

SIFMA 2017 Operations Conference and Exhibition May 8-11, 2017 Randy Snook, Executive Vice President, SIFMA *Remarks As prepared for delivery*

Good morning. Welcome to Day 2 of SIFMA's 44th Annual Operations Conference & Exhibition. Yesterday was a packed day, which underscores the many important issues impacting operations professionals right now... and the role is clearly evolving – from regulatory change agent to protector of infrastructure resiliency to leading cyber preparedness.

Today and tomorrow, our experts who will dive deeper into issues shaping the future of operations and the industry as a whole. It's impossible to consider the future of financial services without addressing the evolving concept of "FinTech" and the ever more expansive role of technology in how we do business.

The FinTech revolution is driven by the risk-taking venture capital that is bringing emerging technologies into our industry, looking for opportunities to improve our markets and processes.

It's over \$40 billion invested in FinTech startups. Some of these firms and applications will succeed and others will not, but on the whole, they will drive improvements in efficiency and client experience and results. Whether the impacts of FinTech ventures are complementary to existing business models or create disruptive forces for established players and systems, the application of emerging technologies will move our industry forward. In short, FinTech is not just a buzzword - it is transforming the how our industry operates and interacts with clients.

Evolutions in technology are not new on Wall Street – over the last 40 years, we have seen waves of technology reshaping our industry – but the impact of emerging technologies today looks to be different from prior waves of innovation. Securities firms first looked to new technologies to help automate processes and deal with the inefficiencies of the Paperwork Crisis.

Technology then reshaped the landscape of securities markets, with developments in algorithmic trading and derivatives creating new products and new ways to trade. Firms took advantage of the internet revolution to connect with clients directly online and build new ways of engaging with their customers.

But the FinTech revolution we are seeing today is not just an extension of these prior applications or technology, but is the introduction of news ways that firms can understand their customers, their businesses, and the markets as a whole. Building on big data and powerful new analytics, firms are applying the new insights that emerging technologies can give them – such as using RegTech to better understand their compliance and regulatory requirements, and using AI and machine learning to develop trading strategies or quickly analyze news.

Wealth managers are using roboadvisors to serve individual investors and we're exploring how blockchain can better track and manage information.

Looking across our firms, we can see some of the areas where FinTech innovations are having an impact. Roboadvisor technology gives firms new tools to support individual investors and their financial objectives, while social media helps advisors and firms stay connected with their customers. In the institutional business, firms are using artificial intelligence and machine learning to generate new trading ideas and interact with customers – machine learning is being

leveraged to quickly analyze news and historical events to develop market strategies, to simplify the process of research report development, and to help trading desks interact with their customers quickly and efficiently.

Underlying these new technologies is the aggregation and integration of unprecedented volumes of "big data," which provides the raw materials for advanced analytics, offering new insights that can further enhance the customer offering and experience and improve regulatory oversight.

For example, our first featured presentation of the day will be from IBM on their latest Watson artificial intelligence capabilities. Al and machine learning are breaking new ground in helping identify new patterns in large amounts of data at record speeds, allowing firms to spot new market opportunities and risks, connect thinking across business units, and help advisors better understand and support their clients.

Distributed ledger technology is promising to offer firms a powerful new tool to manage information across a range of market participants simultaneously. SIFMA is working with our members to understand how this technology can be applied to support the evolution of more effective and efficient markets and processes. Pilots and experiments are occurring across a broad range of markets and processes – from trade finance, to securities issuance, to management of reference data, regulatory reporting, and post-trade processing. Last summer, SIFMA helped coordinate a distributed ledger proof of concept on reference data. As the technology develops and is applied in the industry, SIFMA will continue to be part of the dialogue with regulators to help integrate it within existing regulatory frameworks. Tomorrow

we will feature a panel session to on how firms can bring blockchain out of the lab and implement it.

Financial technologies will continue to enhance regulatory compliance and supervision. Tools like machine learning can help firms better understand risk and meet their compliance and reporting requirements. Natural language processing can support more effective monitoring of phone calls and email to meet compliance requirements. Know-Your-Customer practices can be greatly enhanced with better data and analytics. Regulators may be able to use big data and machine learning to carry out market supervision and surveillance more efficiently – for example, in the U.S., the Consolidated Audit Trail is designed to capture in one central database the full lifecycle of equity, options and potentially other products, from inception to execution.

Emerging technologies and FinTech innovations are also democratizing the access to cutting edge services for both customers and firms.

Customers can get access to personalized advice at scale combined with transparency in accessing and understanding data, supported by advanced analytics and roboadvisors, while securities firms can use new data analysis and aggregation tools to quickly generate insights and trading strategies that once would have required large teams to research.

Of course, understanding and managing the risks associated with new technologies will be critically important, and operations professionals will be at the forefront of the careful diligence needed to identify new risks.

Cybersecurity is a key risk, and SIFMA and its members are working to make sure the industry and its clients are protected. Cyber attacks are increasing in frequency and sophistication, and are a daily reality for the industry – it's estimated over one million malware variants are targeting the industry every day.

The perimeter has expanded from cyber defense to include response and recovery. Firms must be prepared for when, not if, a cyber attack occurs, no matter how severe it may be, and virtually any new technology implemented by firms will require consideration of cybersecurity and associated risks

SIFMA, with our members, will continue to lead in developing policies and procedures for cyber defense and recovery. Three key areas of focus for us are the coordination the development of International Cybersecurity, Data and Technology Principles through our global affiliate, GFMA, penetration testing, and advocacy for harmonized regulation. In addition, SIFMA will continue to coordinate a broad range of comprehensive industry testing and exercises.

We are increasingly concerned about pen testing. Penetration testing serves as one of the foremost tools in enabling a robust security program within a financial institution. The industry has outlined a set of principles to harmonize the growing regulator demand for testing, and we will continue to work with regulators around the globe so we can collaborate to make our industry as secure and resilient as possible.

Of course, as the industry reinvents its processes and develops products powered by new technologies, we will need to remain focused on managing the operational risks they may introduce. The industry has managed the impacts of rapid technological change over recent decades, and we'll apply the lessons of this experience to ensure that our systems, processes, and markets remain robust and resilient.

The impact of these new technologies is also reshaping the role of the operations professional. As we heard on yesterday's operations leadership panel, the ops professional will increasingly be responsible for helping to bring innovation and new technologies into their firms.

Even as firms compete to best apply the potential of FinTech, SIFMA and its members are working together to understand what new technologies may mean and what their legal, regulatory, and risk implications may be. Through SIFMA, industry professionals, technology innovators, and regulators come together at working groups, roundtables, seminars and conferences like this one.

The network of service providers will remain key partners to the industry in addressing FinTech, and I'd like to thank you all for making the time to join us in Florida and for your commitment to the industry through its trade body. I encourage you all to spend some time in the Exhibition Hall over the next couple of days – I hope you can make some old fashioned analog networks alongside the digital ones. I'd also like to recognize all our speakers and sponsors for helping to make this event possible.

It is now my pleasure to introduce our first featured presentation. We're pleased to have Ron Lefferts from IBM Global Business Services, March Andrews of IBM's Global Big Data & Analytics Industry Team, and Elizabeth McCaul of Promontory, an IBM Company, here today to address artificial intelligence. Specifically, they will discuss cognitive computing and how Watson is poised to transform regulatory reform and compliance, the so-called "RegTech." Please join me in welcoming the IBM panel.