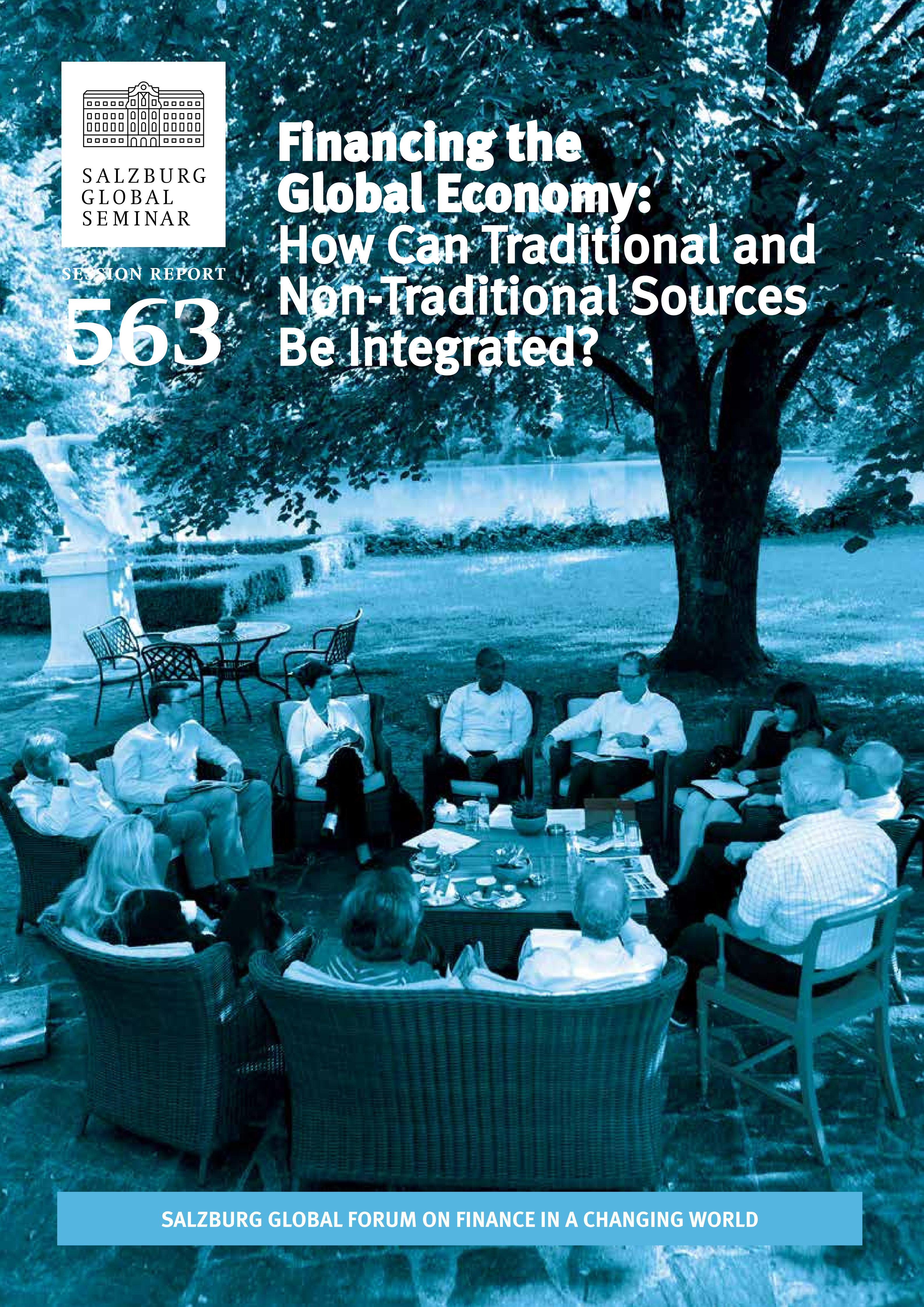
SALZBURG GLOBAL SEMINAR

SESSION REPORT

563

Financing the Global Economy: How Can Traditional and Non-Traditional Sources Be Integrated?



SALZBURG GLOBAL FORUM ON FINANCE IN A CHANGING WORLD

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Session 563

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Financing the Global Economy: How Can Traditional and Non-Traditional Sources Be Integrated?

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Introduction

Since 2011, Salzburg Global Seminar has held a series of high-level sessions focusing on critical challenges of global financial regulation following the financial crisis. The 2016 session of the *Salzburg Global Forum on Finance in a Changing World* brought together over fifty bankers, policymakers, regulators and supervisors, representatives of financial services firms and alternative financial intermediaries, consultants and academics from across the globe for three intensive days to discuss: *Financing the Global Economy: How Can Traditional and Non-Traditional Sources Be Integrated?*

Fostering and financing sustainable real economic growth in a world governed by increasing uncertainty and technological disruption has become a key challenge for policymakers, regulators and industry leaders. According to the World Economic Forum, financing gaps exist especially with regard to small and medium enterprises (SMEs) with a gap of USD 2 trillion in emerging countries alone; long-term infrastructure projects face a gap of USD 1 trillion annually.[1] This is concerning as, in light of very modest economic growth of around 2.5% in many regions of the world, SMEs and long-term infrastructure projects clearly belong to the most important future growth drivers. As traditional financial institutions such as banks cope with greater regulatory requirements and are consequently becoming increasingly constrained in their abilities to lend to SMEs, focus is shifting to alternative financing sources. Market-based finance as an alternative to bank-based finance is already well developed in some parts of the world such as the US, but it still plays a limited role in other regions such as Europe.

Additionally, technological disruptions are believed to have a significant impact on traditional financial channels and will further increase the role of fintechs in providing financing and other financial services. The key question governing deliberations of the three-day session in Salzburg was therefore how to sustainably finance the global economy and growth using all available channels such as banks, market-based finance, fintech, and non-bank challengers, as well as policy banks, in a way which enhances the overall quality of finance while preserving stability.

1 World Economic Forum, The Future of FinTech: a Paradigm Shift in Small Business, 2015a.

Banks and Markets: Debt, Equity and Potential for the Economy

The debate regarding the relative merits of bank-based versus market-based financial systems has occupied policymakers and economists for over a century.[2]

A range of studies finds evidence that both the presence of intermediaries as well as deep and liquid capital markets are important for economic growth. The relative importance of each appears to depend on the degree of economic and financial development of the respective economy.[3] Bank-based financing has historically dominated in Europe and Japan – as reflected by a ratio of bank credit to the sum of bank credit, total equity and bond market capitalization of around 50% for Japan and almost 60% in Germany.[4] In the US, however, market-based finance clearly dominates with an equivalent ratio of only about 20%.[5] Key questions regarding the future potential of bank- and market-based finance discussed in Salzburg included:

- In what ways do banks and markets contribute to funding economic growth?
- How are these channels changing?
- And what differences exist across regions?

In the period since the financial crisis, the changing global environment and new regulatory frameworks have – while leading to a higher stability in the banking system with better overall capital and liquidity figures – also resulted in significant changes in banks' business models and continuous deleveraging. This has had significant consequences for financial growth and development, especially in the SME sector. On the other hand, market-based finance has seen a continuous growth across a range of countries, including in Europe, as well as a number of emerging economies in recent years.

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2 Ross Levine, "Bank-Based or Market-Based Financial Systems: Which is Better?," Journal of Financial Intermediation 11, no. 4 (2002).

3 See for example John Boyd and Bruce Smith, The evolution of debt and equity markets in economic development, Economic Theory 12, no. 3 (1998); Ross Levine and Sara Zervos, "Stock markets, banks and economic growth," American Economic Review, vol 88 (1998). Studies suggest that services provided by banks are particularly beneficial for lesser developed economies while for more developed countries market-based finance increases in importance, e.g. see Asli Demirgüc-Kunt, Erik Feyen and Ross Levine, "The evolving importance of banks and securities markets," Policy Research Working Paper (World Bank, 2011).

4 Leonardo Gambacorta, Jing Yang and Kostas Tsatsaronis, "Financial structure and growth," BIS Quarterly Review March (2014).

5 Ibid

Panelists in Salzburg clearly agreed that while the growth of market-based finance was seen as a positive development, it should be seen as a complement rather than a substitute to bank-based finance – especially in Europe. In this context, a panelist with an extensive banking background pointed out the important role of banks as the only part of the financial system actually able to create credit and perform maturity transformation. Additionally banks provide a range of support functions such as transaction banking, hence contributing to growth in an indirect way as well. Benefits of market-based finance were seen especially in the flexibility of equity in times of market downturn and hence in its shock-absorbing capacity.

Although more finance was traditionally associated with faster recovery and higher growth, panelists argued that in the light of the developments of the past decade and the clear lack of overall growth despite high debt levels, the focus should be more on the *quality* of finance rather than on its quantity. As pointed out by one panelist, there appears to be a tipping point of debt to GDP ratio after which additional provision of debt does not promote further growth.[6] One participant posited that, especially in the light of historically low interest rates, further borrowing to foster infrastructure might actually

6 According to BIS research this occurs at a magnitude of about 40% for the ratio of bank credit to GDP respectively at 95% for the turnover ratio defined as the ratio of the value of total shares traded to average market capitalization. See Gambacorta, Yang and Tsatsaronis, "Financial structure," BIS Quarterly Review.

How do we provide an efficient environment for bank- and market-based finance to achieve economic growth in an environment that is increasingly changing due to globalization, increased uncertainty and technological change – and at the same time preserve financial stability?

still be very beneficial, however, others remarked on the increasingly high liability of raising debt levels for future generations. The objective of policymakers and regulators should therefore be to find and target the right composition of finance, using all available sources and instruments in the ecosystem, and to enhance the quality of the intermediation process. As for European countries with a dominance of bank-based finance, participants agreed that in order to foster real economic growth it would be important to create an environment in which there is a demand for equity. However, they also saw difficulties due to regulatory regimes favoring investments in sovereign bonds as well as the beneficial treatment of debt financing by current tax regimes.

Panelists from emerging countries commented on the relative higher regulatory challenges of Basel III, particularly for banks in emerging countries, which significantly constrain commercial banks' activities regarding long-term infrastructure projects. During the discussion, arguments were raised in favor of a more nuanced approach of frameworks – especially in order to achieve the desired growth-oriented outcomes for emerging countries – while counterarguments warned of potential regulatory arbitrage and the further fragmentation of international financial markets.

In summary, participants agreed that the important question is: how do we provide an efficient environment for bank- and market-based finance to achieve economic growth when that environment is increasingly changing due to globalization, increased uncertainty, and technological change – and at the same time preserve financial stability?

Capital Markets Across the Globe: Integration or Fragmentation?

To foster market-based finance as a complement to bank-based finance, the question arises: how do we enhance international capital market integration? With a focus on the European capital markets, the Capital Markets Union (CMU) was seen as a key element with the following measures perceived as the most important.

Securitization: Panelists stressed the need for transparency (also to avoid the uncertainty about valuation which was apparent during the crisis) and additionally argued in favor of a more centralized approach to give investors good possibilities to assess valuations.

Prospectus directive: Here, comprehensibility was currently seen by one panelist as the major challenge.

Investor protection issues: Progress on this topic was regarded as a key instrument in enhancing demand for equity, especially in increasing incentives for retail, households and institutions such as pension systems to hold higher shares of equity.

Supervisory convergence: Panelists commented on the promising progress of developing a single rulebook and saw the main challenge going forward in ensuring consistent implementation in the entire European Union.

While participants unanimously saw the need to further harmonize and integrate international capital markets, assessments of success probabilities and timelines were mixed especially on a global scale. As panelists remarked, some progress had been made regarding global convergence with regard to equivalence as substituted compliance – meaning that the host country is willing to defer to the regulation of the home country, allowing participation in the host country following the home country rules. Other promising integrative initiatives, such as the Asia Region Funds Passport, were also seen as a sign of a continuing increase of regional integration around the world. Additionally, the potential impact of technology disruptions like blockchains or the rise of crowdfunding will drive a necessary convergence of rule-making as they span across borders and jurisdictions.

Participants did agree that there is no silver bullet, however, building cooperation and trust was seen as a key foundation for the continuous integration of capital markets and three cornerstones were identified in the discussion:

There is no silver bullet, however, building cooperation and trust is a key foundation for the continuous integration of capital markets.

“If everybody develops their laws at different speeds according to different mandated domestic political systems you are ending up with a matrix of different rules.”

Consistency in laws and legislation

As the first cornerstone, consistency in laws and legislation requires a rising degree of global standards and guidance as well as the clear courage to set these standards. Consistency could be further enforced by equivalence and mutual recognition as well as stronger coordination of implementation of new regulation. This was seen as a significant challenge, especially with regard to potential conflicts regarding proportionality in developed and emerging countries. As one panelist stated, “If everybody develops their laws at different speeds according to different mandated domestic political systems you are ending up with a matrix of different rules.”

Another challenge raised was the continuous and coordinated evolution of any kind of global standards, for which the Principles of Financial Market Infrastructure by the Committee on Payment and Settlement Systems (CPSS) and the International Organization of Securities Commissions (IOSCO) was regarded as a role model. Regarding the issue of implementation, participants from banking backgrounds pointed out that fragmentation was also driven by regulatory uncertainty including the lack of clear timelines and transitional provisions. These participants also called for a stronger consideration of operational issues and the impact of regulation on changing client behavior.

Cooperation in supervision

The second cornerstone discussed was cooperation in supervision for which the Australian market was shown to be a best practice example with its number of supervisory agreements with the US, Europe and different Asian countries. Higher trust between regulators and the willingness to rely on each other after an initial sound assessment was seen as an important element going forward in this area, as well as higher transparency and more detailed availability and possibilities to share data. In this respect, the derivatives market, due to its high cross-border share, was regarded by some participants as a potentially strong driver to foster ongoing convergence and cooperation.

Enforcement

Enforcement, mentioned as the third cornerstone to foster cooperation and trust, was also said to require further transparency and information sharing as well as access to metadata – especially in the increasing digital environment in which capital markets operate today. The lack of binding elements, sanctions on a global level, and sound means for dispute settlement were also regarded as some of the critical current weaknesses. Increased integration and stability in international capital markets thus requires robust agreements between regulators with respect to coordination, enforcement, oversight of market participants, and sharing of information.

Building Resilient and Effective Market-based Finance

For capital markets to serve as a sustainable form of finance, a number of necessary characteristics were identified: Capital markets need to be deep, liquid, and transparent and provide data for efficient pricing, as well as efficient regulatory oversight. Capital markets also need to possess a very well-developed infrastructure as well as mechanisms to mitigate conflicts of interest and deal with externalities that impede efficient pricing.

To be resilient, capital markets require market intermediaries and trading venues that foster efficient and competitive pricing as well as an appropriate level of risk taking; have participants who operate under a culture of compliance and integrity; and offer the ability to trade across venues and markets in effective ways. During the session in Salzburg, the discussion on building resilient and effective market-based finance focused on three main issues: the influence of fintech, the need for further transparency and liquidity, as well as the risk management of Central Counterparties (CCPs).

Fintech

Regarding the further development of capital markets, it was acknowledged that fintech is fundamentally changing traditional financial services and markets and thus offers an important opportunity as well as posing a significant challenge. Key opportunities were seen in the increased efficiency through speed, reduced cost, and transparency, e.g. due to real-time settlement. For regulators this could increase their ability to monitor and analyze market activity in real time, such as through the use of data analytic tools. Blockchains, in combination with smart contracts, were seen by some panelists as having the capacity to be a real game-changer in this context. But also advances in front-end services, such as robo-advisors, were regarded as potentially highly beneficial by standardizing the quality of financial advice and overcoming the increased distrust of customers and especially millennials in financial advisors – a development, that is also reflected in the Millennial Disruption Index, according to which 71% of the surveyed customers stated that they would rather visit their dentist than their local bank.[7]

One of the main challenges, especially for regulators, was seen in the need to stay adaptive to the speed of new developments in the fintech arena, understanding the risks involved and at the same time promoting the emergence of an ecosystem that encourages innovation. Examples in this regard are the regulatory sandbox initiatives by the Financial Conduct Authority (FCA) – open for applications as of May 2016 – and the Australian Securities and Investment Commission (ASIC), which offer fintechs a space to test their innovative products, services and business models without having to engage in a formal licensing process for a limited time – while ensuring that consumers are appropriately protected. Regarding the challenges for

7 Viacom Media Networks, The Millennial Disruption Index, www.millennialdisruptionindex.com

regulators, participants also considered that regulation would need to become more principles-based to be able to keep up with the increased speed of change and still offer consistency, which one participant described as "using 21st century rules for 21st century developments." This also requires international coordination to avoid regional fragmentation of regulation and markets. The International Organization of Securities Commissions (IOSCO) was seen as taking on a strong role in this respect, for example adopting holistic approaches with its Committee on Emerging Risks. Regulators across the globe are now intensively engaging in new emerging technologies such as blockchain to understand the mechanics, opportunities, and challenges and carefully monitoring further developments to analyze if and where it may have the potential to threaten market integrity and investors' trust and confidence. One important question in this context is how to ensure the increase required in accountability and responsibility of investors in the context of fintech and the digital environment.

Regulation needs to become more principles-based to be able to keep up with the increased speed of change and still offer consistency – using 21st century rules for 21st century developments.

Transparency and liquidity

Another key challenge in building resilient and effective market-based finance was seen in the current lack of transparency and detailed data on capital markets. Post-crisis legislation such as MiFID II is already addressing this issue by incorporating substantial data collection exercises and obligations to increase pre- and post-trade transparency for all non-equity financial instruments. However, participants noted that in many areas available data is not yet detailed enough to actually increase evidence- and data-based decisions. One aspect of the ongoing data collection is also to understand and assess the liquidity of markets. Increased transparency especially in bond markets was believed by some panelists to increase and ensure liquidity since the lack of transparency is potentially an important reason for liquidity to dry up if investors find it difficult to assess values. According to panelists, however, indicators in quantitative studies have shown mixed evidence so far. In addition to transparency and price discovery, efficient market structures, electronic trading platforms, and expanding market size and investor base through more mutual recognition between jurisdictions were seen as ways to ensure more sustainable liquidity especially in fixed-income markets. Most participants, however, agreed that liquidity in fixed-income markets would not become comparable to the liquidity prevailing in equity markets due to the structure of markets, the number of players versus available instruments, and hence the heterogeneity of position taking. Additionally, the underlying structure of markets nowadays also differs from the pre-crisis situation with CCPs and banks now buying and holding significant amounts of highest-quality securities on their balance sheets in support of compliance with banks' Liquidity Coverage Ratios (LCR) and Net Stable Funding Ratios (NSFR). An important aspect to observe in this context is therefore how the concentration in the markets and the entire ecosystem looks like and what its consequences potentially could be.

“Central Counterparties (CCPs) are now like seaworthy vessels heading for the ocean, but without the lifeboats in place.”

Central Counterparties (CCPs)

An additional building block in increasing the resilience of market-based finance was seen in the risk management as well as recovery and resolution plans of CCPs. While their role was seen as important and critical from a systemic perspective in reducing counterparty risk, absorbing shocks and helping to prevent the buildup of excessive risk in the financial system, participants proposed that a higher transparency regarding CCPs risk management as well as recovery and resolution plans are essential for ensuring ongoing operations in the case of unpredictable and extreme market movements leading to their financial failure. As one participant said: “CCPs are now like seaworthy vessels heading for the ocean, but without the lifeboats in place.” In regard to the existing work by Committee on Payments and Market Infrastructures (CPMI), IOSCO and the Financial Stability Board (FSB), as well as the forthcoming new EU regime for recovery and resolution for CCPs, panelists stressed that almost every CCP is systemically relevant with relevance increasing with higher interconnectedness and lower substitutability and that their continuity of service and operations is highly critical in times of crisis.

Emerging Risks and Vulnerabilities: Are We Worrying About the Same Things?

Disruptive changes in technology, geopolitics, and societal behavior, as well as changes in economic patterns and powers are currently increasing uncertainty and volatility throughout the financial sector – and the wider world.

Besides the consequences of the "Brexit" referendum (which had taken place just a week before the Salzburg session), panelists identified the following six key risks to watch out and prepare for: cyber risk, conduct risk, uncertainty about regulation, digital disruption, structural change and globalization. In the session in Salzburg, the discussion focused on the first three.

Cyber risk

Cyber risk was regarded as the number one risk due to the increasing pace of change in the digital environment and the fact that attacks can happen from any angle and potentially might not even be immediately detected. The threat of such attacks also increases due to growth in digitalization, mobilization, cloud computing and automated services such as robo-services. An additional aspect is also the potential of contagion: Even if a bank with strong defenses is not directly attacked, an attack on a weaker bank in the system could result in damage to the credibility and reputation of the entire industry or a certain fraction of it. This makes the entire system as weak as the weakest link, which would be a natural entry point for an attack and thus should be the focus for regulators. The National Institute of Standards and Technology (NIST) Cybersecurity Framework was seen by panelists as a good starting point to look at and quantitatively evaluate competencies and cyber resilience of institutions. Another issue to be addressed by banks was identified in the need for increased communication of attacks within the community, giving institutions the chance to collaborate more closely and to learn from each other's experiences. In this respect, one participant pointed out the Financial Services Information Sharing and Analysis Center (FS-ISAC) as an industry forum for collaboration and data sharing on critical security threats facing the financial services sector.

Conduct risk

Regarding the challenge of conduct risk and culture, participants agreed that ideally banks should be able to trust their employees to behave in a compliant way. As one market regulator phrased it: "Market regulators want institutions to have a culture their customers can trust in and believe in – including their counterparties." This mindset should also reflect the focus on consumer sovereignty, specified as what is best for the customers with the tolerance of the shareholders. Participants agreed that realizing a change in culture

Cyber risk was regarded as the number one risk. Even if a bank with strong defenses is not directly attacked, an attack on a weaker bank in the system could result in damage to the credibility and reputation of the entire industry or a certain fraction of it – making the entire system as weak as the weakest link.

It is not not enough to respect the law; bankers have to display ethics that go beyond the law. Banks need to remember that they have a social license as well as a legal license.

and appropriate conduct takes a long time and critically depends on leading examples from the top to drive change throughout the entire organization. Participants also stated that it would be not enough to respect the law but that bankers would have to display ethics that go beyond the law. Banks need to remember that they have a social license as well as a legal license. Hence boards really need to understand the culture of their organization and what drives and impacts it – including taking into account the culture of the countries in which they are operating. Boards also need to carefully monitor their institution's culture as well as potential changes, which many do already by employing an extensive dashboard at board level with indicators on culture and conduct. Another challenge mentioned was the creation of subcultures, especially in the context of acquisitions. One panelist also raised the prospect of global standards for culture and conduct, similar to existing regimes on accountability and licensing of senior bank directors. While some panelists voiced the benefit of and need for global principles on conduct, other participants did not believe this to be feasible on a global level.

Uncertainty about regulation

Uncertainty about regulation was a special concern for participants from the banking industry, and the main challenges were seen in the increasing number of regulations and uncertainties regarding the exact implementation, timelines, transition periods and rules, as well as potential regional fragmentation. One panelist said that while he valued the goal of increasing the stability of individual institutions as well as the financial system, he pointed out the significant pressure placed on banks due to expectations regarding profitability and shareholder returns, which in turn increase incentives and the necessity for a certain degree of risk-taking. In his view, this results in a trade-off whereby increasing the regulation imposed on banks used as a tool to foster real economic growth is restricted by limiting the banks' ability to create credit. Hence, the panelist proposed employing a mindset for regulation to promote sustainable growth while mitigating systemic risk, instead of trying to eliminate it completely. Additionally, the asymmetric effect of regulation on the financial systems in different regions, due to a different reliance on bank-based versus market-based finance, was seen as a potential emerging risk in increasing global standards.

Digital Disruption in Capital Markets

Digital disruptions have been occurring at an increasing pace within financial systems and markets. They accelerate the rate of change within these markets, transform business models, change customer behavior, eliminate borders, and hence fundamentally change the way in which financial services are structured, delivered and transformed. A key consequence of these developments is the technology- as well as regulatory-driven move towards a more modular and fragmented form of finance and the consequential breaking up of value chains, with players focusing typically on customer advice products and services such as the customer interface, middle office services, or back office efficiency.

The technologies creating the most substantial and consequential disruptions are workflow automation, superior data analytics, digital distribution, and distributed ledger technology, such as blockchain that enables (among other applications) better and faster clearing and settlement. Consequences of these technological advances, for example in the bond markets, are a push of more trading into cheaper electronic channels, easier matching of buyers and sellers, and the emergence of non-bank market makers. Additionally non-bank players and challenger entities are increasingly trying to take over the customer interface. As one panelist pointed out, a frequent outcome for successful new ventures is also to be bought by a large established bank due to their dominant scale and scope. Technological developments also

The growing reliance on digital technology increases the risk of violation of that technology, either in the form of operational failures and mistakes or attacks that potentially result in threats to critical infrastructure. Information sharing and collaboration is an important ingredient in the mitigation of these risks.

have advantages for regulators due to higher visibility, easier reporting, use of social listening techniques, and the provision of data in flexible formats, allowing easier analysis of structured and unstructured data both inside and outside of the respective organization, as well as analysis of market information on flows and financial products.

A key topic of the discussion in Salzburg was blockchain technology. Initial applications are usually payment applications such as global payments, wholesale settlement functions, and permissioned distributed ledger technologies run by consortia of large broker dealers and custody banks. Generally, the development of blockchain applications is expected to occur as a sequence of three waves, with the first mainly concerning the sharing and developing of information within an institution e.g. Know Your Client (KYC) forms. The second wave was seen in the increasing replacement of critical infrastructure within an organization and potentially in the communication with trusted third parties, with potential applications such as data processing, trade lifecycle management processes, and enrichment of data such as with counterparty information. The third wave was seen in the replacement of critical infrastructure also outside of institutions, with the initiative of the Australian Securities Exchange (ASX) to establish a proof of concept whether blockchain can replace the existing settlement system CHESS as an interesting example. While participants also sketched their long-term vision of a fully blockchain-enabled trading and post-trade environment and applications such as automatic valuation against reference data and rebalancing of collateral and cash in the derivatives market, there was agreement that the probability of implementation in the near to intermediate future was very low as the emergence of these ecosystems would also require a fundamental change in the way business is currently conducted.[8]

Challenges regarding the increasing digital disruption in capital markets were seen mainly for regulators in establishing a level playing field for both new and established players, as well as achieving accountability of the various players, providers, and vendors regarding the safeguards they have to establish. Panelists argued that the growing reliance on digital technology also increases the risk of violation of that technology, either in the form of operational failures and mistakes or attacks that potentially result in threats to critical infrastructure. In this respect, participants also repeated that information sharing and collaboration was an important ingredient in the mitigation of these risks as this could reduce the value of breached data and hence limit its exploitation.

8 Some of the above sketched solutions are already feasible with existing technology but fail to be realized due to market obstacles rather than due to technical obstacles.

The Role of Fintech in Providing Financing for the Economy

More than 2000 financial technology services (fintechs) were founded in the last few years, at first primarily targeting retail payments. They are now increasingly offering other financial services and expanding to broader customer segments.

The speed with which fintechs are not only being created but also growing is reflected in the funding of these start-up companies: Funding volume, according to CB Insights, tripled between 2013 and 2014 and has reached USD 19.1 billion in 2015 – with Q1/2016 figures already doubling again compared to the last quarter of 2015. According to KPMG and CB Insights, among the 19 fintech "unicorns" – startups with an evaluation of more than USD 1 billion – at the end of 2015, eight were active in the area of lending and six offered payment solutions.[9]

Fintechs in the lending space are mainly non-bank lenders who are using some version of digital or mobile origination channels to fund borrowers such as individual consumers or SMEs. Their product offerings include, for example, unsecured personal loans, SME loans, mortgage origination, and commercial real estate lending. In terms of the funding, there are different models ranging from semi-balance sheets to pure platforms, which in turn have three main sources of funding ranging from institutional players

Among the 19 fintech "unicorns" – startups valued at more than $1bn – at the end of 2015, eight were active in the area of lending and six offered payment solutions.

9 KPMG International and CB Insights, The Pulse of Fintech, Q1 2016: Global Analysis of Fintech Venture Funding, August 17, 2016

looking for securitization and small banks who are directly originating to their balance sheet to retail individuals who want to have some exposure to this asset class. Regarding regional presence, China is by far the largest fintech lending market, but it also still mainly unregulated with more than 5000 platforms. The second largest market is the US with low single digit market share figures for the largest players and a high share of institutional funding. The UK is the third largest market in size, but also with low single digit market shares of the largest players and with more than half of the volume funded by individuals. Continental Europe in contrast shows a slow development of fintech lending due to the regulatory framework requiring a banking license in most countries and the comparably low availability of data, making it hard to compete with existing incumbents.

The emergence of fintech lending is partly due to significant changes that have taken place on both the demand as well as the supply sides: borrowers are becoming highly connected and mobile on one side, and enabling digital technology, like big data, cloud computing and cybersecurity standards, is developing on the other side. The competitive advantages of fintechs are their superior customer experience driven by speed and convenience, their strive to delight the customers with easy to understand products, their attractiveness

to small investors by being able to match the appetite of borrowers and investors for both risk and duration, their superior ability to use publicly available data in their risk assessment with big data analytics, and their lower operating cost model and lower capital requirement, as well as their lower regulatory scrutiny. An additional but also very important point mentioned in Salzburg was the agile, positive and entrepreneurial culture, which enables fintechs to attract talents such as data scientists and other specialists from leading internet players such as Amazon and Google.

The finance that fintech provides is currently still mainly additive to the finance already provided in the market through traditional channels, with fintechs often filling the gaps in those market which are not serviced appropriately by banks, e.g. student loans, small value loans, and loans to small SMEs. But due to their competitive advantages, they are increasingly starting to also provide finance to borrowers that could also attain finance from banks. Due to their high growth, their increasing appeal to borrowers and lenders that could also be serviced through traditional channels, and the ongoing deleveraging of traditional banks, questions arose regarding the sustainability of this new channel – especially in times of downturn with regard to contagion effects. To ensure sustainability, revenues from the servicing of loans will have to play a more significant role for fintechs and they would need to build a more diversified funding base and choice of asset classes. A key measure in avoiding the accusation of miss-selling was seen in educating lenders and continuously surveying them to ensure their understanding of the risks involved.

In summary, participants saw the merits of fintech in providing financing to the economy as an additional source of finance by making small value loans profitable as well as in increasing pressure on banks to become more customer-oriented. This was deemed especially important in an environment where large retailers, telecommunications companies and internet players are also starting to offer selected financial services to complement their ecosystems. One prominent example is the Alibaba Group, which is offering payments services through Alipay and SME loans though its affiliate, MyBank. Banks can therefore reap a number of benefits from collaborating with fintechs to retain their role within the customer interface and enlarge their service offerings; examples of collaborative initiatives include ING and Cabbage, JP Morgan and OnDeck Capital, and BBVA, which has invested in a range of various fintechs.

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The Role of Policy Banks in Providing Reliable Financing to the Economy

In Salzburg, participants considered the role of policy banks in providing finance to the real economy and how far they are complementing or potentially competing with finance provided by private banks.

Participants agreed that the objective of policy banks should be to try to facilitate the financing of the real economy by filling the gaps in the presence of market failures such as information asymmetries and by identifying the asset categories and projects that have the most important impact on the economy but are not adequately addressed by private banking finance such as infrastructure, SMEs, innovation, and climate change.

The objective of policy banks and cooperation of policy and commercial banks was argued to work well in environments and markets that are not very settled and where the institutional framework is still developing. Cooperation of commercial and policy banks could in effect lower the total cost for borrowers that would otherwise not be able to repay, hence increasing the total financing volume in the society.

Panelists argued, however, that in reality, the engagement of policy banks and their interplay with commercial banks needs constant monitoring and in many cases elements of competition are visible. Other participants also mentioned that policy banks on occasion deviate from their original mandate to solve market failures and tend to crowd out private finance. One panelist remarked in this context that ideally a policy bank should be created "in a

"Ideally a policy bank should be created in a way in which it has a living will which actually looks to its own death."

Policy banks can play a very critical role, particularly in emerging countries by interacting with the governments of those countries and creating the prerequisites for bankable products, especially in the context of infrastructure finance.

way in which it has a living will which actually looks to its own death," thus the design should be specialized rather than generalized with a clear set of objectives and targets, a clear and mission and a strong governance process, and using third parties as much as possible to have as lean operations as possible. In the view of most participants, policy banks should additionally be seen as one instrument of policy next to direct measures such as subsidies, direct allocation of resources, and appropriations as well as tax policy.

Discussions also touched on the question of whether the lack of finance under certain circumstances should really be perceived as market failures or – in the case of high risk – should be rather seen as an appropriately high pricing of the risk involved. Other participants questioned in this context whether some allocations truly present persistent market failures or rather a political discomfort with a given outcome of the market. Participants therefore largely agreed on the importance of monitoring whether or not there is really a malfunction in the market in the sense that the private market is not able to provide finance where it economically should be provided. Due to their lower funding costs, policy banks have a price advantage that is partially passed on to the borrowers; some participants believed this represents a subsidy and could subsequently also lead to changes in risk pricing.

As one participant pointed out though, policy banks can play a very critical role, particularly in emerging countries by interacting with the governments of those countries and creating the prerequisites for bankable products, especially in the context of infrastructure finance (e.g. by increasing certainty regarding pricing). Hence in this respect, policy banks actually increase the ability of the private sector to provide financing in areas where it otherwise would not have been feasible to the same extent.

Reports of the Working Groups

At the close of the three-day session, thematic working groups – having scrutinizing detailed aspects of the discussed topics – presented their results.

Group 1: What are the main blockages on the road to the Capital Markets Union in Europe and how can they be addressed?

The first group dealt with the main blockages on the road to the Capital Markets Union and ways to address these. The group saw some promising developments such as the launch of the consultation on cumulative impact of regulation, new thinking on insolvency issues, and the identification of critical issues such as private placements, securitization, and the prospectus directive. In general though, the group evaluated the progress to date as limited, as very few specific measures have been taken thus far.

The main blockage for moving the CMU agenda forward was seen in the fact that decision making is currently being very much constrained by national considerations and to some extend by existing national and international standards, as well as a lack of institutions promoting capital markets in Europe. Fintech was seen as a potential accelerator in the development, though not with a highly significant impact. A second possible driver identified by the group, based on comparison with the US, was a potential standardization of mortgage markets across different nationalities with the creation of appropriate vehicles and a subsequent partial securitization. This would help to create a stronger integration of European capital markets in securitization, underwriting, and distribution as well as trading, and additionally release significant portions of the balance sheets of commercial banks. Challenges were nevertheless seen especially in overcoming differences in national legislations.

Group 2: How can we grow market-based finance if most financial institutions are downsizing their investment banks?

The second group discussed the question of how to grow market-based finance in times in which most financial institutions are downsizing their investment banks. While the emergence of new non-bank actors was seen as useful, the consensus among the group was that these would never be able to replace the capabilities and functions of investment banks and that therefore the downsizing of investment banks is putting pressure on the ability of capital markets to finance the economy. Regarding the role and importance of new market players and especially peer-to-peer (P2P) marketplace lending, the group additionally voiced concern about retail investor protection and the general sustainability of the model in times of higher cyclicality or even times of crisis.

In order to promote market-based finance, there was strong consensus in the group that regulation plays a key role as it is currently restricting capital market activity and its accessibility. Risk mitigants were judged to have been put in place post-crisis in an insufficiently coordinated fashion, leading to excessive restriction. Pillars concerning liquidity, capital, and leverage should therefore be reviewed regarding potential complementarity and duplication. In this respect, focus should be on investors' needs as well as improving the quality of market-based finance. Securitization was additionally seen as a potentially easy avenue to pursue to promote the growth of capital markets, but the main challenge (analogous to the first group's findings) was seen in political barriers and a potential lack of political interest across Europe. Additionally, the impact of the structure of the banking sector on the growth and development of market-based finance was discussed: Contrary to the US, banking markets in Europe are much more fragmented with a much higher number of banks competing in the market, which also potentially has an impact on the pricing of credit and risk.[10] Hence, the question raised was whether consolidation in the banking sector would also foster growth of market-based finance and whether such a consolidation would actually be desirable.

Group 3: How can we develop the right infrastructure that supports market-based finance?

The third group analyzed the question of how to develop the right infrastructure that supports market-based finance. When looking at the reasons why market-based finance is less developed in Europe, the group identified three main reasons: The high degree of fragmentation and hence the lack of critical mass for truly deep and liquid capital markets in Europe; the predominance of banks defending their business and their comparatively low pricing of loans; and a greater risk aversion among investors as well as a greater investor protection in Europe.

Regarding the CMU, the group was rather pessimistic about significant short-term results in fostering capital markets, and instead first saw the need for an increased risk appetite especially of regulators. Analogous with the second group, securitization was seen as a potential facilitator for the growth of market-based finance but similar challenges were seen as in the preceding debate. The American example of the growth of P2P lending as well as the availability of credit information such as FICO® scores were additionally seen as potentially supportive of the development of market-based finance in Europe, although privacy protection remains a strong obstacle.

10 Comparing the number of large banks with countries' GDP, according to PWC research there is one bank per €118 billion of GDP in Europe compared to one bank per €302billion in the US, see PWC, The Future Shape of Banking in Europe: How Disruptive Forces will Drive the Evolution of a New Banking Ecosystem, July 2016.

Group 4: What are the possible scenarios for the evolution of the markets?

The fourth group looked at possible scenarios for the evolution of the markets and identified three scenarios based on the notion that while *banking* would still be needed in the future, *banks* in their current form would not necessarily be needed.

Market share adjustments

The first scenario, which had the least changes compared to the status quo, assumes that banks adapt their business models and coexist with non-bank challengers, which are expected to attain a sizeable but not dominant market share of around 20% to 30%.[11] Depending on the areas that challengers are targeting, however, this could affect a significantly higher share of profits. While changing customer expectations (especially those of millennials who generally favor fintech players), non-bank challengers are deterred from entering some profitable business areas of banks due to regulation.

Disruption of equilibrium

The second scenario assumes that the growth of fintech and challenger entities will significantly disrupt the current business models of banks. Banks will be relegated to mere suppliers of infrastructure effectively losing large portions of the customer interface to new non-bank players. This could either be realized through a gradual process with slowly shrinking banks or accelerated through disruptive changes.

Evolution

The third scenario was based on the idea of increased collaboration of banks with fintech – an avenue that a significant number of banks are already pursuing. Potential collaboration models encompass strategic investments via bank-backed venture funding, incubation initiatives, strategic partnerships, and pure supplier relationships. Regarding the relative strengths and weaknesses of banks, as well as fintechs, collaboration would in many cases present a win-win situation, enhancing the quality and efficiency of financial services for customers.

The majority of the group believed scenario three to be the most likely as well as desirable. This will require banks to interact with customers and other providers of financial services within an ecosystem and actively pursue the further evolution of their business models.

11 Ibid

Conclusion and Next Steps

Tatsiana Lintouskaya *Program Director, Salzburg Global Seminar*

The deliberations of that 2016 session of the *Salzburg Global Forum on Finance in Changing World* revealed one of the important challenges lying ahead for the financial industry: namely, regulatory policy coordination is breaking down, leading to increasing balkanization of the global financial system, and compounding the risks in global financial markets, which face weak economic growth prospects, protectionism, low interest rates, diverging policy stances among major jurisdictions, high levels of global debt, and uncertainty about the full impact of reforms and implementation challenges.

At the same time, regulators are now shifting their attention to data security, data privacy, and cybersecurity – with concerns for customer safety as well as the safety and soundness of the financial system. As new signs of fragmentation emerge, better coordination among regulators and supervisors, as well as coordinated foresight in policy formulation across jurisdictions, will be critical to meet the needs of the industry and society.

The Forum's Advisory Committee has therefore agreed to focus to next year's session on global challenges and local responses, stressing the need for a more determined approach to tackle the problem of fragmentation, address new types of risks, and strengthen foundations for a better and fairer financial systems. This is particularly important in the current times of increased economic insecurity and political uncertainty.

The seventh session of the Forum, which will take place June 26 to 28, 2017, will take a forward look at the changing economic and regulatory environment and will examine a broad range of critical themes, including:

- Emerging risks to the financial system and coordination for a structured response;
- Increasing fragmentation of financial markets and the rise of protectionism;
- Prospects for sustained growth and "leapfrogging" strategies for emerging markets;
- Progress in implementing the regulatory reform agenda against the backdrop of ongoing realignment in the global economy;
- Priority steps to strengthen diversity, trust and openness of the financial system.

By bringing together key policymakers and financial industry leaders next year at Schloss Leopoldskron – a setting that enables the paticipants to reap the full benefits of an open and neutral dialogue – Salzburg Global Seminar aims to encourage them to define a new agenda and take concerted action toward building a productive financial system that enables financial markets to work better for the whole of society.

APPENDIX I

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APPENDIX II

Session Participants

(Biographies correct at time of session – June 2016)

Lorenzo Bini Smaghi *Italy | France*

SESSION CO- CHAIR

Lorenzo Bini Smaghi is the chairman of Société Générale. He is also visiting scholar at Harvard's Weatherhead Center for International Affairs and at the Istituto Affari Internazionali in Rome. Mr. Bini Smaghi chairs the Fondazione Palazzo Strozzi in Florence and the Italian Chapter of the Alumni of the University of Chicago. From June 2005 to December 2011 he was a member of the Executive Board of the European Central Bank. During that period he acted as G7 and G20 deputy for the euro area. Mr. Bini Smaghi started his career in 1983 as an economist at the Research Department of the Banca d'Italia. In 1994 he moved to the European Monetary Institute, in Frankfurt, to head the Policy Division and to prepare for the creation of the ECB. In October 1998 he became director general for international affairs in the Italian Treasury. He has been the chairman of the board of SACE Spa, and member of the boards of Finmeccanica, MTS, the European Investment Bank, and Morgan Stanley International. Mr. Bini Smaghi is author of several articles and books on international and European monetary and financial issues (available online at www.lorenzobinismaghi.com). He has recently published *Austerity: European Democracies against the Wall* (CEPS, July 2013) and *33 false verità sull'Europa* (Il Mulino, April 2014). He is currently member of the A-List of commentators for *The Financial Times*. He holds a Bachelor's degree in economics from the Université Catholique de Louvain (Belgium), a Master's degree from the University of Southern California, and a Ph.D from the University of Chicago. Mr. Bini Smaghi is a member of the Advisory Committee of the *Salzburg Global Forum on Finance in a Changing World.*

Greg Medcraft *Australia*

SESSION CO- CHAIR

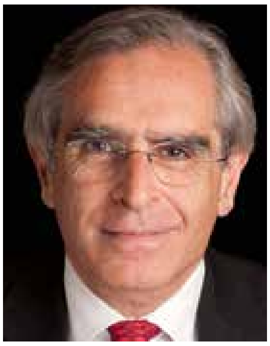
Greg Medcraft is the chairman of Australian Securities & Investments Commission (ASIC). He joined as ASIC commissioner in February 2009. Prior to ASIC, he was chief executive officer and executive director at the Australian Securitisation Forum (ASF). Mr. Medcraft spent nearly 30 years in investment banking at Société Générale in Australia, Asia, Europe, and the Americas. More recently, he was the managing director and global head of securitisation, based in New York. In 2002, he co-founded the American Securitization Forum and was its chairman from 2005 until 2007 when he returned to Australia. In January 2008, he was appointed chairman emeritus of the Forum. Before joining Société Générale, Mr. Medcraft worked as a chartered accountant with KPMG. Mr. Medcraft was elected by the International Organization of Securities Commissions (IOSCO) Board in May 2012 as its chair. His term commenced in March 2013, and he was re-elected for a second term in October 2014. In his capacity as IOSCO board chair, he is also a member of the Financial Stability Board, which reports to the G20.

Paul Achleitner *Germany*

Since May 2012, Paul Achleitner serves as chairman of the supervisory board of Deutsche Bank AG. After four years at Bain & Co. in Boston, Mr. Achleitner joined Goldman Sachs in 1988, where he served in New York, London, and Frankfurt in various capacities, since 1994 as a partner of the firm. Between 2000 and 2012 Mr. Achleitner was CFO of Allianz in Munich. Besides chairing the Supervisory Board of Deutsche Bank, Mr. Achleitner serves on the supervisory boards of Bayer and Daimler as well as on the Shareholders' Committee of Henkel. He is chairman of the Board of Trustees of the Alfred Herrhausen Society, Chairman of the European Financial Services Round Table, chairman of the German Government Commission of Capital Markets Experts, chairman of the Board of Trustees of the HSG Foundation (University of St. Gallen) and co-chairman of the Hong Kong / Europe Business Council. Mr. Achleitner is a member of the International Advisory Board of Allianz, the Board of Trustees of the Brookings Institution, the European Advisory Board of the Harvard Business School, and the Advisory Council of the Munich Security Conference. He was educated at the University of St. Gallen (HSG) and Harvard Business School (HBS) and holds a Ph.D. from HSG and an honorary professorship from WHU – Otto Beisheim School of Management.

Paul Andrews *USA | Spain*

Paul Andrews is a secretary general of International Organization of Securities Commissions (IOSCO). In this role, he is responsible for supporting the pursuit of IOSCO's strategic objectives and leading the General Secretariat. Prior to joining IOSCO, Mr. Andrews spent 18 years at the Financial Industry Regulatory Authority (FINRA) in Washington, DC. From 2003 to March 2016, he served as vice president and managing director, International Affairs, at FINRA, the largest independent regulator for all US securities firms. In this capacity he directed FINRA's international engagements and worked closely with key regulators and regulatory bodies worldwide, including IOSCO. Prior to FINRA, Mr. Andrews spent eight years at the US Securities and Exchange Commission. During this time, he worked in the Division of Market Regulation (now Trading and Markets) and the Office of the General Counsel. In these capacities, he led the International Affairs Office in Market Regulation, analyzed various legal and policy issues concerning the structure of securities markets, market intermediaries, and dispute resolution. Prior to the SEC, Mr. Andrews spent four years in private legal practice in Washington, DC.



Cyrus Ardalan *UK*

Cyrus Ardalan serves as independent chairman of OakNorth. Previously he was a vice chairman of Barclays' Investment Bank. Mr. Ardalan joined Barclays in 2000 from BNP Paribas where he held a number of senior positions between 1990 and 2000. Prior to this, Mr. Ardalan was a managing director at Chemical Bank. He joined Chemical Bank from the World Bank where he spent 12 years in a variety of roles including division chief of Treasury Operations. Mr. Ardalan is currently a member of the board of the International Finance Facility for Immunization (IFFIm) and was chairman of the board of the International Capital Markets Association (ICMA) from 2012-2015. Mr. Ardalan was also a member of the board of the Dubai International Financial Centre (Dubai's onshore banking facility) from 2003-2008. Mr. Ardalan is a graduate of University College London and Balliol College, University of Oxford. He is a Fellow of several Salzburg Global Seminar sessions.

Greg Baer *USA*

Greg Baer is president of The Clearing House Association and executive vice president and general counsel of The Clearing House Payments Company. Mr. Baer oversees the legal, compliance, and litigation functions for the organization's payments business and leads the strategic agenda and operations of the Association. Prior to joining The Clearing House, Mr. Baer was managing director and head of regulatory policy at JPMorgan Chase, working to analyze the impact of regulatory developments, formulate and present positions to regulatory authorities globally, and engage in capital policy and planning. He previously served as general counsel for corporate and regulatory law at JPMorgan Chase, supervising the company's legal work with respect to financial reporting, global regulatory affairs, intellectual property, private equity and corporate M&A, and data protection and privacy. Mr. Baer previously served as deputy general counsel for corporate law at Bank of America, and as a partner at Wilmer, Cutler, Pickering, Hale & Dorr. From 1999 to 2001, Mr. Baer served as assistant secretary for financial institutions at the U.S. Department of the Treasury, after serving as deputy assistant secretary. He is the author of two books: *The Great Mutual Fund Trap* (Random House, 2002) and *Life: The Odds And How to Improve Them* (Penguin-Putnam, 2003). Mr. Baer received his J.D. cum laude from Harvard Law School in 1987, and received his A.B. with honors from the University of North Carolina at Chapel Hill in 1984.

Guido Bichisao *Italy | Luxembourg*

Guido Bichisao is the director of the Institutional Strategy Department at the European Investment Bank in charge of the coordination of the relationship of the Bank with the EU Institutions, the IFIs, Central Banks, and regulators and of the development of the strategy of the Group. Mr. Bichisao was previously head of the Financial Engineering and Advisory Services of the EIB in the Treasury Department, responsible for the pricing and financial structuring of all the lending activity as well as for the activity in the carbon market on behalf of the European Commission within the NER300 program. Mr. Bichisao has also worked as deputy head of the Asset Liability Management division and in the Risk Monitoring Unit at EIB, was formerly head of the new issue department, and was a financial researcher at Banco di Roma. Mr. Bichisao holds a degree in economics and social sciences at Bocconi University in Milan, recognized as a Master's degree at New York University.

Byron Boston *USA*

Byron L. Boston is president, chief executive officer, co-chief investment officer and board member at Dynex Capital Inc. (DX) in Glen Allen, Virginia and board member of the Mortgage Bankers Association (MBA). He is a seasoned investment professional with an extensive background in the fixed income capital markets. He has served in multiple leadership positions within the asset management/investment banking community, including building two successful public companies. Prior to joining DX, Mr. Boston started Sunset Financial Resources and served as a senior corporate officer in the investment division at Freddie Mac. He began his career in 1981 as a corporate banking officer at Chemical Bank in New York City and spent eleven years trading mortgage-backed securities at Credit Suisse First Boston and Lehman Brothers. Mr. Boston received a B.A. in economics from Dartmouth College and an M.B.A. in finance and accounting from University of Chicago. He is a Fellow of several Salzburg Global Seminar sessions and a member of the Board of Directors of Salzburg Global Seminar.

Colin Brereton *UK*

Colin Brereton leads PwC's Financial Services Risk, Regulation and Economic Crisis Response business in EMEA (REcCE). He is supported by a multinational, multi-discipline team of experienced partners and staff working in 30 countries. Mr. Brereton has been with PwC for 34 years, 21 as a partner. He is a Registered Auditor, and he practiced in that role for 16 years with exclusively blue chip multi-national corporations. During that time he led transactions work on many large international mergers and acquisitions. For four years Mr. Brereton was PwC's global communications industry leader, having overall responsibility for over 3,500 dedicated industry specialists and all PwC's services to telecommunications companies globally.

Francesca Carlesi *Germany*

Francesca Carlesi is responsible for Deutsche Bank's Regulatory Affairs Department at group level, covering regulatory policy, regulatory strategy and implementation globally. She joined Deutsche Bank in 2013 as chief of staff to the group CEO and head of the Co-CEOs' Office, responsible for a variety of topics including governance, institutional and client engagement, regulatory dialogue, and strategy. Prior to joining Deutsche Bank, Ms. Carlesi worked for more than 10 years in banking; having started her career at McKinsey, she then held several senior positions at Barclays in London and Intesa Sanpaolo in Milan. Ms. Carlesi holds an M.B.A. (Hons) from Columbia University, a Master's in Public Policy and Leadership from Harvard Kennedy School of Government a Ph.D. in Banking and Finance from the University of Rome.

Christopher Chan *Canada | Hong Kong – China SAR*

Christopher (Chris) S. Chan joined the Hong Kong Monetary Authority (HKMA) in 2015 as the division head of the Direct Investment and Asset Allocation Divisions of the Reserves Management Department. He is responsible for managing the Exchange Fund's fixed income and rates investments, as well as strategic and tactical asset allocation. Prior to joining the HKMA, Mr. Chan had spent 27 years with JP Morgan's treasury and investment businesses. His last role with them was Asia chief investment officer, in which he was responsible for managing the bank's investment portfolio and asset/liabilities activities across the Asia Pacific. Mr. Chan has an MBA, specializing in finance from the Booth School of Business, University of Chicago, and a Bachelor of Science degree, majoring in economics from Santa Clara University California.

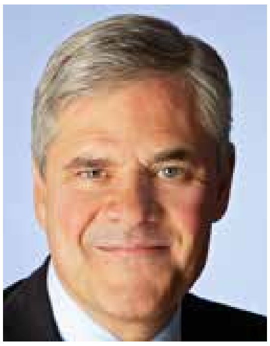
Joanna Cound *UK*

Joanna Cound, managing director, heads up BlackRock's Public Policy team in Europe. She is a member of BlackRock's Global Government Relations and Public Policy Steering Committee, BlackRock's European Operating Committee and BlackRock's Leadership Council in Europe. She is also a board member of the European Fund and Asset Management Association (EFAMA), the European Capital Markets Institute (ECMI) and the Institutional Money Market Fund Association (IMMFA).Prior to moving to this role, Ms. Cound was international chief operating officer for BlackRock's Cash Management Group. Ms. Cound's service with the firm dates back to 1996, including her years with Merrill Lynch Investment Managers (MLIM), which merged with BlackRock in 2006. Prior to joining MLIM in 1996, Ms. Cound worked for Fidelity as head of European product development and as a marketing manager for Citibank retail bank in Germany. Ms. Cound earned a B.A. degree in European studies from Loughborough University and an advanced certificate in European studies from the College of Europe in Bruges, Belgium. She also has an M.B.A. from the London Business School. She is a Fellow of several Salzburg Global Seminar sessions.

Raj Date *USA*

Raj Date serves on the boards of directors for three Fenway Summer-seeded startups: a mass-market credit card venture, FS Card, a wholesale mortgage originator, Ethos Lending, and a private student lender, College Avenue. He also serves as a director for a number of other innovative, high-growth firms in consumer finance, including Prosper, the peer-to-peer lender; Circle, the digital currency firm; and Kensington Vanguard, a national title insurance agent. Mr. Date was the first-ever deputy director of the U.S. Consumer Financial Protection Bureau (CFPB) and helped steward the CFPB's strategy, its operations, and its policy agenda. He also served on the senior staff committee of the Financial Stability Oversight Council, and as a statutory deputy to the FDIC Board. Before his time in public policy, Mr. Date was a managing director in the Financial Institutions Group at Deutsche Bank Securities, where he led the firm's investment banking coverage for the largest U.S.-based banks and thrifts. His client work focused on calibrating credit deterioration, evaluating capitalraising alternatives, and generating liquidity. He is a graduate of the College of Engineering at the University of California at Berkeley and Harvard Law School.

Andreas Dombret *Germany*



Andreas Dombret is a member of the Executive Board of the Deutsche Bundesbank with responsibility for banking and financial supervision, risk control, and the Bundesbank's representative offices abroad. He is also responsible for G7, G20 and IMF (Deputy of the Bundesbank), Supervisory Board (SSM) (member), Basel Committee on Banking Supervision (BCBS) (member of the Bundesbank) and Bank for International Settlements, Basel (Board of Directors). From 1987 to 1991, he worked at Deutsche Bank's Head Office in Frankfurt, from 1992 to 2002 at JP Morgan in Frankfurt and London, from 2002 to 2005 as the co-head of Rothschild Germany located in Frankfurt and London, before serving Bank of America as vice chairman for Europe and head for Germany, Austria, and Switzerland between 2005 and 2009. He was awarded an honorary professorship from the European Business School in Oestrich-Winkel in 2009. Mr. Dombret studied business management at the Westfälische Wilhelms University in Münster and was awarded his Ph.D. by the Friedrich-Alexander University in Erlangen-Nuremberg. He is a Fellow of several Salzburg Global Seminar sessions, a member of the Advisory Committee of the *Salzburg Global Forum on Finance in a Changing World*, and a member of the Board of Directors of Salzburg Global Seminar.

Andrea Federico *Italy*

Andrea Federico is head of the financial services public policy practice in Europe, the Middle East, and Africa (EMEA) at Oliver Wyman. Since joining Oliver Wyman in 1998, Mr. Federico has been predominately concentrating in the UK and Southern Europe, where he has built an extensive and thorough knowledge of governance, credit risk, planning, and control challenges faced by the region's major players. In addition, since 2007, he has focused on regulatory and public policy issues, maintaining an active dialogue with regulators, industrial associations, ministries of finance and state-owned financial services companies in the region.

Silke Finken *Germany*

RAPPORTEUR

Silken Finken is a professor of International Management at the International School of Management (ISM), in Munich, Germany. Prior to this, she was the Senior Vice President of Operations and Services at DZ Bank AG where she was responsible for strategic projects and regulatory affairs. Before joining DZ Bank AG, Ms. Finken was a case team leader at Bain & Co.'s financial service practice. She holds a Ph.D. in finance from Frankfurt University.

Douglas Flint *UK*

Douglas Flint was appointed group chairman of HSBC Holdings plc in December 2010. Previously he was chief financial officer and executive director for risk and regulation. Prior to joining HSBC in 1995, he was a partner at KPMG. Mr. Flint was appointed chairman of the Institute of International Finance in June 2012. He is a member of the international advisory board of the Shanghai-based China Europe International Business School, the Institute of Chartered Accountants Scotland, and the Association of Corporate Treasurers. Previously he was chairman of the Financial Reporting Council's review of the Turnbull Guidance on Internal Control and co-chaired the Group of Thirty report on *Enhancing Public Confidence in Financial Reporting*. Mr. Flint was honored with Commander of the Most Excellent Order of the British Empire (CBE) in 2006 by Her Majesty the Queen in recognition of his services to the finance industry. He gained a B.Acc. from Glasgow University. He is a Fellow of several Salzburg Global Seminar sessions and a member of the Advisory Committee of the *Salzburg Global Forum on Finance in a Changing World*.

Daniel Foos *Germany*

Daniel Foos works for the Deutsche Bundesbank, at the central office in Frankfurt am Main. Since the year 2013, he is the head of the section on Risk Modeling and Model-based Analyses within the Directorate General Banking and Financial Supervision. He was also the coordinator of the research area Financial Intermediaries and chair of the expert panel on interest rate risk in the banking book (Fachgremium IRRBB). Moreover, he has extensive experience in international working groups: Leverage Ratio (BCBS, SSm), Research Task Force (BCBS, lead of work stream on regulation and accounting, member of work stream on capital and liquidity regulation), and Liquidity and Bank Funding (SSM Risk Analysis Network, lead).

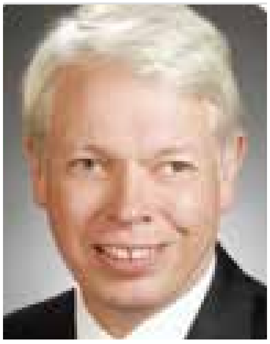
Ho Ting Fung *Hong Kong – China SAR*

Ho Ting Fung is an assistant manager (publications) at the Hong Kong Institute for Monetary Research.

Salvino Galea *Malta*

Salvino Galea is currently the head of the Financial Stability Department at the Central Bank of Malta. Previous to this appointment he was head of Monetary Operations. He also worked in the bank's Economics Department and Investments Department. Mr. Galea was a member of the Risk Management Committee of the ECB. He is also a member of the Institute of Financial Services (UK). Mr. Galea holds a B.A. (Hons) in Public Administration and a Master's in European Studies (with distinction) from the University of Malta.

Stefan Gavell *USA*



Stefan M. Gavell is executive president and global head of regulatory, industry, and government affairs at State Street. In this position he and his team are responsible for representing State Street with regulators, legislators, and other policymakers worldwide. Prior to serving in this role, he held numerous corporate and business line positions at State Street including treasurer, acting chief financial officer, and head of International Global Markets, and he has held expatriate assignments in Europe and Asia. He is a member of numerous professional bodies, including a recent presidency of the ABA Securities Association. He serves currently on the board of the Global Financial Markets Association. Mr. Gavell received his B.A. in economics and government from Oberlin College and his M.B.A. from Columbia University. He is a Fellow of several Salzburg Global Seminar sessions.

José Manuel González *Spain*

José M. González-Páramo is the Europe chair of the TransAtlantic Business Dialogue (TABD), the official business advisory group to the European Commission and U.S. administration, since January 2015, and an Executive Board member of BBVA, since 2013. Among other responsibilities in the group, he is the Chief Officer, Global Economics, Regulation & Public Affairs, and the Chairman of its International Advisory Board. In 1988 he was appointed professor of Economics at UCM and from September 2012 he is a professor at IESE Business School. From 1985 to 1994 he was an economic adviser to various public and private institutions including the Banco de España (1989-1994), the European Commission, the IMF and the World Bank Group. Mr. González-Páramo served as a member of the Executive Board of the European Central Bank (ECB) from 2004 to 2012. He was a member of the Governing Council of Bank of Spain (1994-2004) and of its Executive Committee (1998-2004). A Fulbright scholar, he is a member of the European Academy of Arts and Sciences and Full Member of the Real Academia de Ciencias Morales y Políticas. He holds an M.A., M.Phil. and Ph.D. in Economics from Columbia University as well as a Ph.D. from Universidad Complutense.

Charles Gray *USA*

Charles Gray is a vice president in the Financial Institution Supervision Group of the Federal Reserve Bank of New York. He is actively engaged in a range of financial reform initiatives arising from the Dodd-Frank Act of 2010, as well as in the ongoing formulation of supervisory policy. In the international arena, he serves as the New York Fed representative on the FSB Cross-Border Crisis Management Group and as co-chair of the CBCM Workstream on Funding in Resolution. Mr. Gray joined the FRBNY as an attorney in 2006 and advised on significant regulatory, enforcement and crisis-related matters over the course of six years in the Bank's Legal Group before joining Supervision. During 2010 he was detailed to the United States Department of the Treasury, where he served as a policy advisor to Assistant Secretary Michael Barr with respect to the legislative development of the Dodd-Frank Act and its early implementation. Mr. Gray is a graduate of Harvard College (1997) and Harvard Law School (2001). Prior to law school Mr. Gray served as a professional staff member for the Banking and Financial Services Committee of the U.S. House of Representatives. Before joining the FRBNY, Mr. Gray was an associate in the financial institutions group at Sullivan & Cromwell LLP.

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Edward F. Greene is senior counsel based in the New York office of Cleary Gottlieb Steen & Hamilton LLP. Mr. Greene's practice focuses on securities, corporate governance, regulatory and financial services reform, and other corporate law matters. He formerly served as general counsel of the Securities and Exchange Commission from 1981 to 1982 and earlier as director of the Division of Corporation Finance. From 2004 to 2008, Mr. Greene served as general counsel of Citigroup's Institutional Clients Group. Mr. Greene is a co-author of a number of leading books and law review articles, including *U.S. Regulation of the International Securities and Derivatives Markets* and *The Sarbanes-Oxley Act: Analysis and Practice*. Mr. Greene received an undergraduate degree from Amherst College and an LL.B. degree from Harvard Law School in 1966. Mr. Greene is currently a senior research scholar and lecturer-in-law at Columbia Law School. He is a Fellow of several Salzburg Global Seminar sessions and a member of the Advisory Committee of the *Salzburg Global Forum on Finance in a Changing World*.

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Roland Günther works in regional management at Deutsche Bank UK Bank Ltd. in London, where he developed and implemented a new framework for risk identification, mitigation and monitoring metrics, governance, capital planning, and resolution. He covered a variety of financial services clients in previous roles as derivatives structurer at Deutsche Bank, investment banker at Citigroup, and strategy consultant at Accenture, allowing him to develop a broad base of experience in the dynamics of the industry, processes, and systems as well as in-depth product knowledge and regulatory expertise. Classically educated, Mr. Günther holds an LL.M. and an M.Phil. in political science from the University of Salzburg, Austria, with research interests in international political economy, political theory, microfinance, and alternative investments. He is a Fellow of Salzburg Global Seminar.

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Levin Holle is the head of the Financial Markets Policy Department of Germany's Federal Ministry of Finance, Germany. His responsibilities include theformulation of policies and strategies with respect to federal credit institutions, federal debt management, and financial markets as well as anti-money laundering and international financial markets policy. He is also responsible for the supervision of the Financial Market Stabilisation Authority and the Federal Financial Supervisory Authority. Dr. Holle is a frequent speaker at national and international forums on a wide variety of subjects including capital markets union, single resolution mechanism, and banking union. Prior to joining the German Finance Ministry, he worked fifteen years for the management consultancy Boston Consulting Group, his last position being senior partner and managing director of the Berlin office. In 1996 he earned his Ph.D. at the University of Göttingen.

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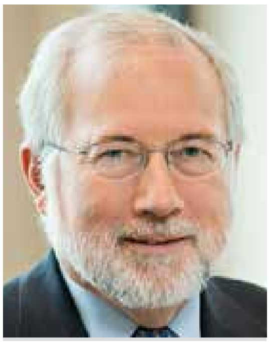
Jacob Hook is a partner in Oliver Wyman's Sydney office, where he leads the Public Policy practice across the Asia Pacific region, as well as the Australia practice. Mr. Hook has extensive experience consulting on leading public and private financial sector institutions across Asia Pacific and Europe and worked in Oliver Wyman's Singapore office for five years before transferring to Australia. His expertise includes national financial sector strategy, regulatory architecture, and regulatory organisational development, as well as securities, exchange, and wealth and asset management regulation. Mr. Hook also works on strategy issues for leading wholesale banks, asset managers, and wealth managers. He is the author of a number of published reports on the financial services sector in Asia Pacific and a regular speaker at industry events. Mr. Hook holds a BA (Hons) in Political Science from Victoria University in New Zealand, an MA in International Finance and Banking from the Fletcher School, Tufts University.

Gabor Horvath *Hungary*

Gabor Horvath is leading economic expert of the Financial System Analysis Directorate at the Central Bank of Hungary (MNB). He is responsible for the "Financial Stability Report," published semi-annually on the Hungarian banking system, as well as for several other projects managing the legacy of the crisis and macroprudential risks in Hungary. Mr. Horvath is involved in the newly introduced private insolvency law, the foundation and on-boarding of the Hungarian Asset Management Company for non-performing commercial real estate loans, and fostering portfolio cleaning, both in the household and corporate segment. He also takes part in the strategy implementation of the Budapest Stock Exchange in order to support SMEs' access to finance in broad terms. Holding an M.Sc. in macroeconomic analysis and forecasting, before MNB he worked for the Research Department of the Ministry of Economy, as well as a number of consultancy firms, including McKinsey&Co. He is a Fellow of Salzburg Global Seminar.



Thomas Huertas *USA | UK*

Thomas (Tom) F. Huertas is partner in the financial services risk practice at Ernst & Young (EY) and chairs the firm's global regulatory network of former senior supervisors. He advises major financial firms on regulatory and strategic issues. Prior to joining EY, Mr. Huertas was a member of the executive committee at the UK financial services authority, alternate chair of the European Banking Authority and a member of the Basel Committee on Banking Supervision. He also held a number of senior positions at a major global bank. He has published extensively on banking and regulatory issues, including his most recent book *Safe to Fail: How Resolution Will Revolutionize Banking*. He is a Fellow of several Salzburg Global Seminar sessions.

Jaidev Janardana *UK*

Jaidev Janardana is CEO of Zopa, having joined the world's first peer-to-peer lending service as its COO in 2014. Previously, Mr. Janardana was the CMO and vice president at Capital One (Europe), joining them in 2002 in their US office in McLean, Virginia. After five years working in the US credit card business, Mr. Janardana transitioned to the UK in December 2007 as chief credit officer for the UK business. Since then he held a number of roles in the business, from heading up its Risk Operations function to leading its New Customer Acquisition and Business Development efforts. Mr. Janardana has a B.Tech. from Gujarat University and an M.B.A. from The Indian Institute of Management, Bangalore.

Michael Januska *Canada*

Micheal Januska is a principal economist in the Financial Stability Department at the Bank of Canada. His current focus is on market-based finance, and he represents the Bank at Financial Stability Board working groups on this topic. He also coordinates staff briefings for the Bank leadership ahead of meetings of the FSB and BIS. Before joining the Bank, Mr. Januska spent about 10 years at the Department of Finance Canada, developing policies on the regulation and taxation of financial institutions. Mr. Januska is a C.F.A. charterholder and holds an M.A. in economics from the University of Alberta.

Leticia Marian Jaregui Casa *Mexico*

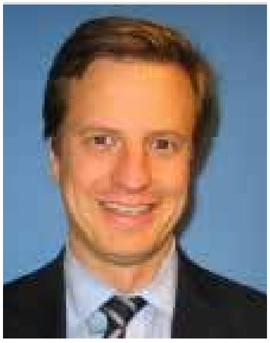
Since founding Crea, Leticia Marian Jaregui Casa has helped 65,000 people, and counting, by focusing on training, supporting and establishing strong SMBs belonging to low income and indigenous women from one fourth of Mexico's states. Her work continues to impact the lives of thousands of women through a partnership with the Federal Government and the program Mujeres Moviendo México. She enjoys mending the social fabric through impactful focused projects and understands there is a latent need beyond her likes, so she co-founded the Mexico City Impact Hub as a collaboration platform for social entrepreneurs. Challenging her own entrepreneurial spirit, she founded Tishi, a new electronics brand and e-commerce platform with an innovative and unique digital DNA. In order to bring all of this together with a strong community of innovators, Ms. Jaregui Casa decided to found the SingularityU Mexico City Chapter. She has presented and published her work on remittances, women's entrepreneurship, women's economic empowerment, and gender equality on international forums such as Wharton School of Business, the OAS, the OECD, and the WEF Davos Annual meeting, and publications like *Forbes*, *Stanford Social Innovation Review*, and the *Journal of Urban*

Studies. Her work has been recognized by organizations such as: Echoing Green Fellowship, a GLG Social Impact Fellowship, and a membership to the Global Shapers Community of the World Economic Forum.

Richard Kaye *UK*

Richard Kaye is head of Government Relations for JP Morgan in Europe and Asia. The team leads the firm's public policy engagement in the region, including the institutions of the European Union and its member states'. He has also recently taken on responsibility for the Asia-Pacific team. Mr. Kaye is a member of JP Morgan European Operating Committee; chair of the Financial Services Committee of the American Chamber of Commerce to the European Union; member of the Executive Council of the International Regulatory Strategy Group of CityUK, its Public Affairs group; and recently stepped down as chair of the European Public Policy Committee of the Association of Financial Markets in Europe. He is a Fellow of several Salzburg Global Seminar sessions.

Andre Kelleners *USA*



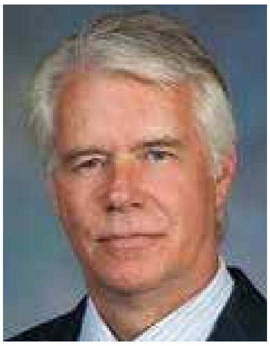
Andre Kelleners is a managing director in the Investment Banking Division at Goldman Sachs & Co. in New York. As head of consumer investment banking and a senior member of the firm's M&A Group, he is responsible for the execution of Mergers & Acquisitions for the firm's clients in the consumer goods, retail, and healthcare sectors. He joined Goldman Sachs in Frankfurt in 1999, where he advised on M&A mandates for European clients across various sectors. In 2006, he transferred to Sydney, Australia, to cover clients in the healthcare industry before transitioning to his current role in New York in 2007. Recent advisory engagements include, among others, the sale of Avon North America to Cerberus, the sale of selected Procter & Gamble beauty brands to Coty, the acquisition of Keurig by JAB, Merck's acquisition of Cubist, Walgreen's acquisition of Alliance Boots and its joint venture with AmerisourceBergen, and the sale of P&G Pharmaceuticals to Warner Chilcott. He serves on the Board of Directors of the American Council on Germany in New York, St. Ann's Warehouse (The Joseph S. & Diane H. Steinberg Theater) in Brooklyn, and he is a member of Atlantik-Brücke. Mr. Kelleners holds a dual-degree MBA from European Business School, Oestrich-Winkel, and the Kratz Graduate School of Business, Pittsburgh, and a Ph.D. in finance from University of Witten-Herdecke.

Patrick Kenadjian *USA | Germany*

Patrick Kenadjian is an adjunct professor at the Goethe University in Frankfurt am Main, Germany, where he teaches courses on the financial crisis and financial reform and mergers and acquisitions at the Institute for Law and Finance. He has recently chaired conferences at the University in Frankfurt on the EU's Capital Markets Union initiative, the EU's Bank Recovery and Resolution Directive and the EU's Collective Action Clause initiative and speaks frequently on topics related to financial reform, including "too big to fail," the architecture of financial supervision, and the new regulatory environment in the US and the EU. Mr. Kenadjian is senior counsel at Davis Polk & Wardwell London LLP. He was a partner of the firm from 1984 to 2010, during which time he opened the firm's Tokyo and Frankfurt offices in 1987 and 1991, respectively, and spent over 25 years in its European and Asian offices. He is a Fellow of several Salzburg Global Seminar sessions and a member of the Advisory Committee of the *Salzburg Global Forum on Finance in a Changing World*.

Miles Kennedy *UK*

Miles Kennedy is a partner of PricewaterhouseCooper, where he has worked since 2002. Prior to this experience he was involved with the Grand Metropolitan in London for six years (1989-1995) as a treasure manager. Mr. Kennedy earned a Bachelor of Arts in economics and philosophy from the Trinity College in Dublin, Ireland.



Micheal Krimminger *USA*

Michael Krimminger is partner at Cleary Gottlieb Steen & Hamilton LLP in New York. He formerly served as general counsel and as special advisor to the chairman and deputy to the chairman for policy at the Federal Deposit Insurance Corporation (FDIC). Mr. Krimminger is the co-chair of the Basel Committee's Cross Border Resolutions Group, representing the FDIC on the Financial Stability Board's Resolution Steering Group and other bodies. He received a J.D. from Duke University of Law, where he served on the editorial board of the *Duke Law Journal*. He received an undergraduate degree from the University of North Carolina. Mr. Krimminger is a member of the bars in California, Virginia, and Washington, DC. He is a Fellow of several Salzburg Global Seminar sessions.

Jiří Krol *Czech Republic | UK*

Jiří Krol, deputy CEO, global head of government affairs, joined AIMA, the Alternative Investment Management Association, in April 2010. Mr. Krol started his career at the Czech securities market regulator. He then moved to the European Commission's Internal Market Directorate-General, where he was responsible for the drafting and negotiation of the Markets in Financial Instruments Directive (MiFID) implementing measures. Previously, Mr. Krol was appointed financial markets policy director in the Czech Ministry of Finance in 2007. In 2009, he led the Czech European Union Presidency's work in the area of financial services. Mr. Krol studied international relations, economics and politics at Tufts University, London School of Economics, and Sciences Po. He is a Fellow of Salzburg Global Seminar.

Akio Kurata *Japan*

Akio Kurata is the founder and CEO of Equity X. Mr. Kurata began his career at Nomura Securities Co., Ltd. He advised on shareholder rights plans and executed various kinds of M&A transactions (e.g. auction, bilateral negotiation, share exchange, share transfer, company split and tender offer), which resulted in the best track record among c.20 peers in terms of the number of the deals in FY2011/2012. He also contributed to the foundation of a franchisee of The Rothschild Group at the early stage and was engaged in the international M&A transactions. He closed 15 M&A deals whose total value was JPY 2 trillion and then established Equity X Inc.

Claire Lawrie *UK*

Claire Lawrie is global affairs manager at the UK Financial Conduct Authority. In this role she is responsible for overseeing the FCA's interactions with international institutions, supporting the FCA's work to shape and influence international regulatory policy debates, and advising colleagues on international regulatory developments. Ms. Lawrie has over five years' experience in regulatory affairs, having joined the FCA's predecessor, the FSA, in 2011, first in the Communications Division before joining the Markets Policy and International Affairs Division. Prior to the FCA, she held a number of strategy, policy, and public affairs roles spanning both the private and public sectors.

Wendy Lucas-Bull *South Africa*

Wendy Lucas-Bull was appointed chairman of Barclays Africa Group Limited, Absa Bank Limited, and Absa Financial Services Limited in April 2013. She spent most of the early part of her career at Andersen Consulting (now Accenture), where she was an international partner who specialized in retail and investment banking, financial exchanges, and insurance both in South Africa and internationally. She moved to Rand Merchant Bank (RMB) in 1994 as an executive director. With the creation of the FirstRand Group, Ms. Lukas-Bull moved to First National Bank in 1999. She then went on to lead all the retail businesses of the FirstRand Group, which included First National Bank, WesBank, Outsurance, and Firstlink, as CEO of FirstRand Retail. She was the founding chairman of Business Against Crime, which began in 1994. In 2005, she co-founded Peotona Group Holdings, a women's investment consortium and development group. Ms. Lukas-Bull served on the President's Advisory Council on Black Economic Empowerment for the period 2011 - 2014. Her previous board positions include Barclays PLC, Barclays Bank PLC, Alexander Forbes Ltd, Anglo American Platinum Limited, Aveng Ltd (deputy chairman), Development Bank of Southern Africa, Dimension Data Plc, Eskom Holdings, Lafarge Mining & Industries South Africa (chairman), Nedbank Group, South African Financial Markets Advisory Board and Telkom SA. She holds B.Sc. degree from the University of the Witwatersrand.

Steven Maijoor *Netherlands | France*

Steven Maijoor is the chair of the European Securities and Markets Authority (ESMA). He took up office on April 1 2011 and is the first chair of the authority and has been appointed for a term of five years. He represents the Authority and is responsible for chairing ESMA's Board of Supervisors, which gives strategic guidance to ESMA and takes all main regulatory and supervisory decisions. He also chairs the Management Board, which needs to ensure that the Authority carries out its mission and performs its tasks. Prior to taking up this role, Mr. Maijoor was managing director at the Authority for the Financial Markets (AFM). In his regulatory role at the AFM, Maijoor has held a number of international positions, including the chairmanship of IFIAR (International Forum of Independent Audit Regulators). Before joining the regulatory world, Mr. Maijoor was the dean of the School of Business and Economics at Maastricht University. He holds a Ph.D. in business economics from Maastricht University, was a research student at the London School of Economics, and has an M.A. in business economics from the University of Groningen. He is a Fellow of several Salzburg Global Seminar sessions.

Robin Maxwell *USA*

Robin Maxwell is head of Linklaters' U.S. Financial Regulation Group. She provides regulatory advice to banking organizations and their holding companies in the context of complex domestic and cross-border joint ventures, spin-offs and other M&A transactions. She also advises on private equity investments in the banking sector, bank regulatory capital, liability management, and banksponsored private investment funds. Increasingly, Ms. Maxwell's practice is focused on new approaches to prudential regulation, bank insolvency regimes, and other responses to "too big to fail." She regularly advises on U.S. regulatory developments, including the Volcker Rule, and their intersection with UK and EU regulatory developments. Ms. Maxwell regularly represents clients before the Federal Reserve Board, the Office of the Comptroller of the Currency and the Federal Deposit Insurance Corporation, and various state banking regulators. Robin is ranked as a leading lawyer in *Chambers USA* 2010 – 2015.

Wim Mijs *Netherlands | Belgium*

Wim Mijs started as chief executive of the European Banking Federation in September 2014. He started his career teaching at the faculty of law of the University of Leiden (the Netherlands) until 1990 and worked at the Permanent Court of Arbitration at the Peace Palace in The Hague until 1993. He then joined ABN AMRO in Amsterdam before moving to Brussels to head the ABN AMRO EU Liaison Office. Mr Mijs moved back to The Hague in 2003, where he became the head of government affairs for ABN AMRO. From 2001 to 2007 he was chair of the Financial Markets Committee of the European Banking Federation, and was appointed chief executive of the Dutch Banking Association in 2007. He holds a Law degree from the University of Leiden. He is a Fellow of several Salzburg Global Seminar sessions.

Bailey Morris-Eck *USA*

Bailey Morris-Eck is a trustee of the American Funds complex of mutual funds. She is also a founder and former co-chair of the International Women's Media Foundation. In her long public policy career, she has served in two White House Administrations, Presidents Carter and Clinton, the latter as senior advisor to the Counselor to the President with primary focus on trade policy. She has also served as vice president of the Brookings Institution, as senior associate in charge of the global public policy initiative of the Reuters Foundation and as a fellow and editor of the policy journal of the Institute of International Economics (now the Peterson Institute). She began her career in journalism, serving as U.S. economics correspondent for both The Independent (London) and The Times of London and as senior correspondent for London Financial News. She was also an appointed Commissioner of Maryland Public Television. She currently is a trustee of the Walters Arts Museum and of WYPR, a U.S. regional public radio complex. She is also a member of the editorial board of the German Marshall Fund, an editorial adviser to the European Institute and a member of the Council on Foreign Relations. She formerly served on the board of visitors of Claremont University. Ms. Morris-Eck is Fellow of several Salzburg Global Seminar sessions and a member of the Board of Directors of Salzburg Global Seminar.

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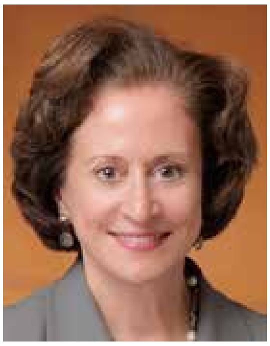
Annette Nazareth is a Davis Polk partner practicing in the firm's Financial Institutions Group in the Washington, DC office. She advises clients across a broad range of complex regulatory matters and transactions. She also works closely with Davis Polk's Securities and Exchange Commission (SEC) enforcement practice, counseling nonfinancial sector corporations that are subject to government regulatory and enforcement actions. Ms. Nazareth was a key financial services policymaker for more than a decade. She joined the SEC Staff in 1998 as a senior counsel to Chairman Arthur Levitt and then served as interim director of the Division of Investment Management. She served as director of the Division of Market Regulation (now the Division of Trading and Markets) from 1999 to 2005. As director, she oversaw the regulation of broker-dealers, exchanges, clearing agencies, transfer agents, and securities information processors. In 2005, she was appointed an SEC commissioner. Ms. Nazareth also served as the Commission's representative on the Financial Stability Forum from 1999 to 2008. She is a Fellow of Salzburg Global Seminar and a member of the Advisory Committee of the *Salzburg Global Forum on Finance in a Changing World*.



Sandra O'Connor *USA*

Sandra (Sandie) O'Connor is the chief regulatory affairs officer for JP Morgan Chase & Co. She also serves on firmwide governance committees and chairs the JP Morgan Chase Foundation Investment Committee. In her role, Ms. O'Connor is responsible for the firm's comprehensive regulatory strategy. This includes engaging in balanced advocacy with regulators and policymakers, understanding and providing thought leadership on how policies affect the firm's clients and economic growth overall, and governing company-wide internal coordination on global regulatory reform issues. Ms. O'Connor joined JP Morgan in 1988 and has held several key executive positions. Most recently, she was treasurer of JP Morgan Chase, where she managed the firm's capital, balance sheet, liquidity and funding strategy, and positions, as well as the firm's rating agency relationships and corporate insurance activities. She is a Fellow of several Salzburg Global Seminar sessions and chair of the Advisory Committee of the *Salzburg Global Forum on Finance in a Changing World*.

Randal Quarles *USA*

Randal Quarles is founder and managing partner of The Cynosure Group, a private investment firm bringing together the resources of a number of the country's most significant family offices to make long-term equity investments in private companies. Before founding Cynosure, Mr. Quarles was a longtime partner of The Carlyle Group, where he began the firm's program of investments in the financial services industry during the financial crisis as well as the development of specifically tailored managed accounts of private equity investments for the firm's largest investors. Mr. Quarles has been a close advisor to every Republican Treasury Secretary for the last 25 years, most recently serving as undersecretary of the Treasury for Domestic Finance in the Bush Administration and before that as assistant secretary of the Treasury for International Affairs and U.S. Executive Director of the IMF. Earlier in his career he was a partner with the law firm of Davis Polk & Wardwell in their New York and London offices, where he was co-head of their financial institutions group. He is a Fellow of several Salzburg Global Seminar sessions and a member of the Advisory Committee of the *Salzburg Global Forum on Finance in a Changing World*.

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David Schraa is resident at the Institute of International Finance (IIF) European Representative Office in London. The Regulatory Affairs Department supports the IIF's representation of internationally active financial institutions to the Basel Committee on Banking Supervision, International Organization of Securities Commissions (IOSCO), International Association of Insurance Supervisors (IAIS), the Financial Stability Board, Joint Forum, International Accounting Standards Board (IASB) and other international regulatory groups. Prior to joining the IIF, he held senior positions as a managing director at J.P. Morgan; he came to J.P. Morgan from Davis Polk & Wardwell, having served in its New York and Paris offices. He has a B.A. from Pomona College and a J.D. from the Harvard Law School.

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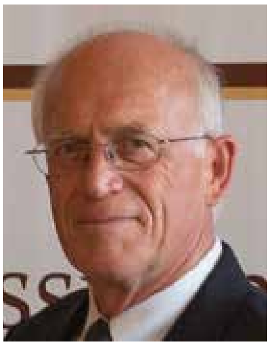
Michael Sholem is European counsel in Davis Polk's Corporate Department, practicing in the London office. His practice focuses on the supervision and regulation of banks, investment firms, insurance companies, and asset managers, including in connection with new authorizations, changes of control, corporate governance and regulatory investigations. His practice has also included advising non-financial groups on the impact of new regulation, with a particular focus on market infrastructure. Mr. Sholem also has extensive experience advising clients on developments in European Union laws, rules, and policies affecting financial institutions.

Jiayi Sun *Germany*

Jiayi Sun is a supervision expert at the Deutsche Bundesbank in the Strategic Office for Single Supervisory Mechanism (SSM) Supervision / Joint Supervision Team (JST) Coordination, where she is repsonsible for the assessment of information on bank-specific risk areas provided by the JSTs, horizontal analyses, and the preparation of memos and briefings for Bundesbank's senior management and board members. Prior to joining the Deutsche Bundesbank in 2014, Ms. Sun was an corporate finance and M&A associate at Metzler Corporate Finance, and a transaction services consultant at PricewaterhouseCoopers. She holds a business administration degree, focusing on finance and banking, accounting and corporate taxation, and English from the University of Bayreuth, Germany.



Philip Weights *UK | Switzerland*

Philip Weights is the founder and managing director of Enhanced Banking Governance GmbH (EBG) in Zurich and Dubai. EBG provides corporate governance consulting and advisory services for Bank Boards of Directors, Audit & Risk Committees, Ethics & Remuneration Committees, Risk Management, Internal Audit, and Regulatory Compliance. Mr. Weights is a Certified Professional Director through the Mudara Institute of Directors in Dubai (DIFC) and accredited by the International Finance Corporation/World Bank Group. Mr. Weights was, for over a decade, the chief auditor & senior vice president of EFG Bank in Zurich, and has over fifty years of banking experience. Philip is a senior lecturer in banking governance with the Swiss Finance Institute, and also with the Hawkamah Institute for Corporate Governance in Dubai. He is a Certified Internal Auditor, a Certified Information Systems Auditor, and holds a Certification in Risk Management Assurance. He is a Fellow of several Salzburg Global Seminar sessions.

Heinz Weilert *Germany | South Africa*

Heinz Weilert is an accomplished financial leader and architect for change with more than 20 years of experience driving the profitability and productivity of leading companies through skilled leadership of business and financial improvement strategies based on sound process and market analysis. Mr. Weilert serves as non-executive director on several African banking boards and has substantial experience in start-up companies, scaling of businesses, and removing barriers to success in today's highly competitive environment. Mr. Weilert is a qualified Chartered Accountant (SA) and has several Master's degrees with specialisation on facilitating decision-making in complex environments. He has substantial experience in start-up companies.

Peter Wilson-Smith *UK*

Peter Wilson-Smith is founder and director of Meritus Consultants, a strategic communications and reputation management consultancy. Previously he spent ten years at Quiller Consultants, after an extensive career in journalism spanning newspapers and broadcasting. He was one of the founders, editor-in-chief, and publishing director of *Financial News*, the specialist publication for the financial industry. Before that he spent five years at the BBC as a reporter on *The Money Program* and BBC News and also presented *Financial World Tonight* and *Analysis* on Radio 4. Mr. Wilson-Smith set up the business section when The Independent on Sunday launched and was one of the original editorial team on The Independent where he was deputy business and city editor. He was also banking correspondent on the *Daily Telegraph* and *The Times*. Educated at St Catherine's College, Oxford with an M.A. in English literature, he is on the governing council of the Centre for the Study of Financial Innovation, chairman of the Oxford School of Drama, a trustee of the Paul Hamlyn Foundation and a member of the Board of Directors of Salzburg Global Seminar.

Johannes Woelfing *Germany | UK*

Johannes Woelfing is an expert in prudential, remuneration, and legal issues at The Investment Association and he advises its members on these subjects. He acts as responsible manager for the Association's Prudential Committee, the Heads of Legal Forum, and a number of the Association's Working Groups. He coordinates the work in the ICAAP guidance written by the Investment Association's Prudential Committee and EY. Woelfing is trained as a lawyer in Germany and started his career at the research centre for financial services at Humboldt University in Berlin. He has five years' work experience in the European institutions and he acts as the Association's primary contact for policy makers in Europe and in the UK with regard to prudential regulation.

David Wright *Belgium | France*

David Wright is the chair of EUROFI, the European think tank dedicated to financial services. Prior to taking up this role, he was secretary general of the International Organization of Securities Commissions (IOSCO). Mr. Wright worked for nearly 34 years in the European Commission from 1977 to 2011. From March 2000 to October 2010 he was first director, then deputy director-general, for securities and financial markets and then all financial services policy in the Directorate-General (DG) Internal Market and Services. He helped design and drive forward the Financial Services Action Plans to integrate the EU's capital and financial services markets. He was the rapporteur for both the Lamfalussy (2000/1) and De LaRosière Committees (2008/9), chaired the Securities and Banking Committees and represented the Commission in the Financial Services Committee and in various Financial Stability Board (FSB)/G20 fora. He is a Fellow of several Salzburg Global Seminar sessions and a member of the Advisory Committee of the *Salzburg Global Forum on Finance in a Changing World*.

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Tatsiana Lintouskaya *Program Director*

Tatsiana Lintouskaya is a Program Director at Salzburg Global Seminar, where she is responsible for the conception, development, and implementation of international seminars covering issues of international governance, geopolitics, and international economics. Prior to joining Salzburg Global Seminar, Tatsiana worked in the Belarusian Ministries of Foreign and Foreign Economic Relations, the International Labour Organization, the International Finance Corporation, and as an independent consultant in Washington, DC. She is also an alumna of the training program for young diplomats at the German foreign ministry. She holds degrees in economics from the Belarusian State Economic University and an M.A. in international relations from the School of Advanced International Studies at the Johns Hopkins University, Washington, DC, USA.

Kevin Kolesnikoff *Program Associate*

Kevin Kolesnikoff is a trainee Program Associate at Salzburg Global Seminar, and joined the organization in May 2016, having interned with the Program Office for three months in 2015. In his role, he aids in the preparation, organization and conduction of Core sessions through both research and administrative support. Prior to joining Salzburg Global he worked on the staff of the American International School of Salzburg, Austria. While there he was responsible for the daily safety and supervision of students. He has also worked for Three Bays Preservation, an environmental non-profit on Cape Cod, and as an ocean lifeguard. Kevin graduated in 2012 with a B.A. in English from Wheaton College in Norton, MA, USA.

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Salzburg Global Seminar

Salzburg Global Seminar was founded in 1947 by Austrian and American students from Harvard University. Convinced that former enemies must talk and learn from each other in order to create more stable and secure societies, they set out to create a neutral international forum for those seeking to regenerate Europe and shape a better world. Guided by this vision, we have brought together over 33,000 participants from 160 countries for more than 500 sessions and student academies across cultural and ideological barriers to address common challenges. Our track record is unique – connecting young and established leaders, and supporting regions, institutions and sectors in transition.

Salzburg Global's program strategy is driven by our Mission to challenge present and future leaders to solve issues of global concern. We work with partners to help people, organizations and governments bridge divides and forge paths for peace, empowerment and equitable growth.
Our three Program Clusters – **Imagination**, **Sustainability** and **Justice** – are guided by our commitment to tackle systems challenges critical for next generation leaders and engage new voices to "re-imagine the possible." We believe that advances in education, science, culture, business, law and policy must be pursued together to reshape the landscape for lasting results. Our strategic convening is designed to address gaps and faultlines in global dialogue and policy making and to translate knowledge into action.

Our programs target new issues ripe for engagement and "wicked" problems where progress has stalled. Building on our deep experience and international reputation, we provide a platform where participants can analyze blockages, identify shared goals, test ideas, and create new strategies. Our recruitment targets key stakeholders, innovators and young leaders on their way to influence and ensures dynamic perspectives on a given topic.

Our exclusive setting enables our participants to detach from their working lives, immerse themselves in the issues at hand and form new networks and connections. Participants come together on equal terms, regardless of age, affiliation, region or sector.

We maintain this energy and engagement through the Salzburg Global Fellowship, which connects our alumni across the world. It provides a vibrant hub to crowd-source new ideas, exchange best practice, and nurture emerging leaders through mentoring and support. The Fellowship leverages our extraordinary human capital to advise on critical trends, future programs and in-region implementation.

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