Brazil's experience in modernising the payment system to increase efficiency and reduce risks

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Introducing the Brazilian payment system

The main payment instruments and networks in Brazil are:
- cash;
- cheques;
- credit cards;
- debit cards;
- bloquets de cobrança (bar-coded remittance documents used to pay bills);
- documentos de crédito (DOCs, used to make interbank credit payments);
- automated teller machines;
- home banking (including through the World Wide Web); and
- smart cards (only pilot projects).

Factors affecting the payment system

The principal factors affecting the Brazilian payment system are:
- the low proportion of consumers with cheque accounts compared with that in developed countries;
- the large size of the country and its many areas of difficult access. The country has a vast territory (8.5 million square kilometres), and some areas, such as the Amazon forest region or remote towns and villages in the countryside, have a poor telecommunications infrastructure and insufficient transportation facilities. Nonetheless, it is quite an accomplishment that no cheque takes more than six working days to be cleared (except in a very few remote areas). The country is divided into 32 regions for cheque clearing purposes. Cheques drawn and presented in some of these regions (a number of which are larger than some European countries) are cleared in 24 hours;
- all interbank settlements are made through central bank reserve accounts (because there is a regulatory restriction that prohibits banks from holding balances with each other);
- the post office service, unlike in other countries, is not widely used for financial transfers;
- cooperation between payment system participants, especially in cheque processing and transportation;
- the large number of banks, which necessitates a highly developed interbank clearing and settlement system, and a highly developed securities market; and
- a highly concentrated banking industry.

Framework of the Brazilian payment and settlement system

The Brazilian payment system has many specialised systems for clearing and settlement. All these systems are connected to the central bank’s mainframe computer (SISBACEN), which provides 24-hour access. Since financial institutions are not allowed to hold balances with each other, the central bank provides interbank settlement services for all payments. It functions as a settlement agent since the financial settlement of all transactions is made against the banks' reserve accounts at the central bank.

Our main clearing and settlement systems are:
(a) SELIC (Special System of Custody and Liquidation of Federal Securities) – an electronic system controlled by the central bank, which registers transactions and maintains in book-entry form federal bonds and bills issued by the central bank and the Treasury. It also maintains some state and local government securities. SELIC settles on a net basis;
(b) CETIP (Central Custody and Financial Clearing of Securities) – a private securities trading and transfer system. It also provides settlement for stock and futures exchange trading and deals in public securities issued by states and local governments. CETIP also settles on a net basis;
(c) COMPE – a system in which cheques, DOCs and bar-coded remittance documents are cleared. Almost 98% of the total value of these documents is processed electronically;
A challenge. A prerequisite for this is a solution to the intraday risk problem. Many aspects of this issue are under discussion, such as intraday liquidity requirements, central bank policy on the provision of intraday credit, etc.

Enhancing domestic payment system arrangements: accomplished and planned initiatives

Initiatives to reduce risk (mainly credit risk) in the payment system

Rules to strengthen the Brazilian legal and regulatory framework so as to reduce risk are being studied. One possibility is to shorten the time-lag between the conclusion of a transaction and its final completion in the securities market (SELIC and CETIP). Banks are expected to be critical of such a change because it implies less flexibility for them to arbitrage in the intraday securities market.

The Foreign Exchange Clearing House is in the course of implementation. The clearing will minimise the default risk in the foreign exchange market due to the time-lag between the completion of the two legs of the transaction. The default risk may originate from time differences between countries and/or from a bankruptcy, compromising the full value involved in a transaction. Initially, this risk will be borne by the Clearing House, which will deliver foreign exchange currency to the participants in the system and will share the loss among those who traded with the defaulting bank.

Initiatives to increase efficiency

The Brazilian banks have made an outstanding adaptation from the environment of high inflation – which lasted until mid-1994, when the Real Plan was launched – to one of low inflation. During this process, the Brazilian financial sector’s percentage of GDP shrank from 13% to 6% (1994 and 1996, respectively). There were mergers, liquidations and transfer of control among some financial institutions. At the beginning of the Plan, 271 banks were operating. From July 1994 to September 1997, 76 underwent adjustments resulting in the transfer of control, intervention, liquidation or absorption by other financial institutions. Of those, 43 were subject to intervention by the central bank, 30 were...
Malaysia’s experience in modernising payment systems to increase efficiency and reduce risks

Christopher Fernandez

Payment systems are undergoing a revolution, be it in the East or West. Paper, which has dominated for the past 50 years or so, is giving way to new media in this electronic age. The advent of the microchip, I believe, is set to transform the payments field. Given these dramatic changes, this conference is a good opportunity for us, central bankers and regulators, to share our experiences and concerns as well as to establish and strengthen personal contacts.

Before I embark on the main part of my presentation, I will provide you with some background to Malaysia’s systems as an aid to understanding. I will therefore begin with an overview of the existing payment system and of new systems in the pipeline. I will then outline the objectives of reforming the systems, describe to you in some detail several constraints which we face and conclude with some of the policy directions which we are pursuing.

Introduction

Most of the necessary payments infrastructure is already in place and is not unlike that in other countries. The central bank (Bank Negara Malaysia) owns and operates the high-value payment system, SPEEDS (an acronym in Bahasa Malaysia for Sistem Pemindahan Elektronik untuk Dana dan Sekuriti), which is an electronic interbank funds transfer network. The system also provides electronic book-entry settlement for dematerialised securities consisting of government paper, the central bank’s securities and selected private debt instruments. SPEEDS, however, is an end-of-day net settlement system that settles across the books of the central bank.

The central bank also owns and operates automated clearing houses for the processing and clearing of cheques in the capital, Kuala Lumpur,