

# Report DNB Research Program 2023

DeNederlandscheBank

EUROSYSTEEM

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De Nederlandsche Bank NV  
P.O. Box 98  
1000 AB AMSTERDAM  
The Netherlands

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## Report on DNB Research Program 2023

In line with the [DNB Research Agenda](#), the [DNB Research program 2023](#) had the following themes:

1. *Conventional and unconventional monetary policy*
2. *Inflation*
3. *Monetary policy, financial markets and credit*
4. *Financial stability and financial regulation*
5. *Trust*
6. *Sustainability*
7. *Payments and market infrastructures*

Appendix 1 provides an overview of the status of the projects included in the 2023 DNB research program. Table 1 summarizes the progress made on individual projects. In 2023 5 (out of 82) projects were stopped due to lack of sufficient results. In total 41 projects of the research program 2023 will be continued in 2024. Compared with earlier years less projects were terminated, while more projects have been rolled over to the next year.

Table 1. Overview of the status of the projects in 2023 DNB research program

Theme	Number of projects	Published as WP or under review	Will soon be published	Will be continued in 2024	Stopped
1.	10	0	3	4	3
2.	10	0	1	9	0
3.	12	3	3	6	0
4.	11	5	2	4	0
5.	5	3	0	2	0
6.	22	8	2	10	2
7.	12	4	2	6	0
Total	82	23	13	41	5

In 2023 36 [DNB working papers](#) have been published, compared to 26 in 2022 and 32 in 2021. This is a substantial increase compared with the previous years and additionally 13 papers from the 2023 program will be published soon. Appendix 2 provides an overview of the DNB working papers published in 2023. These are also available in [REPEC](#) and [SSRN](#), which increases the number of downloads substantially.

Table 2 provides an overview of publications in international journals. All published and forthcoming articles in journals and books and book contributions can be found at the [DNB Research website](#). Forthcoming papers have been accepted for publication but have not yet been published. As it sometimes takes very long before papers are published, acceptances in a particular year and publications in that same year do not coincide.

Table 2. Journal publications by DNB staff in 2009-2023

	A journals	B journals	C journals	Others
2009	3	15	4	4
2010	3	19	2	11
2011	4	16	9	3
2012	3	19	9	11
2013	6	27	10	16
2014	5	17	8	7
2015	3	18	9	6
2016	5	20	7	9
2017	3	22	3	4
2018	4	18	11	5
2019	5	26	3	1
2020	4	13	6	7
2021	5	12	8	14
2022	3	9	5	4
2023	10	12	3	5
Forthcoming <sup>1</sup>	14	21	6	4

In 2023 papers written by DNB staff have been published or accepted for publication in the *American Economic Journal: Macroeconomics*, *Journal of Economic Literature*, *Journal of Economic Theory*, *Journal of Financial Intermediation*, *Journal of Monetary Economics*, *Journal of International Economics*, *European Economic Review*, *Review of Finance*, *Quantitative Economics* and the *Journal of Money, Credit and Banking*, amongst others. Moreover, Guido Ascari has been elected in 2023 as CEPR research fellow.

In 2023 the following articles have been published in A-rated journals:

- Endogenous uncertainty and the macroeconomic impact of shocks to inflation expectations  
Guido Ascari, Stefano Fasani, Jakob Grazzini and Lorenza Rossi  
*Journal of Monetary Economics*, 2023, 140, 48-63
- Business dynamism, sectoral reallocation and productivity in a pandemic  
Guido Ascari, Andrea Colciago and Riccardo Silvestrini  
*European Economic Review*, 2023, 156, 104473
- Fickle emerging market flows, stable euros, and the dollar risk factor  
Martijn Boermans and John Burger  
*Journal of International Economics*, 2023, 142, 103730.
- Fiscal foresight and the effects of government spending; it's all in the monetary-fiscal mix  
Guido Ascari, Peder Beck-Friis, Anna Florio and Alessandro Gobbi  
*Journal of Monetary Economics*, 2023, 134, 1-15

<sup>1</sup> Measured at the beginning of January 2023 (includes papers already published in 2023).

- No country is an island. International cooperation and climate change  
Massimo Ferrari Minesso and Maria Sole Pagliari  
*Journal of International Economics*, 2023, 145, 103816.
- Optimal quantitative easing in a monetary union  
Serdar Kabaca, Renske Maas, Kostas Mavromatis and Romanos Priftis  
*European Economic Review*, 2023, 152, 104342
- 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*, 2023, 15(3), 109-152

In 2023 the following articles have been accepted for publication in A-rated journals:

- Coherence without rationality at the zero lower bound  
Guido Ascari, Sophocles Mavroeidis and Nigel McClung  
*Journal of Economic Theory*
- Behavioral learning equilibria in New Keynesian models  
Cars Hommes, Kostas Mavromatis, Tolga Ozden and Mei Zhu  
*Quantitative Economics*
- Central bank communication with the general public: promise or false hope?  
Alan Blinder, Michael Ehrmann, Jakob de Haan and David-Jan Jansen  
*Journal of Economic Literature*
- The (ir)relevance of rule-of-thumb consumers for U.S. business cycle fluctuations  
Guido Ascari, Alice Albonico and Qazi Haque  
*Journal of Money, Credit and Banking*
- The effects of fiscal policy when planning horizons are finite  
Kostas Mavromatis and Joep Lustenhouwer  
*Journal of Money, Credit and Banking*
- The International Dimension of Trend Inflation  
Guido Ascari and Luca Fosso  
*Journal of International Economics*
- The international impact of a fragile EMU  
Demosthenes Ioannou, Maria Sole Pagliari and Livio Stracca  
*European Economic Review*

In 2023 the following [conferences and workshops](#) have been organized or hosted:

- 30-31 August 2023: DNB – Sveriges Riksbank – Deutsche Bundesbank 7th Annual Macroprudential Conference
- 2-3 November 2023: DNB Annual Research Conference titled “Challenges for monetary policy during normalisation”
- 18-19 December 2023: 2<sup>nd</sup> XAmsterdam Macroeconomic Workshop

In 2023 there were 29 (hybrid) seminars by external speakers (see [this overview](#)) and about an equal number of seminars by internal speakers. The number of seminars has been comparable to pre-Covid years and in-person attendance has grown over the year to a normal standard (25 participants). All seminars are announced at the website of DNB and are frequently attended by DNB policy makers and external visitors. The DNB Visiting Scholar Program is able to attract several excellent scholars who give seminars and/or policy lectures and interact with DNB staff. In 2023 the following researchers visited DNB: Fabio Canova (BI Norwegian Business School), Bill English (Yale School of Management), Leonardo Melosi (University of Warwick), Francisco Ruge-Murcia (McGill University), Jasmine Xiao (University of Notre Dame)

For forecasting purposes extensive use has been made of DNB’s macro model DELFI. Our regular macroeconomic projections were issued in June and December of 2023 in DNB’s [Spring Projection](#) and [Autumn Projection](#), respectively. These projections were also part of the ECB’s Broad Macroeconomic Projection Exercises. The DNB Spring Projection included a sensitivity analysis with a stronger wage growth in The Netherlands as well as an alternative scenario with a high core inflation for longer in the euro area and its impact on the Dutch economy. DNB’s Autumn Projection zoomed in on the impact of global headwinds from increasing (geopolitical) uncertainty. Moreover, DELFI has been used as the main tool to develop an adverse macroeconomic scenario underlying the stress tests for the Dutch banking sector that was published in DNB’s [Spring Financial Stability Report](#). As of September 2023 we started preparations and stakeholder interviews for the development of a successor of the current version of DELFI, which resulted in a plan of action and a roadmap for the actual development of the new model over the 2024 and 2025.

For the very short-term the DELFI projections for GDP growth have been informed by the output of the nowcasting model DFROG. This nowcasting model includes the economic sentiment extracted from newspaper articles published in Het Financieele Dagblad via topic modeling. This research has been published in a [DNB Working Paper](#) and in 2023 the model has been largely automated.

During 2023 we provided short-term inflation forecasts on the Dutch HICP and its underlying components to the ECB in several rounds. The underlying NIPE platform has been completely renewed and automated, and is now fully based on Python. It includes model-based forecasts based on two approaches (ECM and SARIMA). Additionally, in 2023 a new machine learning (ML) module has been developed and will be included in the NIPE-platform as a third approach for forecasting Dutch inflation in a data-rich environment. This research is still ongoing and a DNB Working Paper on the ML inflation projections is forthcoming.

In 2023 the first version has been completed of two models that will be routinely used for monetary policy analysis in preparation for the ECB Governing Council. The so-called ‘Suite of Models’ project focused on the development of an empirical BVAR model and an applied theoretical DSGE model: the *VAR Basten* (Vector AutoRegressive Bayesian STructural Estimation Nederlandsche-Model) and the *DNB-GEM* (De Nederlandsche Bank – General Equilibrium Model). Both models have been estimated for the Euro Area and they can be used jointly for the analysis of the dynamic effects of shocks, as well as for scenario analysis using data on macroeconomic projections. The VAR Basten is an empirical model that imposes less structure than the DNB-GEM. The DNB-GEM, given its general equilibrium structure, can provide more detailed insights with respect to the transmission channels of various shocks. Therefore, both models are ideally used in tandem. The two models produce impulse response functions to the different identified shocks, historical decompositions of relevant variables, and can be used to run policy counterfactual regarding the effects of different monetary policies paths or the reaction of monetary policy to a different set of shocks. In the future, the modeling team will focus on fine tuning the estimation of these models, producing different counterfactual depending on the policy relevant questions.

In 2023 the first version has been completed of a multisectoral international open economy macroeconomic CGE-model with production networks (production chains and input-output linkages). This model has been applied to study the propagation and sectoral effects of EU-wide carbon taxation. A more elaborated model version has been developed to be applied in a project on Dutch industrial competitiveness. Model analyses with various models (NiGEM, DELFI, Input-Output model) have contributed to the [DNB Occasional Studies](#) on the economic and financial stability repercussions of nature degradation for the Netherlands published end of 2023. In 2023 the EAGLE model has been extended by including an energy sector, which distinguishes between green energy and brown energy. The extension has been developed by a team of Eurosystem researchers in which DNB participated intensively. This new model version of EAGLE has been presented in the ESCB Working Group on Econometric Modeling and included simulation results of a tax on brown investment. In 2024 the model will be further tested and documented in an ECB Working Paper.

## Appendix 1. Research projects 2023

Theme	Title	Authors	Published as DNB WP	Will soon (in 2024 Q1) be published as WP	Project stopped	Project will be continued in 2024
Conventional and unconventional monetary policy	Optimal normalization policy under behavioral expectations	Alexandre Carrier (ECB, Bielefeld University) and Kostas Mavromatis (DNB, University of Amsterdam)		x		
Conventional and unconventional monetary policy	Quantitative easing in times of market stress: evidence from the euro area	Gavin Goy (DNB)			x	
Conventional and unconventional monetary policy	Quantitative tightening in a HANK model	Guido Ascari (DNB, University of Pavia), Timo Haber (DNB) and Kostas Mavromatis (DNB, University of Amsterdam)				x
Conventional and unconventional monetary policy	Monetary policy transmission during sovereign stress	Tilman Bletzinger (European Central Bank) and Gavin Goy (DNB)				x
Conventional and unconventional monetary policy	Efficient estimation of models with occasionally binding constraints	Paolo Bonomolo (DNB) and Sophocles Mavroeidis (University of Oxford)				x
Conventional and unconventional monetary policy	Optimal Conventional and Unconventional Monetary Policy	Sami Alpanda (University of Central Florida), Serdar Kabaca (Bank of Canada) and Kostas Mavromatis (DNB)		x		
Conventional and unconventional monetary policy	Detecting liquidity traps	Paolo Bonomolo (DNB), Yildiz Akkaya (Konjunkturinstitutet) and Ingvar Strid (Sveriges Riksbank)			x	



Conventional and unconventional monetary policy	Estimating DSGE models with finite horizons	Kostas Mavromatis (DNB), Joep Lustenhouwer (University of Heidelberg), Mike Tsionas (Lancaster University) and Giorgio Motta (Lancaster University)				x
Conventional and unconventional monetary policy	Assessing the impact of conventional monetary policy on the capital-labor ratio in Brazil	Guilherme Moura (Federal University of Santa Catarina) and Aishameriane Schmidt (DNB, Erasmus University Rotterdam, Tinbergen Institute)			x	
Conventional and unconventional monetary policy	Central Bank Capital and Shareholder Relationship	Matteo Bonetti, Dirk Broeders, Damiaan Chen, Danile Dimitrov (all DNB)		x		
Inflation	Global supply chain pressures, inflation and implications for monetary policy	Dennis Bonam (DNB, VU University) and Andra Smadu (DNB, University of Groningen)				x
Inflation	Nonlinear Phillips curve and inflation risk	Hanno Kase (University of Minnesota), Sebastian Rast (DNB) and Matthias Rottner (Deutsche Bundesbank)				x
Inflation	Inflation trends and cycles	Marco Hoeberichts (DNB)				x
Inflation	Estimating the slope of the Phillips curve	Emmanuel De Veirman (DNB) and Anton Nakov (European Central Bank)				x
Inflation	Inflation and commercial real estate: a happy marriage?	Dorinth van Dijk (DNB), Simon Camillo Buechler (MIT) and Alex van de Minne (UCONN)				x
Inflation	Inflation nowcasting in persistently high inflation environments	Richard Schnorrenberger (Kiel University), Guilherme Moura (Federal University of Santa Catarina) and Aishameriane Schmidt (DNB, Erasmus University Rotterdam, TI)		x		

Inflation	The relation between idiosyncratic volatility and price setting	Emmanuel De Veirman (DNB) and Raphael Schoenle (Brandeis University)				x
Inflation	Consumers' inflation expectations: insights from a monthly survey	Richhild Moessner (BIS), Gabriele Galati (DNB) and Maarten van Rooij (DNB)				x
Inflation	Forecasting Dutch inflation using machine-learning methods	Robert-Paul Berben (DNB) and Jasper de Winter (DNB)				x
Inflation	Bounded rationality, noisy signals and monetary policy assessment	Kostas Mavromatis (DNB), Tolga Ozden (Bank of Canada) and Joep Lustenhouwer (University of Heidelberg)				x
Monetary policy, financial markets and credit	Identifying financial fragmentation: do sovereign spreads in the EMU reflect differences in fundamentals?	Jan Kakes (DNB) and Jan Willem van den End (DNB, Vrije Universiteit)	x			
Monetary policy, financial markets and credit	Pass-through of banks' lending and deposit rates in a changing interest rate environment	Jan Kakes (DNB) and Andra Smadu (DNB, University of Groningen)				x
Monetary policy, financial markets and credit	Macroeconomic implications of price and liability dollarization	Daniela Hauser (Bank of Canada) and Kostas Mavromatis (DNB, University of Amsterdam)				x
Monetary policy, financial markets and credit	Local supply effects and the impact of QE: the Eurosystem's corporate sector purchase programme	Casper de Haes (University of Amsterdam), Tom Hudepohl (ECB) and Jan Kakes (DNB)				x
Monetary policy, financial markets and credit	Cross-country evidence of the natural yield curve	Gavin Goy (DNB) and Yuto Iwasaki (Bank of Japan)				x
Monetary policy, financial markets and credit	Public money as a store of value, heterogeneous beliefs, and banks: implications of CBDC	Manuel Munoz (European Central Bank) and Oscar Soons (DNB)	x			

Monetary policy, financial markets and credit	Financial factors, firm size and firm potential	Miguel Ferreira (Queen Mary University of London), Timo Haber (DNB) and Christian Rörig (QuantCo)	x			
Monetary policy, financial markets and credit	Financial investment sorting: the interaction of real and financial frictions	Miguel Ferreira (Queen Mary University of London), Timo Haber (DNB) and Hanbaek Lee (University of Tokyo)		x		
Monetary policy, financial markets and credit	Heterogeneous access to loans across sectors: evidence from AnaCredit and the Bank Lending Survey	Stephen Kho (DNB, University of Amsterdam)				
Monetary policy, financial markets and credit	Banks' usage of TLTRO funds	Tomas Carrera de Souza (DNB)		x		
Monetary policy, financial markets and credit	Integration of funding and market liquidity in real estate	Dorinth van Dijk (DNB), Yumei Wang (University of Amsterdam) and Marc Francke (University of Amsterdam)				x
Monetary policy, financial markets and credit	Managing the transition to central bank digital currency	Maria Sole Pagliari (DNB), Katrin Assenmacher, Massimo Ferrari Minesso, Arnaud Mehl (all ECB)		x		
Financial stability and financial regulation	Finding the right balance with the digital euro: banks' liquidity risk and central bank reliance	Barbara Meller (ECB) and Oscar Soons (DNB)	x			
Financial stability and financial regulation	Cross-border banking, intragroup exposures, and bank risk-taking	Eric Cuijpers (DNB, University of Amsterdam) and Razvan Vlahu (DNB)				x
Financial stability and financial regulation	Borrower runs and the lender of last resort	Razvan Vlahu (DNB)		x		

Financial stability and financial regulation	Shared equity mortgages, momentum for utilizing housing wealth. Interesting option for pension funds.	Casper van Ewijk (University of Amsterdam), Arjen Gielen (Stimuleringsfonds Volkhuysvesting Nederlandse Gemeenten), Marike Knoef (University of Leiden, University of Tilburg), Mauro Mastrogiacomio (DNB, Vrije Universiteit Amsterdam) and Alfred Slager (University of Tilburg)	x			
Financial stability and financial regulation	Residual mortgage debt, insurance and defaults in the Netherlands	Madi Mangan (DNB, Vrije Universiteit Amsterdam), Mauro Mastrogiacomio (DNB, Vrije Universiteit Amsterdam) and Hans Bloemen (Vrije Universiteit Amsterdam)		x		
Financial stability and financial regulation	The preferential treatment of sovereign debt	Eric Cuijpers (DNB)				x
Financial stability and financial regulation	Central bank digital currencies and financial stability: Market discipline in the era of digital money	Razvan Vlahu (DNB)				x
Financial stability and financial regulation	Collateral scarcity and reuse in the European repo market	Justus Inhoffen (DNB) and Iman van Lelyveld (DNB)	x			
Financial stability and financial regulation	Macroprudential Regulation: A Risk Management Approach	Daniel Dimitrov (DNB, UvA), Sweder van Wijnbergen (DNB, UvA)	x			
Financial stability and financial regulation	Quantifying Systemic Risk in the Presence of Unlisted Banks: Application to the European Banking Sector	Daniel Dimitrov (DNB, UvA), Sweder van Wijnbergen (DNB, UvA)	x			
Financial stability and financial regulation	The volatility of capital flows in emerging markets: measures and determinants	Maria Sole Pagliari (DNB), Swarnali Ahmed Hannan (IMF)				x

Trust	The impact of high inflation on trust in national politics and central banks	Carin van de Crujisen (DNB), Jakob de Haan (University of Groningen) and Maarten van Rooij (DNB)	x			
Trust	Groups at risk and their trust in the payment system	Marie-Claire Broekhoff (DNB), Carin van der Crujisen (DNB) and Jakob de Haan (University of Groningen)	x			
Trust	The effect of online news articles on trust in the payment system	Marie-Claire Broekhoff (DNB)				x
Trust	Trust in pension funds financial performance, its' public perception, and their effect on voluntary pension savings participation	Floor Goedkoop (Vrije Universiteit Amsterdam), Madi Mangan (DNB, Vrije Universiteit Amsterdam), Mauro Mastrogiacomio (DNB, Vrije Universiteit Amsterdam) and Stefan Hochguertel (Vrije Universiteit Amsterdam)	x			
Trust	Trust in financial institutions and central banks	Anna Samarina (DNB, European Central Bank) and Carin van der Crujisen (DNB)				x
Sustainability	Questioning the Causality of Green Bonds	Martijn Boermans (DNB) & Eline Jacobs (Stockholm House of Finance)				x
Sustainability	Sustainable investing at Dutch pension funds: awareness, implementation and the impact of sustainable investment initiatives	Rob Bauer (Maastricht University), Dirk Broeders (DNB, Maastricht University) and Annick van Ool (DNB, Maastricht University)	x			
Sustainability	Corporate climate related disclosures and green bond home bias	Anouk Levels (DNB) and Claudia Lambert (European Central Bank)				x
Sustainability	Climate risk disclosure quality and costs of debt	Anouk Levels (DNB) and Rex Wang Renjie (VU Amsterdam, Tinbergen Institute)				x

Sustainability	Carbon taxation, reallocation and productivity	Boris Chafwehe (European Commission), Andrea Colciago (DNB, University of Milano Bicocca) and Romanos Priftis (European Central Bank)				x
Sustainability	Corporate taxes, productivity and business dynamism	Andrea Colciago (DNB, University of Milano Bicocca), Vivien Lewis (Bundesbank) and Branka Matyska (CERGE-EI)	x			
Sustainability	Entry, exit, and employment concentration: the role of entry cost shocks	Andrea Colciago (DNB, University of Milano Bicocca) and Marco Membretti (University of Pavia)		x		
Sustainability	Shocks to occupational pensions and household savings	Francesco Caloia (DNB, Vrije Universiteit Amsterdam), Mauro Mastrogiacomio (DNB, Vrije Universiteit Amsterdam) and Irene Simonetti (University of Amsterdam)	x			
Sustainability	Modelling macroeconomic time series with multivariate Bayesian forests	Aishameriane Schmidt (DNB, Erasmus University Rotterdam, Tinbergen Institute), Andreas Pick (Erasmus University Rotterdam, Tinbergen Institute) and Andrea Naghi (Erasmus University Rotterdam, Tinbergen Institute)				x
Sustainability	HANK models and the labor share	Guido Ascari (DNB, University of Pavia), Andrea Colciago (DNB, University of Milano Bicocca) and Timo Haber (DNB)			x	
Sustainability	Households' interest rate expectations and behavior	Evangelos Charalambakis (Bank of Greece), Federica Teppa (DNB, Netspar) and Athanasios Tsiortas (European Central Bank)				x

Sustainability	The effect of labour market participation and education in credit access and approval during the covid-19 pandemic in Europe	Evangelos Charalambakis (Bank of Greece), Federica Teppa (DNB, Netspar) and Athanasios Tsiortas (European Central Bank)				x
Sustainability	Misallocation and productivity growth: a meta-analysis	Maurice Bun (DNB, University of Amsterdam), Tetie Kolaiti (DNB) and Tolga Ozden (Bank of Canada)	x			
Sustainability	Pricing the carbon factor for Europe's equity market	Rianne Luijendijk (DNB), Philippe Loyson (DNB) and Sweder van Wijnbergen (DNB)	x			
Sustainability	Financial literacy and pension expectations	Maarten van Rooij (DNB), Rob Alessie (University of Groningen) and Remko Struik (DNB)			x	
Sustainability	The effect of unemployment on interregional migration in the Netherlands	Cindy Biesenbeek (DNB, University of Groningen)	x			
Sustainability	The price of flexible work	Cindy Biesenbeek (DNB, University of Groningen) and Maikel Volkerink (DNB)	x			
Sustainability	Consumption inequality and the green transition	Guido Ascari (DNB, University of Pavia), Andrea Colciago (DNB, University of Milano Bicocca) and Timo Haber (DNB), Stefan Wöhrmüller (DNB)				x
Sustainability	Funding the Fittest? The Pricing of Climate Transition Risk in the Euro Area Corporate Bond Market	Martijn Boermans (DNB), Maurice Bun (DNB, Universiteit van Amsterdam), Yasmine van der Straten (Universiteit van Amsterdam, Tinbergen Instituut)				x
Sustainability	The CO2 content of TLTRO III and its greening	Maria Sole Pagliari (DNB), Chiara Colesanti Senni (University of Zurich & CEPS), Jens van 't Klooster (UvA)	x			

Sustainability	A green TLTRO in the euro area	Maria Sole Pagliari (DNB), Chiara Colesanti Senni (University of Zurich & CEPS)				x
Payments and market infrastructures	Distinguishing cash user groups by clustering payment transaction data	Jelmer Reijerink (DNB)		x		
Payments and market infrastructures	A liquidity ‘black hole’ in a large value payment system: what is the impact of a failing participant on its environment and does time matter?	Ronald Heijmans (DNB) and Ellen van der Woerd (DNB)				x
Payments and market infrastructures	Paper or polymer? A fungal examination on banknotes	Katja Coeleveld (DNB), Wieske Ebben (DNB), Michel Justus (DNB), Simon Mastbergen (UMC Utrecht) and Schimmel onderzoekslaboratorium (UMC Utrecht)				x
Payments and market infrastructures	Attitudes and preferences of merchants with respect to CBDC	Nicole Jonker (DNB) and Ria Roerink (DNB)				x
Payments and market infrastructures	Cross-selling bank products via the payment account	Wilko Bolt (DNB, VU Amsterdam) and Nicole Jonker (DNB)				x
Payments and market infrastructures	Payment behaviour and preferences of ‘groups at risk’	Carin van der Crujisen (DNB) and Jelmer Reijerink (DNB)	x			
Payments and market infrastructures	Competition between private and public payment platforms	Vera Lubbersen (DNB)				x
Payments and market infrastructures	The Bank of Amsterdam and the limits of fiat money	Wilko Bolt (DNB, VU Amsterdam), Jon Frost (BIS), Hyun Song Shin (BIS), Peter Wierdsma (DNB, VU Amsterdam)	x			
Payments and market infrastructures	Privacy in payments	Wilko Bolt (DNB, VU Amsterdam) and Maarten van Oordt (VU Amsterdam)				x



Payments and market infrastructures	Characteristics of Dutch cryptocurrency owners	Nils Brouwer (DNB) and Jakob de Haan (University of Groningen)		x		
Payments and market infrastructures	Data sharing and the privacy paradox	Nicole Jonker (DNB) and Hans Brits (DNB)	x			
Payments and market infrastructures	Bank digitalisation and household payment behavior	Justus Meyer (European Central Bank) and Federica Teppa (DNB, Netspar)	x			

## Appendix 2. DNB Working Papers in 2023

No. 761 **Joost Bats, Giovanna Bua and Daniel Kapp** Physical and transition risk premiums in euro area corporate bond markets

No. 762 **Carin van der Cruijssen, Jakob de Haan and Maarten van Rooij** The impact of high inflation on trust in national politics and central banks

No. 763 **Emmanuel de Veirman**, Loan-to-Value Shocks and Macroeconomic Stability

No. 764 **Wilko Bolt, Jon Frost, Hyun Song Shin and Peter Wierdsma**, The Bank of Amsterdam and the limits of fiat money

No. 765 **Daniel Dimitrov and Sweder van Wijnbergen**, Macroprudential Regulation: A Risk Management Approach

No. 766 **Dorin van Dijk and Jasper de Winter**, "Nowcasting GDP using tone-adjusted time varying news topics: Evidence from the financial press"

No. 767 **Anouk Levels, Claudia Lambert and Michael Wedow**, Green bond home bias and the role of supply and sustainability preferences

No. 768 **Daniel Dimitrov and Sweder van Wijnbergen**, Quantifying Systemic Risk in the Presence of Unlisted Banks: Application to the European Banking Sector

No. 769 **Kristy Jansen**, Long-term Investors, Demand Shifts, and Yields

No. 770 **Rob Bauer, Dirk Broeders and Annick van Ool**, Walk the green talk? A textual analysis of pension funds' disclosures of sustainable investing

No. 771 **Barbara Meller and Oscar Soons**, Know your (holding) limits: CBDC, financial stability and central bank reliance

No. 772 **Justus Meyer and Federica Teppa**, Euro area consumers' payment behaviour and banking digitalisation

No. 773 **Martijn Boermans**, Preferred habitat investors in the green bond market

No. 774 **Maurice Bun, Theoplasti Kolaiti and Tolga Özden**, Misallocation and Productivity Growth: a Meta-analysis

No. 775 **Francesco Caloia, Mauro Mastrogiacomo and Irene Simonetti**, Shocks to Occupational Pensions and Household Savings

No. 776 **Anna Bayona, Oana Peia and Razvan Vlahu**, Credit Ratings and Investments

No. 777 **Miguel H. Ferreira, Timo Haber and Christian Rorig**, Financial Constraints and FirmSize: Micro-Evidence and Aggregate Implications

No. 778 **Jan Kakes and Jan Willem van den End**, "Identifying financial fragmentation: do sovereign spreads in the EMU reflect differences in fundamentals?"

No. 779 **Cindy Biesenbeek and Maikel Volkerink**, " The price of flexible jobs Wage differentials between permanent and flexible jobs in The Netherlands"

- No. 780 **Andrea Colciago, Vivien Lewis and Branka Matyska**, Corporate taxes, productivity, and business dynamism
- No. 781 **Carin van der Crujsen and Jelmer Reijerink**, Uncovering the digital payment divide: understanding the importance of cash for groups at risk
- No. 782 **Pablo Garcia, Pascal Jacquinet, Črt Lenarčič, Matija Lozej and Kostas Mavromatis**, Global models for a global pandemic: the impact of COVID-19 on small euro area economies
- No. 783 **Floor Goedkoop, Madi Mangan, Mauro Mastrogiacomo and Stefan Hochguertel**, Trust in the financial performance of pension funds, public perception, and its effect on participation in voluntary pension saving plans
- No. 784 **Guido Ascari, Sophocles Mavroeidis and Nigel McClung**, Coherence without Rationality at the ZLB
- No. 785 **Guido Ascari, Qazi Haque, Leandro Magnusson and Sophocles Mavroeidis**, Empirical evidence on the Euler equation for investment in the US
- No. 786 **Martijn Boermans and Rients Galema Carbon**, home bias of European investors
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De Nederlandsche Bank N.V.  
Postbus 98, 1000 AB Amsterdam  
020 524 91 11  
dnb.nl