

Speech**PAYMENTS SYSTEMS IN INDIA*****A. Vasudevan**

I thank you for giving me the opportunity of addressing the CPPD Chiefs of commercial banks on an area of vital interest in the present stage of our financial sector development, namely, the payments system in India.

It is almost axiomatic to say that no society can exist without having some kind of a payment system. For, even in the system of barter, there has to be an implicit contract about the terms of settlement of transactions between the parties. But as barter has many shortcomings, payments are best effected through that instrument which is accepted by the society at large, as a medium of exchange and settlement.

The currency of the country would be the most accepted means of payment, mainly because of its status as the legal tender. But its use depends upon a number of factors, the most important of which relates to the very development of the financial sector. Where banks and other financial institutions are not marked in their presence, currency would be most widely used in payments and settlements. For instance, the share of currency in broad money supply (consisting of currency and deposits with banks) has been around 20 per cent in India in recent years

whereas in most industrialized economies of the West, this share has been in the neighbourhood of 6 per cent. This statistics is important. For, at one level, it shows that India's economic position has to be strengthened sharply to reach the real income levels reached by industrialized economies. At another level, it implies that financial instruments other than cash need to be promoted, developed and used in India in larger amounts than before, in the coming years.

It must, however, be mentioned that the present share of currency in broad money is itself a reflection of the strides that have been made in our country in the last 20 years or so to develop banking habits and new payment modes. In the early 'fifties, currency as a proportion of broad money amounted to almost 85 per cent. With the spread of branch banking particularly since the early 'seventies, the use of cheques for settlement of transactions have increased sharply, especially in the metropolitan cities. The large number of cheques presented for clearing since the early eighties has meant that manual sorting and listing are no longer possible and computerisation of cheque clearing operations is a virtual necessity.

* Speech by Dr. A. Vasudevan, Executive Director, Reserve Bank of India at the Computer Policy Programming Department (CPPD) Chiefs' Conference at Institute for Development and Research in Banking Technology, Hyderabad on August 17, 1998

The story of the clearing operations of MICR (Magnetic Ink Character Recognition) cheques first introduced in the latter half of the 'eighties in the four metropolitan cities (Calcutta, Chennai, Mumbai and New Delhi) based on highly rated modern technology is familiar to all the commercial bankers in India. It has been an interesting and a successful activity which, one suspects, has facilitated more efficient conduct of monetary policy than would have been the case, had the clearing operations been manual based. More importantly, the computer based clearing has given confidence that such operations can be replicated in almost all the major towns, creating, in the process, possibilities of enlarging the financial sector operations within the country.

The costs of the counterfactual (namely the continued use of manual clearing systems) would be enormous, and could well have delayed financial sector reforms. The confidence borne out of the successful experience of MICR-based clearing activities has helped India to take very many initiatives in regard to electronic modes of payment.

The Electronic Clearing Services (ECS) - credit scheme and the Electronic Clearing Services (ECS) - debit scheme are two activity lines which have become important vehicles for furthering improvements in customer services. As you all know, in ECS credit, a series of electronic payment instructions are generated to replace the paper instruments. The system works on the basis of a single debit transaction triggering a large number of credit entries. These credits or the electronic payment instructions which possess the details of the beneficiary's account number, amount and bank branch, are then communicated to the bank branches through their respective service branches for crediting the accounts of the beneficiaries either

through magnetic media duly encrypted or through hard copy. Electronic Clearing Service - debit, is meant for payment of charges to utility services such as electricity, telephone companies, payment of insurance premia and loan instalments etc. by customers. ECS credit has become popular and is likely to be availed of by most corporate entities and official bodies.

Yet another mode of payment which has immense potential is in the area of electronic banking through retail electronic funds transfers. There is, in fact, a scheme which is at present confined to the four metropolitan cities. It enables an account holder of a bank to transfer funds to another person having an account with any of the participating commercial banks, without any physical movement of instruments from one centre to another centre. This scheme is meant for small value funds transfer, and it uses RBINet as its carrier. The scheme could be extended as well as reoriented.

Plastic money has already made a presence in India and is at times considered a forerunner of the electronic payment system in India. Credit cards have registered a slow but steady growth in India. The major international brand names like VISA and MASTERCARD are used by all the major banks, both public and private sectors. The most recent trend is to issue multipurpose cards which function as credit cards, debit cards or Automatic Teller Machines (ATM) cards. This is essentially to enable the holder to exercise a choice of payment option.

Automated Teller Machines (ATMs) have been installed by almost all the major banks. Public sector banks under the aegis of Indian Banks' Association (IBA) have established a Shared Payment Network System (SPNS) of ATMs termed SWADHAN in Mumbai. The

ATMs of member banks are linked to a host processor, and at the end of the day, settlement between the different member banks is carried out.

Stored Value Cards is again a relatively new payments technology. These are prepaid cards and are increasingly termed as Electronic Money (E-Money) or Purse. This technology enables storage of electronic information on a card that can be used to make purchases. The information is stored on a tamper resistant chip embedded on the card. In India, the only example of Stored Value Cards are the pre-paid SIM cards for cellular phones. The pre-paid SIM card allows a subscriber to use his cellular phone for a fixed amount of air time equivalent to the value embedded in the card. These cards can be recharged with the value once the entire amount is exhausted.

It is important to recognise that the payments system in India has to be modern enough to be on par or on near par with the systems prevalent in other countries, since our domestic financial markets are increasingly getting integrated with markets abroad. Our systems have to be cost effective, and should ensure that risks in transactions are eliminated or at least minimal. Cross border transactions especially in the context of the fact that a large number of derivatives move about freely would require that payments system is efficient, secure and easily understood.

In the circumstances, we have to gear our efforts to be on on-line basis with requisite security features embedded into it. The introduction of VSAT network will facilitate a great deal in such interconnectivities, and in improving the flow of all financial services associated with the payments and settlement

system on real time basis.

Real Time Gross Settlement System (RTGS) is regarded as the centre piece of an integrated payments system. RTGS will enable real time and on-line fund management for the financial system. Migration to an RTGS environment has become the main objective of payments system reforms in most countries of the world. In fact, access to cross border settlement systems such as the TARGET in Europe is conditional to the availability of a full fledged domestic RTGS for each of the participating countries. The main centres of international finance like New York, London, Tokyo and Hong Kong operate in an RTGS environment. Apart from providing a real time funds settlement environment, the RTGS has become critical to an effective risk control strategy. The risks inherent in a net settlement system are well known. Payment system risks in a net settlement system are such that the default by one bank may lead to a 'knock-on' or domino effect to the system. Gross settlement reduces the risk significantly, as transactions are settled one by one on a bilateral basis in a real time mode.

In a cross border context RTGS becomes even more relevant as cross country risks are more difficult to manage as compared to domestic transactions. Concepts such as Payment versus Payment (PvP) are especially relevant in cross currency transaction. Capital account convertibility and financial integration of domestic markets with the international markets would need to be preceded by suitable risk management practices and legal provisions. RTGS provides both the technology and process controls to manage the risks better. The communication network forms the back bone for a domestic RTGS system.

Transactions in Government securities in India are already in a Delivery versus Payment (DvP) mode where transactions between buyers and sellers of securities are settled only after simultaneous verification and book transfers are carried out both for the securities (SGL) account in the Public Debt Office of the Reserve Bank and the current accounts of banks maintained in Deposit Accounts Departments of the Reserve Bank. However, the DvP and funds settlement are dispersed over various offices of the Reserve Bank and there is no effective means of transaction across different centres. An integrated and centrally accessible public debt office is an idea worth pursuing.

In the interim, however, a centralised funds query position could be put in place for funds and treasury managers. This would be an intermediate service facility prior to the operationalisation of an RTGS system. Using the VSAT network, the current account positions in all Deposit Accounts Departments at RBI can be consolidated in a central server system which would be updated on a batch mode at periodic intervals. This query facility would enable funds manager to assess their funds position in the current accounts of the RBI at various centres. Such a system with an updating facility of balances at the central server at fixed intervals of time, would result in improved liquidity management practices in the banks.

The existing Deferred/Discrete Net Settlement (DNS) systems, however, would continue as the regional and local payments activities are routed through them. The integrated payments model will have DNS systems for local transactions and an RTGS system for high value payments. Typically DNS systems would be used for cheque clearing operations, retail EFT, ECS, ATMS, Credit/Smart card operations. In a networked

system, there would be a series of DNS flows leading to a national RTGS facility which would substitute the existing remittance facilities.

It is obvious that a good network covering banks and the Reserve Bank throws up immense possibilities, as numerous applications can be run on such a network. Yet it must be remembered that the Wide Area Network (WAN) can, ultimately, serve as host to the applications. How successfully they run will depend on other factors like the design of the applications, the level of computerisation achieved by the user institutions, the acceptability of these practices to the public and under the law. The approach to the network has to be in the form of a total package, with regard to all technical issues - the hardware, the systems software, the applications, connectivity with computer systems, standardisation of infrastructure at user end, standardisation of platforms or provision of interface to allow seamless networking between platforms.

One very important ingredient that will determine the successful operationalisation of the network is the selection of human resource and their training. The identification of staff at various tiers of banks - the Head/Zonal Office level, the service branch level and at the branch level and their interaction with IDRBT/RBI and class-room training are aspects that will have to be carefully done, with commitment and efficient delivery as the touchstones of the identification and training exercises.

It is now time for us to devise a good institutional architecture on which the edifice of payments systems could be built. The Reserve Bank has recently taken a number of initiatives in this regard. There is at present a multidisciplinary team in the form of a

payments system group (PSG) within the Department of Information Technology (DIT) in the Reserve Bank. An Advisory Committee has also been set up to review the work of PSG and to give policy guidance. While these are inhouse institutional mechanisms, there is a need to strengthen them by including banks and other financial entities as well in view of their active participation in the

domestic clearing system. A national body with a wider participation would be able to provide the requisite cooperation needed for robust settlement mechanism. Such a body would also have to be in constant touch with similar national institutions in other countries, so that a truly efficient global payments system could be fashioned in a spirit of true international cooperation.