Richard Dzina: Advancing the Fed's wholesale services in an era of unprecedented challenge and change

Remarks by Mr Richard Dzina, Executive Vice President of the Financial Services Group of the Federal Reserve Bank of New York, at the Securities Industry and Financial Markets Association's Operations Conference and Exhibition 2017, Boca Raton, Florida, 9 May 2017.

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Thank you and good morning. In leading the Federal Reserve's wholesale services I am continually reminded that my stewardship responsibilities for this extraordinary business run in at least three directions. Organizationally, I am accountable to principals across the Federal Reserve System and to the Directors of the Federal Reserve Bank of New York. Managerially, I am accountable to the men and women who make this business function, as capable and as dedicated a cadre of public servants as has served our nation anytime, anywhere. Operationally, and the sensation I feel most keenly standing before this audience of industry leaders, I am accountable to our depository institution customers, and their end users, which rely upon our services to send and receive time critical payments; to transfer, maintain, and provide safekeeping for Fedwire-eligible securities; and to settle positions derived from transactions in other markets. I'd like to thank SIFMA for the opportunity to participate in today's program, and for the visceral reminder of accountability that comes with this invitation.

I have long maintained that the Federal Reserve's wholesale services represent the franchise when it comes to our nation's financial market infrastructure. It is a bold assertion, but not necessarily an unreasonable one, reflecting the dollar value of transactions processed across the Fedwire Funds, Fedwire Securities, and National Settlement Services; the inter-connectedness and dependencies between these services and other systemically important infrastructures; our role as central securities depository and as fiscal agent for the issuance, maintenance, and redemption of all Fedwire-eligible securities; and as the platform across which the Federal Reserve ultimately settles its monetary policy operations. Any one of these elements would likely qualify the wholesale services as "systemic"; in the aggregate they represent a staggering portfolio on which the execution of both our nation's fiscal and monetary policies ultimately depends.

In recognition that a wholesale service outage risks a significant shock to the United States, and in light of the escalating threat landscape in which collectively we operate, last year before this audience I shared a series of reflections endeavoring to advance a new paradigm for resiliency and security for financial market infrastructures. This year I'd like to provide an update on our progress on this front, and then to elaborate on the portfolio of wholesale service initiatives that we are endeavoring to advance to add value for customers and end users. As always, my remarks reflect my own views and do not necessarily represent those of the Federal Reserve Bank of New York or the Federal Reserve System.

The anchor premise of my remarks last year was an appeal for greater technological diversity in our third level resiliency and security schemes, representing an impregnable firebreak, and a platform for recovery, should the core of an infrastructure become corrupted. This work complements our traditional focus on geographic dispersion of infrastructure and human capital, but recognizes a fundamental distinction between cyber resiliency and traditional resiliency: what works for us in conventional resiliency scenarios, namely the automatic and instantaneous replication of data, works against us in cyber scenarios, reflecting risks that a pernicious malware, or a severe data corruption, or even an application failure propagates itself across primary, secondary, and tertiary operating sites, rendering a systemic infrastructure functionally inoperable.

Examples of technological diversity may take many forms, from the application code to middleware components to the operating platform, and may canvass physical, distributed, hosted, or cloud-based solutions. Reflecting their unique circumstances and assessments of the threat, financial market infrastructures will likely respond differently to the present challenge. Without prescribing any particular solution, I will merely suggest that in the event of severe disruption efforts to enhance technological diversity represent an infrastructure's best chance to achieve the two hour recovery objective promulgated by the Committee on Payment and Market Infrastructures (CPMI) and the Board of the International Organization of Securities Commissions (IOSCO).

Beyond measures to enhance technological diversity in our core infrastructure, we continue to make meaningful progress developing manual contingency procedures in the event of a protracted wholesale service disruption from which we cannot recover on a same day basis, our best efforts to ensure resiliency notwithstanding. Recognizing the constraints on operating capacity in such a scenario, this work seeks to maintain critical functionality and to identify and support systemically important payments in our transaction flow to mitigate customer and market impacts.

Increasingly, this work extends beyond the Federal Reserve to include infrastructure peers and other systemically important market participants to test our protracted outage hypotheses and manual contingency procedures. It also complements a number of industry initiatives, including the work of the Payments Risk Committee and the newly established Financial Systemic Analysis and Resilience Center, to consider systemic risk mitigants in the event of a major outage of a large payments processing financial institution. Notwithstanding progress advancing these important initiatives, and in recognition of their enormous complexity, the message for policy makers, boards of directors, and senior management of systemically important institutions is to invest sufficiently in resiliency and security such that we never find ourselves reliant on manual contingency measures whose invocation is likely to produce profound, and unpredictable, consequences.

One sphere of resiliency that has grown in prominence for payment and market infrastructures over the past year has been the focus on endpoint security, a theme that has also captured the attention of global policy makers. Work in support of this collective interest proceeds across multiple fronts, including efforts to enhance end-to-end understanding of the links and relationships within a network; initiatives to enhance assurance that external endpoints are operating in adherence with an operator's security requirements; and the development of centralized information services and application tools to enhance a participant's management of fraud risk. Examples of these services and tools might include features that restrict transfers beyond a maximum dollar threshold, or to foreign beneficiaries, or outside of specified hours.

Historically, and understandably, market infrastructures have operated on the presumption that endpoint security is principally the responsibility of the endpoint, and infrastructure security is principally the responsibility of the operator. Increasingly, reflecting the elevated cyber threat landscape, this distinction is not so clear, especially as endpoint security breaches can potentially have implications for public confidence in the network as a whole, even in circumstances when the operator's infrastructure, applications, and security perimeter have not been compromised.

Arguably, the collective industry focus on resiliency and security represents the challenge of our generation, with direct implications not merely for the functioning of financial markets but, even more fundamentally, for the commercial and economic activity they support. At the same time, and notwithstanding their consuming focus, security and resiliency do not represent ends, but means to an end. I'd therefore like to spend the balance of my valuable time with you reviewing a series of initiatives we are undertaking to enhance the value proposition of the Federal Reserve's wholesale service suite.

The industry environment is complex far beyond the security and resiliency domain. Financial market infrastructures face an unprecedented volume of technological change, market developments, and regulatory scrutiny. For the Fedwire Funds Service, at least two market developments promise to have major strategic implications over a 3-5 year horizon: the advent of real time retail payments, which the Federal Reserve is actively promoting as a desired outcome in its Strategies for Improving the Payments System; and the trend toward global adoption of ISO 20022 payment message standards. For the Fedwire Securities Service, the successful modernization in November 2015 of the application suite and hardware platform supporting this critical business presents an historic opportunity to articulate a future vision that responds to customer and stakeholder needs. Straddling both domains, the emergence of new technologies such as distributed ledgers presents both challenge and opportunity.

A key desired outcome identified in the Federal Reserve's Strategies for Improving the Payment System (SIPS) is to increase the speed of retail payments. An unmistakable global trend toward real time retail payments has emerged reflecting the advent of new technologies, the rapid pace of private sector innovation, the proliferation of mobile payment devices, and the recognition that a world of 24x7 commerce requires a payment system that can keep pace. As this trend inevitably accelerates, the question of interbank settlement to address credit exposures that may accumulate outside of conventional banking hours must be addressed.

Reflecting the Federal Reserve's historical interest in the mitigation of settlement risk, and in anticipation of the emergence of real time retail payments in the United States, we are currently exploring an expansion in operating hours of the National Settlement Service to support the final and irrevocable settlement of interbank positions in central bank money. We are pursuing this interest in three phases. In 2015, we expanded the NSS operating window modestly, opening an hour earlier at 7:30am and closing a half hour later at 5:30p.m. Subsequently, we announced our readiness to open NSS as early as 9:00 p.m. on the prior calendar date, consistent with the operating window of the Fedwire Funds Service, if requested. Finally, we are currently evaluating prospects for weekend settlement hours, perhaps encompassing a 24x7 operating window for NSS, for which we are validating demand prior to finalizing our direction. It is critical to consider these matters in advance of the advent of real time retail payments to anticipate the needs of customers and to respond to the interests of policy makers.

The Federal Reserve's Strategies for Improving the Payment System also aspire to achieve greater end-to-end efficiency in cross-border payments, an historical pain point for end users. In support of this interest, and following an exhaustive season of consultation with industry leaders, we are currently in the midst of a multi-year effort to adopt the ISO 20022 payment message formats for the Fedwire Funds Service. This body of work reflects the emergence of ISO 20022 as the global standard in payment systems, and seeks to achieve greater efficiency and interoperability in cross border payments for financial institutions and end users. Moreover, the structured and robust nature of the ISO 20022 message format provides an opportunity to enhance the information content carried in a payment message, including remittance information to support straight through processing of corporate payments, and to promote greater innovation across a common message suite. Finally, for both the long term competitiveness of our financial institutions and end users, and for the primacy of the dollar as a global settlement currency, it is imperative that the anchor element of our nation's payment system remains well integrated in an increasingly global marketplace. With detailed planning well underway, by the end of 2017 we expect to announce ISO 20022 message format specifications and an implementation timeline.

While I recognize that I am speaking principally to an audience of securities professionals, I appreciate your indulgence of these critically important and strategic payment themes, especially given the inter-connectedness and mutual dependencies that exist across payment, clearing, and settlement infrastructures.

Closer to your world, and as previously mentioned, we migrated the Fedwire Securities Service in November 2015 to a new hardware and software platform. This undertaking was, by far, the largest element of the Fedwire Modernization Program and the most significant change to the Federal Reserve's wholesale services in a generation. If you heard nothing of it, or have subsequently forgotten, that is the greatest affirmation of success. Notwithstanding the significance of this accomplishment, the conversion was "like for like", meaning no new service enhancements for customers or in support of policy interests. In parallel to System-wide efforts to advance Strategies for Improving the Payments System, we have therefore embarked on a corresponding set of Strategies for Improving the Fedwire Securities Service (SIFSS).

The formation of these strategies actually commenced before the modernization even concluded in consultation with a range of stakeholders including securities issuers, depository institutions, financial market infrastructures, and policy makers. Prospective service enhancements were identified and assessed based upon their capacity to increase operational efficiency, mitigate risk, and reduce costs, among other factors, and were subsequently categorized in four main strategies:

- Strategy 1 seeks to improve and expand the Fedwire Securities Automated Claims Adjustment Process (ACAP). ACAP is a service that enables Fedwire participants to redirect principal and interest payments related to repo transactions or to failures to deliver or return securities by an agreed-upon date. The new offering, targeted for 2019, expands the service from MBS securities to Treasury and Agency securities; adds the capability for Fedwire participants to identify transfers related to securities lending activity in addition to repo; increases operational and technology efficiencies, and reduces the time (and thus risk) between when P&I payments are made and their repatriation. Members of the SIFMA Government Operations Committee and the Wholesale Securities Customer Advisory Group have consistently expressed their desire for this enhancement, which reflects an important opportunity for customers to realize value from the modernized Fedwire Securities platform.
- Strategy 2 seeks to provide customers with greater and more flexible access to Fedwire Securities Service data to support reconciliation, perform analytics, enhance risk management reporting, and project liquidity needs.
- Strategy 3 seeks to improve credit and liquidity risk management tools available to depository institutions and the Reserve Banks to manage and control daylight overdrafts that derive from the delivery-versus-payment nature of the Fedwire Securities Service.
- Strategy 4 seeks to examine the costs and benefits of expanded operating hours for the Fedwire Securities Service, reflecting an increasingly global world in which financial institutions and their customers conduct transactions at all hours across multiple jurisdictions. Many stakeholders have suggested that expanded hours will enhance the ability of financial institutions to mobilize collateral in domestic and international markets and provide participants with better access to liquidity, especially during periods of stress, recognizing that we serve as central securities depository for the largest, deepest, and most liquid pool of collateral in the world. While these prospective benefits must be assessed against potential costs, and require more comprehensive study across a wide range of stakeholders before any commitment can be made, the time to assess an expansion in operating hours for the Fedwire Securities Service has come.

As a final reflection, and to the surprise of no one in this room, we are experiencing an unprecedented period of innovation in financial services, with nascent technologies such as distributed ledger garnering substantial attention. These emerging technologies possess the potential to revolutionize financial services, making them faster, more efficient, and more secure. Notwithstanding this promise, challenges remain in their application to critical financial market infrastructures whose operational integrity represent a non-negotiable pre-requisite for our financial system. As we enhance existing services or develop new ones, our consideration of new technologies must strike an appropriate balance to ensure the risks are thoroughly understood before their transformative potential is realized.

In pursuing this suite of initiatives straddling the wholesale services, we seek to advance both the interests of customers and policy makers during this era of unprecedented challenge and change. Standing before you today convicts me that our success as stewards of this business depends absolutely upon our active engagement with the depository institutions and end users to which we are operationally accountable. Across this sphere and all others, either intentionally we are progressing or inevitably we are regressing; there is no idleness.

Thank you for your generous attention today. I'd be pleased to respond to a few questions.