmann, medRxiv 2021.12.03.21267258

For a complete list of publications see our website.

Events

Research seminars

Past

05 Oct 2021: Time variation in the news-returns relationship
Harry Mamaysky (Columbia Business School Directory)

12 Oct 2021: Heterogeneous CSR approaches, corporate social performance and corporate financial performance
Bram van der Kroft (Maastricht University)

26 Oct 2021: The rising tide lifts some interest rates: climate change, natural disasters, and loan pricing
Ricardo Correa (FED Board)

09 Nov 2021: Liquidation value and loan pricing
Glenn Schepens (ECB)

30 Nov 2021: Bank specialization and zombie lending
Olivier de Jonghe (National Bank of Belgium)

14 Dec 2021: Asset diversification versus climate action
Rick van der Ploeg (University of Oxford)

Forthcoming

21 Dec 2021: Inefficient regulation: mortgages versus total credit
Artashes Karapetyan (ESSEC)

Workshops and conferences

Past

05 Nov 2021:24th Annual Research Conference. The conference theme was: "The Economy in Transition: Efficient and Sustainable Policies to Support Business Dynamism".

Other news

Kristy Jansen has won the Research Prize 2021 Inquire Europe for her research paper entitled "Long-term Investors, Demand Shifts, and Yields". 2 December, 2021

PhD defense of Matteo Bonetti, 26 November 2021, Maastricht University. Thesis: "Alternative Factors Driving Pension Fund Investments"

Tomás Carrera de Souza has won the first prize of the annual research competition, organized by the Central Bank of Argentina in the Young Economists category, for his paper entitled "Reassessing Sticky Price Models Through the Lens of Scraped Price Data". 4 November, 2021.

Research highlights, details

1. 24th Annual Research Conference

The conference featured a thought-provoking keynote speech by John Cochrane, a lively policy panel with Lucrezia Reichlin, Eric Bartelsman, and Rick van der Ploeg, and five high-quality research papers. Olaf Sleijpen gave the opening address, highlighting the **importance of business dynamism** - the process of new firms starting up, growing, shrinking, and failing -, and setting the stage for fruitful discussions. He concluded that "we need strong business dynamism. We need innovative start-ups to tackle the risks of climate change. We need room for failure on the business level in order not to fail on an aggregate level – in order not to fail at safeguarding our societies."

The invited papers discussed several aspects underlying the conference's theme. We want to bring to your attention **two** of the **key questions addressed** in these studies, which provided **insightful takeaways**.
Aiming to understand *how demand-side factors can drive business dynamism*, Petr Sedláček challenged the classical view that economic growth is a purely supply-side phenomenon. He argued that accounting for demand-side features into state-of-the-art models of economic growth, changes our understanding of the sources of aggregate growth and the quantitative efficacy of growth policies. The key message for policymakers is that they should pay attention not only to productivity and R&D dynamics at the firm level, but also to changes in demand, when designing growth-supporting interventions. This study warrants further research on new demand and product-market-oriented policies for reviving the seemingly lost growth potential of developed economies.

The second highly relevant question at the current juncture was related to climate change. Research by Luigi Iovino and co-authors focused on *the role of corporate profit taxation for carbon emissions*. He documented that "dirty" firms pay lower profit taxes and that this carbon bias emerges from the fiscal advantage of corporate debt (since "dirty" firms use more tangible capital, they can borrow more). This research reveals that a policy designed to remove the debt tax shield can substantially diminish carbon emissions in equilibrium.

Finally, John Cochrane's speech on *financial regulation and climate change* challenged the view that central banks should pursue climate policies, or any other social or political causes not specified in their mandate. In this respect, he emphasized emerging risks to central bank independence, and the urge for central banks to refocus on their core mission.

A summary of the conference and information on the program, papers, and presentations are available on the conference website.
Go to the Top

2 Surprising effects of inflation expectations on consumer spending

We treat a random subgroup of participants in a nationally representative Dutch survey with information about recent inflation. The subgroup of untreated participants serves as control group. The treatments lead to exogenously generated changes in inflation expectations. Using follow-up surveys of the same households, we determine whether the exogenous changes in inflation expectations affect the spending decisions of households in subsequent months. While the effects are small and transient, we do find that an increase in inflation expectations results into lower consumer spending in particular on durable goods.

A supply side view of inflation

Macroeconomic models often assume that higher expected inflation leads to higher spending. In these models, consumers who anticipate higher future prices are induced to spend more today and less in the future. This speaks to the standard Euler equation channel in which higher inflation expectations are associated with lower real interest rates which impacts intertemporal decision making because current consumption (saving) becomes more (less) attractive. Instead, our findings suggest that higher inflation expectations lead to lower consumer spending. A possible explanation is that consumers adjust their economic expectations more broadly and associate higher inflation to bad economic times, i.e. they may expect lower wages in the future or a higher probability of job loss, consistent with a supply side view of inflation.

The way forward

Central banks pay close attention to inflation expectations. With their communication they may try to influence these expectations. For instance, in times of low inflation and policy rates around the effective lower bound central banks can use forward guidance as to increase inflation expectations and support economic growth. Our findings show that communication can work in that it affects inflation expectations and consumer decisions. At the same time, this is a challenging avenue as the impact of communication depends on how households interpret the information they receive. For example, changing inflation expectations can induce consumers to also change other economic expectations and revise their consumption plans accordingly in such a way that the ultimate spending actions differ from those intended by the communication. An implication is that communication aimed at moving inflation expectations should be nuanced and more research is needed on how communication messages are perceived by the public and what are the best ways to convey these messages.

Read more? See the publication "How does consumption respond to inflation? Field evidence from a randomized control trial" , forthcoming in American Economic Journal: Macroeconomics, by Olivier Coibion, Dimitris Georgarakos, Yuriy Gorodnichenko and Maarten van Rooij.

Go to the Top

3. Monetary policy, productivity and market concentration

Models adopted by central banks for policy analysis do not usually address or incorporate the determinants and evolution of labor productivity. The vast majority of such macroeconomic models take the pattern of labor productivity and the extent of competition between market competitors as given. As such, they can address neither the relationship between policy measures and productivity nor that between competition and productivity.

We enrich the literature along two dimensions. First, we allow for endogenous firm entry and exit dynamics, such that the monetary transmission mechanism rests on both margins of adjustment. Second, we allow firms to display heterogeneous productivity levels. As a result, we can study how average productivity within a sector, and its aggregate counterpart, endogenously react to a monetary shock that alters the composition of the pool of active firms, and how the propagation mechanism depends on the extent of market concentration. In addition, we assume that firms must borrow working capital to finance their wage bill.

Monetary shocks and firms dynamics

We show that an expansionary monetary shock alters the composition of firms in the market. The increase in aggregate demand and the lower borrowing costs resulting from the shock imply that firms with low productivity find it convenient to enter the market. At the same time, it becomes easier to survive for incumbents with low productivity. This leads to an impact reduction in average productivity.

However, the reduction in productivity is just temporary. Indeed, after the initial decline, productivity overshoots before reverting to the initial equilibrium. The reason for the overshooting is a competition effect. The crowding of the market following the shock increases competition. As a result, only the most productive firms can stay in the market, counteracting the initial effect of monetary policy on productivity. For this reason, after a few periods, average labor productivity persistently rises above its initial level.

Market concentration matters

The initial degree of market concentration affects the characteristics of potential entrants, such as size and productivity. For this reason, it affects the transmission of the policy shock. Specifically, in a low concentrated market, the policy shocks entail larger entry and exit flows with respect to those observed in a more concentrated market. However, as these flows involve firms that share similar characteristics with incumbents, the effect of the shock on average productivity is mild. These results are qualitatively consistent with the empirical evidence we uncover.

Read more?

See the publication “Monetary policy, productivity, and market concentration”, forthcoming in the European Economic Review, by Andrea Colciago and Riccardo Silvestrini.

Go to the Top

4. Floods and financial stability

This paper studies conditions under which floods become a financial stability concern. Climate change implies slow shifts in the weather distribution. Such shifts would mean that extreme weather events occur more frequently. The historical record already indicates that floods can cause economic damage. Should climate change continue unabated, at some point the macrofinancial impact of frequent floods may become so material, that financial stability will be impaired.

Multiple flood scenarios of increasing severity

This working paper explores at which point of severity floods could materially affect banks’ capital positions. The paper uses geocoded data on real estate exposures to estimate property damages after floods. Also, the paper considers the macrofinancial impact, such as a short and sharp recession in the wake of a flood event. Based on a top down stress test model, the paper explores six flood scenarios of increasing severity.

Act sooner rather than later

The banking sector is found to be capitalised sufficiently to withstand floods in unprotected areas, where there is relatively little real estate. However, capital depletions would increase quickly in case more severe floods hit the densely-populated western part of the Netherlands. Admittedly, the flood scenarios are still very much in the tail of the distribution. However, given the complexities that surround both modeling efforts as well as the broader discussion on climate change, it seems advisable, at the very least, to start a structured discussion on possible policy reactions sooner rather than later.

See DNB Working Paper Flood risk and financial stability: Evidence from a stress test for the Netherlands by Francesco Caloia and David-Jan Jansen

Go to the Top

5. Not all data are created equal - Data sharing and privacy

ealth and financial data most sensitive

The research shows that consumers are least likely to share data about their health, followed by data on their payments and data on wealth and pensions. These data types are less likely to be shared compared to the other three considered data types, i.e. data on the location of consumers' smartphone, their personal characteristics and their preferences.

Banks in a strong position
Consumers are most hesitant to share their data with webshops and BigTechs and are also less likely to share their data with insurers than they are with banks. Trust plays a role here, with people having most trust in banks and least trust in webshops and BigTechs. This finding suggests that banks, and to a lesser extent insurers, are in a strong position to exploit the possibilities of data sharing and improve their services. Especially people aged 45 and over and high-income people prefer to share data with banks over sharing it with other firms.

Preference for anonymity
Consumers are especially cautious to share data when they are not used anonymously by firms, but can be linked to them. People with little education, low income and low digital skills are more likely to share their data non-anonymously with firms than others. This indicates that data sharing with third parties may endanger data privacy of vulnerable consumer segments more than of other people.

Financial rewards can trigger data sharing
Financial rewards can trigger data sharing by part of the consumers. Males, young people, highly educated people or people with a high income react stronger on the magnitude of the reward than others. The amount people need to receive to give consent varies most by the way their data are processed, followed by the type of data that is shared and varies least with the type of firm that receives the data. This suggests that if other firms turn out to be quicker and better in using customers' personal data and are able to pass on financial benefits to their (potential) customers, these firms may compete successfully with banks and get access to various types of personal data from consumers.

Read more? See DNB Working Paper 728 Not all data are created equal: Data sharing and privacy by Michiel Bijlsma, Carin van der Cruijsen and Nicole Jonker
Go to the Top

6. Guido Ascari joins DNB as economic advisor and head of monetary policy research

Can you tell us about your new function?
I will coordinate DNB's monetary policy research agenda and be involved with the preparation of the Governor's monetary meetings in Frankfurt. This is an interesting combination and the involvement in policy discussions is really something I'm looking forward to.

What makes doing research in a central bank different from university?

At university, a relatively small group of researchers cover a broad range of topics like monetary economics but also labour, development, econometrics, micro theory etcetera. At the central bank, the focus is much more specific on monetary and financial topics, and you have access to many databases. Another difference is that in academia you can take more time for a project, while in central banks there is always some time pressure if you want your analysis to be relevant as input for policy. It is important to accept that good research is inherently risky: you may invest a lot of time and effort on a project that does not lead to any meaningful result.

How should DNB organize its analytical work?
DNB is already doing a lot of great research. I would like to organize the analytical work in research teams that focus on the main themes defined in DNB's research agenda. And it is important that economists from the research department work together with colleagues from other areas in DNB, like monetary policy and financial markets. I also see a lot of potential for joint projects with Dutch universities.

What are key monetary research topics for the next years?
One of the main current topics topic is of course inflation, given the recent surge and uncertainty about whether this will be temporary or not. A related concern is whether inflation is becoming more difficult to control, as we don't have much grip on underlying drivers like the global value chain. And of course, our experience with unconventional monetary policy tools will remain a key area for research in the coming years. These instruments were supposed to be temporary, but we are likely to keep some of them in our monetary toolbox
Go to the Top

7. Matteo Bonetti recently obtained his PhD degree

Congratulations with achieving this milestone! What is the topic of your PhD thesis?

The board of trustees of a pension fund makes important investment decisions on behalf of a heterogeneous group of participants who differ in age and income, for example. A pension fund board hires external advisors and asset managers to assist them with these decisions and with the implementation of the investment policy. What other pension funds do may also play a role in this implementation. In this thesis I investigate how this complexity influences the asset allocation of pension funds. I focus on the influence of directors, external advisors and other pension funds on investment decisions

What are the main findings?

I show that the characteristics of pension fund trustees such as their

own age and gender, as well as their constituencies, influence their investment decisions. The older a board, the less the pension fund invests in shares. This board effect is striking because trustees should only take into account the characteristics of participants in the pension fund. I also show that pension funds often invest in the same way in the presence of a common asset management firm or common actuary. Even if those pension funds are different in terms of size, funding ratio or beneficiaries' age. This "advisor effect" means that external advisors can transfer their investment beliefs to the pension funds. These beliefs can even outweigh pension fund characteristics. Furthermore, my research shows that some asset managers who implement pension fund investment policies tend to buy and sell the same stocks that other asset managers buy and sell for their pension funds. This herd behavior has a negative influence on the returns of the pension funds that follow the others

How does your research square with DNB policy work?

It is important that DNB continues to insist on sufficient diversity in boards of trustees. In this respect, pension funds still have room for improvement when it comes to the age and gender diversity of their boards. Something that is now being pursued on the basis of self-regulation in the pension sector. In addition, it is necessary for a pension fund board to better monitor its external advisors in order to better tailor the investment policy to the characteristics of the pension fund. It is also important to monitor and discourage the advisor effect and herd behavior as these can lead to pension funds developing portfolios that are increasingly exposed to common risk factors over time. This may increase the chance that pension funds will run into problems at the same time.

What's next? Do you aim to continue doing research or are you just happy that the job is done?

Yes, I continue to be active in research aside of my policy work at the risk management department. The plan is to (re)submit the paper of my thesis for publication in the coming year. In addition, I have other projects open and new ideas that I am working on always in the field of institutional investors and asset management.

Go to the Top