One needs to look at the blowing winds of change in payment systems from the point of view of their effects on, firstly, domestic monetary policy and exchange rate policy and, secondly, the functioning of the international monetary system. Often the central banks in developing countries consider that the first does not pose much of a problem, although this is not always the case, especially where data on payments and asset turnover are weak. With regard to the latter, cooperation not only in terms of educational campaigns, seminars and training workshops, but also in terms of designing electronic and legal systems for the settlement of cross-border transactions may become necessary. This is an issue of which many developing countries are not fully aware, in particular as regards the developments that are taking place in advanced economies. Mechanisms may have to be developed to ensure that technologies are used to promote the integration of markets not only within national boundaries but also beyond national borders.

General considerations

The management of change in the payments arena depends on several initial conditions, among which the most relevant are the legal framework, the technology used by the payment agents, the existence of public or private bodies that promote the change, the size and complexity of the financial system, and the privileges of different players in the prevailing system.

Since such initial conditions vary considerably from one country to another, the priorities and procedures adopted by any country to change its payment system cannot be generalised. However, there are two goals and two concerns common to all countries in handling a payments system reform. On the one hand, risk reduction and improved efficiency are goals to be pursued. An ideal payments system would be one where payments occur in a timely manner and without risk. Any reform of a payments system strives towards such an ideal. On the other hand, the time and the resources available to fulfil the task are constraints on the development of the proposed changes. These two variables usually prevent the reforms from being as deep and as quick as desired and therefore counsel a gradual approach to the defined goal. This may seem an inefficient process; however, valuable feedbacks are gathered from the first steps of the reform and some new concepts can be introduced in the latter ones. In summary, once a reform of a payments system is undertaken, it transforms itself into a continuous process that drives the system towards more efficient and less risky stages, at the pace that resources and the current situation allow. The main mission of the reformer is to understand such a process in order to monitor and guide it.

In general terms, the first priority is to understand the fundamentals of payments systems theory: the body of concepts developed by the practitioners and researchers in this field. In Mexico we have devoted a
considerable amount of resources to this aim, but we believe we still have a long way to go.

The two goals: risk reduction and efficiency

If a country wants to change its payments system it is because it wants to improve its efficiency or wants to reduce some kind of risk. In this context, efficiency means final, cheaper and speedier payments, friendlier systems, better services, etc. Risk includes credit, systemic, counterparty, custody, liquidity and fraud risks.

The second priority in a payments system reform is to assess the situation in the current system in terms of its efficiency and the risks that each participant is taking. This would provide a good starting-point for designing the reform.

Once the efficiency and level of risk have been evaluated, it is useful to make a judgement about how different kinds of risk and efficiency aspects would vary under different system designs. One may find instances where it is possible to reduce risk in general while making the system more efficient. However, the analysis of particular situations usually reveals complicated sets of interrelationships between different kinds of risk and aspects of efficiency that also relate to the operating costs of the system. A major task for the designers of the reform of a payments system is to decide which level of each kind of risk is acceptable and which aspects of efficiency have to be enhanced.

Although the long-run objective is to achieve some ideal payment system, each change improves only a little over the current solution. This outcome has proven to be so, if one wishes to keep markets and other facilities operating smoothly.

As a general consideration, when there is doubt about which scenario should be adopted, it is advisable to be on the conservative side. Thus, when there is a conflict between risk and efficiency, the less risky solution must prevail even if it is less efficient. Our favourite example in this regard is the settlement date of cheque clearing houses. Before the reform, the book entry of the settlement was made with value date the day the cheques were presented to the clearing house. That, of course, was a very efficient system; however it had at least two risks: a credit risk for the central bank which guaranteed the settlement and had no time to react when something anomalous happened and the fraud risk that banks were taking by accepting cheques as final. On the basis of these and other considerations, it was decided to move the settlement date to the day following the presentation of cheques.

Situation of the Mexican payments system before the reform

Since reduced risk considerations must prevail over greater efficiency, it was clear in the design of the reform of the Mexican payments system that reforming the large-value payment circuit was much more important than modifying the retail circuit. Large-value payments were executed through book-entry transactions on the accounts of banks, in particular on their accounts at the central bank, or through cheques that were taken as final even before the clearing and settlement processes were finished. Banks had access to unlimited, free and unsecured daylight credit from the Banco de México through overdrafts on their current accounts at the central bank. Settlement of the cheque clearing houses was (and still is) done at the central bank.

This situation rendered systemic risk small since the Banco de México always guaranteed settlement. The cost was an enormous credit risk assumed by the central bank. Moreover, the existence of multimillion cheques represented a large fraud risk that indeed sometimes materialised. The guarantee of the central bank to settle the cheque clearing houses increased the moral hazard of misconduct in that area.

The payment and delivery legs of securities transactions were divorced. Thus, counterparty risk existed in all segments of the securities market. Usually the weaker party had to pay or deliver first. If its counterparty had failed it would have lost the whole amount of the transaction.

On the efficiency side, one can point out that there was no mechanism for performing same-day payments between two parties that happened to be at different banks and/or in different geographical locations. Cheques were used to partially fill that gap, leaving the payees with the risk of receiving a payment that would not be final until several hours later.

Notwithstanding that its autonomous status (1994) gave the Banco de México the exclusive power to grant its credit, the central bank was committed to providing credit to settle the payments system.
Objectives of the reform of the Mexican payments system

Once the risks were evaluated, the Banco de México decided to carry out a reform of the payments system that would:

– place limits on the central bank credit facilities used to settle payments systems;
– reduce credit risk for the central bank by reallocating it among the other participants in the payments system;
– reduce counterparty risk in the securities market;
– reduce fraud risk;
– try to keep systemic risks as low as possible;
– try to change participants’ moral hazard perceptions; and
– improve the efficiency of the payments system.

In order to achieve such goals it was decided to reform the large-value payment circuit to include an electronic large-value payment system, to introduce delivery versus payment in the securities settlement process, and to exclude the use of cheques. At this stage, the Banco de México issued a formal statement about the reform and advised the financial system of the need for commitment amongst participants in the reform.

Projects for the reform of the Mexican payments system

The reform embraced five projects representing the priorities of the central bank. The following is a list of those projects and the date on which they were accomplished:

– reschedule automatic debits and credits to the banks’ cash accounts at the Banco de México to reduce overdrafts (1994);
– limit daylight overdrafts for commercial banks on their cash accounts at the central bank; ask for collateral and charge for unsecured overdrafts (1994);
– develop a same-day large-value electronic payment system capable of reducing the use of cheques (March 1995);
– change the process used to settle the results of the peso-denominated cheque clearing houses in order to inhibit the use of large-value cheques (January 1996); and

The first of these five projects related, inter alia, to automatic debits to the current accounts of banks that collected payments on behalf of government agencies. The mechanism in place before the reform debited bank accounts and credited the account of the agency at the opening of the system, creating an overdraft on the accounts of the banks to be covered sometime during the day. With the rescheduling, automatic credits, such as amortisation of Treasury bills, are executed first and debits afterwards. This simple modification reduced daylight overdrafts considerably.

Although these projects have been the core of the reform to make the retail part of the payments system more efficient and less risky, others were also undertaken:

– management by the banks of the main cheque clearing houses (February 1997);
– promotion of the Mexican ACH (Pago Interbancario, since 1994); and
– the abolition of Treasury cheques on the Banco de México (March 1997).

While in the large-value circuit the Banco de México was engaged in creating and/or modifying the systems, in the retail projects it set the guidelines to be followed by third parties. The order of the projects was dictated by some logical sequencing. For example, it was impossible to change the settlement day for the clearing houses without having the electronic large-value transfer system in place. When a decision had to be made on the order of some task, a subjective assessment of the impact/time ratio was used.

Involvement of financial intermediaries in the reform of the Mexican payments system

A crucial element in ensuring success in a payments system reform is to involve the main actors in its development. After having defined the objectives of the reform, intensive work had to be done with cheque clearing houses, banks, broker-dealers and the securities depository institution.

The reform of the Mexican payments system was initiated against the background of an absolute lack of knowledge and interest on the part of the financial community and the general public. This attitude was
During this conference we have looked at the process of managing change in payment systems. Much has been said about the difficulties that have arisen and the time that the process is taking. But I am pleased to say that it has become clear from the papers presented that an enormous amount has already been achieved. Indeed, one of the remarkable features of payment system change is that so many countries have been able to do a great deal in what is a relatively short space of time.

In these concluding remarks, I would like to put this impressive record of change into a wider context by showing how important it is to the task of achieving financial stability. Payment system change is not being carried out for its own sake. Payment systems play a crucial role in financial markets and thus the way they function can have an important bearing on how stable those markets are. This has always been true, and no doubt it always will be. But what I want to do in the next few minutes is suggest why achieving financial stability is becoming harder, and thus why adopting the right strategy to manage change is becoming more important. Or, in other words, to say something about why it is necessary that we continue to work so hard to improve our payment system infrastructures.

**Why financial stability is important ....**

Let me start by briefly reviewing why financial stability is so important. Achieving stability in financial markets is part of the wider goal of achieving macroeconomic stability. What happens if financial stability is missing — what do you do if there is a financial crisis? Broadly speaking, you have two options. One is to provide financial support for the markets. But do this and you risk undermining macroeconomic policy: looser monetary policy can cause inflation and a greater risk of asset price bubbles. Moreover, the provision of safety nets can cause moral hazard problems that make future instability more likely. The other option is to