Enhancing domestic and cross-border payment system arrangements to cope with the liberalisation and globalisation of financial markets

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Enhancement of domestic payment systems

A crucial component of the financial market infrastructure is an efficient and robust domestic payment system capable of handling the rapid growth in payment flows arising from the globalisation of financial markets, financial liberalisation and economic growth in general. The most compelling reason for developing a sound payment system is the increasingly important role it plays in maintaining stability in the financial system. If a major bank, for whatever reason, cannot settle its payment obligations, the knock-on effect on the ability of other banks to meet their payment obligations would have a major impact on the stability of the financial system.

Apart from containing the systemic risk arising from bank failures, an advanced interbank payment system operating on the real-time gross settlement (RTGS) principle can contribute significantly to the maintenance of financial stability in several ways. First, it will enhance the effectiveness of monetary operations by the central bank in achieving its monetary policy objectives through real-time monitoring and control of interbank liquidity and by providing a more efficient transmission mechanism for monetary operations to influence interest rates. Second, RTGS provides the essential building-block for delivery-versus-payment (DVP) and payment-versus-payment (PVP) linkages which would extend the benefits of reducing the settlement risk in domestic interbank payments to securities/equity transactions and cross-border foreign exchange transactions.

Currently, most central banks in Asia have implemented or are in the process of developing RTGS systems. For example, Hong Kong, Korea and Thailand have already implemented RTGS systems, while New Zealand, Australia and Singapore are in the process of implementing RTGS. Japan is planning to extend the current range of transactions

settled on an RTGS basis and China plans to introduce RTGS as part of the China National Automated Payments System which is scheduled for completion in 1999.

Cross-border linkages

To meet the challenges of the liberalisation and globalisation of financial markets, another important task of central banks is to enhance cross-border payment and settlement arrangements to cope with the ever-rising cross-border trade and investment flows.

Both the public sector and the private sector have devoted considerable attention to this area. In October 1994 the New York Foreign Exchange Committee (NYFEC) published a report on "Reducing Foreign Exchange Settlement Risk". In its report, the NYFEC defined "best-case" settlement practices which, if adopted, will help reduce significantly settlement risks in foreign exchange transactions. However, substantial settlement risks still remain even if these practices are adopted.

In early 1996, the G-10 central bank Governors endorsed a report prepared by the Committee on Payment and Settlement Systems entitled "Settlement Risk in Foreign Exchange Transactions". The report sets out a strategy to reduce foreign exchange settlement risk based on action by individual banks to measure and control their own exposures and by banking industry groups to develop well-constructed multicurrency services, including netting schemes, that would contribute to the risk reduction. This strategy relies mainly on initiatives of the private sector. The report sets a two-year horizon for the implementation of this strategy, after which the G-10 central banks would assess the progress that has been made and consider possible further action if progress is found to be insufficient. The indications are that the strategy is spurring progress, although much more work still needs to be done.

While multilateral netting and settlement schemes offer many benefits, they also have a number of limitations. They can only be as robust as the legal framework on which they are built. In order to ensure successful settlement, restrictions on membership or access, credit/debit limits and loss-sharing arrangements will need to be instituted. Participants in most cases will need to provide collateral upfront in order to guarantee that they can bear the cost of loss allocation. All these devices tend to confine the multilateral netting schemes to more active participants in the foreign exchange market.

Another approach to reducing or eliminating Herstatt risk is through payment-versus-payment (PVP) links. Under the PVP model, the settlement of one currency leg of a foreign exchange transaction is conditional on the settlement of the other currency leg. A PVP link can allow foreign exchange transactions to be settled on a deal-by-deal basis. Such links are simple and easy to administer and do not require an elaborate legal framework. There is also no need for membership admission criteria, credit/debit limit devices and loss allocation arrangements as in the case of multilateral foreign exchange netting schemes. This is certainly an option which warrants further consideration.

PVP is a robust form of settlement for cross-border foreign exchange transactions, as payments are settled simultaneously across the books of central banks. However, there are important issues which need to be resolved before its viability can be firmly established. One of these is liquidity management. The PVP mechanism requires the central bank to hold the local currency payment initiated by the paying bank until confirmation is received from the other central bank regarding the availability of the other currency for settlement. However, this might lead to a drain of liquidity from the system during the holding period. The amount of liquidity frozen can be very large for those payment systems in financial centres where the local currency leg of foreign exchange transactions amounts to a very large proportion of total interbank payments. The strain on liquidity is a key problem but it is not insurmountable. A number of ideas have been floated to resolve this problem.

Multilateral netting and PVP settlement are two alternative approaches to reducing Herstatt risk. They are not mutually exclusive and it is unlikely that private sector initiatives would be able to remove Herstatt risk entirely. As far as Hong Kong is concerned, the Hong Kong Monetary Authority believes that the development of PVP links will be a major step in removing Herstatt risk. It has accordingly incorporated in its RTGS system, which was implemented in December 1996, both DVP and PVP capabilities. To develop the PVP initiative further, the HKMA is presently designing the architecture and technical platform for PVP linkage between two domestic systems. The HKMA is also designing a

mechanism through which the liquidity strain caused by the holding of pending PVP payments can be reduced. Agreement has already been reached for Hong Kong's payment system to link with the RMB payment system of mainland China when the latter goes live on RTGS in around 1999. The HKMA is also discussing the development of similar PVP linkages with a number of central banks.