

## Alan Greenspan: The payments system in transition

Remarks by Mr Alan Greenspan, Chairman of the Board of Governors of the US Federal Reserve System, at the Federal Reserve Payments System Development Committee 2003 Conference, Washington, DC, 29 October 2003.

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### Introduction

It is a pleasure to be with you this morning and to add my welcome to this very important conference on the payments system being hosted by the Federal Reserve's Payments System Development Committee. The name of the conference--*The Payments System in Transition*--captures not only the state of the financial services that we all use to make payments, but also the expectations of many payments system participants as they look to the future.

Decades of incremental change have had significant cumulative effects on both our check and electronic payments systems. Recent data show that the number of checks written in the United States began to decline in the mid-1990s. In contrast, electronic payments, particularly debit cards and automated clearinghouse (ACH) transactions, have grown substantially and now total about 40 billion per year. Overall, the number of electronic payments has increased almost fivefold in two decades and, this year or next, may well exceed the number of checks written.

During the past few weeks, after substantial work by Congress and the financial industry, the Check Clearing for the 21st Century Act, popularly known as the Check 21 Act, was passed. The new law was signed yesterday by the President and will become effective next October. Passage of this greatly anticipated statute is an important event for the financial industry. In preparing for the new law, the industry has begun to discuss the types of check products and services it will provide to the public as the infrastructure and rules for clearing and settling checks evolve.

Against this background of a system in transition, the participants in this conference will be debating the future of the products, services, and infrastructure that support our broad and heterogeneous national payments system. I hope we will all be enriched by this discussion and take home ideas that will help shape the thinking of users of the payments system, suppliers of payments and financial services, and public authorities, as they all work to improve and modernize the payments system over the next few years.

### Historical Perspective

For most of the post-World War II period, cash and checks have been the predominant instruments for making retail and commercial payments in the United States. Public confidence in these instruments and their usefulness for conducting transactions was built up over a long period of time, which spanned national debates about the proper instruments and institutions to support a sound national monetary system. A very large infrastructure for handling these paper instruments has been developed and maintained by the private and public sectors. In the case of checks, for example, this infrastructure includes offices, equipment, and staff for rapidly processing, shipping, and presenting checks throughout the country, literally overnight.

The foundation of much of the current payments system infrastructure was laid in the 1960s. At that time, a paperwork crisis was overwhelming the financial markets, as the rapid growth in financial activity outpaced the system's ability to clear and settle financial transactions and payments using traditional, manual processes. The response of both the financial industry and government was twofold. Automation was applied to paper-based clearing activities. In addition, new electronic systems for creating transactions and making payments were established where this seemed practical. In the payments arena, the ACH and bank credit card systems and the beginnings of debit card systems date from this era. Reacting to these developments and new systems, commentators of the time predicted the advent of the "cashless" and "checkless" society. We know the history of these predictions.

In reality, the 1970s saw a burst of creativity in the establishment of electronic payments systems but a relatively slow rate of adoption by consumers and businesses. More recently, the 1990s saw a new burst of creativity, including ideas for creating products called "electronic cash" and "electronic

checks," adapting existing forms of payment to the Internet, and experimenting with entirely new payments systems. Work also began on projects to convert checks to ACH or other electronic payments, at the point of sale or at lockboxes, to reduce the costs of processing and to speed the collection of funds. Some of the results of these experiments are now gaining increasing acceptance in the marketplace. Many more have not succeeded. Many lessons have been learned from these experiences, and I am sure you will be discussing them during the next two days.

It would be easy to dismiss the experiments and predictions from the 1990s about change in the payments system as hyperbole reminiscent of the 1970s. I believe, however, that the situations today and in the 1970s are very different. First, although data on the use of cash in transactions is notoriously poor, the nominal value of per capita holdings of small-denomination bank notes--those used heavily in domestic commerce--is now growing very slowly, and the inflation-adjusted per capita value has recently declined somewhat. More important for this audience, data from surveys conducted for the Federal Reserve show that the use of checks in our society has now begun to decline. Second, data on credit card, debit card, and ACH usage show very strong and sustained growth, to the extent that electronic payments now account for about half of the number of all noncash payments. Third, through the use of electronic payments, retailers and billers are continuing to seek productivity gains and cost reductions in their transactions with consumers. Fourth, data from the Federal Reserve's surveys of consumer finances show that over time households across most age and income categories have been adopting basic electronic payment instruments, although, as might be expected, younger households are in the forefront. Finally, the U.S. government is actively working on new technologies and services to increase the use of electronics in both its payments and collections. Taken together, these factors point to increasing use of electronic payments, when and where economic factors press this outcome.

### **Public-policy perspective**

From the perspective of public policy, the key objectives for the payments system have always been economic efficiency and safety as well as confidence. Indeed, these broad objectives, which include the goals of integrity, security, reliability, and accessibility, have been endorsed by the G-10 central banks as international objectives for major payment systems in key reports published by the Bank for International Settlements and used widely by the International Monetary Fund and World Bank. The challenge is to bring these abstract ideas to bear on particular payments systems issues during this time of transition.

*Efficiency.* Turning first to efficiency, in the area of check collection, both the financial industry and the Federal Reserve Banks face classic issues involving the adjustment of infrastructure to declining demand. Moreover, various programs to convert checks to electronic payments at the point of sale or the lockbox, or to truncate checks early in the collection stream, imply that the pace of decline in the volume of paper-check clearings could well accelerate. However, checks also remain a highly convenient payment instrument with a long and tested history; they are unlikely to be completely eliminated as a major payment instrument any time soon. As a result, the financial industry and the Federal Reserve Banks face the prospect of declining demand for paper-check processing, but also significant uncertainty about the extent and timing of the decline. Nevertheless, we know that over time the efficient use of resources will require reductions in excess production and processing capacity as the market demand for checks and check processing declines.

In addition to managing resources to meet declining demand, the financial industry is also producing innovations in check clearing and storage centered on the development of digital imaging and the development of archives for these images.

The passage of the Check 21 Act is likely to invigorate these efforts and also to encourage a range of new check-clearing techniques that are only now being envisioned. Overall, these changes suggest not only a reduction in the scale of overall check clearing, but also a shift to new technologies and services to meet remaining demand.

In passing, I would like to encourage banking organizations to participate in a new survey on check usage that the Federal Reserve will be conducting in 2004--a follow-up to a similar survey conducted in 2001. Improved data on check usage are very important in helping the financial industry and the public adjust smoothly to the changes that are now in process.

In the area of electronic payments, the industry faces the opposite challenge from that in check services. Continuing to meet the growth of electronic payment processing with highly reliable service is

an obvious priority from a public-policy perspective. However, simply accommodating growth may not be sufficient, and consideration should also be given to meeting the changing needs of the users of these systems.

One of the common misconceptions in the analysis of payments systems is that only production or processing costs--that is, conditions of supply--matter from a market or public-policy standpoint. A problem in early predictions of the growth of electronic payments was the lack of attention to the needs of users, including the fact that electronic payments could be quite inconvenient and costly for many purposes. In retrospect, it has taken years of investments in electronic infrastructure at homes and businesses to support the use of electronic payments as a convenient and relatively low-cost alternative to checks.

The emphasis in this conference on bringing users of the payments system together with the providers of financial services demonstrates the importance of a balanced approach as we examine challenges for the payments system. A number of these topics illustrate the need to identify the attributes that users value and demand in payments systems--both in current systems and in the next generation of these systems--and to determine how that demand will be met.

A particularly important topic is how electronic payments systems can better meet the needs of business users. Business people frequently report that, from their perspective, a payment is only one part of an overall transaction or relationship with a counterparty. Other parts include orders, confirmations, shipping documents, invoices, and a variety of accounting and other information that supports a transaction or relationship. The complexity of this situation has created challenges for businesses as they integrate corporate information systems with electronic payment capabilities, and this complexity has likely slowed the adoption of electronic payments for a wide range of business purposes. I hope this conference will help underscore the need for businesses, financial institutions, technology vendors, and payments system operators to find common approaches and standards for addressing this issue.

Turning to questions of infrastructure, I particularly encourage you to discuss ideas for the future design of the core U.S. electronic payments systems, including those of the Federal Reserve. Some of the current designs date back several decades, and significant changes have taken place in both technologies and business needs since that time. The markets will undoubtedly shape the use of payments systems. However, there are only a handful of core systems and it is very important that these systems be well designed so that they do not block market innovation.

I am particularly pleased that the Payments System Development Committee has over time focused on barriers to such innovation. The overall payments system is built on complex rules, business practices, and technologies. Change can often be difficult. In this situation, structures built up in the past can become barriers to the implementation of new ideas. Where barriers do exist, it is important to address them and, when appropriate, remove them, so that the market can provide us with new and useful payment and financial products and services.

From a broad perspective, the Check 21 Act continues the work of our society to ensure that the marketplace can respond flexibly to fundamental shifts in our technologies. The act--appropriately--does not mandate that checks be truncated and turned into electronic payments, nor does it mandate that all payments be made electronically. Instead, it strengthens a market-based approach to innovation in the check-collection system. The act allows depository institutions to take digital images of checks and truncate the original check, provided that they, or a subsequent institution, are also willing to create a substitute paper check if one is demanded, and to bear the liability for doing so. The act essentially removes an important barrier to innovation and frees depository institutions to apply new technologies and market-based ideas to traditional check-clearing activities.

*Safety and confidence.* Safety and confidence are the other basic public-policy objectives for payments systems. Sound designs, rules, and risk-management practices promote the safety of payments for users and their financial institutions. Central banks have an ongoing interest in the safety and integrity of payments systems, because they provide the infrastructure for transferring money in the economy.

Public confidence in the payments system is a closely related concern. As I noted earlier, confidence in the integrity of our basic paper payment instruments and payments systems was built up over a very long period of time. It is not surprising that society has, at times, been cautious in adopting new payment ideas. Attitudes toward payments systems are often closely linked to attitudes about money, since such systems are the means of transferring money to meet a wide range of obligations.

If payments systems do not work well, that can have serious consequences for the wealth, plans, and reputations of many individuals and businesses. In this context, it seems highly likely that prudent users will require new systems to earn confidence with strong evidence that these systems will meet their needs in both normal and exceptional circumstances. As we have seen, the process of building confidence can take years, and most suppliers realize that confidence is an asset to be guarded vigorously.

Recently payments systems have faced a number of challenges in the area of risk and risk management. For example, as payments systems such as the ACH have been more widely used to make payments over the telephone and the Internet, fraudulent transactions have reportedly increased. Recent initiatives have apparently improved the situation, but the financial industry has continued to express concerns about fraud and the need to address it.

I trust that all conference participants will focus on appropriate future risk designs and risk-management practices. While the risk designs of some large-value payments systems have changed significantly over the past few years, the risk designs for core retail payments systems have changed less. Indeed, some of these designs continue to be based on concepts dating back to the 1970s. Limited change may be the appropriate response. However, past designs and strategies should not themselves become barriers to the development of future payments systems that are more aligned with new forms of commerce and technology.

Another important issue in the post-September 11 environment is the degree of resilience of not only our large-value payments systems but also our retail systems. Today, the mix of paper and electronic payment options helps mitigate the risk of disruptions to retail payments in the event of terrorist attacks, power blackouts, telecommunications disruptions, or similar infrastructure problems. As the United States increasingly relies on electronic payments for retail transactions, however, the financial system will increasingly need to ensure confidence in the resilience of these systems in a variety of adverse circumstances. As always, heightened resilience has costs. If, however, high resilience is built into new system designs and technologies as they are developed, it may be possible to mitigate these costs while strengthening our infrastructure.

## **Conclusion**

Over the next two days, you doubtless will be having many very useful discussions. This conference provides an opportunity to address a range of significant topical issues, including the implementation of the Check 21 Act, the direction of the financial industry as it adjusts to lower volumes of checks, and the adoption of new technologies and business practices for electronic check collection.

In the area of electronic payments, there will be a variety of views on the development of services, designs, and infrastructure for the next generation of systems. The challenge is both to have vision for the future and to be grounded in the realities of the marketplace. Your insights on these topics will help inform the ideas and actions of both the industry and public authorities during this historic period of the payments system in transition.