



**SYMPOSIUM ON BUILDING THE
FINANCIAL SYSTEM OF THE 21ST CENTURY:
AN AGENDA FOR EUROPE AND THE UNITED STATES**

Frankfurt, Germany • MARCH 29-31, 2017
The European Central Bank
MAIN BUILDING - Sonnemannstraße 20

AGENDA AS OF MARCH 13

Wednesday, March 29

Main Building Dining Area and Foyer- 3rd floor

6:00-6:45 p.m. COCKTAIL RECEPTION

6:45-6:50 p.m. WELCOME REMARKS

- Hal S. Scott, Nomura Professor and Director, PIFS, Harvard Law School

6:50-7:30 p.m. KEYNOTE ADDRESS

- Peter Praet, Executive Board Member and Chief Economist, European Central Bank

Introduced by: Hal S. Scott, Nomura Professor and Director, PIFS, Harvard Law School

7:30-9:20 p.m. DINNER

9:30-10:30 p.m. AFTER DINNER COCKTAILS

Fleming's Hotel Bar- Ground floor

Thursday, March 30

7:15-7:55 a.m. BREAKFAST BUFFET

Main Building Dining Area and Foyer- 3rd floor

8:00-8:30 a.m. KEYNOTE ADDRESS

Main Building C2.01 (2nd floor)

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

Introduced by: Hal S. Scott, Nomura Professor and Director, PIFS, Harvard Law School

8:35-9:20 a.m. PANEL SESSION

Main Building C2.01 (2nd floor)

The New U.S. Presidency & Brexit's impact on Trans-Atlantic financial markets

Panelists will introduce and discuss issues relevant to the topic. Each panelist will make a 7-8 minute presentation, before all of the participants are broken into small, working groups.

- Jon Cunliffe, Deputy Governor for Financial Stability, Bank of England
- Elizabeth McCaul, Partner-in-Charge, New York Office, Chief Executive Officer, Promontory Europe
- José Manuel González-Páramo, Executive Board Director, BBVA S.A. Co-Chair, TransAtlantic Business Council (Europe)

9:25-10:50 a.m.

SMALL GROUP SESSIONS

Group	Room	Facilitator	Reporter
1	C3.07	Mike Krimminger	Rinke Bax
2	C3.10	David Frick	Iliyan Bakalov
3	C2.03	Nick Reinhardt	Patrick Kenadjian
4	C2.04	Karel Lannoo	Bill Grimes
5	C2.05	Richard Kaye	Simon Gleeson
6	C2.06	David Reed	Eric Morgan de Rivery

10:50-11:05 a.m. REFRESHMENT BREAK *Main Building C2.01 (2nd floor)*

11:10-11:50 a.m. PANEL SESSION *Main Building C2.01 (2nd floor)*

Regulatory developments in capital, liquidity & derivatives impacting Europe & the U.S.

Panelists will introduce and discuss issues relevant to the topic. Each panelist will make a 7-8 minute presentation before all of the participants are broken into small, working groups.

- Stephen Berger, Managing Director, Government and Regulatory Policy, Citadel
- Emiliano Tornese, Division of Financial Stability, European Commission
- Barbara Novick, Vice Chair, BlackRock

11:55-1:20 p.m. SMALL GROUP SESSIONS

<u>Group</u>	<u>Room</u>	<u>Facilitator</u>	<u>Reporter</u>
1	C3.07	Chris Bates	Rinke Bax
2	C3.10	Ed Bowles	Iliyan Bakalov
3	C2.03	Nick Collier	Patrick Kenadjian
4	C2.04	Alan Houmann	Bill Grimes
5	C2.05	Roger Cogan	Simon Gleeson
6	C2.06	Barbara Matthews	Eric Morgan de Rivery

1:20-2:15 p.m. BUFFET LUNCH *Main Building Dining Area and Foyer- 3rd floor*

2:20-3:40 p.m. PANEL SESSION- PLENARY *Main Building C2.01 (2nd floor)*

Central bank independence from the Legislative, Judicial and Executive branches

Panelists will introduce and discuss issues relevant to the topic. Each panelist will make an 8 minute presentation, followed by a plenary discussion, before turning it over to the audience for Q&A.

- Greg Baer, President, The Clearing House Association
- Rosa Lastra, Professor, International Financial and Monetary Law at the Centre for Commercial Law Studies (CCLS), Queen Mary University (moderator)
- Judge Lars Bay Larsen, European Court of Justice

3:45-6:30 p.m. FREE TIME & REPORTERS MEETING *C2.03*

6:30-7:15 p.m. COCKTAIL RECEPTION *40th floor of the Main Building*

7:15-7:45 p.m. KEYNOTE ADDRESS *Dining Area and Foyer- 3rd floor*

- Sir Paul Tucker, Chair of the Systemic Risk Council; Fellow at the Harvard Kennedy School

Introduced by: Hal S. Scott, Nomura Professor and Director, PIFS, Harvard Law School

7:50-9:30 p.m. DINNER *Dining Area and Foyer- 3rd floor*

9:45-10:45 p.m. AFTER DINNER COCKTAILS *Fleming's Hotel Bar- Ground floor*

Friday, March 31

7:45-8:40 a.m. BREAKFAST BUFFET *Dining Area and Foyer- 3rd floor*

8:45-9:55 a.m. PANEL SESSION *Main Building C2.01 (2nd floor)*

The role of lender of last resort in the Eurosystem and US

Panelists will introduce and discuss issues relevant to the topic. Each panelist will make an 8 minute presentation, followed by a plenary discussion, before turning it over to the audience for Q&A.

- Chiara Zilioli, Director General, Legal Services, European Central Bank
- Hal S. Scott, Nomura Professor and Director, PIFS, Harvard Law School (moderator)
- Charles Goodhart, Professor, London School of Economics
- Tom Huertas, Partner, FS Risk and Chair, E&Y Global

9:55-10:10 a.m. REFRESHMENT BREAK

10:10-11:10 a.m. PRESENTATION & DISCUSSION *Main Building C2.01 (2nd floor)*

The New U.S. Presidency & Brexit's impact on Trans-Atlantic financial markets

Co-chairs will moderate a plenary discussion that uses a synthesis of the small group sessions from the previous day as the basis for session.

- Stefan Gavell, Executive Vice President and Head of Regulatory, Industry, and Government Affairs, State Street
- David Wright, Chair, EUROFI

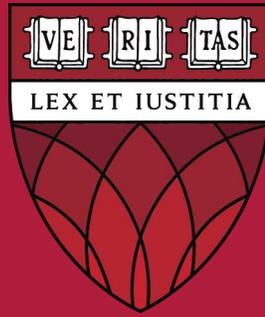
11:15-12:15 p.m. PRESENTATION & DISCUSSION *Main Building C2.01 (2nd floor)*

Regulatory developments in capital, liquidity & derivatives impacting Europe & the U.S.

Co-chairs will moderate a plenary discussion that uses a synthesis of the small group sessions from the previous day as the basis for session.

- Scott O'Malia, CEO, International Swaps and Derivatives Association, Inc.
- Martin Moloney, Head of Markets Policy Division, Central Bank of Ireland

12:15-1:00 p.m. CLOSING BUFFET LUNCH *Dining Area and Foyer- 3rd floor*



Program on International Financial Systems

**Symposium on Building the
Financial System of the
21st Century:
An Agenda for Europe and the
United States**

Frankfurt, Germany | March 29-31, 2017

**Final
Report**



EUROPEAN CENTRAL BANK

EUROSYSTEM

Program on International Financial Systems

Founded in 1986, Program on International Financial Systems (PIFS) fosters the exchange of ideas on capital markets, financial regulation, and international financial systems through its acclaimed portfolio of Symposia on Building the Financial System of the 21st Century. PIFS also conducts research and organizes special events on these topics.

Each year, PIFS bilateral Symposia bring together senior financial leaders, high-ranking government officials, and distinguished academics from the United States and their counterparts from China, Europe, Japan, and Latin America for intensive dialogue on issues affecting international capital markets.

Off-the-record and closed to the media, the invitation-only PIFS Symposia convene leading market practitioners at off-site retreat venues. The Symposia model features candid, intimate exchanges between global counterparts within small-group discussions. Keynote addresses and panel sessions serve to initiate and enhance the interactive, small-group dialogue, which is conducted under Chatham House Rules in order to foster an open exchange of ideas. These discussions are synthesized and presented on the final day of the Symposium in a plenary session, and then summarized and published in the following Symposium Final Report.

Program on International Financial Systems
Hal S. Scott, Director
50 Church Street
Cambridge, MA 02138

For more information, please contact:
James Shipton
+1 617.496.7731
jshipton@law.harvard.edu



GLOBAL SPONSORS:



STATE STREET

LEAD SPONSORS:



SPONSORS:





Contents

2017 Symposium on Building the Financial System of the Twenty-First Century: An Agenda for Europe and the United States

Symposium Final Report	1
Session 1	3
Session 2	11
Session 3	16
Session 4	19



Symposium Final Report

The 16th Europe-US Symposium of Program on International Financial Systems was held on March 29-31, 2016 at the European Central Bank in Frankfurt, Germany. Sessions addressed the impact of Brexit and the election of Donald Trump for Trans-Atlantic financial markets; regulatory developments in capital, liquidity, and derivatives; central bank independence; and the lender of last resort. Participants were cautiously optimistic that governments and central banks were beginning to emphasize economic growth when considering financial regulation and supervision. However, they also expressed concerns about prospects for multilateral regulatory cooperation, the ability of the US Fed to manage a future crisis, and uncertainty over the effects of Brexit and the US regulatory agenda.

Session 1

The New US Presidency and Brexit's Impact on Trans-Atlantic Financial Markets

In Session 1, participants discussed the effects of the Brexit decision and Donald Trump's election as US president on Trans-Atlantic financial markets. Despite President Trump's campaign pledges to dismantle Dodd-Frank and restore Glass-Steagall, most participants considered large-scale legislative changes to be unlikely in the US; rather, they emphasized the importance of the new administration's approach to regulation, supervision, and enforcement. There was considerably more anxiety and uncertainty regarding Brexit, including the prospects for mutual recognition and the consequences for banks and clearinghouses. In addition, participants discussed at length what would be the prospects for global and trans-Atlantic financial regulatory cooperation in the face of rising populist impulses in the US, UK, and elsewhere.

BREXIT & TRUMP IN GLOBAL PERSPECTIVE

Many participants shared the view that the victories of the Brexit and Trump campaigns reflected a global rise in populism that could be seen in a variety of countries, including some in Europe. Indeed, despite the recent failure of the Freedom Party to take power in the Netherlands, a number of participants speculated that there would likely be more countries in which populist or nativist parties enjoyed electoral success. Some participants sought to compare US and European populist nationalism, noting some common drivers such as weak economic growth and concern over immigration. Others argued that a major difference was that populism in the US also reflected a weak social safety net, which they saw as making working class households more economically precarious.

Regardless of the causes, however, many participants saw the global rise in populism as reducing the perceived legitimacy of global cooperation and openness to trade

and investment. This raised the question of whether multilateral cooperation in financial regulation would decline in the age of Brexit and Trump. Many participants felt that this was inevitable, because multilateral cooperation was seen as undemocratic and the product of a cosmopolitan elite that had become suspect. Also, many noted that President Trump had repeatedly criticized multilateral cooperation in favor of bilateral negotiations. In contrast, other participants suggested that US-EU bilateral cooperation could become the basis for multilateral cooperation in financial regulation. And while many participants saw a tearing of the fabric of global financial regulatory cooperation as a result of populist sentiment and contentious elections in the US and Europe, some argued that the Brexit decision might actually improve chances for new forms of cooperation, since the UK would need to rely on multilateral cooperation much more as it lost its role in EU policymaking.

An alternative perspective also predicted declines in global regulatory cooperation, but for different reasons. These participants argued that economic and political factors

that preexisted the Brexit and US presidential elections had already augured an end to what they called “peak regulation.” To some extent, this was explained as a cyclical phenomenon—the regulatory pendulum had swung very far in the direction of re-regulation, and it was inevitable that momentum would shift in favor of deregulation and innovation as memories of the crisis faded. Moreover, the G20 post-crisis financial regulatory agenda had been nearly fully implemented in major economies, offering financial authorities an opportunity to shift their efforts from policy making to policy implementation and suggesting that large-scale new initiatives were unlikely. Many participants also pointed to elements of populist movements, including the erosion of trust in political and administrative institutions (even if resentment toward banks and other financial institutions had not fully receded). Perhaps most important, many participants argued that the primary goal of economic policymakers in both the US and Europe had shifted from financial stability to support of economic growth. They noted, for example, that EU bank regulators had been balking for the last year or more at fully implementing Basel capital rules that they believed would curtail banks’ ability to expand lending.

TRUMP EFFECTS

Participants discussed at length the motivations and intentions of the Trump administration with respect to financial and macroeconomic policy. Despite campaign rhetoric that had alternated between pledges of aggressive deregulation, excoriation of financial elites, and strong but at times contradictory statements on monetary policy, few participants were inclined to predict dramatic changes in

US financial regulation.

One reason for this was the difficulty of passing new legislation. This was seen to be due partly to divisions both between and within the Republican and Democratic parties. Moreover, the sheer scope and complexity of Dodd-Frank would make repeal (as had been promised during the campaign) impractical. One potential exception, where some participants saw overwhelming potential Congressional support for major change, was Dodd-Frank’s Title II (orderly liquidation authority).

Overtaking rulemakings would also be challenging, since that would require extended periods of fact finding, hearings, and cost-benefit analysis. More change could occur with changes in supervision, e.g. stress tests and living wills, which do not require changes in regulation. In fact, many participants argued that US financial institutions did not want fundamental changes to Dodd-Frank, having already committed enormous amounts of time and money to restructuring their activities in order to comply with the law. Rather, they wanted more limited reforms in the aspects of regulation that they saw as particularly costly or inefficient. Among these were the leverage ratio, resolution and SIFI designation.

Most participants agreed that the most consequential shifts in the regulatory environment for financial institutions would emerge in enforcement. However, the contradictory nature of President Trump’s campaign pledges, along with what appeared to be schisms in the White House between market-oriented, pro-business advisors and populist advisors—or between the “deregulatory impulse” and anti-bank resentment—meant that few participants felt

confident in their predictions of how particular elements of financial regulation would be enforced. Thus, they agreed that “personnel is policy,” and that it would be important to see who was appointed to key positions in the SEC, Federal Reserve Board, and other regulatory bodies. Based on the relatively small number of appointments that had been announced to date, many expected that the Trump administration would tend toward pro-business policies that focused on reducing regulatory burden and restrictions on financial institutions.

The most consequential legislative change that participants discussed was the possible dismantling Dodd-Frank’s Title II (orderly liquidation authority) in favor of requiring large, complex financial institutions to be liquidated through bankruptcy processes, which would probably include a new Chapter 14 of the Bankruptcy Act. Not all participants considered this to be likely, but some participants argued strongly that such a bill could well be introduced and approved by Congress under current political conditions. Many participants considered this a sobering thought, as they felt that it could contribute to runs and contagion in the event of a SIFI failure, absent the ability to supply liquidity through the Orderly Liquidation Fund provided for in Title II. Some also argued that it could spell the end of truly multinational financial institutions, since many countries would choose to respond by protecting their own banking systems via ring-fencing the capital of local subsidiaries.

Participants generally agreed that international regulatory cooperation would not be a top priority for the Trump administration, although there were differing views as to

how that would play out in practical terms. Some participants noted that, despite the new administration’s stated suspicion of global regulatory bodies like the Financial Stability Board and Basel Committee, much of the original G20 agenda had already been codified in the US in the form of Dodd-Frank and its associated rulemakings. Indeed, the Basel standards had been subject to “gold-plating” in the US, so there would be considerable room for the administration to ease them without violating existing agreements. In any event, a number of participants argued that, regardless of the “America First” rhetoric of the Trump campaign, there would still be a recognition of the importance of regulatory cooperation in many areas, including derivatives trading, supervision of multinational financial institutions, and data collection. Thus, they argued, cooperation and communication would continue, although ambitious efforts to devise and impose new global regulatory standards were unlikely.

There was also discussion of the Trump administration’s stated preference for bilateral negotiations over multilateral cooperation. Participants considered several possible effects. Some participants were concerned that a shift to bilateral deal making would lead to fragmented markets and inconsistent financial regulation around the world, paralleling the “spaghetti bowl” of bilateral and regional trade agreements. Others were less concerned. It was suggested, for example that bilateral US-EU cooperation could lead to de facto global standards that better reflected the shared interests of the Trans-Atlantic financial markets, rather than having to take into account the preferences of the G20’s emerging market. Others suggested that a more likely first move in the bilateral space would be a

US-UK agreement, especially given the Trump administration's apparent affinity for the UK and support for Brexit. This would certainly be more attractive to the UK than a post-Brexit US-EU deal.

BREXIT & FINANCIAL REGULATION

Despite the drama of the US presidential election, many participants saw the UK's decision to invoke Article 50 and exit the EU as creating considerably more uncertainty in financial regulation. Unlike the US, in which most expected that financial regulation would change incrementally and primarily through supervisory discretion, participants recognized that many aspects of financial services in the UK could change fundamentally (and unpredictably) based on the uncertain dynamics of UK-EU negotiations.

One source of uncertainty was the differing ways in which participants assessed the respective interests and leverage of the UK and EU in the Brexit negotiations. Participants were generally in agreement about the goals of the UK with regard to financial regulation: full access to EU financial markets, whether through passporting, equivalence, or other methods; autonomy to change regulations without approval of EU authorities; assurance that EU regulators would consult with UK regulators in advance of creating or changing EU regulations; and a new arbitration body (separate from the European Court of Justice) to ensure that binding mutual obligations between the two jurisdictions would be upheld. However, few expected that all of these goals would be achieved.

One question in looking to the post-Brexit

future was about relative bargaining power. Many participants saw the UK government as not holding a strong hand in this respect, for various reasons. Some simply expected that the remaining EU members would intentionally seek to inflict costs on the UK, either as a penalty for leaving and creating disruption or as a deterrent for any other members that might seek to exit. In this interpretation, the EU would simply use its market power to extract maximal concessions from the UK. Another view was that EU governments felt strongly that certain financial functions such as euro clearing should be carried out under EU law and supervision, in order to conduct effective microprudential and macroprudential supervision. Some participants also expected that EU countries would pursue competitive advantages over the UK, using regulatory barriers to nurture their own financial markets and market infrastructure. In contrast, other participants were more sanguine about the UK's prospects for ensuring access to European financial markets and institutions. They reasoned that that the UK and EU were in a state of mutual dependence, which would make the EU side more agreeable to cooperative solutions. In particular, the lack of competing market centers and clearing and trading facilities in the remaining EU countries would force EU negotiators to accept the continuation of London's leading role in European finance. (Other participants responded that, even if it were the case that EU negotiators recognized that the costs to cutting off London financial markets were high, it would be politically difficult to give in to UK demands.) One way or another, a key, as-yet-unanswered question would be how EU members understood their own interests.

Another source of uncertainty was about

how the UK government would prioritize the interests of financial institutions and the City relative to the preferences of other sectors or groups. They reasoned that trade-offs would inevitably have to be made among the various negotiating positions the government was advancing. As one participant asked rhetorically, “What would #10 give up to save the City?” While some participants felt that the importance of the financial sector to the UK economy would ensure strenuous support of its positions by the government, others were skeptical. They pointed out that, unlike many previous UK governments, the current government was not particularly disposed to support financial institutions. Equally importantly, voters who had supported Brexit cared much more about the ability to control immigration than about ensuring the continued success of the City. Thus, these participants argued, if trade-offs were to be made among the UK’s negotiating objectives, finance was likely to be sacrificed in favor of ensuring autonomy over immigration policy and other nationalist objectives.

Turning from bargaining dynamics to the substance of likely Brexit outcomes for financial markets, most participants agreed that there would be clear constraints on the UK’s ability to simultaneously chart its own independent course and retain unfettered access to EU markets and financial actors. One key capacity that most participants expected that the UK would lose from Brexit was its voice in EU legislation and rulemaking. Given that the UK had often supported very different approaches to financial supervision, competition, and innovation, many predicted that EU and UK financial regulation would begin to diverge, with EU regulators tending to restrict competition and innovation in the

interest of maintaining financial stability. UK-based financial institutions doing business on the Continent could thus find themselves subject to more restrictive EU rules than the ones they escaped through Brexit. A number of participants also predicted that, once outside the EU, UK would have to accept some level of EU supervision over clearing of euro-denominated bonds and derivatives even within London. This raised the possibility that UK financial markets would never really be independent of EU rules and supervision.

A number of participants noted that the effects of Brexit would vary considerably depending on the type of financial institution. Insurance companies, which already operated in an environment of national regulation, would not be very affected. Most asset managers would also be fine. However, multinational banks, clearinghouses, and users of derivative products would in many cases be required to reorganize their operations or even change their location.

Finally, some participants pointed out how anomalous the post-Brexit EU-UK coordination challenge would be. In most instances of regulatory cooperation, regulators from different jurisdictions would seek to find equivalencies, bridge gaps, and seek opportunities for convergence between more or less different regulatory environments. In contrast, the UK and EU would start with identical legal regimes (albeit possibly different approaches to supervision), thanks to the Great Repeal Act, which would adopt existing EU law as UK law going forward. Thus, regulatory cooperation would need to be designed to deal with divergence rather than convergence. There was no clear consensus as to whether this would be easier or harder than standard cooperation.

TRANSATLANTIC EFFECTS OF TRUMP & BREXIT

With regard to trans-Atlantic cooperation, there was a general consensus that the Trans-Atlantic Trade and Investment Partnership (TTIP) would be abandoned for the foreseeable future. While this was disappointing to a number of participants, it was also noted that TTIP had not been progressing rapidly under President Obama either, and that the US had opposed including many aspects of financial regulation in the trade pact anyway. There was some uncertainty among participants about whether Trump's preference for bilateralism would make trans-Atlantic cooperation easier or harder—while some pointed to his various negative statements about the EU as cause for pessimism, others suggested that this could be an opportunity to make US-EU bilateral cooperation the basis for global financial rules and standards. If so, it could make the establishment of global standards less cumbersome and provide win-win solutions for the US and EU (albeit perhaps at the expense of other G20 countries, particularly emerging economies).

The role of the UK was seen as a wild card by many participants. One prediction was that, rather than focus on bilateral cooperation with the EU, the US would instead prefer to work with the UK to recreate the “special relationship” through regulatory cooperation and perhaps a free trade agreement after Brexit. For some participants, this could be a welcome development: the financial market structure and interests of the US and UK were arguably more similar to each other than were either country's to the EU. Indeed, in some ways, prioritizing US-UK cooperation would be a

kind of “back to the future” approach, given the two countries' historic role in establishing global capital standards and practices in a variety of financial functions such as derivatives trading and clearing. A special relationship with the US could also offer the UK leverage in its negotiations with the EU over financial market access.

Meanwhile, some participants argued that the UK would become a strong advocate for multilateral cooperation, despite the strong strain of nationalism and populism that had surfaced in the Brexit decision. They gave two reasons. First, the UK's loss of its voice in EU policymaking might push it to advocate more strongly for binding cooperation both globally and in the Brexit negotiations, to constrain the EU's ability to impose unilateral decisions that would harm the UK. In addition, a number of participants argued that the UK's approach to financial regulation had fundamentally changed since the global financial crisis, away from “soft touch” and a valorization of the interests of the City and towards a greater interest in financial stability and strict regulation of capital, risk, and conduct. In other words, the UK would not be likely to lead a regulatory race to the bottom in order to better compete as a global market center. Instead, it would prefer to constrain other jurisdictions from taking away its business based on regulatory arbitrage.

Finally, a number of participants raised the question of how Brexit and (albeit to a lesser extent) the Trump presidency would affect the remaining EU countries. Recent Dutch elections, and the upcoming French elections, suggested a degree of disenchantment with nationalist or populist solutions, and participants predicted that frustration with the EU would at least remain a strong

undercurrent in the domestic politics of the EU-27. Some predicted that more members might choose to exit in the future—although, as long as France was not one of those, most felt that the basis of EU cooperation would remain intact. Many participants saw a partial reversal of EU cooperation as a very live possibility, with some suggesting that one potential response to growing centrifugal tendencies would be an à la carte approach of the sort that the UK had tried to advance for itself prior to the Brexit referendum. In terms of finance, a number of participants predicted that the Capital Markets Union would stall before it was ever completed, and the existing patchwork of financial markets would remain in place. Similarly, cooperation on bank resolution was also seen as likely to stall, raising concerns that future cross-border bank failures would not be handled efficiently. §

Session 2

Regulatory Developments in Capital, Liquidity and Derivatives Impacting US and Europe

In Session 2, participants discussed regulatory developments in capital, liquidity, and derivatives. They assessed the implementation and impact of the G20 regulatory agenda, including effects on economic growth, market liquidity, and financial stability. They also addressed what they saw as the most pressing issues on which regulators should focus going forward.

FINANCIAL MARKETS IN THE G20 ERA

Participants discussed at length the environment facing financial markets and institutions now that the G20's post-crisis agenda had been mostly completed. Key challenges included overall economic trends, the regulatory environment, and technological changes, all of which were seen as affecting financial institutions' business models.

Participants noted several economic conditions that were creating challenges for financial markets and institutions. A particular concern was the persistent weak economic growth and low returns in developed economies. Low, and especially negative, interest rates caused particular strains on many financial institutions, including banks and insurance companies. The lack of attractive investment opportunities was seen as threatening the long-term sustainability of financial institutions such as pension funds and insurance firms. It was argued that there may also be a vicious circle, in which low returns discouraged investment in the types of capital that would be needed to rekindle economic growth. Meanwhile, many financial

institutions had become dependent on the easy credit that had been afforded by quantitative easing and a number of participants worried that these financial institutions (and likely, CP and money markets as well) could be endangered if and when credit conditions tightened and interest rates began to rise.

Regulation was discussed as another crucial element of the environment facing financial markets and institutions. Many participants expressed their support for the basic elements of Dodd-Frank and other post-crisis legislation in developed economies, but there was a consensus that the sheer volume of new regulations, as well as many instances of duplication and overlap among rulemakings and new procedures, created cost and confusion for financial institutions. Several participants observed that even supervisors were unable to keep up with all the new regulations they were supposed to implement. In addition to the high costs and complexity of compliance, banks and other financial institutions were constrained by the standards themselves, including those for risk-weighted capital, liquidity, and leverage. While much of the public debate over global standards for banks had focused on capital, including "gold plating" of capital requirements in the US and some other jurisdictions, many

participants stressed that the leverage ratio was a much bigger challenge to banks' business models and ability to make profits. They called for increasing the flexibility of these standards, for example to allow banks to carry out normal hedging operations.

Other regulatory issues were also of concern to participants, in particular resolution regimes and stress tests. While most participants accepted both as important in principle, there was widespread dissatisfaction with their implementation, particularly in the US. Participants characterized the implementation of resolution plans as plagued by complexity, expense, and uncertainty, noting that even after devoting considerable resources to their resolution plans, banks' plans were regularly being rejected by US regulators. Stress tests, while also seen as a good idea, created significant challenges for US banks. The Comprehensive Capital Analysis and Review (CCAR) as a process was criticized as non-transparent and arbitrary; moreover, the strictness of the Fed standards meant that for some systemically important financial institutions, the stress tests themselves had become a binding constraint on their ability to extend credit and hedge exposures.

Finally, participants agreed that financial markets and institutions in the US and EU had been significantly altered by technological change. New technologies including high-frequency trading and artificial intelligence had empowered new market entrants and new strategies among incumbents. Potentially, technologies like the blockchain could transform confirmation and settlement as well, although that remained uncertain. In all these cases, participants saw new opportunities, but also new risks and policy challenges.

Policymakers were seen as ill-equipped to understand, let alone predict, the types of risks that financial institutions were taking on (or that market infrastructures like clearinghouses were being subjected to). Moreover, the entrance of new market participants meant that existing mechanisms of supervision of financial institutions were less likely to detect emergent issues. Meanwhile, new technologies offered additional policy challenges in the form of issues such as privacy and data localization. Finally, a number of participants expressed deep unease about the possibility of cyberattacks, either as a form of high-tech theft or—perhaps more worryingly—as a means of disrupting global financial and payments systems. Several participants urged that future Symposiums add these issues to the agenda.

In short, financial markets and institutions were operating in a challenging and uncertain environment. And while post-crisis regulations had effectively addressed a number of the regulatory issues that had led to the global crisis, they had done so at considerable cost to market participants. Also, many participants expressed concern that regulators had spent so much time and effort finalizing and implementing rules based on the G20 post-crisis agenda that they may not be prepared to deal with new challenges or risks that might emerge.

EFFECTS ON CREDIT AND GROWTH

While it was clear that the economic and regulatory environment was challenging for banks and other financial institutions, there was less certainty about how that environment

was affecting broader indicators, including credit provision and economic growth.

Participants observed that bank lending in both the US and (especially) the EU remained weak, but were divided in their assessment of why. One explanation focused on regulation. In this explanation, extensive and complex regulation led to high compliance costs for financial institutions, making them less profitable. Also, particular rules, such as the leverage ratio and risk-weighting standards for capital, created disincentives to lend to potentially risky borrowers. Thus, banks preferred to invest in government securities rather than lending into the real economy. This was reinforced by liquidity requirements. These participants saw the problem as particularly acute for SMEs, which were highly credit-constrained. Given the importance of SMEs in job creation and economic activity in general, they concluded that overregulation was suppressing economic growth. This was seen to be particularly true in continental Europe, given its high reliance on bank lending compared with the US or UK.

Other participants pushed back against this explanation. They observed that empirical evidence linking regulatory burden and credit creation was still lacking. Moreover, they pointed to evidence that the real problem was not one of constraints on supply, but a lack of demand for credit, due to weak economic growth and the resulting lack of attractive investment opportunities. In this interpretation, the primary driver of weak credit and economic growth was governments that had embraced austerity rather than emphasizing economic growth. Proponents of both explanations considered it a hopeful sign that a number of governments in Europe, as

well as the US, were reemphasizing economic growth as the primary justification for their economic policies.

While the question of impact on overall economic growth remained unsettled, participants discussed whether non-banks could substitute for the role that banks had formerly played in funding SMEs and other private-sector entities. A number of participants argued that expanding the ecosystem of financial institutions would help to create a more robust financial system and to reduce some of the disadvantages SMEs faced when seeking credit from banks.

EFFECTS ON MARKET LIQUIDITY

Participants also discussed the effects of regulation on market liquidity. Many participants agreed that post-crisis regulations regarding liquidity and leverage, as well as the ambiguities of the Volcker Rule in the US, had prompted banks to withdraw from their traditional role as market makers and providers of liquidity to financial markets. Even though there was no strong evidence for lack of liquidity in contemporary bond markets, they saw this as posing a real danger that liquidity could evaporate in crisis, turning financial markets into a mechanism for contagion.

Other participants disputed what they saw as the prevailing narrative that market liquidity has been irretrievably damaged by post-crisis rules. They noted that trading volumes were up and bid-ask spreads down in many key markets. Moreover, they saw much more transparency, which allowed market participants to be more certain of how many bids and asks were actually being offered. They

argued that, although banks had withdrawn from their traditional roles, other types of financial institutions (including asset managers and high-frequency traders) had taken their place. These new entrants were not necessarily more likely than banks to abandon their role in providing market liquidity. Indeed, while many agreed that the existence of market makers with big balance sheets was the key to halting a crisis in financial markets, it was observed that in the 2014 flash crisis, it was banks that pulled out and high-frequency traders that stayed in.

Still, many participants remained skeptical about this story, which they saw as overly optimistic. They expressed concern that trading and market liquidity had become fragmented, both geographically and in terms of assets, due to the specific trading strategies employed by asset managers. Moreover, they argued that overall concentration had actually increased, noting that the number of futures commission merchants had declined from 120 before the crisis to 70. For these reasons, they predicted that liquidity in a crisis would not necessarily shift from one product or trading venue to those where it was needed in a crisis. Some also expressed skepticism about whether market liquidity was as great as it appeared, suggesting that many asks were actually “phantom demand,” designed to probe prices rather than to actually complete a trade. This raised the question of who would provide liquidity in a crisis. Some participants argued that central banks would need to step in as “market-makers of last resort”—if they had the legal authority to do so.

EMERGING POLICY PRIORITIES

Participants identified several issues that

merited particular attention from regulators going forward. One of these was the need to reduce the complexity and extent of rules—as several participants noted, Dodd-Frank alone had generated over 24,000 pages of rulemakings, hampering efforts at both compliance and supervision. They urged regulators to concentrate on eliminating duplications, overlaps, and contradictions among the various rules that had been promulgated. Some argued that shorter, clearer, principles-based rules would be more useful for financial institutions and regulators alike, although others were skeptical that this would be politically acceptable with memories of the global crisis still relatively fresh.

They also called for applying cost-benefit analysis both to new rules and to reviews of existing rules. While recognizing that cost-benefit analysis was difficult in many cases and that not all regulatory bodies were capable of carrying out such analysis, they argued that regulators needed to develop their capabilities and to seek out new ways of quantifying costs and benefits. In particular, many participants argued for the need to take into account the cumulative or interactive effects of rules, rather than just analyzing each one in isolation.

Another priority on which there was consensus among participants was the need to standardize data reporting standards. Many participants identified the lack of consistency in data requirements across different agencies and jurisdictions as a major problem—for example, even something as basic as categorization of time periods varied by regulator. Not only did inconsistency lead to unnecessary expenses for financial institutions, these participants argued, but the data that resulted was not useful either for the financial

institutions' own internal management or for regulators. They urged regulators to come to a common understanding on what data were actually important their mission, and to ensure consistency across jurisdictions in order to allow for effective cooperation in enforcement and crisis management.

Finally, participants again considered the prospects for international coordination. While some were skeptical that global regulatory dialogues could be effective, given President Trump's antipathy to multilateral cooperation, others were more sanguine. In particular, they argued that some issues, such as data standards, could still be understood as technocratic concerns that were outside of politics. In such issues, some participants saw existing modes of cooperation, including binding rules and arbitration, as likely to persist—and perhaps even to reanimate effective trans-Atlantic cooperation. §

Session 3

Central Bank Independence from the Legislative, Judicial and Executive Branches

In Session 3, participants discussed the issue of central bank independence. They considered especially the tension between central bank independence and democratic principles. They also addressed the limits to autonomy given the expanding mandates of central banks in both Europe (particularly the ECB) and the US. In addition, they discussed the means by which central bank independence could or should be assured.

CENTRAL BANK INDEPENDENCE AND ACCOUNTABILITY

Participants discussed the justifications for central bank independence. The original economic literature on central bank independence, which reached an apex in the 1990s as the ECB was being designed, had been based on both theory and empirical observations. Theoretically, advocates of central bank independence emphasized the idea that, while there was a short-term trade-off between inflation and unemployment, in the long term employment and growth were a function of supply side factors that could not be manipulated by monetary policy. Thus, they saw central bank independence as a solution to the problem of time inconsistency—i.e., that political leaders would see short-term benefit in easy money, but in the long term there would be no improvement in employment while inflation mounted, so political interference should be eliminated through legal and institutional measures. The empirical evidence appeared to back up these claims; in response, legislators increased the independence of a variety of central banks around the world.

Acceptance of the notion of central bank independence did not eliminate expectations of democratic accountability. This was addressed in various ways—for example, in the US, the Fed chair was required to testify to Congress on a regular basis to explain Fed decisions. One common caveat to central bank independence was the distinction between goal independence and operational independence, with political authorities in many cases retaining the authority to set goals. The ECB, for example, despite the world's strictest legal and institutional measures to ensure operational independence, was mandated by treaty to pursue price stability as its primary objective, although the specific definition of price stability was delegated to the Bank's Governing Council. Other ways to delimit central bank independence included varying degrees of control over budget and personnel.

Participants emphasized, however, that the economic case for central bank independence was focused entirely on monetary policy. Thus, there was a question of how far independence should be granted for other operations of the central bank, such as microprudential and macroprudential supervision. Participants generally agreed that the further a function was from the core monetary policy role,

the less justification there was for lack of legislative oversight. This did raise some ambiguities, however, particularly with regard to macroprudential supervision, where the responsibility to promote financial system stability could in many cases straddle the lines between monetary policy, generalized liquidity support, and bailouts of particular financial institutions. For example, some participants argued that emergency liquidity assistance (ELA) to illiquid but solvent Greek banks had in the end constituted monetary policy operations. Similarly, the ECB's Outright Monetary Transaction program was considered by many observers to have crossed the line between monetary policy and bail-out.

Finally, even for monetary policy, a number of participants observed that the presumed legitimacy of central bank independence had eroded as a result of the global financial crisis. Critiques of how central banks helped to create macroeconomic and financial vulnerabilities and of how they managed the crises that arose had gained popularity in several countries (especially the US), including among prominent legislators. While participants recognized the need for central banks to justify their actions and learn from their mistakes, many were worried that efforts (particularly in the US) to constrain central banks would create new hazards for financial stability and monetary policy execution.

CENTRAL BANKS' EXPANDING MANDATES

Participants observed that central banks' mandates and functions in both Europe and the US had expanded significantly and across multiple dimensions during and after the

global financial crisis. In monetary policy, the Fed, Bank of England, and ECB had all seen unprecedented growth in their balance sheets, while they had also expanded the range of acceptable counterparties and collateral in their role as lender of last resort. In doing so, they redefined existing notions of price stability and, arguably, became the default macroeconomic authority in their jurisdiction in the face of fiscal inadequacy or inaction. The Fed, ECB, and BOE also experienced growth in other respects, including in terms of personnel and budget.

Most notable was the expansion of their roles in bank supervision. The ECB was given authority over the Single Supervisory Mechanism in 2014, while financial supervision in the UK had reverted to the BOE in 2013. And the Fed had become the supervisor of systemically important non-bank financial institutions. Moreover, the macroprudential responsibilities of all three central banks were expanded after the crisis.

The expanding mandates of each of these central banks had led to controversies, including accusations of mission creep and resentment at lack of accountability. Internally, as well, the expansion of mandates had created challenges, as the demands of macroprudential supervision could potentially collide with their goals of price stability (or in the Fed's case, with the dual mandate of price stability and maximizing employment). Moreover, the expansion of monetary policy tools and definitions of price stability during and after the crisis meant that the Fed and ECB were, in effect, making choices about the viability of financial institutions and—for the ECB—even whether particular member governments would be able to finance their operations.

Functionally, it was argued, monetary authorities had essentially taken over a major part of fiscal policy.

These circumstances were seen by participants as putting central banks into potentially precarious political situations. Perhaps not surprisingly, some participants expressed nostalgia for the days when the ECB focused entirely on price stability.

INDEPENDENCE OF THE ECB

Even in comparison with powerful counterparts like the Fed, Bank of England, and Bank of Japan, the ECB remained a uniquely independent central bank in many respects, with legal and institutional factors guaranteeing its operational independence. Fundamentally, the ECB was created not by legislation, but by treaty. Thus, encroachments on its independence in core areas (e.g., monetary policy) could not be accomplished except through treaty revision. However, in other areas, such as financial supervision, the ECB implemented laws and rules created by the European Commission or Parliament. Despite the complexity of the structure, many participants argued that it worked due to the clarity of the legal foundations for all of the ECB's decisions and actions. While that did not fully eliminate ambiguity or challenge, a growing body of ECJ case law was seen by many participants to have created a coherent and effective set of rules to govern the ECB's authorities and responsibilities.

Participants noted that ECB independence and accountability were defined by both legal and institutional arrangements. In monetary policy, while the ECB had not been

granted goal independence, its authority to quantify its mandated price stability objective was protected by law. Some argued that accountability was as hard-wired into the system as independence. For example, in terms of instrument independence, the ECB possessed absolute authority to use design and implement its operational strategy, but it did not have the ability to create instruments that were not provided under the treaty and its policy tools must be used in line with policy goals. Similarly, the ECB enjoyed an extremely high level of independence in terms of personnel and finances, but it was required to exercise those powers in accordance with ECB law. One idiosyncratic characteristic of the ECB was its relationship with national central banks (NCBs). While NCBs acted purely as implementers of ECB decisions, they had much more autonomy in their role as local lenders of last resort. (See Session 4, below.) Meanwhile, financial responsibility for the NCBs lay with the home governments, even as personnel decisions were required to follow ECB rules.

An important question for participants was how principles of independence and accountability should be applied to new areas of ECB activity. One critical issue was microprudential supervision, which had only recently been assigned to the ECB. Although the treaty had stipulated that this could happen, it did not provide any guidelines. Thus, the rules of supervision had been defined in EU legislation. Independence in this case meant operational autonomy, but legislatures retained the authority to set goals, rules, and procedures, and the ECB was properly accountable to both the European Parliament and to national legislatures as they carried out those functions. §

Session 4

The Role of Lender of Last Resort in the Eurosystem and US

In Session 4, participants discussed the lender of last resort (LOLR) function in the Eurozone and US, looking not only at the ECB and Federal Reserve, but also at the Eurozone national central banks. Among the issues raised were the difficulties of determining whether a given financial institution was illiquid or insolvent, fiscal impacts of LOLR activities, and how the LOLR function interacts with macroprudential supervision.

WHERE AND WHEN TO LEAD

Much of the discussion of the lender of last resort function started from the classic premise that solvent banks should be given access to liquidity from the central bank in the event that they could not access liquidity from markets or other private financial institutions. As several noted, this would both address concerns over moral hazard and ensure that public funds would not be lost by lending to a failed institution. Indeed, a major concern for a number of participants was what they saw as the need to ensure that LOLR functions of central banks would not involve fiscal policy, which they saw as an encroachment on the appropriate role of legislatures and the executive branch. Among other concerns, they worried that blurring the line between fiscal and LOLR functions would lead to greater political involvement in or curtailment of central banks' capacity to prevent runs and contagion.

At the same time, there was considerably agreement regarding the difficulty of distinguishing between illiquidity and insolvency in the midst of a funding crisis. In particular, market-based valuations of assets and collateral could create asset fire

sales and self-fulfilling prophecies, making the effects a temporary freeze in liquidity look like a long-term insolvency. For some participants, the key to avoiding this dilemma was a much more proactive approach to micro and macroprudential supervision. Also, many thought it was appropriate in assessing insolvency to value assets at their pre-run level.

There was considerable discussion of how non-banks should interact with the lender of last resort. Many participants predicted that non-depository institutions that depended on short-term financing and that were invested in illiquid, market-based assets would be hit the hardest by liquidity freezes. Traditionally, such institutions had not had access to central bank liquidity, but that had generally changed for major central banks, e.g. through section 13 of the Federal Reserve Act. Some argued that non-banks needed to be under the LOLR umbrella in some way, given its importance in contemporary financial systems—as one participant noted, non-bank financial institutions accounted for \$7-8 trillion (66%) of all runnable funding in the US financial system. Thus, systemic events centering on non-banks would have profound effects, including the likelihood of contagion across the financial system and credit crunches in the

real economy.

To ensure that LOLR lending to both banks and non-banks would meet the criteria of both preventing contagion and not lending to fundamentally insolvent institutions, participants called for clear frameworks for determining when and under what conditions central banks should act as lenders of last resort. One proposal was to require the establishment of detailed crisis management procedures that distinguished between lending to banks and non-banks. These would establish specific observable criteria for determining whether there would be fiscal effects (i.e., if it were likely that the financial institution were insolvent); in cases where the central bank's assessment using the established analytical framework suggested fiscal effects, the central bank would need to refer the case to the treasury or finance ministry.

Several other points were raised about how central banks should fulfill their missions as lenders of last resort. One major question addressed the tools at central banks' disposal. In the global financial crisis, central banks had expanded both eligible collateral and counterparties in their effort to stop contagion. Thus, the question arose whether it was possible or desirable to revert to narrow definitions of acceptable collateral. On the one hand, it was noted that financial institutions might be more careful if they knew that there were strict limits on the types of collateral that would be accepted and the counterparties who could access emergency liquidity. On the other hand, some participants argued that the experience of the financial crisis had already demonstrated that central banks would be able to expand their rules regarding collateral and counterparties in future

systemic crises. One suggestion as to how to navigate between the two approaches was to adopt a "macroprudential approach," making conditions such as eligibility requirements and haircuts more stringent during upswings and more lenient during downswings.

Participants raised the question of whether access to the lender of last resort should be thought of as a privilege or a right. Some argued that ambiguity on the part of the central bank was essential to minimizing moral hazard, as financial institutions ought to behave more responsibly if they could not be certain of receiving emergency liquidity. Others disagreed. While they accepted the need for central banks to have discretion in analyzing a given situation, they argued that democratic accountability demanded that there be clear standards that central banks applied to requests for emergency liquidity. This would also apply to loan conditions, including interest rate and haircut. Also, they believed ambiguity about the exercise of lender of last resort powers could make crises considerably worse as contagion would be intensified.

There was also some discussion of bail-ins as an alternative approach. Participants expressed considerable skepticism that bail-ins would work as designed if push came to shove. As one participant noted, bail-in proposals implied that it would be simultaneously possible to make holding companies risky (by wiping out equity holders and bailing in debtholders) and to make the subsidiaries operate in a healthy manner after the failure of the holding company, a doubtful concurrence. Moreover, even though bail-in-able bonds would likely not lose all their value in the event of an insolvency, it would take months to come to an accurate valuation; in the meantime, investors

would be unable to sell the asset and would have to be prepared for a 100% loss; such a prospect might make such bonds prohibitively expensive to issue. In addition, it was argued that central bank liquidity would be needed even after recapitalization, at least initially, in order to prevent new runs.

LOLR IN THE EUROZONE

Participants noted that the Eurozone had unique conditions for activating the lender of last resort function, based on a distinction between macroeconomic and microeconomic responsibilities. While the ECB had been given supervisory authority over the Eurozone's financial institutions, it was empowered to be the lender of last resort only at the systemic (macroeconomic) level. For individual banks and non-bank financial institutions, national central banks (NCBs) were responsible for providing emergency liquidity assistance.

The relationship between NCBs and ECB was seen to be a complicated one, but with clear parameters. The key principle was that NCBs remained capable of fulfilling national tasks as long as those tasks did not interfere with their responsibilities to the ECB. With regard to ELA, the Governing Council decided in 1999 that ELA should be provided by national central banks, not the ECB—moreover, if losses were to occur as a result of non-repayment or insufficient collateral, those losses would be the responsibility of the national central bank itself (and ultimately of its home government) rather than of the ECB. Some participants questioned whether this arrangement was appropriate. They argued that NCBs may not have the capacity to manage crises, and that restrictions on ECB

involvement may raise the probability of contagion in some cases.

While ELA was used conservatively until the financial crisis, once the crisis began the number of financial institutions needing support grew dramatically, and their needs were more long-term. In some countries, such as Greece, it was argued that ELA actually became the primary form of monetary operations. This created an expectation of more scrutiny of national central banks' LOLR actions on the part of the ECB. In response, the Governing Council had consolidated and published both ex ante and ex post procedures that NCBs must follow in extending ELA, in order to ensure transparency. It also set out criteria for issuance to ensure that ELA would not be provided to illiquid financial institutions, since central bank financing of governments is prohibited and insolvencies are a government function. Moreover, ELA cannot be extended without collateral and a haircut. While participants saw these as appropriate measures, there were some questions as to how well they would work in practice. Some ambiguities still remained, including what types of institutions were eligible to receive ELA. It was argued that this meant that the latitude for NCBs to define eligible financial institutions was quite broad, and could include a variety of non-banks, including market infrastructure such as clearinghouses. It was also left to the discretion of the NCBs as to what interest rate should be applied to ELA.

LOLR IN THE US

Participants agreed that the US Federal Reserve had been exceptionally creative in the global financial crisis, expanding the types of

facilities, range of counterparties, and variety of acceptable collateral for financial institutions seeking to access emergency liquidity. There appeared to be general agreement that these actions had been instrumental in preventing a deeper and more pervasive crisis.

However, participants expressed concern that the Dodd-Frank Act had restricted the Fed's ability to be equally creative in future crises, particularly for non-bank financial institutions. Dodd-Frank significantly restricted the Fed's powers under Section 13(3) of the Federal Reserve Act, which had provided the legal justification for those actions. For example, in order to ensure that the lender of last resort function was only used to prevent or manage a systemic crisis, the new law required that no loans could be made to a single non-bank; rather, a minimum of five financial institutions would need to be eligible to borrow. Moreover, all loans to non-banks would have to be approved by the Secretary of the Treasury, and even banks would not be allowed an unlimited ability to channel funds borrowed through the discount window to their affiliates. And all loans would have to be disclosed within seven days to Congressional leaders (raising concerns about leaks among some participants) and publicly within one year. A proposed House bill would go further, by requiring the affirmative vote of nine of the twelve Federal Reserve Bank governors and certification from all relevant regulatory bodies (including, depending on the situation, the Consumer Finance Protection Bureau, Securities and Exchange Commission, etc.), while not allowing for any lending to non-financial institutions or purchase of non-financials' commercial paper. If passed, the bill would further restrict the Fed's ability to manage crises.

Participants expressed considerable concern over these provisions of Dodd-Frank, as well as the possibility of even more restrictive legislation. In particular, they pointed out that non-banks had become central to the US financial system. Under the new and proposed rules, even though systemic events that affected non-banks could create major contagion, the ability of the Fed to respond would be significantly limited.

Thus, there was considerable support among participants for removing the existing restrictions that Dodd-Frank had imposed. However, there was also an argument that democratic accountability required that the Fed's powers be used in a rules-based and transparent manner. One participant proposed that the Fed should be required to design detailed crisis management procedures for both banks (Section 10) and non-banks (Section 13(3)) to allow for appropriate Congressional oversight. Moreover, there should be specific criteria for determining if there was a fiscal aspect to a given liquidity operation—in other words, an objective framework for establishing the solvency of a financial institution—in which case, there should be an explicit role for the Treasury in approving and indemnifying Fed loans.

Some participants were skeptical of even those types of restrictions. They argued that insolvency conditions could not be objectively determined, as they would often depend on financial conditions. Thus, there would be no way to fully separate the monetary and fiscal effects of acting as lender of last resort. They also emphasized that crises were unpredictable by their nature, so it would not be possible to foresee all possible policy responses that might be needed—indeed, they argued, if one

had asked the Fed in 2005-6 to set out rules and procedures for a crisis, it would not have included many of the things Fed actually had to do in 2008-9. §

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry, no matter how small, should be recorded to ensure the integrity of the financial statements. This includes not only sales and purchases but also expenses, income, and any other financial activity.

The second part of the document provides a detailed breakdown of the accounting cycle. It outlines the ten steps involved in the process, from identifying the accounting entity to preparing financial statements. Each step is explained in detail, with examples provided to illustrate the concepts.

The third part of the document focuses on the classification of accounts. It discusses the different types of accounts, such as assets, liabilities, equity, revenue, and expense accounts, and how they are used to record and summarize financial transactions.

The fourth part of the document covers the process of journalizing and posting. It explains how to create journal entries based on the accounting cycle and how to post these entries to the appropriate T-accounts in the ledger.

The fifth part of the document discusses the process of balancing the accounts. It shows how to calculate the ending balances for each account and how to ensure that the total debits equal the total credits.

The sixth part of the document covers the preparation of financial statements. It explains how to use the information from the ledger to prepare the balance sheet, income statement, and statement of owner's equity.

The seventh part of the document discusses the process of closing the books. It explains how to transfer the balances of the temporary accounts (revenue, expense, and owner's drawing) to the permanent accounts (owner's equity) to prepare for the next accounting period.

The eighth part of the document covers the process of correcting errors. It discusses the different types of errors that can occur and how to identify and correct them using journal entries.

The ninth part of the document discusses the process of adjusting the accounts. It explains how to use adjusting entries to ensure that the financial statements accurately reflect the economic events of the period.

The tenth part of the document covers the process of preparing the final financial statements. It explains how to use the adjusted ledger to prepare the final balance sheet, income statement, and statement of owner's equity.

**Program on International Financial Systems
Harvard Law School
50 Church Street, 3rd Floor
Cambridge, MA 02138**



**SYMPOSIUM ON BUILDING THE
FINANCIAL SYSTEM OF THE 21ST CENTURY:
AN AGENDA FOR EUROPE AND THE UNITED STATES**
FRANKFURT, GERMANY • MARCH 29-31 2017

PARTICIPANT LIST (AS OF MARCH 17)

Bernard Agulhon

Head of Regulatory Affairs, Amundi

Javier Arias

*Head Representative to the EU, BBVA (Banco
Bilbao Vizcaya Argentaria)*

Maja Augustyn

Senior Advisor, BNP Paribas Securities Services

Greg Baer

President, The Clearing House Association

Iliyan Bakalov

*Principal Legal Counsel, Legislation Division,
Directorate General Legal Services, ECB*

Christopher Bates

Partner, Clifford Chance LLP

Kevin Bailey

Global Head - Regulatory Affairs, Citigroup

John Banes

Partner, Davis Polk & Wardwell LLP

Rinke Bax

*Principal Legal Counsel, Supervisory Law
Division, Directorate General Legal Services,
ECB*

Boudewijn Berger

*Head Recovery & Resolution, ABN AMRO Bank
N.V.*

Stephen Berger

*Managing Director, Government & Regulatory
Policy, Citadel*

Judson Berkley

Managing Director, UBS

Dirk Bliesener

Partner, Hengeler Mueller

Edward Bowles

*Managing Director, Group Public Affairs,
Standard Chartered Bank*

Allison Breault

*Senior Attorney, Cleary Gottlieb Steen &
Hamilton LLP*

James Chew

*Global Head, Regulatory Policy, HSBC Holdings
plc*

Thomas Clark

*Executive Counsel, Government Relations, GE
Capital*

Roger Cogan

Head of European Public Policy, ISDA

Nick Collier

Global Head of Government & Regulatory Affairs, Thomson Reuters

Joanna Cound

Head of Government Relations & Public Policy, EMEA, BlackRock

Henrik Damgaard

Senior Analyst, Danish Public Pension Fund, ATP

Catherine Davidson

Head of EMEA Government Relations, Morgan Stanley

Taggart Davis

Vice President, JP Morgan & Chase Co.

Bouke de Vries

Advisor to the Board, Public Affairs, Rabobank Nederland

Bernard Delbecque

Senior Director of Economics and Research, EFAMA – European Fund and Asset Management

Panos Delimatsis

Professor of Law, Tilburg University

Thomas Droll

Head of Section, Financial Stability Department, Bundesbank

Colin Ellis

MD, Chief Credit Officer, Moody's

Nicola Fleming

Vice President, Government and Public Affairs, Moody's Investor Services

David Frick

Senior Vice President, Nestlé SA

Urban Funered

Director of Public Policy, Fidelity International

Nathan Gatten

Managing Director, Head of Global Government, JP Morgan & Chase Co.

Stefan Gavell

Executive Vice President and Global Head of Regulatory, Industry, and Governmental Affairs, State Street

Simon Gleeson

Partner, Clifford Chance LLP

Charles Goodhart

Professor Emeritus of Banking and Finance, London School of Economics and Political Science

Dominique Graber

Head of European Public Affairs, BNP Paribas

William Grimes

Professor of International Relations, Boston University

Seraina Gruenewald

Assistant Professor of Financial Market Law, University of Zurich

Ulf Grunnesjö

CFO, SEB (Skandinaviska Enskilda Banken publ.)

Yasuhiro Hayasaki

Counsellor on Global Strategy to President and the Board of Directors, The Norinchukin Bank

Otto Heinz

*Head of the Financial Law Division, Directorate
General Legal Services, ECB*

Brigitte Hendrikse-Troost

Regulatory Counsel | Financial Services

Alan Houmann

Head of EMEA Global Affairs, Citi

Tom Huertas

Partner, FS Risk and Chair, E&Y Global

Kinga Huzarski

Policy Advisor, Bank of England

Veronica Iommi

*EMEA Head of Public Policy, Bank of New York
Melon*

Nadège Jassaud

Head of Unit, The Single Resolution Board

Ingrid Kalisch

Partner, Arnold & Porter, Kaye Scholer LLP

Sven Kasper

*Senior Vice President, Director EMEA,
Regulatory, Industry & Government Affairs,
State Street*

Patrick Kenadjian

*Adjunct Professor, Institute for Law and
Finance, Goethe University*

Peter Kleisen

Senior Expert International Relations, EIOPA

Wolf Klinz

Former MEP, European Parliament

Michael Krimminger

Partner, Cleary Gottlieb Steen & Hamilton LLP

Markus Eberhard Krüger

Partner, Latham & Watkins LLP

Karel Lannoo

CEO, CEPS

Lars Bay Larsen

Judge, European Court of Justice

Rosa M. Lastra

*Chair in International Financial and Monetary
Law, Centre for Commercial Law Studies,
Queen Mary, University of London*

Kęstutis Laurinavičius

*Head of the Market Infrastructure Law Section,
Financial Law Division, Directorate General
Legal Services, ECB*

Myriam Lemaout

Head of Prudential Public Affairs, BPCE

Andreas Löhdefink

*Partner, Co-Head Global Insurance Group,
Shearman & Sterling LLP*

Franziska Löw

Head of International Affairs, FINMA

Daniela Marilungo

*Head of Public Policy, EMEA, Bank of America
Merrill Lynch*

Barbara Matthews

Managing Director, KPMG

Elizabeth McCaul

*Partner-in-Charge, New York Office
Chief Executive Officer, Promontory Financial
Group, an IBM Company*

Yves Mersch

*Member, Executive Board, European Central
Bank*

Jakub Michalik

International Affairs Officer, European Securities and Markets Authority

Lotte Pia Mollerup

Executive Director for Asset Management & Tax, Finans Danmark

Martin Moloney

Head of Markets Policy Division, Central Bank of Ireland

Eric Morgan de Rivery

Partner, Jones Day

Nicolette Moser

Director, European Regulatory Affairs and Public Policy, Allianz Global Investors GmbH

Jeremy Newell

Executive Managing Dir./General Counsel & Head of Regulatory Affairs, The Clearing House

Barbara Novick

Vice Chairman, BlackRock

Scott O'Malia

CEO, ISDA

Ed O'Reilly

Senior Managing Director; Global Head, Client and Partner Group, Citadel

Burkhard Ober

Head of the European Affairs Office Brussels, Allianz SE

Sven Oehme

President and CEO, European-American Business Organization, Inc

Eric Pan

Director, Office of International Affairs, US Commodity Futures Trading Commission

Ruby Pillai

Senior Attorney, Ropes & Gray LLP

Fatima Pires

Head of the Financial Regulation Division, Directorate General Macro-Prudential Policy and Financial Stability, ECB

Brian Polk

EMEA FS Regulation Director, PwC

Peter Praet

Member, Executive Board, European Central Bank

David Reed

Partner, Kreab Group

Jens Reich

Head of Section, Financial Stability Department, Bundesbank

Nickolas Reinhardt

Director, Afore Consulting

Hubert Schokker

Senior Advisor, Supervision, Dutch Banking Association

David Schraa

Regulatory Counsel, The Institute of International Finance

Hal S. Scott

Nomura Professor and Director, Program on International Financial Systems, Harvard Law School

Michael Sholem

Counsel, Davis Polk & Wardwell LLP

Michalis Sotiropoulos

Director, Government Relations, EMEA, Depository Trust & Clearing Corporation

Kolja Stehl

Counsel, Shearman & Sterling LLP

Vladimir Stolyarenko

Senior Fellow, PIFS, Harvard Law School

Kay Swinburne

Member of the European Parliament for Wales

Michael Tipermas

Analyst, Bracebridge Capital

Andrea Tokheim

Lawyer, Sullivan & Cromwell LLP

Sofia Toscano Rico

Head of the Authorization Division, Directorate General Micro-Prudential Supervision IV, ECB

Emiliano Tornese

Division of Financial Stability, European Commission

Paul Tucker

Chair, Systemic Risk Council; Fellow, Harvard Kennedy School of Government

Thierry Valat De Cordova

Executive Director, Regulatory Affairs Group, Natixis North America LLC

Mirik van Rijn

Phd Researcher and Financial Law Lecturer, Institute for Financial Law, Radboud University

Tanguy van de Werve

Managing Director, Advocacy, AFME

Arthur van den Hurk

Senior Regulatory Counsel, AEGON N.V.

Pieter Verheugd

Manager of Public and Government Affairs, ING

Veerle de Vuyst

Adviser to the Authorization Division, Directorate General Micro-Prudential Supervision IV, ECB

Alexandre Vinel

Deputy Head, Financial Sector Analysis Unit, French Treasury

Emily Walch

Director of Corporate Affairs, The Investment Association

Karlheinz Walch

Standing Deputy Head of Banking and Financial Supervision Department, Deutsche Bundesbank

Ruth Wandhofer

Managing Director, Citibank

Jon Whitehouse

Managing Director, Government Relations, Barclays Bank

David Wright

Chairman, EUROFI

Rickard Ydrenäs

CEO, Ydrenas Communications AB

George Zavvos

Legal Adviser, Legal Service, European Commission

Chiara Zilioli

Director General, Legal Services, European Central Bank