Updates on the Economy and the Federal Reserve's Payments System Improvement Initiative

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Introduction

I thank the Federal Reserve Bank of Chicago and DePaul University's Center for Financial Services for inviting me to participate in this Tenth Annual Risk Conference. A conference series that has lasted a decade has something going for it, and this series is no exception. The first risk conference was held in 2008, in the midst of an emerging financial crisis, when the deficiencies in risk management and measurement became all too apparent. I think we have learned a thing or two since then – at least I hope we have. One of those things is that the world is constantly moving and innovating. Financial services is no exception. Given the important role that financial services plays in the economy, it behooves all of us – providers, supervisors, regulators, and consumers – to understand the risks that are inherent in the financial system and to manage those risks effectively so that the benefits of a sound and stable financial system can be realized for all. Although the technological changes affecting the industry are accelerating, we shouldn't let that distract us from the fundamental matter of risk management. While technological change may increase some risks, it also has the potential to improve our methods of assessing risks, and we should harness its power.

Technological change is very apparent in the payments system. This morning, I will focus a large portion of my remarks on an initiative that the Federal Reserve is leading to address the rapidly changing landscape in the payments industry in the U.S. This initiative is a collaborative effort between the Fed and a broad array of private-sector participants, and aims to improve the speed, efficiency, security, and ubiquity of the U.S. payments system. I am happy to say that the effort has made significant progress and that several important milestones will be reached this year.

But before I turn to payments, it behooves me to say a little bit about the economy in which the payments system plays such an important role. I should add that what I say today about payments and about the economy are my own views and not necessarily those of the Federal Reserve System or my colleagues on the Federal Open Market Committee.

The Underlying Fundamentals Supporting the Economic Expansion Are Sound

At its mid-March meeting, the FOMC raised the target range for the federal funds rate by one-quarter percentage point to 3/4 to 1 percent. This decision was based on the Committee's view of actual and expected economic performance, the risks around the outlook, and the progress toward our goals of maximum employment and price stability. I fully supported this further step on the path of increases in the federal funds rate that the Committee has indicated for some time is likely to be appropriate to achieve and maintain our objectives, should the economy evolve as anticipated.

In my view, the underlying fundamentals supporting the economic expansion are sound. Looking through the quarterly pattern of ups and downs, we find that output has sustained a moderate pace of about 2 percent growth, on average, over the past three years. While growth in the first quarter may come in on the weak side, I think this largely reflects transitory factors and residual seasonality in the data, and I see favorable fundamentals as supportive of GDP growth over the next year at somewhat above trend, which I estimate at 2 percent. These fundamentals include accommodative monetary policy and financial conditions, improved household balance sheets and income growth, and continued strength in the labor market.

In 2016, the economy added over 2.2 million jobs, about 187,000 per month on average. This year, that strength has been sustained, with an average increase of 237,000 jobs per month in January and February, well above estimates of trend employment growth.

In a further sign of strength, as the economy has added jobs, labor force participation has been basically stable for the past three years rather than declining like its trend, and the unemployment rate has been moving down. In February, the unemployment rate stood at 4.7 percent, less than half of its peak after the Great Recession. Although payroll job growth is likely to slow a bit from its current pace, given the progress that's already been made, it will be sufficient to put further downward pressure on the unemployment rate. I expect the unemployment rate to stay below my estimate of its longer-run rate of 5 percent over the next two years.

For a while, inflation has been running below the Fed's target of 2 percent. But inflation has picked up over the past year and is moving in the right direction. There are likely to be monthly variations in the inflation numbers as previous changes in energy and import prices roll out of our year-over-year measures, and current fluctuations roll in. In determining where we are relative to goal, we need to look through transitory movements in the numbers, both those above and those below our goal, and focus on where inflation is going on a sustained basis. The inflation rate over the longer run is primarily determined by monetary policy, and with appropriate adjustments in monetary policy, I believe the conditions are in place for a sustained return over the next year or so to our symmetric goal of 2 percent inflation. Conditions supporting the return to goal include the firmer data on inflation, reasonably stable inflation expectations, continued strength in the labor market, and growth expected to be at or slightly above trend.

The appropriate adjustments in monetary policy are those that will sustain the expansion so that our longer-run goals of price stability and maximum employment are met and maintained. If economic conditions evolve as anticipated, I believe further removal of accommodation via increases in the fed funds rate will be needed. My current assessment is that the pace of removal won't call for an increase in the fed funds rate at each meeting, but it does mean more than the one-increase-per-year seen in the past two years. This upward policy path will help prolong the expansion, not curtail it. It will help avoid a build-up of risks to macroeconomic stability that could arise if the economy is allowed to overheat, as well as risks to financial stability if interest rates remain too low and encourage investors to take on excessively risky investments in a search for yield.

Along with its rate increase, in mid-March the FOMC also announced that it was maintaining its policy of reinvesting the proceeds of maturing Treasury securities and principal payments from agency debt and agency mortgage-backed securities, essentially maintaining the Fed's balance sheet at its very large size. The balance sheet grew when the Fed undertook several programs to purchase longer-term assets. The FOMC used this nontraditional policy tool to address the Great Recession, once its traditional policy tool, the fed funds rate, had been reduced to effectively zero. As Chair Yellen mentioned in her press briefing, the FOMC is discussing its reinvestment policy, but no decisions have been made. If economic conditions evolve as I anticipate, I would be comfortable changing our reinvestment policy this year. I view this as consistent with our principles of policy normalization and our statement that we anticipate continuing reinvestments "until normalization of the level of the federal funds rate is well under way."[1] Ending reinvestments is a first step toward reducing the size of the balance sheet and returning its composition to primarily Treasury securities over time – a welcome acknowledgment that the economy and policy are transitioning back to normal.

The Payments System Is Vital to a Sound Economy

I don't think anyone would disagree with the statement that a well-functioning and secure payments system is vital to a sound economy. Like highways, bridges, railroads, and water treatment plants, the payments system is a critical part of the infrastructure of our country. As the nation's central bank, the Federal Reserve has an interest in promoting the macroeconomic and financial stability of our nearly $19 trillion economy, and our oversight of the payments system has this in mind. Indeed, everyone in the country has a stake in a sound payments system. According to the Fed's latest payments study, in 2015 consumers, businesses, and government agencies executed 144 billion noncash, nonwire-transfer payments with a value of almost $178 trillion; that's an average of 550 million payments worth $680 billion per working day.[2] Because the current system works well, most people have spent little time

[1] See, "Policy Normalization Principles and Plans," FOMC, September 17, 2014, and the FOMC post-meeting statement of March 15, 2017.

thinking about the backbone that makes these payments possible and ensures that the payments system is reliable and secure.

But with the changes brought by new technology, more people are seeking new ways to execute transactions, whether it be online or via cell phone, and they want to execute them faster. For example, the U.S. Census Bureau reports that e-commerce sales accounted for about 8 percent of total U.S. retail sales in 2016, more than double their share of 10 years ago.[3] According to analysis commissioned by the Federal Reserve, about a third of consumers and three-quarters of businesses are willing to pay a fee for payments that offer faster availability to the payee.[4] Demand is also rising for a more efficient way to execute payments across international borders, and to make person-to-person payments. On the supply side, we have seen an expanded set of providers, beyond traditional commercial banks, seeking to satisfy this demand for new and faster payments.

Of course, innovation is nothing new. The U.S. has experienced a long history of payments system innovation, including the introduction of ATMs and debit cards, the move from paper checks to check imaging and electronic presentment, the introduction of online bill payment with the advent of the Internet, and expanded offerings of mobile banking. Some of the enhancements, like check imaging, made the system more efficient, while others, like chip credit and debit cards, made the system more secure. Yet, we have seen an increasingly rapid pace of technological change over the past several years, and this is again driving change in the industry. While the current system is working, we have to

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[2] These include debit card, credit card, ACH, and check payments. See "The Federal Reserve Payments Study 2016," December 28, 2016.

[3] See U.S. Census Bureau, "Quarterly Retail E-Commerce Sales: 4th Quarter 2016," February 17, 2017, and the adjusted time-series data, "Estimated Quarterly U.S. Retail Sales (Adjusted): Total and E-Commerce." In this report, e-commerce sales are "sales of goods and services where the buyer places an order, or the price and terms of the sale are negotiated over an Internet, mobile device (M-commerce), extranet, Electronic Data Interchange (EDI) network, electronic mail, or other comparable online system. Payment may or may not be made online."

[4] See Federal Reserve Financial Services, "Key Themes from Consultation Paper Feedback and End-User Research," April 2014.

recognize that the evolution of the payments landscape has led to a fragmented patchwork of payment vehicles and providers, often lacking interoperability with one another or the ability to combine invoice information with a payment. The complexity of the payments system, involving incumbent providers, new entrants, and end users, makes it harder to coordinate payments innovations. Platforms for making payments, including ACH, check, and credit and debit card systems, are lagging behind the technological advances. The current U.S. payments system has not kept up with the evolving expectations and demands of end-user consumers and businesses. Nor has it kept up with developments in other countries that have taken steps to modernize their payments systems. According to the Bank for International Settlements (BIS), nearly 20 countries have either implemented or are building systems that offer real-time or nearly real-time payments, available as near as possible to 24 hours, 7 days a week. The role the central bank played in fostering these systems differs across countries; the roles include catalyst, overseer, and/or operator.

The Federal Reserve Is Taking a Collaborative Approach to Fostering Payments Modernization

The role that the Federal Reserve is playing in our payments system initiative is broadly a leadership/catalyst role. Assessing the trends in the payments landscape, the Federal Reserve and a diverse set of industry stakeholders have come to agree that the U.S. payments system needs to evolve further and faster to support the changing nature of commerce, keep pace with the global economy, meet the changing needs of end users, and address new and ongoing threats to security. An improved payments system – one that is more efficient and also secure – has several benefits. It will contribute to public confidence, economic growth, and global competitiveness. In addition to meeting customer demand, a modernized payments system could have an added societal benefit by helping the unbanked and underbanked join the financial mainstream, thereby receiving its benefits. It could also help low-income households, small businesses, and others who need to closely manage their finances to gain faster access to their funds.

In 2015, the Federal Reserve Board and Reserve Banks published a paper laying out the strategies and tactics that the Federal Reserve is pursuing in collaboration with a broad array of payments system stakeholders to facilitate the move to a faster, more efficient, ubiquitous, and secure payments system.[5] Of course, a lot of work was done before the 2015 paper was published. In 2002 and in 2012, the Fed undertook gap and opportunity assessments of the payments environment. It sought and received considerable input from the public on possible improvements to the payments system.[6] That work helped frame the current initiative that seeks to achieve five outcomes: (1) a payments system that offers a safe and faster electronic solution for making a variety of personal and business payments, and one that is ubiquitous and available on demand; (2) one that is secure and resilient, so the public can have high confidence in it; (3) an efficient payments system that offers better value to consumers and businesses; (4) one that allows for cross-border payments in a more convenient, cost-effective, and timely way; and (5) a payments system that has been improved via a collaborative process involving a broad array of payment participants.[7]

To further this work, the Fed has taken a leadership role to spur a private-sector solution that will align private-sector interests with those of the public. We view this as consistent with our responsibility to foster a well-functioning payments system for the benefit of the public. The Fed believes that comprehensive improvement of the system for making payments end-to-end will require a comprehensive approach. It will need collaboration among and actions from a diverse set of payment stakeholders, including traditional and nontraditional payment providers, technology companies, the government, and end-user businesses and consumers. We think this collaboration will encourage ubiquitous access and widespread adoption of new payment-system capabilities, which are keys to success.

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[5] See "Strategies for Improving the U.S. Payment System," Federal Reserve System, January 26, 2015. This paper and other information on the Federal Reserve payments improvement initiative can be found on the website FedPaymentsImprovement.org.

[6] See "Payment System Improvement – Public Consultation Paper," The Federal Reserve Banks, September 10, 2013; and "The Future of Retail Electronic Payments Systems: Industry Interviews and Analysis," Board of Governors of the Federal Reserve System, Staff Study 175, December 2002.

[7] See "Strategies for Improving the U.S. Payment System."

Note that the Fed's initiative is not preempting or competing with other efforts already being undertaken by the industry; nor is it halting our efforts to improve the efficiency of the payment services the Fed itself provides. For example, late last year, Early Warning announced its Zelle network, a faster payments network available to mobile banking customers, and The Clearing House, a large-bank association and payments company, is working on a real-time payments system that will be available to all U.S. financial institutions and is expected to be operable this year.[8] Also, last September the Federal Reserve enhanced its same-day ACH service, consistent with NACHA's (formerly, the National Automated Clearinghouse Association) new rules, which will result in wider usage of this service.[9] And the Fed has also adopted new global messaging standards (ISO 20022) for wire and cross-border ACH payments to ensure better interoperability across platforms.

I should note that the Fed's approach to supporting and guiding the various parties working on improving the payments system differs somewhat from approaches taken in other countries. Perhaps this is not too surprising. For one thing, the number of entities involved in the U.S. payments system is quite large. According to BIS statistics, in 2015, over 12,000 entities offered payments services to non-banks in the U.S., compared to around 160 in Australia and around 360 in the United Kingdom.[10] Even if we normalize this by population, the U.S. has many more service providers: 39 per million inhabitants in the U.S., compared to under 7 in Australia and under 6 in the U.K. In addition, the Fed does not have the

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[8] See "Early Warning Announces Zelle Network, October 24, 2016, and "The Clearing House to Undertake a Multi-Year Effort to Design and Develop a Secure, Real-Time Payment System," The Clearing House press release, October 22, 2014; and "Innovative Real-Time Payment System for the U.S. – VocaLink," The Clearing House press release, October 26, 2015.

[9] See "Federal Reserve Board Approves Enhancements to Reserve Banks' Same-day ACH Service," press release, September 23, 2015, "Enhancements to Federal Reserve Bank Same-Day ACH Service," Federal Register, 80(187), September 28, 2015, pp. 58248-58253, and Same-Day ACH Resource Center on the Federal Reserve Bank Services website. Also see Strategy 5: Enhanced Federal Reserve Services in "Strategies for Improving the U.S. Payment System: A Progress Report," Federal Reserve System, January 2017.

[10] See Comparative Table 4, p. 450, in Bank for International Settlements, Committee on Payments and Market Infrastructures, "Statistics on Payment, Clearing, and Settlement Systems in the CPMI Countries: Figures for 2015," December 2016 (http://www.bis.org/cpmi/publ/d155.htm).

power to mandate a solution, nor could we implement meaningful payment improvement on our own. We recognize that many payment innovations have come from the industry. Of course, even countries that have officially mandated changes to speed the adoption of more efficient payments systems recognize the important role the industry must play. For example, the Faster Payments Service launched in the U.K. in 2008 was implemented by the private sector at the request of the government.[11] The New Payments Platform for immediate low-value payments, currently being built in Australia and expected to be operational in the second half of this year, was an industry-based solution proposed after the Reserve Bank of Australia, that country's central bank, undertook a review of payments innovation and published strategic objectives it expected the payments system to meet.[12]

Considerable Progress Has Been Made on the Fed's Payments System Improvement Initiative

Stakeholder engagement has been better than we might have hoped for. Our Payments Strategy Director, Gordon Werkema, who oversees the initiative, hails from right here, the Chicago Fed, and has done a remarkable job. Two task forces were initiated in 2015 to work toward proposed solutions to our goals. In setting up the task forces, we knew it was important to have the perspectives of the diverse set of representatives with an interest in the payments system. The Faster Payments Task Force has over 300 members from eight segments, including small, medium, and large financial institutions; nonbank providers like technology companies; consumer interest organizations; government end users; business end users; and other industry segments, including regulators, rules and standards organizations, consultants, and academic institutions.[13] The Payments Security Task Force has over 175 members, and it, too, includes wide stakeholder representation. These task forces are operating under the direction of

[11] See Fumiko Hayashi, "Faster Payments in the United States: How Can Private Sector Systems Achieve Public Policy Goals?" Federal Reserve Bank of Kansas City Research Working Paper no. 15-03, June 2015.

[12] See "Strategic Review of Innovation in the Payments System: Conclusions," Reserve Bank of Australia, June 2012; and "RBA Core Criteria for a 'Fast Payments' Solution," Reserve Bank of Australia, November 2012.

[13] For more information, see the Fed's payments improvement initiative's website at https://fedpaymentsimprovement.org.

steering committees and have set up a framework for ensuring that task-force decisions and work products have broad support across members. Several work streams are now underway.

The Faster Payments Task Force reached an important milestone in February 2016 when the Faster Payments Effectiveness Criteria were published.[14] This set of criteria is being used to evaluate whether proposed alternative approaches would be effective in delivering a safe and ubiquitous faster payments capability. The 36 criteria fall into six categories: ubiquity, efficiency, safety, speed, legal considerations, and governance. The criteria were not intended to be a set of minimum requirements, but rather to differentiate the effectiveness of proposals across many dimensions, recognizing that many times there may be tradeoffs. For example, higher speed might entail lower security unless coupled with a mitigant.

In the next stage, participants submitted proposed solutions for faster payments. Nineteen proposals have progressed through the review process, with reviews by an independent assessment team and the members of the two task forces.

In an effort to be transparent about the process and the progress being made, in January, the Faster Payments Task Force published the first part of its final report, providing an overview of the task force's mission and process, and the motivation for the work given the payments landscape. The second part of the final report will be published this summer. It will provide details of the proposed solutions for faster payments that have been evaluated against the effectiveness criteria, as well as a discussion of challenges, opportunities, and recommendations to the industry for implementing faster payments solutions.

It is very important not to think about faster payments separately from secure payments. Indeed, each proposed faster payments solution is being assessed in terms of its security, including identity

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[14] Information on the effectiveness criteria is available on the Fed's payments improvement initiative's website at https://fedpaymentsimprovement.org/faster-payments/effectiveness-criteria/.

management, authentication, the security of sensitive information as the payment travels through the system, the handling of fraudulent or erroneous payments, and the robustness of the system. While the types of risks need not change with faster payments, some risks might be exacerbated. For example, while a faster payments system makes funds available to the payee much faster, settlement may still take some time. Deferred settlement means that the payee's payments system is taking on credit risk until it gets the funds from the payer's payments system. To reduce this risk, some, but not all, of the faster payments systems around the world couple real-time or near real-time settlement with faster payments.[15]

In addition to considering the security of the future faster payments system, the Secure Payments Task Force is also focusing on the security of the current payments system. The task force has mapped existing identity management practices in end-to-end payment flows to help discover ways to improve current practices; it has defined guiding principles for protecting sensitive data associated with payments, which could serve as the foundation for building a more comprehensive data-protection framework for the industry; and it has completed an inventory of current industry efforts to share information for fraud and risk prevention. As indicated in the January progress report, the Secure Payments Task Force plans to release further information on these initiatives later this year.[16]

There Is More Work to Be Done

As I mentioned, the Faster Payments Task Force will publish the second part of its final report this summer, providing evaluations of the proposed solutions in terms of their effectiveness in providing the U.S. with a faster, more efficient, ubiquitous, and secure payments system. But that's just the start of what

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[15] See Committee on Payments and Markets, Bank for International Settlements, "Fast Payments – Enhancing the Speed and Availability of Retail Payments," November 2016. Also, for a discussion of some of the risks involved in faster payments, see Julius Weyman, "Risks in Faster Payments," Retail Payments Risk Forum Working Paper, Federal Reserve Bank of Atlanta, May 2016. Weyman studies 15 faster payment schemes and finds that one-third involved real-time or near real-time settlement.

[16] See Federal Reserve System, "Strategies for Improving the U.S. Payment System: Progress Report," January 2017.

needs to be accomplished to modernize the U.S. payments system. A lot of further work will be needed to implement solutions, and I believe it will require the same high level of collaboration across the many payments system stakeholders that has proved to be so important to the progress made to date.

At the same time, the Federal Reserve System, which has served as a catalyst for this effort, will need to consider what further steps we should take to support payments system modernization. As I mentioned earlier, central banks across the globe have played different roles in fostering their countries' efforts regarding faster and secure payments. Some have served as catalysts, others have overseen industry efforts, and others have been providers. Today, the Federal Reserve plays all three roles with respect to payments. We have been a leader and catalyst for the current initiative, we provide retail and wholesale payment services, and we have some supervisory and regulatory oversight responsibility for the payments system deriving from the fact that a well-functioning and secure payments system plays an important role in fostering macroeconomic and financial stability in the public interest.

The technological change we've experienced in recent years isn't likely to stop, so it seems prudent that we should be working to ensure that our payments system evolves in a productive way. Innovation, competition, collaboration, broad accessibility, common standards, risk management, and appropriate supervision and regulation – all are important facets of a well-functioning payments system. Indeed, as the payments system evolves, I anticipate that how we go about effectively supervising the payments system will need to evolve as well to ensure that the system remains secure, effective, and broadly accessible. As new providers enter the field, we'll need to focus on the risks rather than on the type of entity providing the service.

One way in which central banks in several countries are supporting innovation in payments systems is by providing a "regulatory sandbox." Such a sandbox allows private-sector firms to test out innovative products, services, business models, or methods of delivery in a real-life environment, with some reduction in full regulatory requirements but with appropriate safeguards for consumers and the financial system in place during the experiments. The U.K. was the first country to provide such a sandbox in 2016, and several other countries, including Australia, Hong Kong, Malaysia, and Singapore, also offer sandboxes.[17] Regulatory sandboxes have the potential to encourage more competition and faster, more effective innovation in the payments system, by allowing new ideas to be tried out, to be made more effective through experimentation, and to be designed to better comply with consumer protections and other regulatory requirements. Even if the tested ideas aren't brought to market, finding out early on that an idea won't work would seem to be very valuable information. The industry seems to have viewed the introduction of the sandboxes favorably. For example, the regulatory sandbox in the U.K. received 69 applications for its first cohort from a wide variety of firm-types, including start-ups and incumbents, with 24 applications meeting the eligibility requirements to move on to development toward testing. Although they are in their early stages, I find the regulatory sandboxes to be an intriguing idea and will be following the results closely. They provide but one example of the type of productive collaboration that central banks and regulators can have with the payments industry.

The Federal Reserve's payments modernization efforts, which I discussed today, are another important example of the value of collaboration. As the work moves forward, the Federal Reserve is committed to facilitating collaborative efforts with payment stakeholders to foster the move to a faster, secure, efficient, and ubiquitous payments system in the U.S. on behalf of the public.

[17] See the remarks by Christopher Woolard, U.K. Financial Conduct Authority Director of Strategy and Competition, at the Innovate Finance Global Summit, April 11, 2016; U.K. Financial Conduct Authority, "Regulatory Sandbox," November 2015; the U.K. Financial Conduct Authority's regulatory sandbox web page; the Australian Securities and Investments Commission's regulatory sandbox web page; Hong Kong Monetary Authority Fintech Supervisory Sandbox, circular B1/15C, B9/29C to all authorized institutions, September 6, 2016; Bank Negara Malaysia (Central Bank of Malaysia) Financial Technology Regulatory Sandbox Framework and press release; Monetary Authority of Singapore FinTech regulatory sandbox web page and FinTech Regulatory Sandbox Guidelines, November 2016.