



# Digital transformation of the retail payments ecosystem

European Central Bank and Banca d'Italia joint conference

30 November and 1 December 2017 Rome, Italy

programme

# Thursday, 30 November 2017

- 08:00 Registration and coffee
- 09:00 Welcome remarks Ignazio Visco, Banca d'Italia

Introductory speech Yves Mersch, European Central Bank

#### Topic I – Digital evolution of retail payments

09:45 Panel discussion: Digital evolution of retail payments – a global scan from a central bank perspective

Panellists:

Veerathai Santiprabhob, Bank of Thailand Reinaldo Le Grazie, Banco Central do Brasil Denis Beau, Banque de France Francois E. Groepe, South African Reserve Bank

Moderator: Yves Mersch, European Central Bank

11:00 Coffee break

11:30	Keynote speech: The impact of digital innovation on banking and payments Chris Skinner, Fintech commentator and author
12:00	Panel discussion: How to foster innovation and integration in retail payments
	Panellists: Massimo Cirasino, World Bank Group Luisa Crisigiovanni, Altroconsumo Elie Beyrouthy, American Express Pierre Petit, European Central Bank Javier Santamaría, European Payments Council
	Moderator: Paolo Marullo Reedtz, Banca d'Italia
13:15	Lunch break
14:30	Academic session: On the way to a digital retail payments ecosystem – drivers and inhibitors
	Are instant retail payments becoming the new normal? Lola Hernández (co-authors Monika E. Hartmann, Mirjam Plooij and Quentin Vandeweyer), European Central Bank

The future of digital retail payments in Europe: a role for central bank issued crypto cash? Ruth Wandhöfer, Cass Business School, City University London

Discussant: Päivi Heikkinen, Suomen Pankki

Moderator: Dirk Schrade, Deutsche Bundesbank

#### Topic II – Fintech innovations and retail payments

15:45	Keynote speech: fintech innovations – an opportunity or a threat to incumbent banks?
	José María Roldán, European Banking Federation
16:15	Coffee break
16:45	Panel discussion: The disruptive potential of fintech innovations for the retail payments ecosystem – a reality check
	Panellists: Petra Hielkema, De Nederlandsche Bank Rupert Keeley, PayPal Europe

Pietro Sella, Banca Sella Group Marcus Treacher, Ripple

Moderator: Pēteris Zilgalvis, European Commission

17:45 End of conference day 1

# Friday, 1 December 2017

# Topic II - Fintech innovations and retail payments

09:00	Academic keynote speech: Distributed ledger technologies in payments – strengths, weaknesses and a possible way forward Silvio Micali, MIT Computer Science and Artificial Intelligence Laboratory
09:30	Academic session: fintech innovations in retail payments – awareness, adoption and usage
	What drives virtual currency adoption by retailers? Nicole Jonker, De Nederlandsche Bank
	<b>Bitcoin awareness and usage in Canada</b> Kim P. Huynh (co-authors Christopher S. Henry and Gradon Nicholls), Bank of Canada
	Discussant: Daniel Heller, Peterson Institute for International Economics
	Moderator: Domenico Gammaldi, Banca d'Italia
10:30	Coffee break

#### Topic III – Challenges and opportunities of digitalisation

11:00 Panel discussion: The interoperability challenge – let a thousand flowers bloom, while avoiding fragmentation

Panellists:

Marc Bayle de Jessé, European Central Bank Simone Del Guerra, UniCredit Shuji Kobayakawa, Bank of Japan Sean Rodriguez, Federal Reserve System

# 12:00 Academic session: customer choice and behaviour in the light of increasing digital payment options

Cash and cards vs. smartphone? – Outcomes of a comparative study on retail payment behaviour in China and Germany Jan Lukas Korella, Deutsche Bundesbank

What can we learn about payment choice from seeing all retail transactions? Tamás Ilyés (co-author Lóránt Varga), Magyar Nemzeti Bank Discussant: Björn Segendorf, Sveriges Riksbank

Moderator: Morten Linnemann Bech, Committee on Payments and Market Infrastructures

13:00 Lunch break

# 14:00 Academic session: The interplay between the regulatory framework and payment innovations

Innovation in customer authentication methods, card-based internet payments and user experience: empirical evidence from Italy Guerino Ardizzi, Banca d'Italia

Payments data: do consumers want to keep them in a safe or turn them into gold? Carin van der Cruijsen, De Nederlandsche Bank

Discussant: Michael Salmony, equensWorldline

Moderator: Carlos Conesa, Banco de España

15:00	Keynote speech: cyber security – the balance between cooperation and regulation Fabio Panetta, Banca d'Italia
15:20	Panel discussion: Cyber security – how to protect the retail payments ecosystem and build trust
	Panellists: Gottfried Leibbrandt, SWIFT Fabio Ugoste, Intesa Sanpaolo Javier Perez, Mastercard Europe Tan Yeow Seng, Monetary Authority of Singapore Joachim Wuermeling, Deutsche Bundesbank Moderator: Jan Smets, Nationale Bank van België/Banque Nationale de Belgique
16:40	<b>Closing remarks</b> Fabio Panetta, Banca d'Italia
17:00	End of conference





# speakers



Ignazio Visco Governor, Banca d'Italia

Ignazio Visco was appointed Governor of the Banca d'Italia in 2011, an appointment that was renewed in November 2017, following a long career at the Bank that began in 1972. The Governor is also Chairman of the Joint Directorate of Italy's Insurance Supervisory Authority (IVASS).

Mr Visco is a member of the Governing Council and General Council of the ECB, the Board of Directors of the Bank for International Settlements, the Group of Seven, the Group of Twenty, the General Board of the European Systemic Risk Board, and the Plenary and Steering Committee of the Financial Stability Board (FSB). He also chairs the FSB Standing Committee on Budget and Resources.

Mr Visco is Governor for Italy on the Boards of Governors of the International Bank for Reconstruction and Development and the Asian Development Bank; he is also Alternate Governor for Italy at the International Monetary Fund and the Inter-American Development Bank. From 1997 to 2002 he was Chief Economist and Head of the Economics Department of the OECD.

The author of numerous articles and books on economics and finance, Mr Visco graduated from the University of Rome and obtained a PhD in Economics from the University of Pennsylvania.



Yves Mersch Member of the Executive Board, European Central Bank

Yves Mersch is a member of the Executive Board of the ECB. His eight-year term started in December 2012. He was Governor of the Banque centrale du Luxembourg from 1998 to 2012 and has been a member of the Governing Council of the ECB since its creation in 1998.

After obtaining postgraduate degrees in International Public Law and Political Science, Mr Mersch started his career at the Luxembourg Ministry of Finance in 1975. He has held several positions in the public sector in Luxembourg and abroad, among others at the International Monetary Fund and the United Nations.



# Veerathai Santiprabhob Governor, Bank of Thailand

Veerathai Santiprabhob has been the Governor of the Bank of Thailand since October 2015. He also currently serves as a member of the Securities and Exchange Commission Committee, the National Economic and Social Development Board, and the State-Owned Enterprise Policy and Supervisory Committee.

Mr Santiprabhob is a macroeconomist, strategist and financial professional with more than 20 years of experience in economic policy design, commercial banking and capital markets. He began his career as an economist at the International Monetary fund before serving as a co-director of the Policy Research Institute of the Thai Ministry of Finance during the 1997 Asian financial crisis. He has spent most of his career in the private sector serving as a senior executive of Siam Commercial Bank, PCL and The Stock Exchange of Thailand. He has also served as an adviser to the Thailand Development Research Institute and as a Board member of various leading corporations.

Mr Santiprabhob received his BA (first class honours) in Economics from Thammasat University in 1988, and an AM and PhD in Economics from Harvard University in 1994, sponsored by HM King Bhumibol Adulyadej's Anandamahidol Foundation. He was awarded the Eisenhower Fellowship in 2013.



Reinaldo Le Grazie Deputy Governor, Banco Central do Brasil

Reinaldo Le Grazie is Deputy Governor for Monetary Policy at the Banco Central do Brasil. Before joining the central bank in July 2016, he was CEO of Bradesco Asset Management and, prior to that, had held senior management positions at institutions such as Lloyds Bank, Proventus Invest and Nitor Investment. He also acted as an adviser to the Inter-American Development Bank and as a VP at the Brazilian Financial and Capital Markets Association (Anbima), as well as being an Independent Board Member of Cetip. Mr Le Grazie holds a degree in Public Administration from Fundação Getúlio Vargas-FGV and an extension programme from INSEAD.



Denis Beau Deputy Governor of the Banque de France

Denis Beau joined the Banque de France in 1986 after graduating from l'Institut d'Etudes Politiques de Paris. He subsequently received a Master's degree in Business Administration from INSEAD. His career path at the Banque de France has led him to hold management positions in the Financial Markets, Payments and Market Infrastructures and Economics and International Relations departments. He was seconded to the New York Fed (1997-98) and served at the Bank for International Settlements as secretary of the G10 Committee on Payment and Settlement Systems (2007-08). He was then appointed Director General of Financial Stability and Operations and a member of the Executive Committee of the Banque de France. In this capacity he chaired the National Retail Payments Committee and the French Financial Center Robustness Group. He was also a member of European and international committees dealing with monetary policy and financial stability issues and prudential regulation of banks (namely, the Euro Retail Payments Board, the Committee on the Global Financial System, and the Basel Committee on Banking Supervision – co-chair of the Macroprudential Supervision Committee).

Denis Beau has been Second Deputy Governor of the Banque de France since 1 August 2017, and has also been appointed by the Governor to represent him as Chairman of the Autorité de contrôle prudential et de résolution (ACPR – the French Prudential Supervision and Resolution Authority). He is a member of the college of the Autorité des marchés financiers (AMF – the French Financial Markets Authority), the Supervisory Board of the Caisse des Dépôts, and the Supervisory Board for the ECB's Single Supervisory Mechanism.

Denis Beau is a Chevalier of the French Legion of Honour.



Francois E. Groepe Deputy Governor, South African Reserve Bank

Francois Groepe was first appointed to the Board of the South African Reserve Bank in July 2004 as a non-executive director and was subsequently appointed Deputy Governor with effect from January 2012. He is currently serving his second fiveyear term.

He represents the Bank in various international forums and standard setters, such as the Bank for International Settlements' Committee on Payments and Market Infrastructures (CPMI), the Financial Stability Board's Standing Committee on Standards Implementation, the Resolution Steering Group and the Regional Consultative Forum.

Prior to joining the Bank, he was Group Managing Director of Media24. Mr Groepe holds BCom (Hons), Hons B (B&A) and MBA degrees from Stellenbosch University; LLB and LLM degrees from UNISA; an MSc in Finance (Economic Policy) from London University; and a Postgraduate Diploma in Tax Law from the University of Cape Town. He is a Chartered Management Accountant and an Advocate of the High Court of South Africa.



Chris Skinner Fintech commentator and author

Chris Skinner is known as an independent commentator on the financial markets and fintech through his blog, the Finanser.com, and as author of the bestselling book *Digital Bank* and its new sequel, *ValueWeb*. He is Chair of the European networking forum The Financial Services Club and of Nordic Finance Innovation, as well as being a Non-Executive Director of the fintech consultancy firm 11:FS. Chris is on the Advisory Boards of many companies, including iambank, IoV42, Innovate Finance, Life.SREDA, Moven, Meniga and the Token Fund, and has been voted one of the most influential people in financial technology by the *Wall Street Journal's Financial News*.



Massimo Cirasino Global Lead for Payments and Market Infrastructures, World Bank Group

Mr Cirasino, an Italian national and economist, joined the World Bank Group in 1998. In his current position he serves as Global Lead for Payments and Market Infrastructures in the Finance and Markets Global Practice.

Mr Cirasino has represented the World Bank on several task forces coordinated by the Committee on Payments and Market Infrastructures (CPMI) of the Bank for International Settlements (BIS) and the International Organization of Securities Commissions (IOSCO). For example, he is Co-Chairman of the BIS-World Bank Task Force that has developed the report on Payment Aspects of Financial Inclusion (PAFI); and he is Chairman of the International Committee on Credit Reporting. Mr Cirasino has also conducted operations in over 60 countries and led and participated in over 50 Financial Sector Assessment Programmes. He has also participated in several of the Bank's in-country operations, supporting national payment system reforms in over 80 jurisdictions.

Prior to joining the World Bank Group, Mr Cirasino worked at the Banca d'Italia.

Mr Cirasino has degrees in Economics and Business and Political Sciences respectively from the Luiss University and La Sapienza University (both in Rome). He also obtained a Master's degree in Banking from La Sapienza and a Master's in Philosophy degree in Economics from New York University.



### Luisa Crisigiovanni

Secretary General of Altroconsumo Consumer Association and BEUC Treasurer

Since July 2014 Luisa Crisigiovanni has been Secretary General of Altroconsumo, Italy's leading independent consumer association with over 399,000 members. She has also been Treasurer of consumer organisation BEUC since 2015. She was Head of Public Affairs and Media Relations between 1994 and 2007, before starting to lead a network of 14 local representatives of Altroconsumo, where she developed a consumer rights campaign. She represents consumer interests at national level as a member of the National Consumer Council of the Ministry of Development and as a member of BEUC's executive board. Luisa maintains relations with the academic world by giving speeches at and collaborating on research and innovation projects with universities. As someone who believes in non-conventional forms of communication, she enjoys working with theatre groups.

Following a degree in Political Sciences on European and International Law in 1992 at Milan University, she specialised in Communication and EU Fundraising at SDA Bocconi. Before working for Altroconsumo, she spent two years as a Parliamentary assistant and has since been a member of public affairs professional network FERPI.



Elie Beyrouthy Vice President, European Government Affairs, American Express

Elie Beyrouthy has been Vice President of European Government Affairs at American Express since June 2017, where he leads the company's engagement with EU institutions and advises senior leaders on EU regulatory and public policy matters. Elie also represents American Express' interests in several EU trade bodies and professional associations.

Prior to joining American Express, Elie was Director of International Regulatory Affairs at Western Union for five years. From 2007 to 2012, he held leadership positions at the World Savings Banks Institute and the European Banking Federation.

Elie began his career as an intern at the European Commission and the US Federal District Court of Minnesota. He holds Master's degrees in Law from both the University of Minnesota and the Jean Moulin University in Lyon, France as well as a diploma from the Institut d'Etudes Politiques de Lyon.



Pierre Petit Deputy Director General, Market Infrastructure and Payments, European Central Bank

Pierre Petit is Deputy Director General of the Directorate General Market Infrastructure and Payments at the ECB. Originally from the National Bank of Belgium, where he had been part of the Research Department for ten years, he joined the Economic Unit of the Committee of Governors of the central banks of the Member States of the EEC (under the auspices of the Bank for International Settlements) in 1990. At the start of Stage Two of EMU in 1994, he joined the European Monetary Institute and was appointed Senior Adviser to the Head of the Monetary, Economics and Statistics Department. In 1998 he joined the ECB, where he became Counsellor to Tommaso Padoa-Schioppa, member of the Executive Board. In 2003 he became Principal Adviser in the International and European Relations Department and, in 2005, Principal Adviser in the Human Resources, Budget and Organisation Department. He took on his current role in 2010.



Javier Santamaría Chair of the European Payments Council

The European Payments Council (EPC) has been chaired by Javier Santamaría since June 2012. He has been a member of the EPC since it was created in 2002. As an independent, self-employed professional, Mr Santamaría has accumulated broad expertise in the areas of payments – business-related, operational and technical – across different client segments and product lines, in the legacy and innovative spheres. He has also worked in both cooperative and competitive environments. Besides payments, he is interested in other banking fields and continues to be actively involved in academia. Mr Santamaría is a member of the Iberpay Board. A former Head of Operations and Business Services, he was Senior Vice President at Banco Santander until December 2016. He was a member of the Board of the Euro Banking Association and a Director of the SWIFT Board until the end of

#### 2016.



Paolo Marullo Reedtz Head of the Directorate General for Markets and Payment Systems, Banca d'Italia

Paolo Marullo Reedtz is Head of the Directorate General for Markets and Payment Systems at the Banca d'Italia. He represents the Bank on the Committee on Payments and Market Infrastructures and other committees at the Bank for International Settlements. He is a member of the Market Infrastructure Board and other ECB committees.

He joined the Banca d'Italia in 1976 and was assigned to the Economic Research Department, where he remained until 1992 as Head of the Credit Intermediaries Office.

In his career at the Banca d'Italia, he has gained broad experience in relevant institutional fields of monetary and credit institutions within the Economic Research Department, and of banking and financial regulation in the Banking Supervision Department, where he was appointed Deputy Head. He subsequently became Head of the Market and Payment System Oversight Department before being appointed Head of the Directorate General for Accounting and Controls.

After graduating in Political Science from the University of Rome – La Sapienza, he attended postgraduate courses at the University of Oxford on a Bonaldo Stringher scholarship.

He has been a visiting scholar at the Universities of California at Berkeley and Pompeu Fabra, Barcelona. He has also been on study visits to the International Monetary Fund, the Federal Reserve Bank of Chicago and the Banco de España. He has taught at the Universities of Rome La Sapienza, and Tor Vergata.

He is the author of numerous essays on the economics of credit intermediaries.



Lola Hernández European Central Bank

Lola Hernández is a market infrastructure expert at the ECB. She carries out research and policy activities mainly focused on instant payments, payment behaviour and the cost of payments in the euro area. In the last year she has worked on the ECB study looking at the use of cash by households, to be published this year. From 2010 to 2016 Lola worked at De Nederlandsche Bank, studying consumer payment behaviour and the substitution of cash by cards.



Mirjam Plooij European Central Bank

Mirjam Plooij has been working at the ECB as a market infrastructure expert since 2016, focusing on a variety of retail payments topics, including instant payments and mobile payments. From 2011 to 2016 she worked at De Nederlandsche Bank, at first mainly on the SEPA migration project and later on issues related to innovation in retail payments. She has also been involved in research on interchange fees for card payments and studies on consumer payment behaviour.



# Ruth Wandhöfer

Managing Director/Global Head of Regulatory & Market Strategy, Citi

Ruth Wandhöfer is a regulatory and fintech expert in the financial services space and one of the foremost authorities on banking regulatory matters. Ruth's key responsibilities include driving regulatory and industry dialogue and developing product and market strategy in line with the evolving regulatory and innovation landscape. Ruth chairs a number of influential industry bodies such as the Global Public Policy and Regulatory Affairs Committee of BAFT, the European Banking Federation Payments Regulatory Expert Group and the European Payments Council (EPC) Payment Security Group. She is also a Board member of the EPC and the EBA Association, a member of the European Commission Payment Systems Market Expert Group (PSMEG), a member of BAFT's Global Innovation Council, a member of the European Biometrics Advisory Council and a member of the UK Payment Systems Regulator Payments Strategy Forum. Ruth is a non-executive director at Pendo Systems, a US data analytics company. She is also a member of the advisory

board of Coinfirm, a blockchain AML and risk analytics firm. In her spare time, she pursues a PhD on blockchain/distributed ledger technology in relation to financial market infrastructures at CASS Business School London. In 2015 she was the recipient of the "Women in Banking and Finance Award for Achievement" and in 2016 was featured on the global "Women in Fintech Powerlist" of Innovate Finance.



Päivi Heikkinen Head of Cash Department and Chief Cashier, Bank of Finland

Päivi Heikkinen is Head of the Cash Department and Chief Cashier at Suomen Pankki – Finlands Bank. She has many years' experience of developing and overseeing financial market infrastructures. She works on issues related to cash policy and virtual currency. Päivi has held various management positions in both the private and public sectors and has been a member of several Eurosystem working groups. She is currently on the Banknote Committee (BANCO). Päivi has an MSc from Turku School of Economics.



Dirk Schrade Deputy Director General, Payments & Settlement Systems Directorate, Deutsche Bundesbank

Dirk Schrade is Deputy Director General of the Payments & Settlement Systems Directorate at the central office of the Deutsche Bundesbank. He represents the Bundesbank in the Market Infrastructure and Payments Committee (MIPC) of the ESCB. From 2010 12 he chaired the working group on innovations in retail payments of the Committee on Payment and Settlement Systems (CPSS).

Dirk started his career at the former Landesbank Rheinland-Pfalz. In 2000 he joined the Payment Systems Policy Division at the Bundesbank in Frankfurt, focusing first on individual payment systems/RTGSplus and then on the TARGET2 project. Since then, he has been dealing, among other things, with policy issues on domestic, European and international payments as well as securities settlement.

Dirk studied Business Administration at the Bundesbank University of Applied Sciences.



José María Roldán Chairman and CEO of the Spanish Banking Association and Vice-President of the European Banking Federation

Mr José María Roldán has been Chairman and CEO of the Spanish Banking Association since April 2014, following 13 years as Director-General at the Banking Regulation and Financial Stability department of the Banco de España and as a member of its Executive Board. Since May 2015 he has also been the Vice-President of the European Banking Federation (EBF).

During his tenure in office as Director-General, he was on the Basel Committee on Banking Supervision (BCBS), and chaired both the Standards Implementation Group (SIG) of the BCBS and the Joint Forum during the tenure of the BCBS.

He founded and was the first Chairman of the Committee of European Banking Supervisors (CEBS), the forerunner of the European Banking Authority (EBA), after he had been President of the Financial Action Task Force on Money Laundering (FATF) and chaired the former Banking Advisory Committee (BAC) of the EU. Mr Roldán joined the Banco de España as Senior Economist in the Research Department in 1989, moving on in 1994 to take up a post at the European Monetary Institute (the forerunner of the ECB) in Frankfurt.



#### Petra Hielkema

Division Director, Payments and Market Infrastructure, De Nederlandsche Bank

Petra Hielkema is Division Director, Payments and Market Infrastructure at De Nederlandsche Bank (DNB). The Division is responsible for payments and collateral operations as well as oversight, policy, research (including on DLT) and cyber intelligence. Moreover, the Threat Intelligence Based Ethical Red teaming (TIBER) programme reports to her.

Petra joined the DNB in 2007. In 2013 she became Head of Insurance Policy and alternate member of the EIOPA Board. In 2015 she was appointed Head of the DNB Expert Center for Fit & Proper testing, which assesses (supervisory and management) Board members in the financial sector. During this time she also chaired the ECB's policy work on drafting an ECB fit and proper assessment framework. In February 2017 she was appointed Division Director by the DNB Board. Prior to joining the DNB, Petra had an international career in the oil and gas industry.

Petra is a member of the Committee on Payments and Market Infrastructures (CPMI) and the CPMI/IOSCO Steering Group. She is also a member of the Supervisory Board and on the Executive Committee of the Child and Youth Finance International foundation (which initiated the Global Money Week campaign).

Petra has a European Masters in Law and Economics and a Masters in Russian Studies.



Rupert Keeley EVP & General Manager for PayPal EMEA and CEO of the PayPal Europe Bank

Rupert Keeley is the EVP and General Manager for PayPal's businesses in Europe, the Middle East & Africa (EMEA) and Chief Executive Officer of the PayPal Europe bank. Based in Luxembourg, Rupert has responsibility for leading the development of PayPal's business across the region to capitalise on the rapid growth in commerce conducted over the internet, mobile channels and increasingly in the offline world.

Rupert has more than 30 years of banking and payments experience and was formerly Visa Inc's Group Executive and President of the Asia Pacific and CEMEA regions, and a Section 16 Officer of the company. In his 11-year career with Visa, he held a number of management roles, including President of Asia Pacific and Global Head of Strategy and Corporate Development. Prior to joining Visa in 1999, Keeley held a number of senior management positions with Standard Chartered plc based in London, Singapore and the Middle East. He started his career at Girobank plc in London.

Rupert holds an MBA in Marketing from the City University Business School, London and a BSc (Hons) in Management Sciences from the University of Manchester, United King



Pietro Sella CEO, Banca Sella Group

Pietro Sella has been CEO of Banca Sella Group since 2004. Founded in 1886, Sella is one of the oldest banking groups in Italy albeit with a tradition of innovation.

Pietro obtained a Master's degree in Business Engineering from the Polytechnic of Milan and joined Banca Sella in 1994 as a cashier. Under his leadership, in 1996 Banca Sella was among the first in Italy to launch its own online banking, online trading and e commerce services.

Today the Sella Group is a well-structured organisation, consisting of different companies operating in diverse business areas and offering a wide range of banking and financial products and services. In Italy it is the market leader in the e commerce payments sector and among the main electronic payment systems operators.
In 2013 it established a fintech startup accelerator (SellaLab) and in 2017 was the first to open an API banking platform in Italy (platfr.io).

Pietro is Chairman of the Association of Italian Private Banks (Pri.Banks) and of Endeavor Italy, a non-profit organisation that promotes impact entrepreneurship. He is also a Board member of the Voluntary Body of the Italian Deposit Guarantee Fund and the Italian Banking Association (ABI).



Marcus Treacher Global Head of Strategic Accounts, Ripple

Marcus Treacher is Global Head of Strategic Accounts at Ripple. Marcus has over 30 years' experience in transaction banking and payment technology, including 12 years in global leadership roles at HSBC. He served as a member of the Global Board of SWIFT from 2010 to 2016. Prior to joining Ripple, Marcus was HSBC's Global Head of Payments Innovation, applying emerging fintech to solve customer challenges in digital payments, trade and supply chain. Prior to HSBC, he held leadership positions at Citigroup and Accenture. Marcus also works with industry communities, organisations and governments to help shape new payment practices. He chaired SWIFT's global advisory body for corporates from 2010 to 2016, and is an independent non-executive director of CHAPS Co, the UK's Real Time Gross Settlement (RTGS) clearing company, where he chairs the CHAPS Security Committee & User Group.



Pēteris Zilgalvis Head of Unit, DG CONNECT, European Commission

Pēteris Zilgalvis is Head of Unit for Startups and Innovation in the Digital Single Market Directorate in the Directorate-General for Communications Networks, Content and Technology (DG CONNECT) at the European Commission. He was the Visiting EU Fellow at St. Antony's College, Oxford in 2013-14, where he is a Senior Member and Associate of the Political Economy of Financial Markets Programme. From 1997 to 2005 he was Deputy Head of the Bioethics Department at the Council of Europe, in its Directorate General of Legal Affairs. In addition, he has held various positions in the Latvian civil service (at the Ministry of Foreign Affairs and Ministry of the Environment). He was Senior Environmental Law Advisor to the World Bank/Russian Federation Environmental Management Project and Regional Environmental Specialist for the Baltic Countries at the World Bank. He has been a member of the California State Bar since 1991. He completed his JD at the University of Southern California, his BA in Political Science cum laude at UCLA, and the High Potentials Leadership Program at Harvard Business School. An article he wrote, entitled "The Need for an Innovation Principle in Regulatory Impact Assessment: The Case of Finance and Innovation in Europe" was recently published in *Policy & Internet*.



#### Silvio Micali

Ford Professor of Engineering, MIT Computer Science and Artificial Intelligence Laboratory

Silvio Micali received his Laurea in Mathematics from the University of Rome, and his PhD in Computer Science from the University of California at Berkeley. Since 1983 he has been on the faculty of the Electrical Engineering and Computer Science Department at the Massachusetts Institute of Technology.

Silvio's research interests are cryptography, zero knowledge, pseudo-random generation, secure protocols, mechanism design and distributed ledgers.

Silvio is the recipient of the Turing Award (in computer science), the Gödel Prize (in theoretical computer science) and the RSA prize (in cryptography). He is a member of the National Academy of Sciences, the National Academy of Engineering, the American Academy of Arts and Sciences, and the Academia dei Lincei.



Nicole Jonker De Nederlandsche Bank

Nicole Jonker started working as a researcher in the Research Department at De Nederlandsche Bank in 2001. Three years later she joined the Market Infrastructure and Payments division as an economist.

Nicole has been involved in various empirical studies in consumer behaviour and retail payments, including the impact of a public campaign to promote debit card usage on consumers' payment behaviour, the adoption of virtual currency payments by retailers, the social costs of cash and card usage, interchange fee regulation of card payments, price sensitivity of Dutch consumers and retailers with regard to the adoption of debit cards, interchange fees of card payments, and the environmental impact of cash and card payments. She has also been involved in policy work related to the payment cards market. Nicole graduated with honours in Econometrics from the University of Amsterdam in 1996, and obtained a PhD in Economics in 2001.



Kim P. Huynh Bank of Canada

Kim P. Huynh is a Senior Researcher Adviser in the Currency Department at the Bank of Canada. His research interests include industry dynamics, the economics of payment and financial innovation. He has contributed to the *Bank of Canada*  Review and has published in journals such as the International Journal of Central Banking, the Journal of the American Statistical Association, the Journal of Applied Econometrics, the Journal of Banking and Finance, the Journal of Economic Dynamics and Control, and the Journal of Industrial Economics. He holds an Honours BA COOP degree in Economics from the University of Calgary, an MA from the University of British Columbia and a PhD from Queen's University at Kingston.



Daniel Heller Visiting Fellow, Peterson Institute for International Economics

Daniel Heller has been associated with the Peterson Institute for International Economics since January 2017 as a visiting Fellow. Before joining the Institute, he was head of financial stability at the Swiss National Bank and head of the Secretariat of the Committee on Payment and Settlement Systems at the Bank for International Settlements. He was also executive director for Switzerland, Poland, Serbia, Azerbaijan and four Central Asian republics at the International Monetary Fund. He received his PhD from the University of Berne and was a research fellow at Stanford University. His academic publications are on the optimal design of bond auctions, demand for central bank money, and collateral requirements for over-the-counter (OTC) derivatives clearing. His current research focuses on the impact of emerging digital technologies (such as blockchain) on the financial sector, financial stability and central banking.



Domenico Gammaldi Head of the Market and Payment Systems Oversight Directorate, Banca d'Italia

Domenico Gammaldi has been Head of the Market and Payment Systems Oversight Directorate at the Banca d'Italia since 2013. As well as representing the Bank in several international groups, Domenico is currently a member of the Committee on Payments and Market Infrastructures (CPMI), the Financial Innovation Network (FIN) under the Financial Stability Board, and the European Market Infrastructure and Payments Committee (MIPC), as well as Co-Chair of the Task Force on Payment Services at the European Banking Authority. Within the Banca d'Italia, he coordinates the Blockchain Working Group, an interdisciplinary team focused on financial innovation and blockchain technology, composed of members from different departments at the Bank. Mr Gammaldi graduated with honours in Political Science in 1975 and then pursued postgraduate studies at the Scuola di Sviluppo Economico in Rome. In 1976 he joined the Chamber of Commerce of Alessandria, and in 1978 moved to the Banca d'Italia, where he has held various positions in the areas of banking supervision and payment and market oversight.



Marc Bayle de Jessé Director General, Market Infrastructure and Payments, European Central Bank

Marc Bayle de Jessé leads the Directorate General Market Infrastructure and Payments at the ECB. Previously he managed the T2S Programme and, before that, managed projects related to the promotion of market integration and the definition of the Eurosystem's operational framework, focusing in particular on payment systems and market infrastructure. He has authored publications on market infrastructure integration and related issues, such as the euro repo market. He is an active member and chairman of European and international working groups and frequently speaks at international conferences.

Before joining the ECB Marc worked for ten years at SICOVAM S.A. (now Euroclear France), in particular as an

adviser to senior management. He graduated from CERAM with a Master's degree in Finance, having specialised in audit and post-market infrastructures.



Simone Del Guerra Global Head of Transactional Sales, Unicredit Group

Simone Del Guerra was appointed Global Head of Transactional Sales at UniCredit Group in 2010. Since then he has worked in various business functions, including Global Leasing and Supply Chain Finance. He is an experienced client management professional with an in-depth knowledge of corporate and banking dynamics. Prior to joining UniCredit, Simone worked at IBM and at GE Capital in Italy, France and the United Kingdom.



Shuji Kobayakawa Associate Director-General, Bank of Japan

Shuji Kobayakawa is Associate Director-General at the Bank of Japan. He is at present heavily involved in the work of the Committee on Payments and Market Infrastructures of the Bank for International Settlements, including that of the Working Group on Digital Innovations. Before taking on his current position, he worked overseas for a number of years, including at the Bank of Japan's New York Office (1999-2002) and the OECD in France (2004 07). He has a BA in Economics from Hitotsubashi University, Japan, and an MPhil and a DPhil in Economics from the University of Oxford.



### Sean Rodriguez

Senior Vice President and Faster Payments Strategy Leader, Federal Reserve System

Sean Rodriguez is faster payments strategy leader for the Federal Reserve System, leading activities to facilitate implementation of safe, ubiquitous, faster payments capabilities in the United States. He chaired the Federal Reserve's Faster Payments Task Force and is now leading several work streams established by the task force that are focused on improving the speed, clearing, settlement and notification of payments in the United States.

Mr Rodriguez has more than 34 years of experience with Federal Reserve Financial Services in operations, product development, sales and marketing. He helped establish the Federal Reserve's Customer Relations and Support Office in 2001, including its national account programme, and served on the Federal Reserve's leadership team for implementing the Check 21 initiative. More recently, he was instrumental in the design and launch of the Federal Reserve's Payments Industry Relations Program. Mr Rodriguez holds a BA from the University of Colorado and a Graduate School of Banking Certificate from the University of Wisconsin, and is an Association for Financial Professionals – Certified Cash Manager.



## Jan Lukas Korella Deutsche Bundesbank

Jan Lukas Korella works at the Deutsche Bundesbank, where he is responsible for policy issues related to the retail payment system. In particular, he is in charge of a comparative study on payment behaviour and the adoption of innovations in retail payments in China and Germany.

After completing his Master's degree in Economics at the University of Cologne, Mr Korella joined the Deutsche Bundesbank in 2016. During his one-year traineeship he gained extensive knowledge of Payments and further experience in the areas of financial stability and banking supervision. Since 2017 he has been a member of the Payment Systems Policy Division.



Tamás Ilyés Economic Analyst, Magyar Nemzeti Bank

Tamás Ilyés is an Economic Analyst in the Financial Infrastructures Directorate at the Magyar Nemzeti Bank (Central Bank of Hungary). His role involves theoretical and empirical research in payment economics and background studies for policy evaluation. His research areas cover payment habits of consumers and firms, pricing of payment services, private and social costs of different payment instruments, and liquidity needs of instant payment systems.

He holds an MSc in Mathematical Economic Analysis from Corvinus University of Budapest, and a BA in International Business from the Budapest Business School. He is currently a doctoral student at the University of Pécs.





Björn Segendorf is an adviser in the Financial Stability Department of Sveriges Riksbank. His main areas of expertise are retail payments, financial infrastructure and related policy issues. In the last few years the focus of his work has been on the structural changes of the retail payments market, the cashless society, innovation and the entry on non-banks. He is a member of the ESCB Market Infrastructure and Payments Committee, the BIS Committee on Payments and Market Infrastructures (CPMI) Working Group on Digital Innovation and until recently was a member of the Retail Payments Working Group.

Björn has a PhD in Economics from the Stockholm School of Economics and has been a special visiting Fellow at Princeton University.



Morten Linnemann Bech Head of Secretariat, Committee on Payments and Market Infrastructures

Morten Bech joined the Bank for International Settlements in mid-2011. Before taking up his current assignment in 2016, he held the position of Secretary to the Markets Committee, with responsibility for coordinating and contributing to the activities of the Committee and its various working groups. He previously worked for the Federal Reserve Bank of New York and Danmarks Nationalbank. In 2009 he was a visitor at the Monetary Affairs Division of the Federal Reserve Board in Washington, DC. He holds a PhD in Economics from the University of California, Santa Barbara. He has written on different issues relating to monetary policy implementation, money markets, network topology of financial markets, largevalue payment systems and systemic risk.





Guerino Ardizzi is Senior Economist in the Market and Payment System Oversight Department of the Banca d'Italia. He is a member of the Payment System Oversight Working Group at the ECB and has been a member of the Italian Presidency Team in the Working Party of the European Council on the last "legislative package" in the field of the EU payments framework. He monitors industrial organisation issues related to the retail payments industry. He has also worked at the European Commission's Competition Unit for payment systems as a national expert. He has a PhD in Economics from the University of Rome "La Sapienza", where he is currently a visiting lecturer. He is the author of several publications related to payment networks.



Carin Van Der Cruijsen De Nederlandsche Bank

Carin van der Cruijsen is a researcher who works at the Research Division and the Payment Policy Division of De Nederlandsche Bank (DNB). Her main area of expertise is financial consumer behaviour. She started her career at the DNB in 2004. Initially her main tasks were to forecast economic growth and research central bank transparency. In 2008 she successfully defended her PhD thesis on the latter topic at Tilburg University. She continued combining policy and research, focusing increasingly on financial consumer behaviour. She worked on topics such as inflation, the labour market, trust in banks and central bank communication. In 2014 she started work on consumer payment behaviour and other topics of interest to the Payments Policy Division. At this conference she presents her research on consumers' attitudes towards the usage of their payments data. Carin's research has been published in a wide range of journals, such as the *IMF Economic Review*, the *Journal of Economic Psychology*, the Journal of Financial Stability and the Journal of Consumer Affairs.



Michael Salmony Executive Adviser – EquensWordline

Michael Salmony is an internationally recognised leader on business innovations, especially in the digital and financial services space. In this capacity he acts as a board-level adviser to banks and national and international associations. He is a member of strategic innovation workgroups for the European Commission, the European Payments Council (EPC) and the Euro Retail Payments Board (ERPB) as well as major national and international boards. He is widely published (and cited/translated into many languages, including German, Italian, Dutch, Finnish, Polish, Russian and Japanese) and appears regularly as a keynote speaker at leading events and across all print, broadcast and electronic media. At equensWorldline, Europe's leading payment provider, which processes over €17 trillion per year, he is executive adviser to the Board and head of the PSD2 programme. Previously he was IBM's Director of Market Development Media and Communications Technologies. He studied at Cambridge University, United Kingdom,



Carlos Conesa Director, Payment Systems Department, Banco de España

Carlos Conesa is Director of the Payment Systems Department at the Banco de España. Since joining the Banco de España in 1998, he has developed his career in various positions within the bank, working on issues related to market infrastructures policy and oversight. He represents the Bank on several Committees and Working Groups of the European System of Central Banks (ESCB), notably the Market Infrastructure Board. He has also worked as a member of the Secretariat of the Committee on Payments and Market Infrastructures (CPMI) at the Bank for International Settlements (BIS). During his time at the BIS he was Secretary of several global working groups that prepared reports on various issues related to payments and innovation (such as the role of non-banks in retail payments, digital currency schemes or correspondent banking).

Mr Conesa has a degree in Economic Studies from the Complutense University (Spain) and a Bachelor's degree in Economic Studies from Leeds University, United Kingdom.



## Fabio Panetta

Member of the Governing Board and Deputy Governor, Banca d'Italia

Fabio Panetta is a member of the Governing Board and Deputy Governor of the Banca d'Italia. Within the Governing Board he is responsible for central banking operations, risk management, banking and financial supervision, and financial stability. He is also a member of the Board of the Insurance Supervisory Authority (IVASS).

Mr Panetta is Alternate to the Governor in the Governing Council of the ECB and a member of the Board of Directors of the Bank for International Settlements. He is also a member of the Committee on the Global Financial System. He has been a member of the SSM Supervisory Board at the ECB since 2014.

After graduating with honours in Economics from LUISS University, Rome in 1982, he obtained an MSc in Economics from the London School of Economics and a PhDin Economics and Finance from London Business School.

He is the author of books and papers published in numerous international journals such as the *American Economic Review*, *The Journal of Finance*, *The Journal of Money Credit and* 

Banking, The European Economic Review and The Journal of Banking and Finance.



Gottfried Leibbrandt Chief Executive Officer, SWIFT

Gottfried Leibbrandt joined SWIFT in 2005. He focused on the development of the SWIFT2010 strategy until completion of the project, whereupon he was appointed Head of Standards. In 2007 he was promoted to Head of Marketing. Gottfried ran a global organisation responsible for the development and delivery of SWIFT's strategic initiatives, spanning the products and services, standards, innovation, banking, corporate and securities market segments. As Head of Marketing, Gottfried was also a key architect behind the creation of the cooperative's SWIFT2015 strategy. He was appointed CEO in 2012. Prior to joining SWIFT, Gottfried worked for McKinsey & Company for 18 years as a partner in the Amsterdam office and a co-leader of the European payments practice. He holds a Master's degree in Econometrics and Statistics from Vrije Universteit Amsterdam and an MBA from Stanford Graduate School of Business, Gottfried also holds a PhD in Economics. from Maastricht University, where the title of his thesis was "Payment instruments and network effects: adoption,

harmonization and succession of network technologies across countries".



Fabio Ugoste Head of Information Security and Business Continuity, Intesa Sanpaolo

Fabio Ugoste was appointed Head of the Information Security and Business Continuity Sub-Department at Intesa Sanpaolo in 2017. In this crucial role, he also acts as Information Security Officer for the Intesa Sanpaolo Group with responsibility for defining and ensuring the implementation of Group policies and guidelines on information security, business continuity and fraud prevention.

Fabio started his career in 1986 as a system engineer at Istituto Sanpaolo in Turin and became Head of the Design of Systems and Local Networks unit in Sanpaolo Imi in 1993; he stayed at Sanpaolo Imi until 2007. He subsequently became Head of the Service Management Office for the Retail Area in Intesa Sanpaolo. In 2009 he was assigned the role of Head of the Partnership Architectures and Information Security Sub-Department, going on to become Head of the Customer Relationship and ICT Controls Sub-Department in Intesa Sanpaolo Group Services in 2010. As well as his responsibilities at Intesa Sanpaolo Group, Fabio is a member of the ABI-LAB Governing Council and CERT-FIN Committee, a representative for Intesa Sanpaolo at the Association for Financial Market Europe (AFME), and a member of the Italian CODISE Committee at the Banca d'Italia.

Fabio Ugoste graduated in Business Administration, specialising in Finance and Control, from the University of Turin.



Javier Perez President, Mastercard Europe

Javier Perez is President of Mastercard Europe and a member of the company's Management Committee. He is responsible for the Europe Region and Global Accounts, covering 53 countries and working with 9,000 Mastercard financial institutions. Mr Perez began his banking career with Banco Bilbao Vizcaya Argentaria (BBVA), going on to hold various top level international positions there. He has also served in executive positions at Banca Catalana, Banco Directo, Lider Direct Marketing, Lider Telemarketing, Lider Advertising and Visa International, where he worked as General Manager of Business Development for the Europe, Middle East and Africa regions. He has also participated as a member of the Board of Directors for a number of Spanish banking and insurance groups. He joined Mastercard in 1996. Before taking up his present role at the company, he worked as general manager of the Customer Division and then as president of the Latin America and Caribbean region. A native of Spain, Mr Perez has Master's degrees from ESADE University, Spain and Thunderbird School of Global Management, United States.



Tan Yeow Seng Chief Cyber Security Officer, Monetary Authority of Singapore

Tan Yeow Seng heads the Monetary Authority of Singapore (MAS) Technology Risk and Payments Department. The Department is responsible for cyber security strategy and policies for the financial sector, supervising financial institutions' technology risk management, and the safety and efficiency of payment systems. In November 2017 Yeow Seng was appointed as MAS' Chief Cyber Security Officer (CCSO), a role that involves strengthening the cyber resiliency of MAS and the financial sector.

Before assuming his current role, Yeow Seng headed the MAS Technology Risk Supervision Division and the

Technology and Infrastructure Office, which is part of the MAS FinTech and Innovation Group. In his technology risk supervision role, he led a team of specialists tasked with the supervision of technology risk management and cyber security practices in financial institutions. In the area of fintech, he was responsible for regulatory policies and strategies for developing safe and efficient technology-enabled infrastructures for the financial sector.



Joachim Wuermeling Member of the Executive Board, Deutsche Bundesbank

Joachim Wuermeling is a Member of the Executive Board of the Deutsche Bundesbank and honorary professor at the University of Potsdam.

He started his career by working as a ministry official at the Bavarian representative office in Bonn, at the European Commission in Brussels and at the Bavarian State Chancellery in Munich. From 1999 to 2005 he was a Member of the European Parliament, focusing in particular on legal and economic issues. In 2002-03 he was also a Deputy Member of the European Constitutional Convention. Following the 2005 parliamentary election in Germany, Joachim Wuermeling was appointed State Secretary at the Federal Ministry for Economics and Technology in Berlin, an office he held until 2008. After three years as a Member of the Executive Board of the German Insurance Association (GDV), he worked on the Board of Directors of the Association of Sparda-Banken in Frankfurt between 2011 and 2016. Since November 2016 he has been a Member of the Executive Board of the Deutsche Bundesbank, where he is currently responsible for Directorates General Information Technology and Markets.

Since 1995 Joachim Wuermeling has taught as a visiting lecturer, first at the University of Bayreuth, then at the University of Potsdam, where he was awarded an honorary professorship in 2011.

Joachim Wuermeling studied law at the universities of Bayreuth, Erlangen and Dijon. He then earned a PhD in European Law from the University of Bayreuth and subsequently an LLM in Comparative, European and International Laws at the European University Institute, Florence.



Jan Smets Governor, National Bank of Belgium

An economist from Ghent University, Jan Smets joined the Research and Economics Department of the National Bank of Belgium in 1973. Between 1988 and 1994, he served as Economic Chief of Staff to Prime Ministers Martens and Dehaene. In 1994 he returned to the National Bank as Head of the Research and Economics Department. In 1999 he was appointed Director of the National Bank and at the same time was chosen to fill the post of General Commissioner for the euro, responsible for preparing the changeover to the euro in Belgium. He was also Vice-President of the High Council for Employment for a number of years.

In March 2015 he took over as Governor of the National Bank and became a member of the ECB's Governing Council and General Council. He also chairs the Public Sector Borrowing Requirements section of the Belgian High Council of Finance. In his capacity as Governor, he is a member of various international and national financial organisations and institutions.

# General information

Dates	Thursday, 30 November and Friday, 1 December 2017
Venue	Banca d'Italia Via Nazionale 91, 00184 Rome, Italy
Language	English
Contacts	Ms Maria Luisa Paciucci Banca d'Italia Tel.: +39 064792 4084 Mobile: +39 366 7797 267 Email: age.organizzazione_eventi@bancaditalia.it
	Mr Thomas Lammer European Central Bank Tel.: +49 (0) 69 1344 95490 Email: payments-conference- 2017@ecb.europa.eu
WiFi	SSID: <b>BKI-EXT</b> WPA key: <b>ktg77rgtfb</b>