Financial Stability Institute (FSI) 20th anniversary conference

"A cross-sectoral reflection on the past, and looking ahead to the future"

Basel, Switzerland, 12–13 March 2019

Location: Bank for International Settlements (BIS) Tower Building

Agenda

Tuesday 12 March

08:00 Registration

09:00 **Welcoming remarks**

09:15 **Opening address**

Agustín Carstens, General Manager, BIS

09:45 **Panel I: The reconstructed supervisory framework – have we got the pieces right?**

Following changes in regulation and supervisory frameworks after the Great Financial Crisis, this panel will debate what remains to be done. The panellists will examine, in particular, approaches to upskill financial sector supervisors and how the different supervisory models deal effectively with potentially conflicting objectives – financial stability, consumer protection/conduct of business, market competition, promoting technological development, financial inclusion etc. They will also reflect on how the crisis has affected the role envisaged for central banks and the effective independence of supervisory authorities.

Chair: Lesetja Kganyago, Governor, South African Reserve Bank

William Dudley, former President, Federal Reserve Bank of New York

Andrea Enria, Chair of the Supervisory Board, European Central Bank

Philip Lowe, Governor, Reserve Bank of Australia

Mario Marcel, Governor, Central Bank of Chile

Ignazio Visco, Governor, Bank of Italy

11:15 Tea/coffee break

11:45 **Panel II: Basel I, II, III – evolution of global banking regulation**

The journey of global banking regulatory standards has spanned over three decades, shaping financial systems and economies worldwide. Do we finally have a long-lasting and durable set of rules? This panel will discuss the achievements of Basel III and its possible limitations and implementation challenges.

Chair: Stefan Ingves, Governor, Sveriges Riksbank

Sabine Lautenschläger, Member of the Executive Board, European Central Bank

Nout Wellink, former President, Netherlands Bank

Nor Shamsiah Mohd Yunus, Governor, Central Bank of Malaysia

13:00 Lunch, BIS first floor

14:15 **Panel III: Climate change and the financial system**

The impact of climate change on the economic and financial system is becoming a matter of general concern. Yet, it remains unclear if financial institutions and indeed, financial sector regulators fully grasp exposures to this relevant risk. Moreover, the debate is now open on whether financial regulation could be considered a useful tool to contribute to environmental objectives.

Chair: Luiz Awazu Pereira da Silva, Deputy General Manager, BIS

Alejandro Díaz de León Carrillo, Governor, Bank of Mexico

Frank Elderson, Chair, Network of Central Banks and Supervisors for Greening the Financial System and Executive Director, Netherlands Bank

Patrick Raaflaub, Group Chief Risk Officer, Swiss Re

Geoff Summerhayes, Chair, Sustainable Insurance Forum and Executive Board Member, Australian Prudential Regulation Authority

15:45 Tea/coffee break

16:15 **Panel IV: People matters – governance of financial institutions**

Time and again, post-mortems in the aftermath of a financial crisis or failure of a financial institution reveal that the root cause is often poor governance structure and practices. All standard-setting bodies have set rules and guidance on governance requirements, ranging from the role and composition of boards to assessing suitability of key persons in control functions. Yet getting the right people to run and oversee financial firms requires much more than rules, given the politics and behavioural issues involved. This panel will discuss the incentive structure that is needed to complement regulatory rules and supervisory processes in order to facilitate sound governance in financial institutions.

Chair: Klaas Knot, President, Netherlands Bank

Julie Dickson, Member of the Board of Directors, Dubai Financial Services Authority

Mario Greco, Group Chief Executive Officer, Zurich Insurance Group Ltd

Masamichi Kono, Deputy Secretary-General, Organisation of Economic Co-operation and Development

José Viñals, Group Chairman, Standard Chartered Bank

Sam Woods, Chief Executive Officer, Prudential Regulation Authority, Bank of England

17:45 End of session

18:15 Bus departs to dinner venue

18:30 **Dinner, Restaurant Schützenhaus**

Special address: Regulation, technology and shadow banks: a decade after Lehman

Amit Seru, The Steven and Roberta Denning Professor of Finance, Stanford Graduate School of Business

Wednesday 13 March

09:00 **Keynote address: Have we fixed the fractures in the global financial system revealed by the financial crisis?**

Howard Davies, Chairman, Royal Bank of Scotland

09:30 **Panel V: Technology – friend or foe?**

Technology is an unescapable topic these days. It can be overwhelming to fully grasp this multifaceted topic. This panel will break it down into bite-size chunks, focusing on three key aspects that are most relevant to regulators and supervisors: (i) new technology-based (fintech) firms, financial products and services – are current regulatory requirements still fit for purpose? How can technology help in promoting financial inclusion?; (ii) cyber-risk exposure of financial institutions – how can regulation help?; and (iii) supervision 2.0 – is inertia preventing new technology that makes supervision more intelligent from being embraced?

Chair: Yves Mersch, Member of the Executive Board, European Central Bank

Felix Hufeld, President, Federal Financial Supervisory Authority, Germany

Sopnendu Mohanty, Chief Financial Technology Officer, Monetary Authority of Singapore

Ali Niknam, Chief Executive Officer, bunq

Ceyla Pazarbasioglu, Vice President, Equitable Growth, Finance and Institutions, The World Bank

11:00 Tea/coffee break

11:30 **Panel VI: Resolution and crisis management tools – How to ensure a smooth landing?**

Much has been done to put in place rules to deal with the next crisis, including resolution frameworks and crisis management arrangements. Yet most of these rules remain untested. How can we be sure these measures can achieve their intended objectives when push comes to shove? This panel will consider the key implementation challenges relating to resolution and crisis management and will reflect on the original policy objectives and whether other mechanisms are needed to supplement these tools.

Chair: Fernando Restoy, Chairman, FSI, BIS

Mark Branson, Chair, Financial Stability Board Resolution Steering Group and Chief Executive Officer, Swiss Financial Market Supervisory Authority

Lyn Javier, Managing Director, Bangko Sentral ng Pilipinas

Elke König, Chair, Single Resolution Board

Arthur Murton, Deputy to the Chairman, Federal Deposit Insurance Corporation

13:00 **Closing remarks**

13:15 Lunch, BIS first floor

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Speakers' Curriculum Vitae (in order of appearance)

Agustín Carstens, General Manager, Bank for International Settlements

Agustín Carstens became General Manager of the BIS on 1 December 2017.

Mr Carstens was Governor of the Bank of Mexico from 2010 to 2017. A member of the BIS Board from 2011 to 2017, he was chair of the Global Economy Meeting and the Economic Consultative Council from 2013 until 2017. He also chaired the International Monetary and Financial Committee, the IMF's policy advisory committee from 2015 to 2017.

Mr Carstens began his career in 1980 at the Bank of Mexico. From 1999 to 2000, he was Executive Director at the IMF. He later served as Mexico's deputy finance minister (2000-03) and as Deputy Managing Director at the IMF (2003-06). He was Mexico's finance minister from 2006 to 2009.

Mr Carstens has been a member of the Financial Stability Board since 2010 and is a member of the Group of Thirty.

Mr Carstens holds an MA and a PhD in economics from the University of Chicago.

Lesetja Kganyago, Governor, South African Reserve Bank

Lesetja Kganyago was appointed Governor of the South African Reserve Bank with effect from 9 November 2014.

He had been a Deputy Governor of the South African Reserve Bank since May 2011. In this role, he was responsible for a wide range of areas, including Research, Financial Stability, Bank Supervision, Financial Regulatory Reform (including introducing the Twin Peaks regulatory structure), Financial Surveillance (including taking responsibility for the regulation of cross-border flows), Risk Management and Compliance, and what was then called the South African Reserve Bank College (now the South African Reserve Bank Academy).

Lesetja has more than 20 years of experience in formulating and implementing public policy, having spent this time in both the central bank and National Treasury. He has wide-ranging experience in Macroeconomic Policy, Financial Sector Policy, Public Finance, International Finance, Public Debt Management, and Financial Markets. During his tenure as Director-General of National Treasury, he successfully steered several public finance and financial market reforms. He played a leading role in the fundamental reform of the microstructure of domestic bond markets, including reforms to the auction system and the introduction of new financial instruments such as inflation-linked bonds, buy-backs, switches, and STRIPS. During his time at National Treasury, a fundamental reform in the management of the national debt portfolio was completed.

Lesetja has led South Africa's technical team to various G20 Ministers of Finance and Central Bank Governors meetings and summits, including the Inaugural Summit in 2008. He has chaired the IMF I World Bank Development Committee Deputies and the G20 Working Group on IMF Governance Reform; he was also the vice-chair of the Financial Stability Board's Standing Committee on Standards Implementation for a period of four years.

Currently, Lesetja chairs the Committee of Central Bank Governors of the Southern African Development Community and is the co-chair of the Financial Stability Board's Regional Consultative Group for Sub-Saharan Africa. He now chairs the Financial Stability Board's Standing Committee on Standards Implementation.

He was appointed as the International Monetary and Financial Committee (IMFC) Chairman effective 18 January 2018 for a period of 3 years. The IMFC, comprising Finance Ministers and Central Bank Governors, is the primary advisory body of the IMF Board of Governors and deliberates on the principal policy issues facing the IMF.

Lesetja holds a Master of Science degree in Development Economics from London University (School of Oriental and African Studies) and a Bachelor of Commerce degree in Accounting and Economics from the University of South Africa.

William Dudley, former President, Federal Reserve Bank of New York

William C. Dudley is currently a Senior Research Scholar at the Griswold Center for Economic Policy Studies at Princeton University. He also is a member of the Group of Thirty and the Council on Foreign Relations.

Previously, from 2009 to 2018, Mr. Dudley was the 10th president and chief executive officer of the Federal Reserve Bank of New York and served as vice chairman of the Federal Open Market Committee. During this period, Mr. Dudley was a member of the Board of Directors of the Bank for International Settlements and chaired the Committee on Payments and Settlement Systems and the Committee on the Global Financial System.

Prior being President of the Federal Reserve Bank of New York, Mr. Dudley served as executive director of the Markets Group at the NY Fed, which implements monetary policy on behalf of the Federal Reserve. Earlier, he had a long career in the financial services industry, including ten years as the chief US economist at Goldman Sachs where he was a partner and managing director.

Mr. Dudley received his doctorate in economics from the University of California, Berkeley in 1982 and his bachelor's degree from New College of Florida in 1974.

Andrea Enria, Chair of the Supervisory Board of the Single Supervisory Mechanism, European Central Bank

Mr Andrea Enria took office as second Chair of the Supervisory Board of the European Central Bank in January 2019. Before that he was the first Chairman of the European Banking Authority (EBA) since March 2011. He previously served as Head of the Regulation and Supervisory Policy Department at the Bank of Italy, and as Secretary General of the Committee of European Banking Supervisors (CEBS). He also held the position of Head of Financial Supervision Division at the European Central Bank. Before joining the ECB he worked for several years in the Research Department and in the Supervisory Department of the Bank of Italy.

Mr Enria has a BA in Economics from Bocconi University and a M. Phil. in Economics from Cambridge University.

Philip Lowe, Governor, Reserve Bank of Australia

Philip Lowe is Governor of the Reserve Bank of Australia.

Mr Lowe holds a PhD from the Massachusetts Institute of Technology and a B.Comm (Honours) in Economics/Econometrics from the University of New South Wales. He has authored numerous papers, including on the linkages between monetary policy and financial stability. He commenced as Governor on 18 September 2016.

He is Chair of the Reserve Bank Board and Payments System Board, and Chair of the Council of Financial Regulators. He is a member of the Financial Stability Board. Prior to his current role, he held the positions of Deputy Governor, Assistant Governor (Economic) and Assistant Governor (Financial System). He also spent two years at the Bank for International Settlements working on financial stability issues.

Mr Lowe is Chair of the Financial Markets Foundation for Children and a director of The Anika Foundation. He is also Chair of the Committee on the Global Financial System of the Bank for International Settlements.

Mr Lowe is a signatory to The Banking and Finance Oath.

Mario Marcel, Governor, Central Bank of Chile

MARIO MARCEL CULLELL was named Governor of the Central Bank of Chile in December 2016 and Board Member in October 2015.

He has a Bachelor's Degree in business administration from the University of Chile and a M. Phil. Degree in economics from the University of Cambridge, United Kingdom.

Prior to his appointment to the Board, Mr. Marcel served as Director of Governance Global Practice at the World Bank in Washington, D.C., in the United States; Deputy Director for Public Governance and Territorial Development at the Organization for Economic Cooperation and Development (OECD) in Paris, France; and Manager of the Institutional Capacity and Finance Sector at the Inter-American Development Bank (IDB), where he had earlier served as Executive Director for Chile and Ecuador.

For 13 years, he worked for the Government of Chile, where his senior positions with the Finance Ministry included Deputy Director of Rationalization and Public Function in the Budget Division, Executive Secretary for the Inter-Ministerial Committee for the Modernization of Public Administration, Chair of the General Government's Internal Audit Committee and Chair of the Presidential Advisory Committee on Pension Reform. He was the Budget Director from 2000 to 2006, during which time he implemented deep reforms in the conduct of fiscal policy, government asset and liability management, the budget system and public administration.

He has also worked as a researcher for the Center for Latin American Studies (Cieplan).

His academic experience includes teaching and research at universities in Chile and the United Kingdom. He has also worked as a project consultant for a wide range of international and government organizations in countries such as Mexico, Colombia, Peru and Vietnam.

Mr. Marcel is the author of over 80 published works in economics, finance, policy, and public administration.

Ignazio Visco, Governor, Bank of Italy

Ignazio Visco was appointed Governor of the Bank of Italy in November 2011 and renewed in November 2017, after a long career with 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 European Central Bank and the Board of Directors of the Bank for International Settlements.

From 1997 to 2002 he was Chief Economist and Head of the Economics Department of the OECD in Paris.

Mr Visco graduated from the University of Rome and obtained a Ph.D. in Economics from the University of Pennsylvania. The author of numerous articles and books on economics and finance, he also taught Econometrics and Economic Policy at "La Sapienza" University of Rome.

Stefan Ingves, Governor, Sveriges Riksbank

Stefan Ingves is Governor of Sveriges Riksbank and Chairman of the Executive Board.

Mr. Ingves was appointed Chairman of the Basel Committee on Banking Supervision in June 2011. He is also Chairman of the BIS Banking and Risk Management Committee (BRC) and a Member of the Board of Directors of the BIS.

In 2018, Mr. Ingves became Chairman of the Toronto Centre for Global Leadership in Financial Supervision. He is also a Member of the General Board of the European Systemic Risk Board (ESRB), Member of the General Council of the ECB, Governor for Sweden in the IMF and Board Member of the Nordic-Baltic Macroprudential Forum (NBMF).

Stefan Ingves holds a PhD in economics.

Sabine Lautenschläger, Member of the Executive Board, European Central Bank

After her law study Sabine Lautenschläger joined the Bundesaufsichtsamt für das Kreditwesen (Federal Banking Supervisory Office). In the course of her career at that institution, which has meanwhile become the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin – Federal Financial Supervisory Authority), she held several management positions and was ultimately appointed Chief Executive Director of Banking Supervision in 2008. In 2011 Ms Lautenschläger moved to the Deutsche Bundesbank, serving as Deputy Governor until January 2014 when she was appointed to the Executive Board of the European Central Bank. As Member of the Executive Board she is also Member of the Governing Council which is responsible for the Monetary Policy in the Euro Area. Since her appointment as Vice-Chair of the Supervisory Board in February 2014, she has also been in charge of ECB Banking Supervision. She represents the Single Supervisory Mechanism (SSM) in the Basel Committee on Banking Supervision (BCBS) and the Financial Stability Board (FSB). Until 2016 she represented the SSM in the Single Resolution Board (SRB).

Nout Wellink, former President, Netherlands Bank and former Chair, BCBS

Nout Wellink was President of the Dutch Central Bank (1997-2011). During his Presidency he also served as a member of the Governing Council of the ECB, chairman of the Board of Directors of the B.I.S. (2002-2006) and of the Basel Committee on Banking Supervision (2006-2011). His secondary functions have included membership of the supervisory board of a number of profit and non-profit organizations. At present Nout Wellink is, a.o., an independent non-executive director of ICBC, the Industrial and Commercial Bank of China. He received a PhD from the Erasmus University and an honorary doctorate from Tilburg University, was awarded a Knighthood in the Order of the Netherlands Lion and is Commander of the Order of Orange-Nassau.

Nor Shamsiah Mohd Yunus, Governor, Central Bank of Malaysia

Ms Nor Shamsiah is the 9th Governor of Bank Negara Malaysia, assuming office on 1 July 2018. She chairs Bank Negara Malaysia's Monetary Policy Committee, the Financial Stability Committee and the Financial Stability Executive Committee.

Prior to her appointment as Governor, she served as Assistant Director of the Monetary and Capital Markets Division of the International Monetary Fund.

Ms Nor Shamsiah joined Bank Negara Malaysia in 1987 and has served in various areas including prudential regulations, legislation, policies and guidelines for the financial sector and supervision. She was involved in the financial sector resolution initiatives during the Asian financial crisis. She was instrumental in the formulation and implementation of the Financial Sector Masterplan (2001-2010) and Financial Sector Blueprint (2011-2020) that charted the development of the Malaysian financial system.

As Deputy Governor from 2010 to 2016, Ms Nor Shamsiah was responsible for banking, insurance and Takaful supervision, financial intelligence and enforcement, talent management, finance and shared services of the central bank. She also represented Bank Negara Malaysia in the Basel Committee on Banking Supervision and the Financial Action Task Force.

Ms Nor Shamsiah graduated from the University of South Australia with a Bachelor of Arts in Accountancy and is a Certified Practising Accountant (CPA).

Luiz Awazu Pereira da Silva, Deputy General Manager, Bank for International Settlements

Luiz Awazu Pereira da Silva became Deputy General Manager of the BIS on 1 October 2015. As Deputy General Manager, he is also responsible for the Bank's risk, audit and compliance functions.

Before joining the BIS, Mr Pereira da Silva had been Deputy Governor of the Central Bank of Brazil since 2010. Prior to that, he worked in various positions for the World Bank in Washington DC, Tokyo and southern Africa. He also served as Chief Economist for the Brazilian Ministry of Budget and Planning, and as Brazil's Deputy Finance Minister in charge of international affairs.

Mr Pereira da Silva holds a doctorate in economics and MPhil from Panthéon-Sorbonne University, and graduated from the École des Hautes Etudes Commerciales (HEC) Paris and the Institut d'Études Politiques (Sciences Po) in Paris.

Alejandro Díaz de León Carrillo, Governor, Bank of Mexico

He was born on 1 December 1969 in Mexico City. He earned his B.A. in economics from the Instituto Tecnológico Autónomo de México (ITAM) in 1993, graduating with honors and receiving the Miguel Palacios Macedo Award for academic excellence. His thesis won prizes from Banamex (1st place), the National Banking and Securities Commission (Comisión Nacional Bancaria), the National Insurance and Bonding Commission (Comisión Nacional de Seguros y Fianzas), and the National College of Economists (Colegio Nacional de Economistas).

He earned a master's degree in public and private management in 1995 from the Yale School of Management, majoring in financial engineering and valuation of derivatives and fixed-income instruments.

He began his professional career at Banco de México, where he worked for 16 years (1991–2007) and held different positions, including analyst in the Securities Market Studies Subdivision and in the Financial System Analysis Subdivision, deputy manager of Financial System Analysis, Macrofinancial Analysis manager, Macroeconomic Analysis director, and Economic Studies director. His tasks included, among others: banking stability analysis, research and proposals; econometric models, new financial products and auction mechanisms; preparing financial statistics, research projects and inflation reports; and, integrating staff analysis for the central bank's governing board and coordinating the economic research agenda.

He was later appointed general director of the National Pension Fund of State Workers (Fondo Nacional de Pensiones de los Trabajadores al Servicio del Estado, PENSIONISSSTE), where he was in charge of creating and starting the Fund's operation and of establishing and managing its Investment Firms Specialized in Retirement Funds (Sociedades de Inversión Especializadas en Fondos para el Retiro, SIEFORES). He served in this position from October 2007 to January 2011.

From January 2011 to November 2015 he was head of the Debt Management Office (Unidad de Crédito Público, UCP) at Mexico's Ministry of Finance, where he was in charge of

implementing the Federal Government's internal and external financing in accordance with Congress authorizations, and of conducting the oil hedging strategy and the financial evaluation of projects promoted by the National Infrastructure Fund (Fondo Nacional de Infraestructura, FONADIN). He consolidated Mexico's presence as a sovereign debt issuer in international financial markets, receiving various awards and recognitions, and he introduced debt contracts that improved the international financial architecture.

In November 2015 he was appointed general director of Mexico's Foreign Trade Bank (Banco Nacional de Comercio Exterior, BANCOMEXT), where he worked until December 2016. He was in charge of managing the institution's operation and administration to promote foreign trade and investment, productivity and competitiveness in the Mexican export sector. During his time in office, lines of action where implemented to strengthen the bank's capital, leading BANCOMEXT as the first development bank to issue Basel III compliant subordinated notes. He also designed and implemented activities that enabled the financing of value chains' export activity, investment projects and foreign currency-generating activities. These actions increased the bank's credit portfolio, strengthened its financial margin, and enlarged its client base, while contributing to the development of renewable energies.

He has been professor of Options and Futures at the ITAM Master of Business Administration and Finance, and is the author of several publications edited by Banco de México and other institutions. He has also participated as a member of various collegiate bodies in development banks and financial authorities.

After being nominated by Mexico's President and confirmed by the Senate, in January 1st 2017 he became part of Banco de México's governing board as deputy governor.

He was appointed by Mexico's President to serve as governor of Banco de México from December 1, 2017 to December 31, 2021.

Frank Elderson, Chair, Network of Central Banks and Supervisors for Greening the Financial System and Executive Director, Netherlands Bank

Frank Elderson has been an Executive Director of Supervision at DNB since 1 July 2011. He is responsible for supervision of banks, supervision of horizontal functions and integrity, and legal affairs. He is a member of the Supervisory Board of the European Central Bank.

Frank Elderson holds several secondary positions. He has chaired the Central Banks and Supervisors Network for Greening the Financial System (NGFS) since 2018 and the Sustainable Finance Platform since 2016. He has also chaired the FEC Board since 2016, the Supervisory Board of the Dutch Reading Foundation since 2017 and the Management Board of the Nederlands Vioolconcours Foundation since 2016. Before joining the Governing Board, Frank Elderson served as DNB's General Counsel (2008-2011). He was the Director of the Legal Services Division (2007) and Head of the ABN AMRO Supervision Department (2006).

After joining DNB in 1999, Frank Elderson held various management positions in the Legal Services Division, as well as representing DNB on various working groups of the European System of Central Banks (ESCB). Frank Elderson started his professional career in 1995 as a lawyer with Houthoff Advocaten & Notarissen.

He completed the first year of the Dutch law university programme with honours in 1990 and studied at the University of Zaragoza, Spain, in 1993 and 1994. Elderson earned his degree in Dutch law at the University of Amsterdam in 1994. He obtained an LLM degree from Columbia Law School, in the United States, in 1995. Frank Elderson was sworn in as a lawyer in the Netherlands in 1995.

Patrick Raaflaub, Group Chief Risk Officer, Swiss Re

Patrick Raaflaub began his career as an economist at Credit Suisse. He then was founding member of a consulting start-up and research fellow at the University of St. Gallen. He joined

Swiss Re in 1994 and was appointed Chief Financial Officer of Swiss Re Italia SpA in 1997, and then was Divisional Controller Americas Division from 2000. He worked as Head of Finance Zurich from 2003, then Regional Chief Financial Officer Europe and Asia from 2005. From 2006, he was Head of Group Capital Management, where he was responsible for capital management at Group level and global regulatory affairs. In 2008 he joined the Swiss Financial Markets Supervisory Authority FINMA as Chief Executive Officer.

Patrick Raaflaub returned to Swiss Re as Group Chief Risk Officer and member of the Group Executive Committee as of September 2014.

Geoff Summerhayes, Chair, Sustainable Insurance Forum and Executive Board Member, Australian Prudential Regulation Authority

Geoff Summerhayes was appointed a Member of APRA from 1 January 2016 for a five-year term. As an Executive Board Member of APRA his responsibilities include the oversight of the General, Life and Private Health Insurance sector.

He is a member of the Executive Committee of the International Association of Insurance Supervisors and Chair of its Audit and Risk Committee, and Chair of the Sustainable Insurance Forum, which was established under the UN Environment Program.

Mr Summerhayes was Chief Executive Officer of Suncorp Life from 2008 to 2015, as well as being a director of Suncorp Portfolio Services Ltd and of Asteron Life NZ. Before joining Suncorp he held a number of senior roles at the National Australia Bank (NAB) in strategy, product and distribution. Prior to that he was CEO of Retail Investment at MLC and also held senior roles at Lend Lease.

Mr Summerhayes was a director of the Financial Services Council and was co-chair of their Life Board Committee.

Klaas Knot, President, Netherlands Bank

Klaas H.W. Knot has been President of De Nederlandsche Bank (DNB) since July 2011 and was reappointed for a second seven-year term in July 2018. He became Vice Chair of the FSB in December 2018 and is also Chair of the Standing Committee on the Assessment of Vulnerabilities. In this capacity as DNB President he is a member of the Governing Council of the European Central Bank, Governor of the International Monetary Fund, and member of the Board of Directors of the Bank for International Settlements and of the European Systemic Risk Board.

In 1991, Mr Knot graduated with honours in economics at the University of Groningen. In 1995, he obtained his PhD in economics. He is honorary Professor of Economics of Central Banking at the University of Groningen and of Monetary Stability at the University of Amsterdam.

Prior to becoming President of the DNB, Mr Knot was Deputy Treasurer-General and Director of Financial Markets at the Dutch Ministry of Finance. He also held positions at DNB, the Pension and Insurance Authority, and the International Monetary Fund.

Julie Dickson, Member of the Board of Directors, Dubai Financial Services Authority

Julie Dickson has had a career focusing on financial institutions supervision and regulation. She was a member of the Supervisory Board of the European Central Bank, between 2014 and 2017, which is responsible for overseeing European banks.

Prior to that, she spent 15 years at the Office of the Superintendent of Financial Institutions in Canada, heading the office from 2006 to 2014. In addition, Ms Dickson served for 15 years with the Canadian Department of Finance, focusing on financial institution policy issues.

She has been a member of the Financial Stability Board, the Basel Committee on Banking Regulation, and the boards of the Canada Deposit Insurance Corporation and the Toronto Leadership Centre.

As well, she sits on the board of the Global Risk Institute, which focuses on risk management for the financial industry. She currently sits on the Canadian Public Accountability Board, which oversees audit firms in Canada. She has been awarded the Order of Canada for her work in Canada, and globally, in the area of financial institution regulation and supervision.

Mario Greco, Group Chief Executive Officer, Zurich Insurance Group Ltd

Mario Greco joined Zurich in March 2016 as Group Chief Executive Officer and member of the Executive Committee.

Mr. Greco started his professional career in management consulting, working in McKinsey & Company's Milan office from 1986 until 1994, where he became a partner in 1992 and subsequently a partner leader in the insurance segment. In 1995, he joined RAS (Allianz Group) in Milan as head of the claims division. He became general manager in charge of the insurance business the following year. In 1998, he was appointed managing director and in 2000, he became the company's CEO. At the end of 2004, Mr. Greco joined Allianz AG's executive board, with responsibility for France, Italy, Spain, Portugal, Greece and Turkey. In April 2005, he joined the Sanpaolo IMI Group in Milan as CEO of EurizonVita and in October 2005, he was appointed CEO of Eurizon Financial Group. From 2007 to 2012, he served at Zurich, first as CEO Global Life and from 2010, as CEO General Insurance. In 2012 he was appointed CEO of Generali.

Masamichi Kono, Deputy Secretary-General, Organisation of Economic Co-operation and Development

Mr. Masamichi Kono was appointed Deputy Secretary-General of the OECD in August 2017. His portfolio includes the strategic direction of OECD policy on Environment, Development, Green Growth, Financial and Enterprise Affairs and Anti-Corruption along with representing the OECD at the Financial Stability Board meetings.

Prior to joining the OECD, Mr. Kono was the Vice Minister for International Affairs, Financial Services Agency, Japan (JFSA) and President of the Asian Financial Partnership Center of the JFSA.

Mr. Kono was Secretary to the WTO Financial Services Committee between 1994 and 1999.

Mr. Kono holds a B.A. in law from Tokyo University.

José Viñals, Group Chairman, Standard Chartered Bank

José Viñals was appointed Group Chairman of Standard Chartered PLC in December 2016, having joined the Group as Chairman designate in October 2016.

José joined Standard Chartered from the International Monetary Fund (IMF), where he was the Financial Counsellor and Director of the Monetary and Capital Markets Department. He was responsible for the oversight and direction of the IMF's monetary and financial sector work, and he was the IMF's chief spokesman on financial matters, including global financial stability. José was a member of the Plenary and Steering Committee of the Financial Stability Board for seven years, playing a key role in the reform of international financial regulation.

José began his career as an economist before spending 25 years at the Central Bank of Spain, where he rose to be the Deputy Governor, with responsibility for all areas of the Central Bank, including monetary policy, banking regulation and supervision. José has held many other Board and advisory positions including Chair of Spain's Deposit Guarantee Fund, Chair of the International Relations Committee at the European Central Bank, member of the Economic

and Financial Committee of the European Union, and Chair of the Working Group on Institutional Investors at the Bank for International Settlements.

He has also been a member of the European Central Bank Monetary Policy Committee; and the high-level group appointed by the President of the European Commission to examine economic challenges in the European Union. He was also a board member of the Spanish Securities Authority, the Comisión Nacional del Mercado de Valores.

He holds a Bachelor's degree in Economics from the University of Valencia; a Master's degree in Economics from the London School of Economics; and Master's and Doctoral (Ph.D.) degrees in Economics from Harvard University. He is a former Faculty Member of the Economics Department at Stanford University. His awards include the Premio Rey Jaime I (King James I Prize) in Economics in 2001.

Sam Woods, Chief Executive Officer, Prudential Regulation Authority, Bank of England

Sam Woods assumed the role of Deputy Governor for Prudential Regulation and Chief Executive Officer of the Prudential Regulation Authority (PRA) on 1 July 2016. As Deputy Governor for Prudential Regulation and CEO of the PRA, Sam Woods is also a member of the Bank's Court of Directors, the Prudential Regulation Committee, the Financial Policy Committee, and the Board of the Financial Conduct Authority.

Sam's previous role was Executive Director of Insurance at the PRA. In this role, Sam was responsible for overseeing the monitoring and regulation of over 600 life and general insurance firms. Sam joined the Financial Services Authority (FSA) in 2011 and transferred to the Bank in 2013 with the integration of the PRA. He served as Director for Financial Stability Strategy and Risk, and prior to that was Director for Domestic UK Banks Supervision. Before joining the FSA/Bank, Sam spent ten years at HM Treasury in a variety of senior roles.

Amit Seru, the Steven and Roberta Denning Professor of Finance, Stanford Graduate School of Business

Amit Seru is the Steven and Roberta Denning Professor of Finance at the Stanford Graduate School of Business, a Senior Fellow at the Hoover Institution and Stanford Institute for Economic Policy Research (SIEPR), and a Research Associate at the National Bureau of Economic Research (NBER). He was formerly a chaired professor at the University of Chicago's Booth School of Business.

Professor Seru's primary research interest is in corporate finance. He is interested in issues related to financial intermediation and regulation with his recent work focusing on regulatory aspects of shadow banks, fintech lenders and financial advisors. He is also interested in interaction of internal organization of firms with financing and investment, with particular emphasis on technological innovation. His papers in these areas have been published in several journals, including, the American Economic Review, the Quarterly Journal of Economics, the Journal of Political Economy, the Journal of Finance, the Journal of Financial Economics, and the Review of Financial Studies. He is a co-editor of the Journal of Finance and was previously Editor of Review of Corporate Finance Studies, a Department Editor (Finance) of Management Science and an Associate editor of the Journal of Political Economy.

His research has been featured in major media, including the Wall Street Journal, the New York Times, the Financial Times and the Economist. Seru earned a B.E. in electronics and communication and an MBA from the University of Delhi. Subsequently, he received a PhD in finance from the University of Michigan. He was a senior consultant at Accenture before pursuing his Ph.D. Seru was the recipient of a Rackham Pre-Doctoral Fellowship at University of Michigan and received a Lt. Governor's gold medal for overall academic excellence at the University of Delhi.

Howard Davies, Chairman, Royal Bank of Scotland

Howard Davies was appointed Chairman of the Royal Bank of Scotland on 1 September 2015. Previously, Howard was Chairman of the Phoenix Group between October 2012 and August 2015. He chaired the UK Airports Commission from 2012-15 and was the Director of the London School of Economics and Political Science from 2003 until May 2011. Prior to that appointment Howard chaired the UK Financial Services Authority then the single regulator for the UK financial services sector, from 1997 to 2003.

Howard was the Deputy Governor of the Bank of England from 1995-97, after three years as the Director General of the Confederation of British Industry. Earlier in his career he worked in the Foreign and Commonwealth Office, including two years as Private Secretary to the British Ambassador in Paris, the Treasury, McKinsey and Co, and as Controller of the Audit Commission.

Howard has been a Professor of Practice at the French School of Political Science in Paris (Sciences Po) since 2011. He teaches courses in finance regulation and central banking to master's students.

Howard also chairs the Risk Committee at Prudential plc, whose board he joined in 2010. He is a member of the Regulatory and Compliance Advisory Board of Millennium Management LLC, a New York-based hedge fund. He has been a member of the International Advisory Council of the China Banking Regulatory Commission since 2003 and in 2012, was appointed Chairman of the International Advisory Council of the China Securities Regulatory Commission. Previously Howard was an independent Director of Morgan Stanley Inc. for 11 years, from 2004 to 2015 and earlier in his career was a Non-Executive Director of GKN plc from 1989-95.

He was a Trustee of the Tate Gallery from 2002-2010 and Chair from 2009-10. He was a director of the Royal National Theatre from 2011 to 2015, when he left to chair the London Library. He is also the patron of Working Families, a charity which promotes family-friendly working practices.

Howard has published five books focused on the financial markets and regularly writes for The Financial Times, Times Higher Education, Project Syndicate and Management Today.

He was educated at Manchester Grammar School, Merton College, Oxford and Stanford Graduate School of Business.

Yves Mersch, Member of the Executive Board, European Central Bank

Yves Mersch is a member of the Executive Board of the European Central Bank (ECB). His eight-year term started on 15 December 2012.

He was Governor of the Banque centrale du Luxembourg from 1 June 1998 to 14 December 2012. He has been a member of the Governing Council and the General Council of the ECB since its creation in 1998.

After obtaining post-graduate degrees in international public law and political science, Mersch started his career at the Luxembourg Ministry of Finance in 1975. Before joining the Permanent Representation of Luxembourg to the United Nations in New York in 1980, he was seconded to the International Monetary Fund in Washington. Upon his return to Luxembourg in 1981, he worked at the Ministry of Finance. From 1985 to 1989 he was Government Commissioner in charge of oversight of the Luxembourg stock market. Between 1983 and 1999 he was a member of the Council of the Luxembourg Monetary Institute, Luxembourg's banking supervisory authority.

As Personal Representative of the Minister of Finance, Mersch contributed to the design of the Maastricht Treaty.

In 2014 was appointed Honorary Professor at the University of Luxembourg.

In 2019 Yves Mersch received the Lámfalussy Award from the Magyar Nemzeti Bank (Hungary).

Born in Luxembourg on 1 October 1949, Yves Mersch is married with two children.

Felix Hufeld, President, Federal Financial Supervisory Authority, Germany

Felix Hufeld is President of the German Federal Financial Supervisory Authority (BaFin). Previously he was Chief Executive Director Insurance Supervision at BaFin. Before he was Partner at Westlake Partners. From 2001 to 2010 he served as Chief Executive Officer of Marsh Germany, Austria and Northern Europe of Marsh & Mclennan Companies Inc. Prior to joining the insurance sector, Felix Hufeld worked from 1999 to 2001 at Dresdner Bank as their Global Head Group Corporate Development. Prior to that, he worked at the Boston Consulting Group (BCG) for almost eight years, in the end as a Principal, primarily focusing on the financial services industry as well as attorney focusing on corporate and tax law.

Felix Hufeld studied law in Freiburg and received a Master in Public Administration at Harvard University.

Felix Hufeld is member of the Supervisory Board of the Single Supervisory Mechanism (SSM) of the European Central Bank (ECB) and of the Group of Governors and Heads of Supervision (GHOS), the oversight body of the Basel Committee on Banking Supervision (BCBS), as well as of the Global Financial Stability Board (FSB).

Sopnendu Mohanty, Chief Financial Technology Officer, Monetary Authority of Singapore

Sopnendu Mohanty is responsible for creating development strategies, public infrastructure and regulatory policies around technology innovation. Mohanty has spent over 20 years in various leadership roles globally in technology, finance and innovation. He has co-authored several patented works in area of retail distribution of the financial sector.

Mohanty extensively engages with ecosystems of various jurisdictions on innovation, policy making and tech enabled financial services. He is on the Institutional Investor's list of influential FinTech global dealmakers. Mohanty has been recognised internationally as a FinTech thought leader and he was recently named the Market Reformer of the Year by IFL, Euromoney.

Ali Niknam, Chief Executive Officer, bunq

Ali Niknam (1981), born in Canada but from Iranian descent, set up his first company when he was just 16 years old. In his early twenties he founded TransIP, the biggest domain name and web hosting provider of the Netherlands. In 2012 he set out to change the banking industry radically and founded bunq.

Ceyla Pazarbasioglu, Vice President, Equitable Growth, Finance and Institutions, The World Bank

Ceyla Pazarbasioglu is Vice President for Equitable Growth, Finance and Institutions (EFI) at the World Bank Group (WBG) since October 1, 2018.

In this role, Ceyla provides strategic leadership to the best expertise from around the World Bank and International Finance Corporation (IFC) to help low- and middle-income countries build the foundations for inclusive and sustainable growth and, thereby, make progress towards achieving the World Bank Group's twin goals of reducing poverty and boosting shared prosperity. She oversees a portfolio of nearly $30 billion of operational and policy work and advisory engagements in the WBG Global Practices of Finance, Competitiveness and Innovation; Macroeconomics, Trade and Investment; Governance; and Poverty and Equity.

Prior to her assignment as Vice President, Ceyla was Senior Director of the Finance, Competitiveness and Innovation Global Practice. In this capacity, she provided leadership for advancing the WBG's development goals, with a focus on firm capabilities and innovation, private-sector led growth, creating markets, financial sector stability, financial inclusion, and long-term finance and risk management.

Ceyla joined the WBG in July 2015 from the International Monetary Fund (IMF), where she was Deputy Director in the Monetary and Capital Markets Department, in charge of the work on financial sector regulation and supervision and crisis management. Before joining the IMF, she was Vice President of the Banking Regulation and Supervision Agency of Turkey, a post she was appointed to after Turkey's major banking crisis of February 2001. Prior to that, she worked as Chief Economist of Emerging European Markets at ABN AMRO Investment Bank in London.

Fernando Restoy, Chairman, Financial Stability Institute, Bank for International Settlements

Fernando Restoy became Chairman of the Financial Stability Institute on 1 January 2017.

He had been Deputy Governor of the Bank of Spain since 2012. Previously, he held other senior positions at the Bank of Spain, which he joined in 1991. Mr Restoy was Vice Chair of the Spanish Securities and Markets Commission (CNMV) from 2008 to 2012. He was the Chairman of the Spanish Executive Resolution Authority (FROB) from 2012 to 2015 and has been a Member of the Supervisory Board of the ECB's Single Supervisory Mechanism since 2014.

He holds an MSc in econometrics and mathematical economics from the London School of Economics and an MA and PhD in economics from Harvard.

Mark Branson, Chair, Financial Stability Board Resolution Steering Group and Chief Executive Officer, Swiss Financial Market Supervisory Authority

Mark Branson (1968) studied Mathematics and Management Studies (M.A.) at Trinity College, Cambridge. He also obtained a Master's degree in Operational Research (M.Sc.) from the University of Lancaster. Mark Branson is a British citizen.

After his successful graduation in England, Mark Branson started his professional career at Coopers & Lybrand Management Consultancy Services. Three years later, he moved to Credit Suisse in London where, two years after joining the bank, he led a customer support department. In 1997, Mark Branson took a further step in his professional career by joining the former SBC Warburg. Shortly afterwards, he was transferred to the head office in Zurich, where he assumed responsibility for the Business and Logistics Strategy unit of the Corporate Center's Strategic Analysis group. He was subsequently appointed Head of Investor Relations. In 2001, he was promoted to the post of group-wide Head of Communications, with management responsibility for all aspects of communication and branding. Mark Branson held this post for five years, before being made CEO of UBS Securities Japan Ltd in 2006 as part of a targeted rotation of roles. During his time there, Mark Branson was responsible for investment banking, securities activities, asset management and wealth management in Japan. In February 2008, Mark Branson was then appointed CFO of the Wealth Management and Swiss Bank business division in Zurich where he was in charge of finance, risk control, compliance, strategy development and treasury management.

Mark Branson took up the post of Head of Banks division at FINMA in Bern on 1 January 2010 and was appointed Deputy CEO on 1 February 2013. He has been appointed Chief Executive Officer of FINMA as of 1 April 2014.

Lyn Javier, Managing Director, Policy and Specialized Supervision Sub-Sector, Bangko Sentral ng Pilipinas

Lyn I. Javier is the Managing Director of the Policy and Specialized Supervision Sub-Sector (PSSS) under the Financial Supervision Sector of the Bangko Sentral ng Pilipinas. She oversees the supervisory policy and data groups of the BSP as well as the supervision of the specialized areas specifically, money laundering and treasury and trust operations. Ms. Javier has been with the BSP for 20 years and was earlier part of the policy and onsite examination departments.

Ms. Javier represents the BSP in the Basel Consultative Group and has been part of international working groups such as the BCG Working Group on Financial inclusion, Technical Working Group on the Basel Committee Core Principles for Effective Banking Supervision and in one of the Regulatory Consistency Assessment Program assessment teams. She also represents the BSP in the accounting and auditing standards setting bodies in the Philippines.

Elke König, Chair, Single Resolution Board

Dr Elke König is Chair of the SRB, being responsible for the management of the organisation, the work of the Board, the budget, all staff, and the Executive and Plenary sessions of the Board. The General Counsel, the Policy Coordination and International Relations Unit, the Communications office and the Internal Audit function report directly to her.

She was President of the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) from 2012 until 2015. After qualifying in business administration and obtaining a doctorate, Dr König spent many years working for companies in the financial and insurance sector. From 1980 to 1990, she worked for KPMG Deutsche Treuhandgesellschaft in Cologne, auditing and advising insurance undertakings, from 1986 as a holder of a special statutory authority (Prokuristin) and from 1988 as a director and partner. From 1990 to 2002, Dr König was a member of the senior management of the Munich Re Group (Head of Accounting); she then moved to Hannover Rückversicherung AG as Chief Financial Officer. From 2010 to the end of 2011, Dr König was a member of the International Accounting Standards Board (IASB) in London. Dr König was also a representative of the Supervisory Board of the Single Supervisory Mechanism.

Arthur Murton, Deputy to the Chairman, Federal Deposit Insurance Corporation

Art Murton is the Deputy to the Chairman responsible for overseeing the deposit insurance, resolution, and research responsibilities of the FDIC.

Prior to assuming this role in September of 2018, Mr. Murton was the Director of the FDIC's Office of Complex Financial Institutions (OCFI), which is responsible for resolution planning efforts under Title I and Title II of the Dodd-Frank Act. Mr Murton also provided strategic leadership of the FDIC's international outreach regarding the resolution of global, systemically important financial institutions.

Prior to becoming Director of OCFI in July 2013, Mr Murton was the Director of the Division of Insurance and Research at the FDIC, a position he held since 1995. In that capacity, Mr Murton was responsible for overseeing the adequacy of the deposit insurance fund, the risk-based pricing of deposit insurance, and the research and statistics function.

During the 2008 financial crisis, Mr Murton served as the FDIC's acting Chief Operating Officer, led the design and implementation of the Temporary Liquidity Guaranty Program, and led the FDIC's efforts to maintain the liquidity and solvency of the deposit insurance fund.

Mr Murton received a B.A. in Economics from Duke University and a Ph.D. in Economics from the University of Virginia.

The work of the Financial Stability Institute: past, present and beyond

Welcoming remarks by Fernando Restoy, Chairman, Financial Stability Institute, Bank for International Settlements, at the FSI 20th anniversary conference "A cross-sectoral reflection on the past, and looking ahead to the future", Basel, Switzerland, 12 March 2019.

BIS speech | 27 March 2019

by Fernando Restoy

Introduction

Good morning, ladies and gentlemen.

On behalf of the Financial Stability Institute and the Bank for International Settlements, I am delighted to welcome all of you to our 20th anniversary conference. Together, we would like to take you on "a cross-sectoral reflection on the past, and a look ahead to the future".

Over the next day and a half, we will reflect on the main post-crisis developments in financial regulation. In so doing, we will focus particularly on the challenges authorities face to properly implement these reforms and deal with emerging risks to financial stability and other policy objectives.

The Financial Stability Institute is here to help supervisory authorities address challenges that could potentially threaten the financial system. Indeed, the FSI was set up after the series of crises that hit the world

economy in the 1990s. Many of these started in emerging market economies but their effects then rippled outwards to the advanced economies too. At that time, Hans Tietmeyer, then President of the Deutsche Bundesbank and Chairman of the G10 central bank governors, said:

"Financial system weakness has been at the heart of the recent crises. By strengthening the capacity of officials to identify sources of vulnerability and to implement rigorous preventative measures, the [Financial Stability] Institute should help address this problem."

In this way, capacity-building in the official financial sector was baked into the FSI's mandate, which tasks it with helping supervisors strengthen their financial systems worldwide. A major part of this mission is to support the implementation of global financial standards and sound supervisory practices. This was how the press release announcing the FSI's establishment put it:

"The need to strengthen financial systems worldwide has led to increased demand for assistance in implementing sound policies in all areas bearing on financial system stability. To help respond to these demands, and to improve the effectiveness with which training is planned, coordinated and delivered, the BIS in a joint initiative with the Basel Committee on Banking Supervision is establishing an Institute for Financial Stability."

Two people were instrumental here: the BIS General Manager Andrew Crockett; and the Basel Committee Chairman of that time, Tom de Swaan. I would like to take this opportunity to pay tribute to both of them for their leadership and foresight.

Since then, the FSI has been constantly adapting and innovating to deliver on its mandate in a way that contributes to the BIS's goal of promoting financial stability and which meets the needs and demands of the financial supervisory community. Having reached the 20-year mark, we thought that it would be timely to organise an event like this one and invite friends and colleagues who have contributed to our

work over the years to give us the chance to reflect about the past and - more importantly - to look into the future of financial regulation and supervision.

I would like to use these welcoming remarks to briefly review some of the key achievements in the FSI's history and to share our current and future priorities in the years to come.

A quick look at the past

At its outset, the FSI was guided by an advisory board chaired by Andrew Crockett and comprising a number of eminent officials including Jerry Corrigan, Bill McDonough, Guillermo Ortiz, Tommaso Padoa-Schioppa and Michel Prada.

To direct the Institute's day-to-day activities, John Heimann was appointed as the FSI's first chairman. John did a tremendous job in launching the Institute and cementing its reputation by focusing its early work on helping supervisors implement the *Core principles for effective banking supervision*. To this end, the FSI launched a programme of outreach seminars in Basel and worldwide in which a key role was played by interactions between the official financial sector community, academia and the private sector.

In December 2000, Josef Tošovský became the second FSI Chairman. When Josef took over the FSI, the financial system was showing clear signs of fragility from the bursting of the technological bubble, corporate fraud scandals and the 9/11 terrorist attacks. Investor confidence slumped, leading to the stock market crash in 2002.

Around the same time, there was a growing realisation that the financial markets had evolved so far that the 1988 Capital Adequacy Framework, or Basel I, could no longer adequately reflect the risks that banks were facing. This was true, in particular, of the internationally active banks. Basel I also showed how difficult it is to

keep up with ongoing financial innovation. To address these weaknesses, the Basel Committee released Basel II in June 2004.

Against that backdrop, Josef, with the support of Andrew Crockett, made a number of enhancements. These included:

- Further increasing the FSI's international footprint. During Josef's tenure, the annual programme of events increased to around 50 seminars and meetings per year.
- Widening the scope of its work. In 2002, the FSI started its training activities for insurance supervisors, laying the foundation for a strong working relationship with the International Association of Insurance Supervisors (IAIS). Moreover, in 2004, the FSI began organising its high-level meetings for heads of banking supervision. These events have evolved into an acknowledged forum for senior policymakers worldwide.
- And last but not least, launching FSI Connect, a highly successful initiative. This is the BIS's e-learning and reference tool for central bankers and banking supervisors. FSI Connect is now the major source of training for supervisory agencies, reaching almost 230 financial authorities in 160 jurisdictions worldwide.

Looking forward

When I arrived at the FSI in early 2017, I had a tough act to follow. John's and Josef's achievements had shaped the FSI into a widely recognised player in the capacity-building world, with a strong international presence through its programme of outreach events and FSI Connect.

Having said that, it was also very clear in 2017 that the financial system had continued to change. In particular, the Great Financial Crisis and the resulting reforms have profoundly reshaped both the industry and the regulatory framework. We now have not only a more

sophisticated and risk-sensitive crisis prevention framework but also a new system for resolving systemic financial institutions that are failing.

Furthermore, financial sector authorities must now pursue an even wider range of policy goals. In addition to safeguarding financial stability and market integrity, supervisors are often expected to contribute to other objectives, such as competition, technological innovation or financial inclusion. All of these add complexity to their role, hence increasing the demand from central banks and supervisory authorities for capacity-building.

In this new world, we felt there was a need to adjust both the services and products offered by the FSI and the way it interacts with its main stakeholders, basically the supervisory community. With the support of former BIS General Manager Jaime Caruana, and the current one, Agustín Carstens, the FSI has repointed its strategy, building upon its strengths and adding the following features to our work:

- Enhancing our coordination with key stakeholders. A major development in this area has been the reactivation of the FSI Advisory Board. This is chaired by the BIS's General Manager and comprises a small but diverse group of central bank governors, heads of financial authorities and chairs of standard-setting bodies and regional supervisory groups. Among the members of the Advisory Board, we were fortunate to have Nestor Espenilla Jr, Governor of Bangko Sentral ng Pilipinas, who recently passed away. So let me take this opportunity to pay tribute to him.
- Widening the scope of the FSI programme of events to cover relevant cross-sectoral topics and increasing our outreach to senior officials. Key developments in this area include the launch of a series of cross-sectoral conferences, such as this one, and the extension of our high-level meetings to the insurance sector.
- Exploiting FSI Connect more intensively to deliver online courses for financial sector supervisors. Building upon the successful

experience with the FSI-IAIS online course for insurance supervisors, we are collaborating with the International Monetary Fund to offer an online course on the fundamental aspects of banking supervision based on FSI Connect material and a series of webinars. We expect this course to be attended by few hundreds of staff members of supervisory organisations and central banks every year.

- Supporting financial sector authorities through policy implementation work. The aim here is to explore the range of policy approaches in different jurisdictions on key regulatory and supervisory issues. Our findings are presented through the *FSI Insights* series. Since 2017 we have published 15 of these papers, covering practical policy matters such as proportionality, stress-tests, non-performing loans, resolution, cyber-security and suptech, to name but a few. So far, we have been very happy with the reception of these publications.

As for the future, the FSI will be guided by the Innovation BIS 2025 Strategy, as approved by the BIS Board of Directors last November. BIS 2025, as we call it, provides that the FSI's core business will continue to be support for the implementation of global financial standards and for the adoption of sound policies in the new institutional, regulatory and technological environment. The following main initiatives are part of our strategy:

- Expanding the offering of online training courses to cover more advanced topics and cross-sectoral themes such as fintech and cyber-security.
- Playing a more active role in addressing regulatory and supervisory developments related to technology and innovation. To this end, the FSI will be creating a repository of technology-related regulatory developments and it will further develop a recently

created informal network of experts on enhancing supervisory work through technology.

- Providing support for financial crisis management through a library of previous crisis episodes and the coordination of exercises that test the performance of existing crisis management frameworks in a cross-border context.
- Continuing to expand our FSI Insights series with new comparative studies on regulatory and supervisory approaches with a special focus on technology and crisis management.

As you can see, there should be enough to keep us busy in the years to come.

Final remarks

Let me conclude these remarks with two thoughts.

First, from its outset, the FSI has been constantly adapting itself to the needs of the financial supervisory community, with the aim of contributing to the BIS's financial stability mission. Despite that evolution, two aspects of the FSI's work have remained unchanged since the beginning: (i) helping to build the capacity of financial supervisors worldwide; and (ii) contributing to the effective implementation of global regulatory standards and sound supervisory practices. The FSI remains committed to these core elements in the years to come.

Second, the FSI today owes a great deal to three sets of people:

- The leadership of visionaries, including Andrew Crockett, Tom de Swaan, the hard work of the previous years John Heimann and Josef Tošovský.
- The hard work over the years of every single member of the FSI's qualified and committed staff.

- The invaluable support of the friends and colleagues who are with us in this room today.

I would like to thank you all for your continuing encouragement and engagement.

About the author

Fernando Restoy
Chairman
More from this author

The new role of central banks

Speech by Agustín Carstens
General Manager, Bank for International Settlements

To the Financial Stability Institute's 20th anniversary conference "A cross-sectoral reflection on the past, and looking ahead to the future"

Basel, Switzerland, 12 March 2019

Introduction

Ladies and gentlemen, good morning.

It is a pleasure to open this conference celebrating the 20th anniversary of the FSI. Over those 20 years, the FSI has been a key instrument for the BIS to accomplish its goal of promoting financial stability through international cooperation. In particular, the FSI has contributed significantly to capacity-building in central banks and supervisory authorities worldwide, helping them strengthen their financial systems.

The establishment of the FSI in 1999 was the result of a joint proposal made by the BIS and the Basel Committee on Banking Supervision in response to G7 leaders' call to strengthen financial stability worldwide after several crises that took place earlier that decade. At the time, the initial idea was for the FSI to assist countries with the implementation of the Core Principles for Effective Banking Supervision and to gradually broaden the scope of its activities with time, but always with a focus on helping jurisdictions in their pursuit of financial stability.

Twenty years later, much has happened that has affected the landscape of the global financial system and shaped the FSI that we have today. For example, the institutional architecture for financial sector oversight has changed markedly. We have seen a pendular movement in which supervisory authorities in some jurisdictions have been separated from the central bank, and then reunited with it after the crisis. In some cases, this was accompanied by an expansion of the roles played by the central bank to include, in addition to microprudential supervision, macroprudential and resolution functions. More recently, central banks and supervisory agencies have also been asked to contribute to other policy objectives such as financial innovation, financial inclusion or even environmental protection.

This trend shows how potential synergies across policy objectives have gained relevance in the design of the institutional architecture. Yet a plurality of objectives within a single agency could generate policy conflicts that may not always be solved in a socially optimal way. Moreover, the accumulation of power within a single agency may be used as the basis for challenging the independence of central banks vis-à-vis elected officials.

Let me touch upon those issues in the rest of this talk. In particular, I would like to discuss the additional complexity currently faced by central banks in their decision-making process and how their independence remains crucial for their actions to fully serve the public interest. I will start by discussing some of the challenges arising from the assumption of financial stability responsibilities by central banks, and then I will address the issue of how recent technological developments could affect the relevant policy framework and the role of financial sector authorities. Finally, I want to talk about how the BIS can help shed light on this relevant policy debate and support its stakeholders in addressing the challenges posed by the current institutional and technological environment.

Central banks and financial stability

The crisis did not offer conclusive evidence on the general superiority of specific models for the organisation of financial supervision. Yet in recent years, central banks have tended to assume more financial stability-related responsibilities. According to a recent FSI publication,[1] about two thirds of central banks (out of a sample of 82) are currently the leading authority for the microprudential or macroprudential function in their respective jurisdiction.

Of course, the main rationale for allocating prudential responsibilities to central banks is the existence of important synergies between the pursuit of macroeconomic stability and the preservation of financial stability. Not only are economic and financial stability deeply interrelated concepts, but most relevant policy instruments (such as interest rates, capital requirements and maximum loan-to-value ratios) do affect both real and financial sector developments.

From a conceptual point of view, if we think of the set of interrelations between policy objectives and instruments as a system of equations, the view that the macroeconomic and financial stability objectives could be pursued separately would imply that equations in that system could be solved recursively one by one. However, it is now clear that the system is composed of correlated equations with common variables which must be solved simultaneously. In other words, to deliver both financial and economic stability on a sustainable basis, the interactions across policy domains should be fully considered in the decisions taken by responsible authorities. Arguably, that is easier to achieve if both responsibilities lie with the same agency than by ensuring the required coordination across different agencies.

Yet the addition of financial stability responsibilities to central banks' mandates significantly complicates decision-making. In monetary policy, the goal is for inflation to be stable and close enough to the target. Thus, the assessment of whether the goal has been achieved is relatively straightforward. The same kind of evaluation with respect to financial stability objectives is significantly more complex. First, there is no unique number or metric to define the target. Second, the number of prudential policy instruments that could eventually be used to preserve financial stability is large, each of them having different characteristics but also a variety of potential side effects.

More importantly, the addition of prudential policy to central banks' mission makes them more exposed to public scrutiny and political debate. In particular, financial stability responsibilities imply taking actions on sensitive matters with consequences along several dimensions, such as credit availability and the structure and degree of competition of the financial system. Moreover, actions and possible mistakes in this domain may directly affect customers and investors of financial institutions and have budgetary and distributive repercussions. The latter adds to the differentiated impact of monetary policy actions on different segments of the population.

As a consequence, the enlargement of central banks' functions has helped ignite the debate on their independence in different parts of the world. The argument is always that the accumulation of powers in agencies which are not subject to public control via the electoral system can make their policies deviate from the social interest.

Yet central banks' independence is, if anything, needed now more than ever before. Everybody in this room is familiar with the strong historical and theoretical underpinnings of the independence of monetary authorities.[2] Indeed, independence helps mitigate the time-inconsistency problem for monetary policy that typically translates in the long term into higher average inflation without achieving higher employment.

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[1] Calvo et al (2018).

[2] See eg Kydland and Prescott (1977) and Barro and Gordon (1983a,b).

Equally solid arguments support regulatory and supervisory independence.[3] Supervisory authorities which are not sufficiently independent from governments are bound to give more weight to the short-term benefits of lax regulation – in terms, for example, of credit availability – than to the long-term costs of a higher risk of a systemic crisis. This myopic behaviour on the part of authorities affected by the electoral cycle can have only adverse social welfare implications. That is precisely why supervisory operational independence is one of the Core Principles.

Therefore, independence is just as important for financial stability as it is for price stability. As a consequence, the assumption of financial stability objectives by a central bank strengthens the case for independence, and not the other way around. To be sure, enlarging central banks' powers while at the same time constraining their independence is likely to generate severely suboptimal social outcomes.

That said, it is clear that the broader the mission of central banks, the stronger the case to enhance transparency and accountability. Moreover, the increased complexity of central banks' mission obliges them to strengthen their efforts to develop the required technical and human capacity to address the relevant challenges.

Technological developments

Recent technological developments further complicate the framework in which central banks and supervisory authorities should perform their responsibilities. This is typically the case because accelerated innovation in the market for financial services does generate new, complex trade-offs for policy actions.

In principle, innovation could contribute to financial inclusion, increased competition, enlarged savings and investment opportunities, and to the provision of more affordable services and products. While these are very relevant benefits, there are also important risks.

First, the reliance on automated systems and external providers of technological services raises the risk of cyber-incidents with a potential systemic impact. In addition, the extensive use of personal data by a possibly large number of players may affect the protection of sensitive information. Moreover, the supply of new products and services can attract customers who may not have the proper understanding of their characteristics and risks, thus raising consumer protection issues. Furthermore, some of these products, such as cryptoassets, can be used for the remittance of funds of illicit origin and, therefore, for money laundering, thus compromising market integrity. Lastly, a disorderly interaction of market forces may end up creating socially undesirable distortions if the competitive advantage of new (fintech or big tech) entrants vis-à-vis incumbent financial institutions relies solely on regulatory gaps.

The challenging trade-offs suggest that authorities need to act prudently, but they can hardly remain passive given the rapid and potentially disruptive developments. The challenge for policymakers is, naturally, to maximise the benefits of fintech while minimising risks to the financial system.

In order to move forward, authorities need to consider at least four important aspects:

- First, they must develop a comprehensive understanding of the fintech businesses in their jurisdiction. A useful mapping of new innovative activities could be developed by characterising the nature of each of the new the services provided (which may be new or just reformatted), the enabling technologies for those services – such as distributed ledger technology, cloud

[3] See eg Quintyn and Taylor (2002).

computing or artificial intelligence – and the underpinning regulatory framework, if any, which may be specific to that activity, entity-based or a combination of the two.

- Second, careful consideration should be given to the need to adjust the regulatory perimeter to accommodate new entities or activities in order to ensure adequate control of risks and a level playing field. As a minimum, regulation on aspects such as anti-money laundering, consumer and data protection, and possibly also operational resilience should, as a rule, be applied to all professional providers of financial services and payment platforms. Yet the same activity may entail different risks depending on the nature of the entities performing it and, in particular, whether or not they are deposit-takers. Therefore, activity-based regulation seems to be more a complement than a substitute for the traditional entity-based regulation.
- Third, regulatory actions should be coordinated at the global level to the extent possible. Financial innovations are a worldwide phenomenon given that providers of these new services and products often act on a cross-border basis, taking advantage of the new virtual distribution channels. It is therefore essential to guarantee appropriate coordination and cooperation among relevant authorities worldwide and, once sufficient experience is accumulated, to start developing new global regulatory standards to address the relevant policy issues.
- Fourth, regulators should also embrace technology. In recent years, advances in artificial intelligence and its practical application in machine learning, natural language processing and other advanced analytic capabilities have provided opportunities for developing tools that would enhance supervisory capacity. Here again, much is to be gained from international cooperation, not only to exchange experiences but potentially also to jointly develop applications that could then be adapted to the specific needs of each jurisdiction.

In sum, recent developments point to an emerging need for regulatory actions. Those actions should be proportionate, holistic and, ideally, internationally coordinated. Yet it is important for authorities not to lose sight of their policy objectives. In particular, while the benefits of the new technologies may be substantial, central banks and supervisory authorities could hardly take a leading role in promoting them by explicitly or implicitly embracing a pure industrial policy objective. Their focus should remain on their core functions relating to financial stability and adequate market functioning.

The (new) role of central banks

Indeed, despite the potential for disruption of new technologies, there seems to be no strong case to substantively modify supervisory authorities' key objectives. Moreover, the arguments for the involvement of central banks in financial stability – with the caveats that I expressed before – remain solid. Going back to my algebraic analogy, the inclusion of new (fintech) players might make the system of policy objectives and instruments more complex, with more relevant variables subject to non-linear interactions, but it is still a system of equations that, normally, need to be solved simultaneously.

By the same token, technological developments have, if anything, strengthened the case for the independence of central banks and supervisory authorities. Promoting technology may pay off in the short term, as it typically delivers clear benefits in the form of better and more affordable services, while its risks may only materialise after some time, and possibly with low probability, albeit with a great adverse impact. Accordingly, independent regulators could be in a better position to take time-consistent actions, and pay due attention to different scenarios – and not only to the most likely ones – to ensure that new technologies develop in an orderly way without undermining financial stability.

That said, in order to properly perform the functions that society has delegated to them, independent central banks – particularly if they hold financial stability responsibilities – need to develop sufficient capacity and to adapt their internal procedures and decision-making processes to cope with

the new challenges. In particular, the ideas I developed before point to two clear tasks for central bankers: to develop a comprehensive and integrated analysis of economic and financial stability, and to incorporate in the policy analysis and decision-making processes all relevant implications of technological innovation for the financial system.

The BIS is determined to contribute substantially to both objectives. In fact, the new BIS medium-term strategy, Innovation BIS 2025, has several elements that could support these endeavours:

- First, we will continue our efforts to develop as much as possible a conceptually integrated framework for monetary and financial stability policies. Future work in this area will cover both advanced economies and their challenge to normalise monetary policy, and emerging market economies and their challenge to respond to cross-border financial spillovers.
- Second, we will take several initiatives to better understand the implications of technological developments for the financial system and help our stakeholders to make effective use of them in their own policy formation. For example, we plan to establish a multidisciplinary Innovation Hub at the BIS in order to foster collaboration in innovation-related work, as well as a new unit which will undertake policy analysis and research on how key innovations and increased data availability should inform policy and shape central banks' responses.
- Third, we will strengthen our efforts to contribute to the dissemination of good policy practices, to support capacity-building and to facilitate interaction among regulators.

The FSI will play a key role in several of these initiatives. The new regulatory environment that emerged from the post-crisis reforms and recent technological developments have added much complexity to the financial oversight function. As such, financial sector authorities worldwide need to strengthen capacity-building to address these new challenges, and the FSI can contribute to those efforts by facilitating the dissemination of information and analysis on relevant topics and by fostering the exchange of practices and experiences among supervisors.

Moreover, the FSI will also play a prominent role in our pursuit of understanding the regulatory and supervisory implications of innovative technologies. In particular, the FSI will create a repository of technology-related regulatory developments. In addition, it will continue developing comparative studies on distinct regulatory and supervisory approches followed in different jurisdictions. Finally, it will further develop a recently created informal network of technology specialists in supervisory organisations to exchange practices and experiences on technological developments.

As you can see, the FSI has come a long way over the last 20 years, but its goal remains the same: to assist supervisors around the world in improving and strengthening their financial systems. I have no doubt that the FSI will continue to rise to the challenge of meeting this goal in the years to come.

Congratulations, and keep taking this invaluable work forward.

Thank you.

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Keynote address: Have we fixed he fractures in the global financial system revealed by the financial crisis?

Howard Davies, Chairman, Royal Bank of Scotland

As prepared for delivery

I am honoured to have been asked to speak at the Financial Stability Institute's 20th anniversary. The FSI has done great work over the last two decades. I was a regulator when it was born, and have admired the work done under its two Chairmen, Josef Tosovsky and Fernando Restoy, ever since. Sadly, there has been no shortage of issues to address.

The Financial Stability industry has expanded greatly in the last decade. As well as the Institute there is of course a Board. The IMF publishes a six-monthly Global Financial Stability Report. Every self-respecting central bank publishes one, and some regulators do too.

I have never sought to claim personal responsibility for this industry, but perhaps I can immodestly mention my part in it today. I am as certain as I can be that the first Financial Stability Review to be published was the one I launched at the Bank of England in 1996 (ref 1). (Slide 2). In a review of FSRs Martin Cihak et al (ref 2) credit it as the first edition. The first editorial was signed 'Prudence', which was an in-joke: Prudence was the name of my wife. Indeed it still is.

The Bank's FSR was both successful and unsuccessful. It has inspired a huge number of followers, over 50 of them by 2012 according to Cihak. But at the time our objective was to show that the Bank was concerned about financial risks. In 1996 we knew there was a chance that an incoming Labour government would strip the Bank of responsibility for banking supervision. It had not covered itself with glory in the Baring's debacle. So we thought it a smart move to publish a new report, in partnership with the Securities and Investment Board, then the UK's principal securities regulator, to show that we could do joined up analysis of markets. In that sense it was a failure. The Labour government did move supervision out of the Bank in 1997. Of course it has since returned there, but that is another story.

Enough prehistory. That was eleven years BC – before the crisis. Now in AC 12 we are still trying to understand what happened and why. I teach a course on the subject at Sciences Po in Paris. The ten year anniversary of the Lehman collapse late last year stimulated an outpouring of reminiscence, analysis and pet-theorising. Perhaps surprisingly, as time goes by there is if anything less and less consensus on the causes and appropriate responses.

Very few people are prepared to say that they think all the problems revealed have been solved, in spite of the wave of re-regulation which has washed over financial firms and markets – though there are some who insist that they themselves are now in fine shape, though sadly others are not yet in a state of grace.

Amidst this outpouring of commentary I identify three strands of opinion. At the risk of shocking this earnest, high-minded audience I have characterised their views by reference to three popular songs.

The first argument, which one does hear from some bankers, owes a lot to the Pink Floyd song 'The Wall' with its memorable refrain 'We don't need no education. Hey, Teachers, leave our kids alone' (slide 3)

The drift of the argument is that we banks have had a little shock, we have learnt our lesson, we have understood the importance of a bit more capital, and the regulators can leave us alone, safe in the knowledge that we will not misbehave again.

There is some substance behind this argument. Certainly it is true that banks' capital ratios have been greatly strengthened (slide 4). In many cases banks now operate with 4 or 5 times the capital they had at the onset of the crisis, and it is better quality capital too.

But I am not in the Pink Floyd camp. (I was never much of a fan in fact). Perhaps that is because RBS was one of the worst affected banks. Indeed some might argue that it was the worst affected. (slide 5). There were many ways of getting into trouble, from operating with a very thin capital cushion, through making unwise acquisitions, to simple bad lending. RBS managed a full house of problems, so we know that higher capital is not the answer to all problems. I am mindful of Bagehot's observation that 'no amount of capital will rescue a bad bank.' There is more to bank reform than higher CET1 ratios, and some of the cultural changes needed are far harder to implement.

But nor am I in the group which camps at the other end of the spectrum, who regard the increase in capital so far implemented as hopelessly inadequate – the school represented by Anat Admati, Martin Wolf (ref 3) and others. We might call this the 'Too much is never enough' school (slide 6). In fact the words of the Loren Allred song 'Never Enough' are remarkably apposite. She sings 'Towers of gold are still too little, those hands could hold the world but it'll, never be enough.' Not all bank capital is held in physical form these days, but let that pass.

I am not persuaded that it would make sense to impose further significant increases in required capital for banks. The Basel Committee's own analysis suggests that the additional insurance protection bought against potential defaults would come at a high price. Severe stress tests in several jurisdictions suggest that banks could now survive adverse scenarios which Mark Carney has described as 'biblical.' He asserted recently that 'Banks in most regions are now more likely to be stabilisers rather than amplifiers of shocks' (ref 4).

But there is one aspect of the argument that should give us pause. It is true that investors have not yet been fully persuaded that banks are good homes for their money. The price to book ratios of most international banks have remained stubbornly low. Larry Summers has argued (slide 7) that the franchise value of banks has declined (ref 4). My own view is that the decline has more to do with a changed competitive environment in which new competitors with better and cheaper technology are competing business away from traditional banks. Profitability has declined (slide 8) (ref 5). That, combined with very low interest rates for a long time, explains much investor reluctance.

A third strand of argument, with which I have more sympathy, is sometimes described as the Whackamole theorem. Pursuing my popular song theme I prefer to characterise it as the 'close the door they're coming through the window' argument (slide 9). In other words, by clamping down on banks, forcing them to hold far more capital and reducing their ability to supply credit and take risks, regulators have pushed credit creation into the shadows, or to what the FSB now say we should call the NBFI sector (ref 6).

The Non-Bank Financial Intermediation sector has expanded greatly in recent years (slide 10). The total balance sheet size of the universe monitored by the Board has gone up by 9% a year in the last five years and now totals over $116 trillion, or 30% of all financial assets. Most of that expansion has occurred in Europe and North America (slide 11), which account for 60% of the total. In terms of the type of institutions involved, the FSB describe the fastest growing subsector unhelpfully as 'other investment funds' (slide 12). These are funds which are not classified as hedge funds or Money Market Funds.

The FSB does a thorough, meticulous job of aggregating the data, and monitoring the interconnectedness of NBFIs and banks. It says those connections are growing, and that the scale of NBFI means we must certainly monitor its development and maybe, probably, sometimes worry about it. Quite where that exercise in worrying might lead us is less clear. The regulatory environments in which these other institutions are differ from place to place and the powers regulators have to monitor them and intervene in their affairs vary greatly.

There are, however, some elements of the growth of non-bank credit which have been attracting more attention recently. That is true particularly of leveraged loans. In a speech in London (ref 4) a month ago Mark Carney drew attention to a worrying development. He pointed out that 'relative to earnings, aggregate corporate debt in the US and UK is nearing its pre-crisis peak, and the distribution is worsening. In the UK, the share of highly leveraged companies is above pre-crisis levels. This is despite the very modest growth in investment.' One often-quoted measure is that BBB-rated bonds are now about half the market, compared to just a quarter in 2007.

Mark Carney points out that these trends are accelerating. (slide 13). The ratio of debt to EBITDA has risen remarkably in the last year. Where are these risky obligations held? That also differs from place to place. In the US, he tells us, 'banks and insurers own around one third of CLOs (usually the less risky tranches) compared to only 6% for European firms and 2% for UK firms'. For the most part they are held by funds which can afford to lose money, so do not pose systemic risk in the way banks subprime holdings did. But a bursting of that bubble would be troublesome nonetheless. And McKinsey analysis (slide 14) shows that overall market-funded corporate debt has risen sharply.

We should welcome the diversification of funding for corporates, which spreads risk around the system and enhances resilience, but the scale of indebtedness is striking. Of course the tax treatment of debt over equity encourages that growth. I was pleased to read last week that Randy Quarles has announced an FSB review of this part of the market.

Mark Carney is less concerned about the growth of debt in China, which has figured prominently in recent IMF reports (slide 15). The growth rate has fallen back recently.

Public debt globally, however, does remain elevated post-crisis. (slide 16) Modern Monetary Theorists would have us view that as benign or even positive. Having lived through UK public expenditure crises in the 1970, and buyers' strikes in the gilt market, I am conditioned to regard high public debt as a problem that has to be dealt with one day.

So my whackamole worry list includes leveraged corporate debt, and public sector debt.

I also worry about the impact on the financial system, and on financial stability, of a number of new developments which cannot be regarded as crisis-related. Among them I include cyber risk (slide 17), the impact of fintech on the viability of traditional banks, and particularly the impact of Big Tech. The FSB last month published a very interesting report (ref 8) on the potential impact of large technology companies like Amazon, Google, Alibaba and Ant Financial, with their huge financial resources and ability to cross-subsidise, on the business of banking. One possible interpretation of the low rating of many large banks is that investors fear they may lose the more profitable parts of their business to these new competitors, leaving them running the financial infrastructure, for which they find it hard to charge adequately. The FSB worry that in these circumstances they may seek out more risky business to compensate for the loss of their past core profit sources. I hope we will be wise enough not to yield to that temptation, but I understand the point. My concern is more that the business models of banks may be threatened.

So my conclusion from a necessarily brief review of state of financial markets is that the banking system is far stronger, overall, but that debt levels remain worryingly high. As Adair Turner has pointed out, (ref 9) a given rate of GDP growth seems now to require a larger increase in debt. He links that to the growth in income and wealth inequality, as richer deciles spend a lower portion of their income.

Growing inequality of wealth, in particular (income inequality has flattened or declined in some countries more recently) is also part of a worrying growth in the share of votes going to populist parties, in Europe in particular, and the associated growth in interest in policy proposals which have been largely off the agenda for several decades. I am thinking most obviously of protectionism and trade tariffs, but there are others. There has, for example, been a backlash against central bank independence in several countries. I will say more about that in a moment.

We can see the aggregate impact of these trends in the growth of uncertainty about economic policy. Baker, Bloom and Davis (ref 10) have developed an index of economic policy uncertainty, which is currently at a record high (slide 18). That is not surprising, and suggests that the most concerning risk is the scope for damaging policy errors (slide 19)

We have moved a long way from the mood in 2008-9 when successive G20 summits agreed a substantial reform programme, and implemented it with enthusiasm, using the FSB as their delivery mechanism; one has to question whether there is the same degree of mutual trust and shared interest today.

It is therefore regrettable that the opportunity to give the FSB a formal legal status, underpinned by an international treaty, was not taken in 2012, when it was under active consideration. At the time, the flexibility allowed by the FSB's informal status was seen as an advantage. That is much less clear today. There has been political pressure on the Fed to withdraw from it and other international bodies – so far resisted (ref 11). That resistance would be easier and stronger were the US and other countries to be signatories to a Treaty on International Financial Co-operation.

My co-author Maria Zhivitskaya and I have written (slide 20) about the limitations of voluntarism in a chapter in a forthcoming Oxford University Handbook on Global Economic Governance. (ref 12) Those limitations are greater when countries lack confidence in each others' regulation.

Andy Haldane at the Bank of England wrote persuasively in 2014 about the need to manage global finance as a system (ref 13). He argued that financial globalisation has created 'larger than ever opportunities, but also greater than ever threats.' We should therefore turn 'the current non-system', replete with informal bodies of uncertain membership and vague powers, 'into one with an identifiable architecture.' Developments in the five years since he wrote that paper have only strengthened those arguments. Haldane was then mainly discussing the provision of financial support, and the possible creation of an international lender of last resort. Barry Eichengreen goes further and has argued for a 'World Financial Organisation' with the power to sanction members whose national regulatory policies are not up to international standards.' (ref 14).

I think it unfortunate that these radical ideas were not taken forward at a time when there could have been the political will to do so. Now we are very far from that situation.

It would be idle, therefore, to advance these forward-looking proposals today. Realistically, we should try to preserve the elements of international consensus and co-operation we have and try to protect against other potentially damaging policy errors (slide 21). These are the biggest worries we face today. They may not be the fractures which created the last crisis, but they could produce a new one.

I have little to say about the first and probably most concerning area – tariff wars. It is not an area of competitive advantage for me. The most recent signs in the US – China relationship are a little more optimistic, but tensions remain high.

The second area of concern is much closer to home. Almost three years on from our referendum the shape of the future relationship between the UK and the EU 27 remains unclear. Even after a withdrawal agreement is concluded, if it is, that will still be the case, as the political declaration which accompanies it is vague and aspirational.

Financial services, and financial stability, have not been as prominent in the painful debates surrounding Brexit as they might have been. Our government has prioritised other areas of the economy. So it is hard to know what new arrangements will emerge to manage the complex interactions between London's markets and the rest of Europe. The Bank of England assess the risk of a major disruption to financial stability of even a disorderly Brexit as relatively low. But they warn that in the longer term, without deep and comprehensive cooperation between the UK and the 27, there is a risk that we turn inwards towards closed markets which 'would, in turn, restrict cross-border

investment, fragment pools of funding and liquidity, and reduce competition. The result would be higher costs of financing for households and business, less reliable access to finance and less resilient finance' (ref 15).

One academic study of Brexit and Financial Stability, by Samitas et al. argues that the consequences would be more severe for the EU27 than for the UK (ref 16). That can only be a speculative conclusion, but it is clear that the ambition to develop a fully-fledged Capital Markets Union in Europe has suffered a setback, as a result of a popular vote in which the merits of open Capital Markets did not figure in the debate, and where the campaign revealed that arguments based on those assumptions, widely shared in the financial community and among economists, had no resonance at all. Warnings by the central bank and others were characterised as 'Project fear' designed to distort the democratic will.

More recently, when Governor Carney produced some carefully-worded comments warning against a disorderly Brexit, the Chef de file of the Hard Brexiteers, Jacob Rees-Mogg, characterised him as 'a second tier Canadian politician' and dismissed his arguments out of hand. In the not too distant past a senior spokesperson, of whichever party, would not have criticised a central banker in that way. He or she would have had more respect for the bank's independence, and recognised that ad hominem attacks could damage the credibility of the institution, from which we would all suffer.

But it is evident that the reverence for central bank independence has much diminished recently, and not only in the UK. President Trump has described the Fed as 'loco.' In India the RBI Governor was summarily removed. Mario Draghi is not exactly the favourite son of the new Italian government.

The growth of populist parties, (slide 22) with little commitment to independent institutions, especially where unemployment has remained high, has created a different mood.

A few years ago, we seemed to have reached an 'end of history' moment in which a kind of 'Basel consensus' governed economic policy making. Country after country converged on a model in which an independent central bank was charged with meeting an inflation target, which could be any number you like as long as it was 2 per cent. Fiscal policy was a completely separate matter, generally organised around the principle of a budget balanced through the cycle.

But history has restarted, as it often tiresomely does. On the fiscal side we have Modern Monetary Theorists arguing that fiscal deficits do not matter. Other more mainstream critics argue persuasively for more overt policy co-ordination. Bill White, well known in this jurisdiction, has pointed out that in recent years the monetary policy drivers have had their feet firmly on the accelerator, while regulators have been pressing hard on the brake (ref 17). Does that make sense, he asks? And plenty of voices can be heard arguing that central bank independence has had its day and that the masters of the universe in Basel should be cut down to size.

A recent poll of 70 economists organised by the CFM-CEPR showed that this rethinking has not extended to the economics profession (ref 18). Almost all of them agreed that CBI was still very important (slide 23). But when asked if they thought it could be sustained their answers were very different (slide 24). Almost a third think that it will not be possible to sustain the model we have operated for the last few years into the future, and that CBI will decline in Europe.

Why has the current of opinion turned? There is no single answer to that question. Listening to the critics one hears a wide range of arguments. Some focus on supposed policy errors made by central banks since the crisis – the ECB's 2011 decision to raise interest rates looms large. Others raise various forms of conspiracy theories, with central bankers conspiring to thwart the popular will in the interests of their banking friends. A version of that maintains that there has been 'political capture' of central bank boards (ref 20).

A more persuasive set of arguments focuses on the unconventional policies implemented over the recent decade. Quantitative easing is a cousin of fiscal policy. Should not different forms of accountability and political control attach to QE? In fact that is the case in the UK, where the Treasury sets the quantum, leaving timing and method to the Bank of England. Then there is the argument that QE has a distributional impact, benefiting wealthier holders of financial assets. Central banks argue strongly that the total impact of QE has not increased inequality, but those arguments have not cut through the public debate (ref 19).

There are critics, too, of the central bank role in macro prudential policy, which often focuses on particularly sensitive sectors like the housing market. Stanley Fischer has discussed the implications of that role for independence. The Fed is not fully independent in that area, while the Bank of England and the ECB are (ref 21).

One of the more thoughtful reflections on the change has come from Paul Tucker, the former Deputy Governor of the Bank of England, in his book 'Unelected Power' (ref 22). It is a very careful analysis, leading to some interesting suggestions for a more robust accountability surrounding the central bank. In an interview about it he said 'The more power that you have that you don't really need, the more the political world will lean on you to influence the way you exercise your powers' (ref 23).

This is a persuasive argument. However I would take it further than Tucker himself does. It is very striking that the great winners from the GFC, in terms of power and status, have been the central banks, in spite of the questions raised about their performance in the early years of the century as the tensions built. The Fed has gained responsibilities, the ECB now supervises 85 per cent of the European banking system, while the Bank of England is responsible for monetary policy, QE, macropudential policy, banking supervision and insurance supervision, a remarkable accretion of functions. As Tucker points out, such an accumulation of power creates 'the risk of a backlash.'

I might be thought to have an axe to grind here, as the first Chairman of the Financial Services Authority, since dismembered. Perhaps I do. But my principal concern is that we should protect the core of the central bank independence for monetary policy, which has brought many economic benefits. If adding non-essential functions threatens that independence it may come at a high price.

Certainly if one is to do so, the accountability framework needs to be robust, as Tucker argues. That is harder in the case of the ECB, unless the Treaty is changed, then it has been in the case of the Bank of England.

So to return, finally, to the examination question posed for me, I would answer that many of the problems revealed in the banking system and in traded markets have been addressed. 'Solved' is a

dangerous word to use. The 'solutions' have created new incentives for non-bank finance, and the catchily-named NBFI sector needs to be carefully watched.

Furthermore, the broader question of the system architecture of global finance has been ducked. We still rely on a 'non-system'; in Haldane's phrase, and seem condemned to do so. The generally good relations between central banks provide some comfort, but the political pressures on those actors have grown, and their legitimacy is questioned. I applaud the efforts made by some central banks to engage more effectively with citizens in recent years, but the political climate in which they operate remains challenging. As one of the leaders of the UK's Pro-Brexit campaign memorably said 'people in this country have had enough of experts' (ref 24)

If we do move into the age of amateur, populist central bankers and supervisors there will soon be many new fractures in the financial system – and they will not be hidden.

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Financial Stability Institute

Keynote address: Have we fixed the fractures in the global financial system revealed by the financial crisis

Howard Davies
Chairman, Royal Bank of Scotland

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Have we fixed the hidden fractures in the financial system?

Howard Davies

Chair – RBS

Professor – Sciences Po

FSI 20th Anniversary

13 March 2019, Basel

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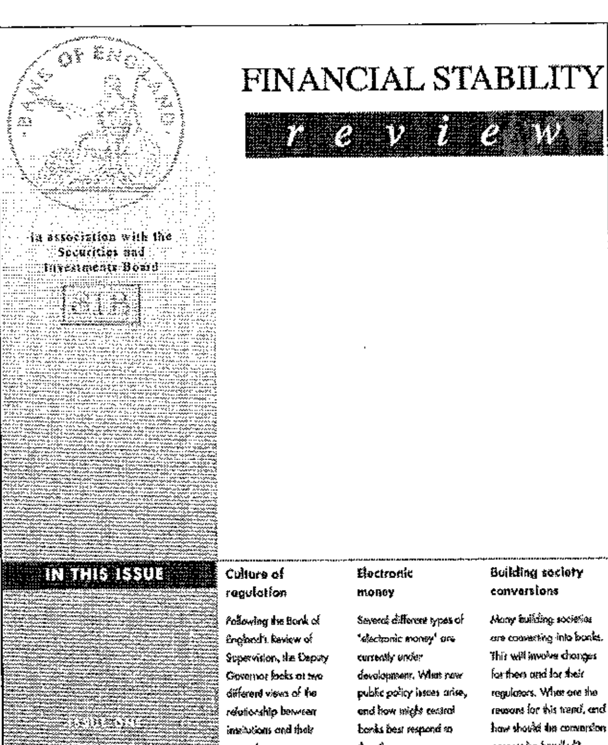

BANK OF ENGLAND

FINANCIAL STABILITY

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IN THIS ISSUE

Culture of regulation

Following the Bank of England's Review of Supervision, the Deputy Governor looks at two different views of the relationship between institutions and their supervisors.

Electronic money

Several different types of 'electronic money' are currently under development. What new public policy issues arise, and how might central banks best respond to them?

Building society conversions

Many building societies are converting into banks. This will involve changes for them and for their regulators. What are the reasons for this trend, and how should the conversion process be handled?

Consensus on the policy response to the crisis remains elusive

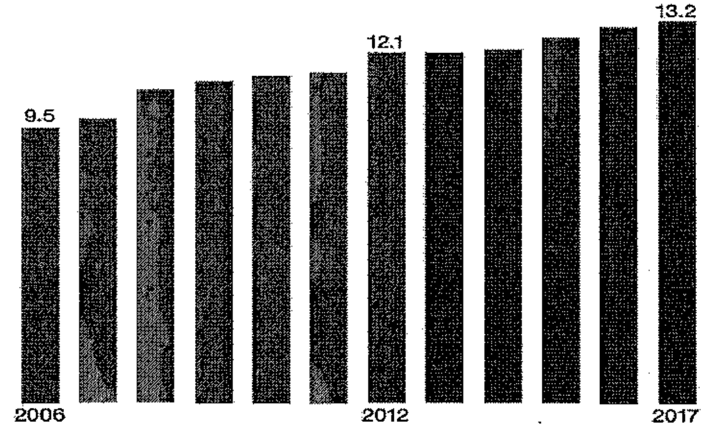
Three songs are sung:

1. We don't need no education…

   Hey, teachers, leave us kids alone *(Pink Floyd)*

Bank capital has risen

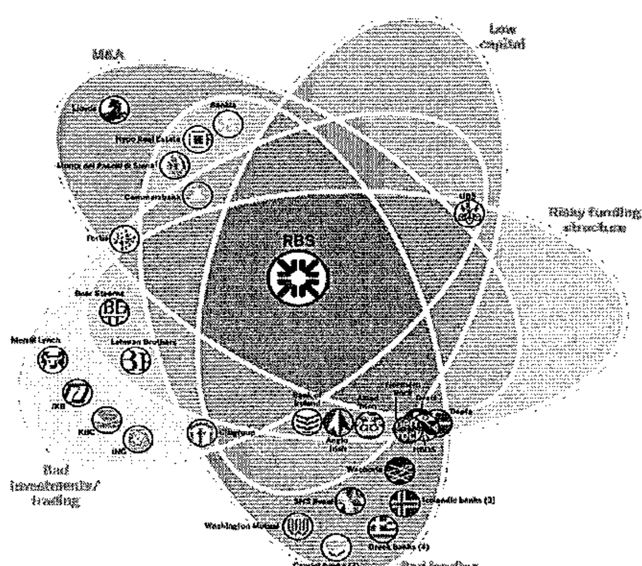
Global average Tier 1 capital ratios 2006-17,[1] %



[1] Based on a sample of ~1,000 largest banks globally in terms of assets.
[2] Eastern Europe, Middle East and Africa.
Source: SNL; Thomson Reuters; McKinsey Panorama

Source: McKinsey 2018 'New rules for an old game: Banks in the changing world of financial intermediation'

RBS managed a unique full house of problems



Source: Financial Times

Consensus on the policy response to the crisis remains elusive

Three songs are sung:

1. We don't need no education…

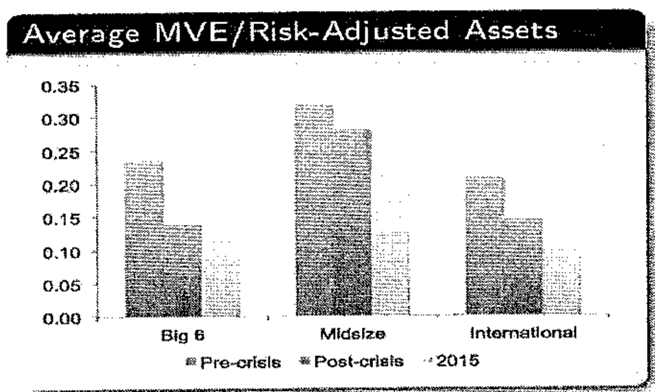
   Hey, teachers, leave us kids alone *(Pink Floyd)*

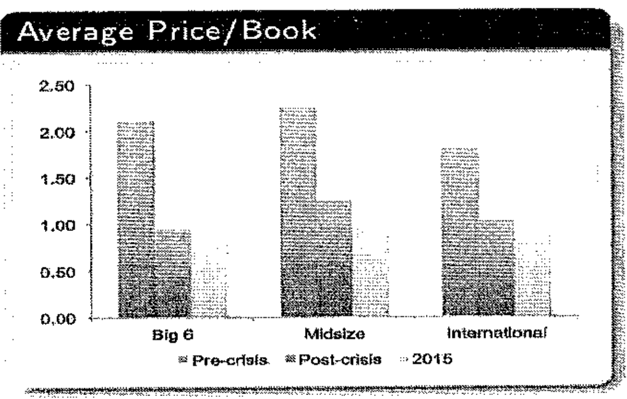
2. Towers of gold are still too little

   Their hands could hold the world but it'll

   Never be enough *(Loren Allred)*

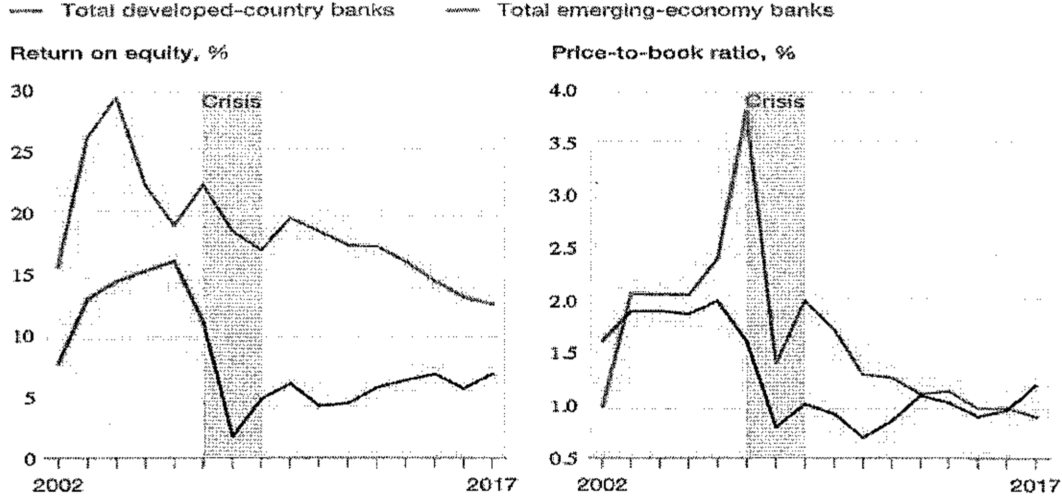
Market measures of equity capital suggest limited improvement





Source: Larry Summers 2017 'Increased Capital and Financial Stability Some Doubts'

Banks remain weakly profitable and poorly rated by investors



Note: Analysis includes ~1,000 banks in 70 countries, each with total assets exceeding $2 billion. They account for ~75 percent of global bank assets.

Source: McKinsey 2018 'A decade after the global financial crisis: What has (and hasn't) changed?'

Consensus on the policy response to the crisis remains elusive

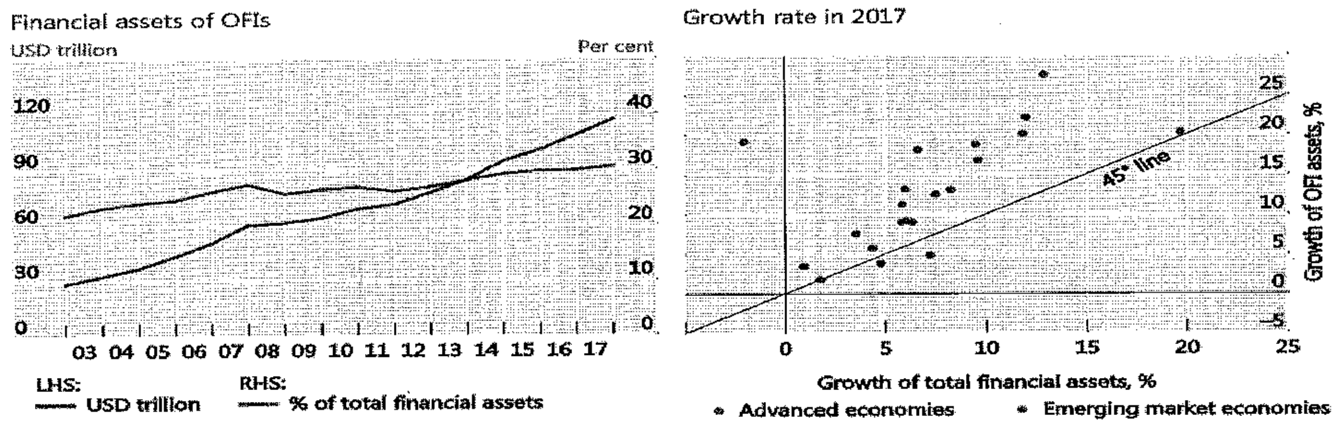
Three songs are sung:

1. We don't need no education...
   Hey, teachers, leave us kids alone *(Pink Floyd)*

2. Towers of gold are still too little
   Their hands could hold the world but it'll
   Never be enough *(Loren Allred)*

3. Close the door, they're coming through the window *(Strargazers)*

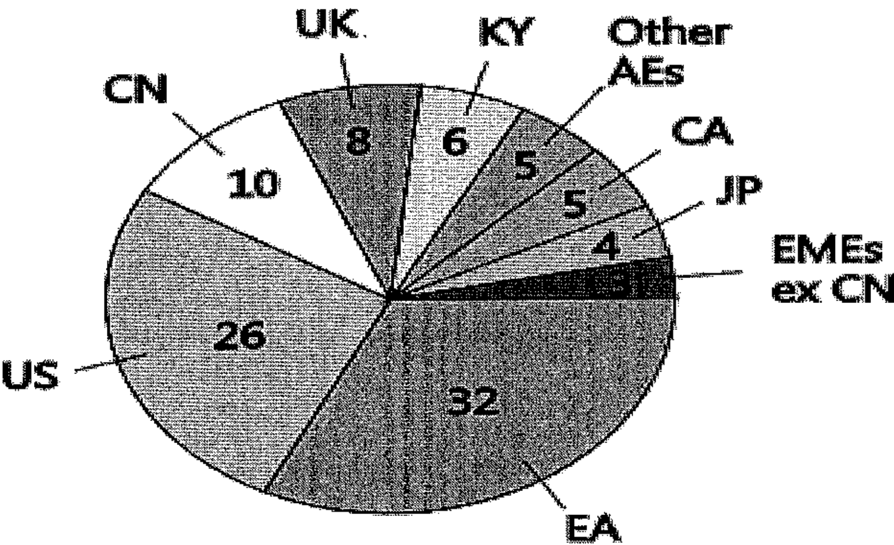
Other Financial Institutions are growing fast



[1] Some exchange rate effects have been netted out by using a constant exchange rate (from 2017).
Sources: Jurisdictions' 2018 submissions (national sectoral balance sheet and other data); IMF *World Economic Outlook*; FSB calculations.

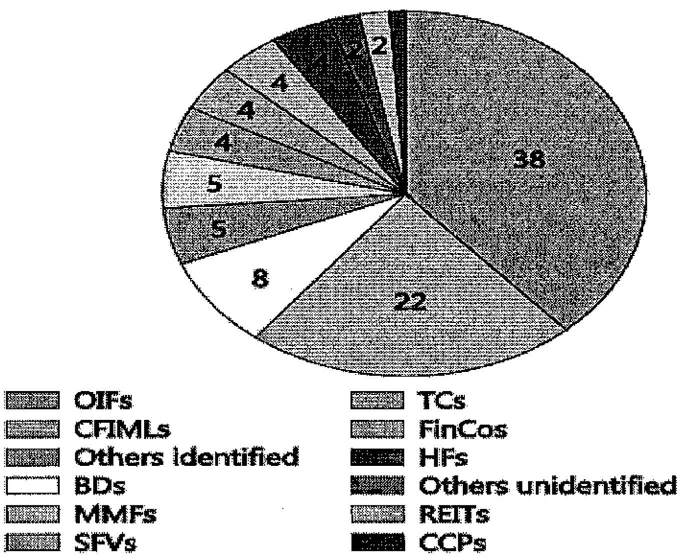
Source: FSB 2019 'Global Monitoring Report on Non-Bank Financial Intermediation 2018'

The Eurozone and the US dominate



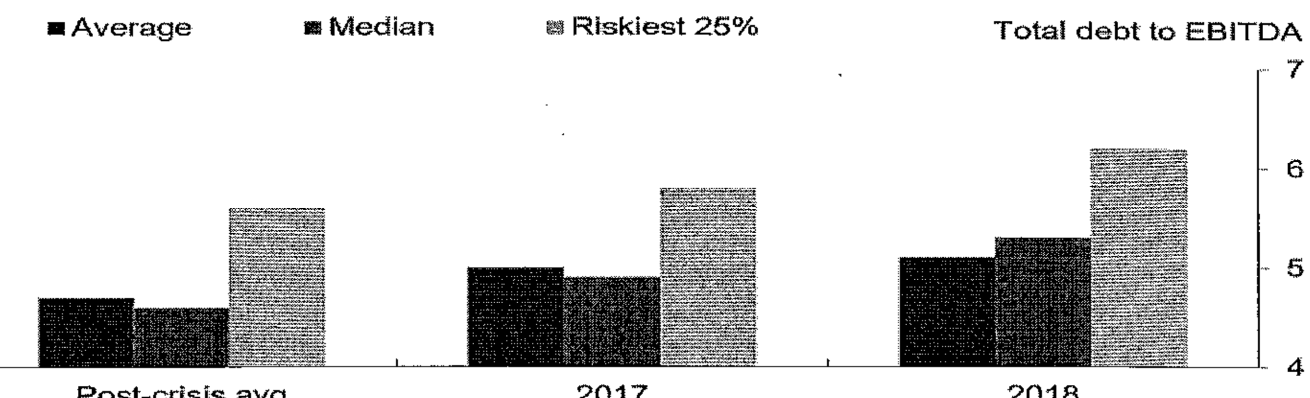
Source: FSB 2019 'Global Monitoring Report on Non-Bank Financial Intermediation 2018'

With investment funds of various kinds most prominent



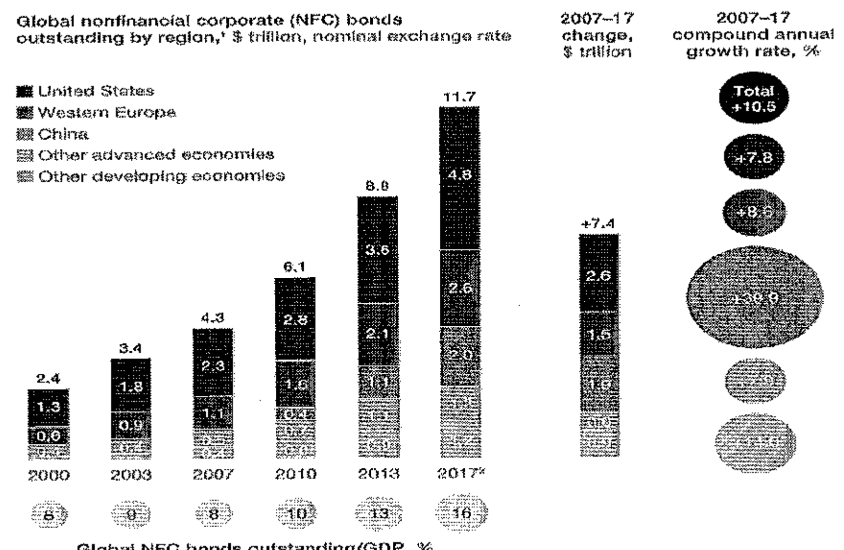
Source: FSB 2019 'Global Monitoring Report on Non-Bank Financial Intermediation 2018'

Leveraged loans are becoming riskier



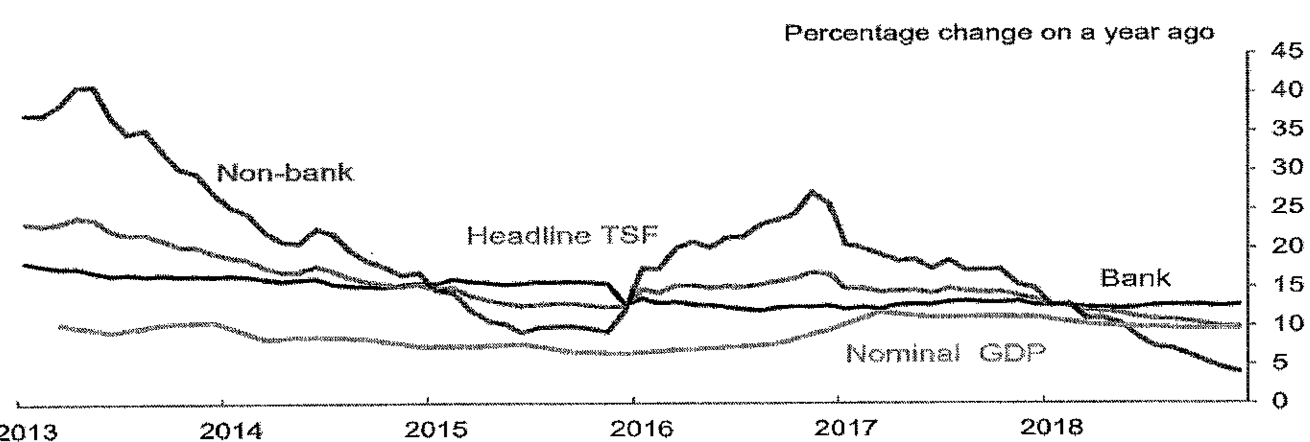
Source: Mark Carney BoE Feb 2019 – 'The Global Outlook'

Corporates are borrowing more from the markets



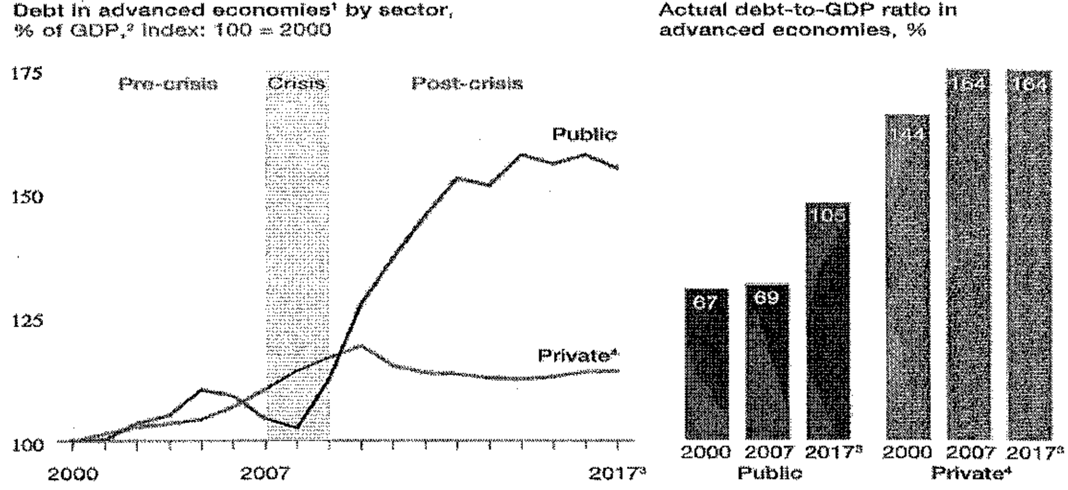
Source: McKinsey 2018 'A decade after the global financial crisis: What has (and hasn't) changed?'

Chinese credit growth has slowed



Source: Mark Carney BoE Feb 2019 – 'The Global Outlook'

Overall, public debt remains high

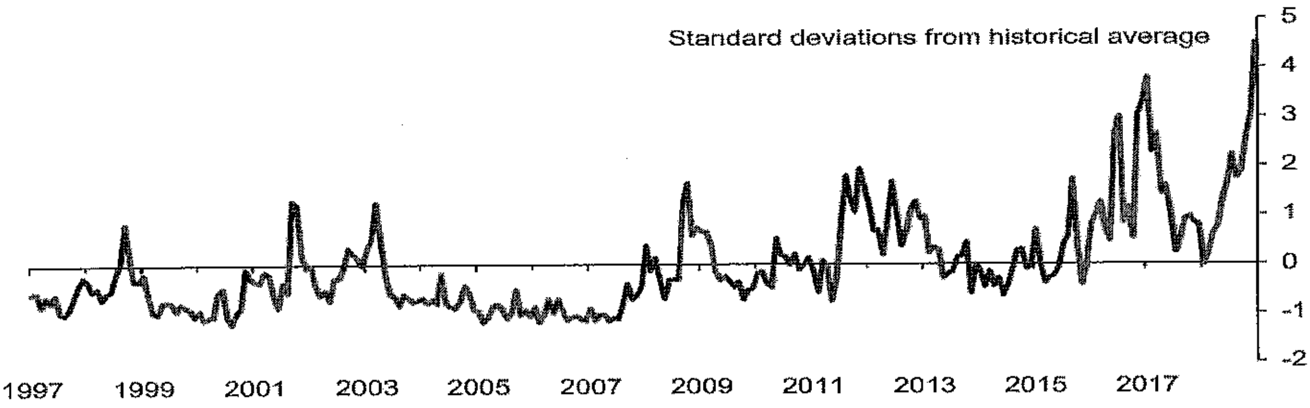


Source: McKinsey 2018 'A decade after the global financial crisis: What has (and hasn't) changed?'

We can find many other risks if we wish to look

- Cyber security threats
- Fintech disruptors
- Big Tech entrants hollowing out the banking system

Indices of global economic policy uncertainty are at record highs



Sources: Bloom et al (2015)[2] and Bank calculations

Source: Mark Carney BoE Feb 2019 – 'The Global Outlook'

But the biggest concerns may lie in the policy arena:

- Policy uncertainty is at a record high
- The opportunity to strengthen the foundations were missed
- Policy co-ordination remains weak
- The scope for dangerous errors has grown

'Global Banking Regulation: The Limitations of Voluntarism'

by

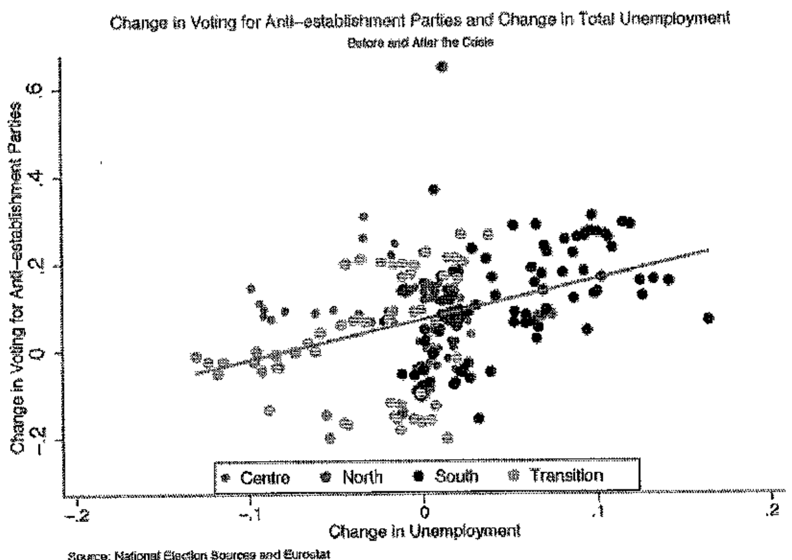
Howard Davies and Dr. Maria Zhivitskaya

forthcoming in April 2019

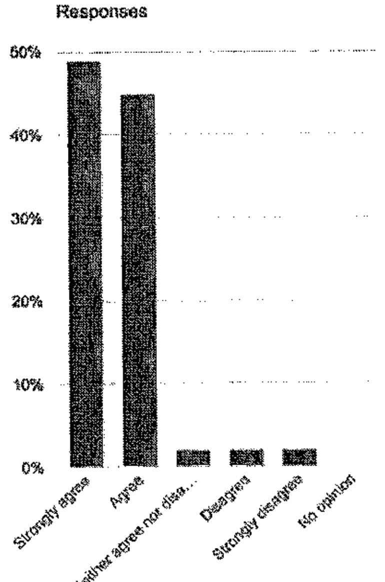
Policy errors have become more likely

- Tariff wars
- Brexit could disrupt European capital markets
- Central Bank Independence under threat in many countries

In most of Europe unemployment has remained high, and populist parties have benefited

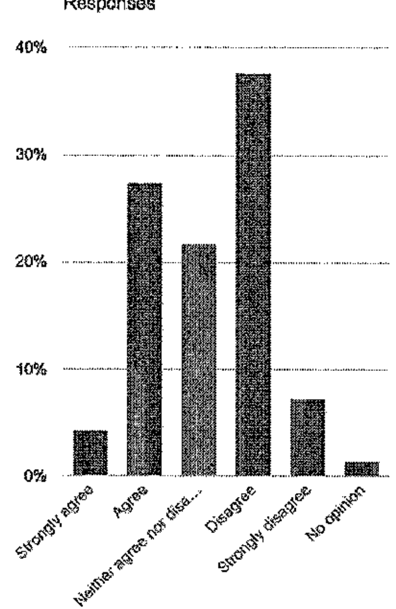


Do you agree that it is desirable to maintain central bank independence in the future?



Source: LSE (2017) - Is the era of central bank independence drawing to a close?

Do you agree that central bank independence in the Eurozone & the UK will decline over the next 48 months?



Source: LSE (2017) - Is the era of central bank independence drawing to a close?

Have we fixed the hidden fractures in the financial system?

Howard Davies

Chair – RBS

Professor – Sciences Po

FSI 20th Anniversary

13 March 2019, Basel