

### Pursuing a safe, secure and reliable payments system : What can history tell us?

**U**n recent years, the way we make payments has undergone a dramatic change. Online banking and bill payment, debit cards, greater credit card usage and smart cards rapidly are replacing our use of cash and checks, which have made up the traditional payments system throughout U.S. history. This payments revolution is far from over, with transactions through enhanced mobile phones and new developments in identification and authentication technologies on the horizon.

For all of us, this evolving electronic payments system is bringing with it many benefits, including lower costs, and greater convenience and control when making payments. Also, we now have the ability to make payments on an instantaneous basis—an important feature for those of us engaged in online shopping and last-minute bill paying.

At the same time, though, this new payments system is raising a variety of concerns, including identity theft, data breaches, unauthorized access to one's financial accounts, misuse of sensitive information and computer breakdowns. Some of us may already have firsthand experience with such risks, having been targets of phishing attacks or victims of stolen credit card numbers or data breaches.

Part of these risks would appear to be unique—a new technology is involved, new players are providing payments services, and electronic payments often go to businesses or

individuals that can be identified only through a Web address. In many ways, though, these risks mirror what we have seen before in the development of our payments system. A common feature in the history of our payments system is that consumers, financial institutions, the business community and public authorities all have played important roles in helping to contain risk and build confidence. Because this experience may shed some light on the fundamental issues and risks, it is worth taking a brief look at how our payments system has evolved to the present and the lessons that we have learned.

#### **Wildcat banking**

One of the earliest experiments in U.S. payments history was when banks were allowed to issue their own bank notes as a means of payment. Before the Civil War, most states authorized the banks they chartered to issue bank notes or paper money in each bank's own name. These notes were to be secured by a comparable amount of government bonds or other acceptable assets deposited with the state banking authority. Banks were further required to stand ready to redeem their notes for gold or silver coins upon the request of any





noteholder. For any bank that failed to do so, state authorities could close the bank and sell the pledged securities to pay off the remaining noteholders.

On the surface, this framework appeared to establish a secure payments system, but a number of problems eventually arose. Most important, if the pledged securities declined in market value, whoever held the notes could be less than fully secured and would have trouble finding someone to accept them at face value. The wide array of bank notes in circulation—and the resulting opportunities for counterfeiters—further added to these questions of acceptability.

Beyond this, a number of states even allowed bankers to buy depreciated bonds and then exchange them for notes on the basis of the bond's higher par value or issue price. This oversight provided an instant profit to banks in addition to the interest they could earn on the bonds, thus encouraging some bankers to issue much greater volumes of notes. Such incentives led to what became known as wildcat banking—one of the most colorful times in U.S. banking history. A handful of bankers with less than stellar reputations located their banks in backwoods areas among the wildcats. These inaccessible locations prevented people from coming in and redeeming notes for gold and silver, thus enabling the wildcat bankers to continue capturing the extraordinary profits on their inadequately backed currency.

Although there is still debate about how severe the problems and losses were with wildcat banking, this system was, without

doubt, inefficient. In fact, people often had to carry silver and gold coins just to be sure they could conduct business in distant locations. A variety of private and public responses were initiated to deal with the inherent problems. For example, private brokers would collect bank notes from merchants and individuals and, for a fee or discount, would then present these notes to the issuing banks for redemption in gold or silver. Several publications even arose to report these discounts and thus extend such information to a wide group of individuals and merchants.

Sound banks performed a similar role in collecting the notes of other banks and then presenting them all at once for redemption.

The eventual solution to this seemingly chaotic system was to make paper money a more direct function of the government, starting first with national bank notes, which had tighter standards for pledged securities, and eventually leading to Federal Reserve notes, whose issuance depends on the public demand for currency and the Federal Reserve's monetary policy operations.

## Payments by check

After the wildcat banking era, our payments system began to change in other and even more significant ways. Deposits that could be withdrawn by checks quickly became the focal point of what was an emerging payments system. In comparison to notes, checkable deposits demonstrated some notable advantages. People and businesses no longer had to carry as much currency around, and



checks proved to be especially ideal for large transactions and for transferring money over a distance.

Like bank notes, though, checks have not been without problems. Anyone accepting a check bears the risk that a check might be a forgery or have been written against an account with insufficient funds to cover it.

While other forms of ID theft and financial fraud have drawn more of the headlines recently, the risks associated with checks are significant and certainly familiar to many businesses and continue to draw their attention. These risks, in fact, were portrayed some years ago in the movie “Catch Me If You Can,” based on the life of a master of check forging, Frank Abagnale, and his ability to easily pass off fraudulent checks on unsuspecting parties. In an interesting twist to that story, Abagnale now helps law enforcement agencies and businesses design better systems for controlling the types of check fraud and ID theft he had mastered.

To deal with the risks inherent in accepting checks, merchants, bankers and others now employ a number of approaches. These range from asking for several pieces of identification from anyone cashing a check to using check verification systems and penalty fees for bad checks. Other steps include requiring cashier’s checks or bank letters of credit to make a major purchase, and placing holds on the use of funds or shipment of goods until after a check has time to clear. Public laws further provide recourse for victims of check fraud. In addition, banking regulations and clearinghouse rules contain provisions designed to speed up

the return process on unpaid checks and to provide prompt notification to the bank and the customer who received the check.

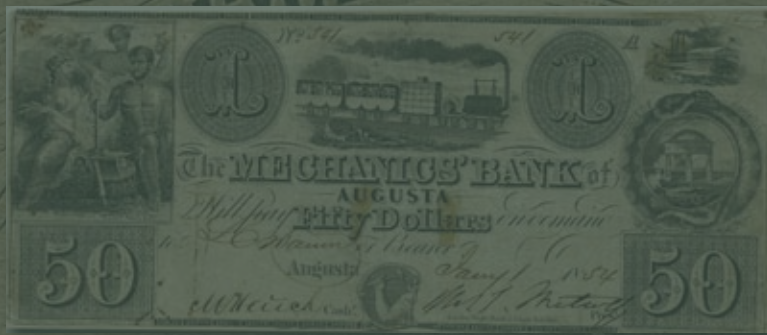
## Lessons to be learned

What can we learn from these experiences, and how do such lessons apply to the new payments revolution?

Perhaps the most important things we can learn are that our payments system has not been without risk during the different stages of its development and that consumers, businesses, financial institutions and public authorities must all play a role in containing risks and protecting those making and receiving payments.

The basic issue in our payments system—historically and now—is in verifying the soundness of a payment and authenticating its source. With wildcat banking, people were sometimes faced with the issue of whether to accept the notes of a bank they knew little about. Similar problems arose with the introduction of checks and not knowing if someone had sufficient funds to cover the checks they wrote. These verification issues were further complicated by the large number of banks issuing notes and the enormous volume of checks being written.

Now we are seeing a repeat of this problem with electronic transactions, where individuals and businesses may receive payments from unknown sources and be at risk from a fraudulent exchange. Both consumers and businesses can be victims, and the efficiency, integrity and prospects for a successful,



innovative payments system can be jeopardized as a result. One further complication in electronic banking is the proliferation of different payment channels—credit, debit, ACH, wire or PayPal—along with a wide array of payment instruments—cards, computers, phones and cell phones. Each of these combinations may have different vulnerabilities and thus different arrangements and rules with regard to user safeguards and security, authentication processes, liability, and error resolution and responsibility. The result is confusion and increased payments risk.

Should electronic payments be addressed in a manner similar to wildcat banking, where the federal government eventually took over and standardized how currency would be issued, or more like payments by check, where a wide variety of steps have been taken by private companies to limit the uncertainty?

Realistically, a combination of private and public approaches likely is necessary, and, ideally, these approaches should support each other. Electronic banking developments have been very innovative, and private markets can help ensure that this innovation continues and new and better ways are found to protect participants. But we must also be confident in the integrity and reliability of the means of payments, and that's where the public authority has a role.

On the public side, an example of a possible approach is the Electronic Fund Transfer Act of 1978, as implemented through Federal Reserve Regulation E. This legislation has been a very important step in establishing the basic rights, liabilities and responsibilities

of consumers when they conduct transactions through electronic terminals from their accounts at financial institutions. By setting a common platform for all financial institutions and consumers to follow, this act provided an important impetus to electronic banking and may help establish a framework for additional public actions.

Another example of public-private cooperation is the development of ACH for small electronic payments in which the Federal Reserve System and the National Automated Clearing House Association (NACHA) have worked together as payments providers to develop a framework and rules that facilitate the safe, efficient and reliable movement of small electronic payments among parties.

Although it may still be too early to predict what combination of approaches will prove most fruitful in reducing risk and uncertainty in electronic payments, we must continue to do all that we can to build confidence in our payments system. The advantages of a safe, secure and reliable electronic payments system are likely to grow over time, particularly as e-commerce expands, consumers look for greater convenience, and merchants seek faster and lower-cost payments channels. And as before, our success will be defined by how private and public entities work together toward this common goal.

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