REFORM OF THE PAYMENTS SYSTEM

THE CASE FOR REAL TIME GROSS SETTLEMENT

RESERVE BANK OF AUSTRALIA

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Australia has operated a Deferred Net Settlement (DNS) system for many years and it has generally served us well. Over time, however, there has been an increasing awareness by banks and ourselves of the need to impose some real-time limits on within-day interbank exposures in the high-value payments part of the system. The two main alternatives were to move to a Real Time Gross Settlement (RTGS) system, or to modify the existing DNS system in a way which would limit within-day interbank exposures in a system that conformed to international standards.

After much discussion among banks, the Reserve Bank and the Australian Payments Clearing Association (APCA), a decision was reached in August 1992 to follow the second alternative, but in such a way as to make it relatively easy to move to RTGS at a later date. The first stage was for the Reserve Bank, with APCA, to develop the Payment Registration and Electronic Settlement System (PRESS) and associated payment delivery arrangements which would be a DNS system with a sophisticated mechanism for limiting within-day exposures. Later, depending on how matters in Australia and overseas developed, PRESS could be transformed into a RTGS system.

At the time of these discussions, the alternative of moving directly to RTGS was seen as being too big a step, and one which contained too many uncertainties during the transition stage. While RTGS was accepted as the superior system in that it minimises settlement risk and is simpler in concept, it seemed impractical to aim for something which few others had implemented, and which was not being demanded by the international financial community. While that decision was appropriate given the information available at the time, a number of developments since strengthen the case for going to RTGS without the intermediate step of constructing and operating an improved DNS system such as PRESS. For this reason, the Reserve Bank arranged, in early 1995, for the PRESS process to be suspended while it explored an alternative approach.

This paper summarises reasons for the Reserve Bank's strong preference for an RTGS system and the developments which make it practicable to consider moving to such a system in one step.

A companion paper explores the implications for the Reserve Bank's market operations and the practical steps involved in implementation.

Fundamental advantages of RTGS

The Reserve Bank's preference for RTGS has been based, in part, on its inherent simplicity and certainty. It is the most certain way of eliminating interbank settlement risk. In a RTGS system, a bank can make each payment only if it has adequate balances in its settlement account at the central bank. As a result, any liquidity problem is detected immediately it arises. A RTGS system does not remove the possibility that a bank may fail and be unable to make payments as they fall due, but it does limit the problem to the failed institution.

In contrast, in a DNS system, subject to any limits imposed by the system, banks can continue to make payments throughout the day and liquidity pressures are concentrated in the end-of-day settlement session. Should a problem arise at that point, it is likely to be greater than that of funding a single payment, and will involve dealing with the whole of

the day's inward and outward payments. Unwinding is a problematic exercise, while loss-sharing rules mean other banks carry a share of the burden and depend for their efficacy on the robustness of netting law.

By requiring prefunding of each payment, a RTGS system prevents settlement risk arising between commercial banks in the high-value payments system and, in doing so, clearly:

- provides recipients of high-value payments with assurance that payments are irrevocable in their hands at the time of receipt; and
- removes the possibility that the broader financial community will be caught up in the liquidity pressures that could follow a settlement failure in a DNS system if loss-sharing arrangements or unwinding provisions had to be invoked.

Reasons for moving to RTGS in one step

Since the original decisions were made on the design of PRESS, important developments abroad and in Australia have changed the balance of the arguments on a DNS system in Australia.

(a) RTGS internationally

A small number of countries have had RTGS systems carrying a range of high-value payments for some time. Fedwire has been at the core of the US payments system since 1918, the SIC system in Switzerland has been operating since the mid 1980s and BOJ-NET in Japan has had a real-time funds transfer facility since 1988. RTGS systems are also in operation in Germany, Denmark, Finland and Sweden. As banks and supervisors have better recognised the potential risks in high-value payments systems, the trend toward RTGS systems for high-value payments has increased markedly in recent years. Installation of a RTGS system by the middle of the decade has been accepted as a clear goal by the central banks of the European Union and most members are well placed to meet this target. Several rapidly developing countries in Asia are moving quickly in this direction; these include Hong Kong, Thailand, South Korea and China, all of which are planning to have systems installed by 1997. Such a system is the virtually unanimous recommendation for the core of the financial system of emerging economies. An appendix lists a number of countries that have an RTGS system in operation or are in the process of establishing one.

Unless Australia keeps pace with world best practice in settlement systems our markets will become less attractive to overseas institutions.

(b) Developments in Australia

In Australia, there have been a number of important operational, institutional and policy developments that bear on a reassessment of the decision to build PRESS to accommodate deferred net settlement:

- RITS has become well established as an important part of the settlement infrastructure and integration with Fintracs (which is being discussed separately between the Reserve

Bank and Austraclear) would strengthen this position further. RITS already provides a facility for real-time funds transfers between banks' exchange settlement accounts;

- the introduction of 0900 settlement has focussed attention on settlement risks. Importantly, the operational and market changes that were required have demonstrated the industry's flexibility in responding to the new disciplines that this change required; and

- sectors of the banking industry have been reassessing the benefits and costs of a deferred net settlement system. The industry had seen the maintenance of a DNS system as a means of providing liquidity to the settlement system. However, under the PRESS proposals, to guarantee that the system would be able to settle should a particular participant be unable to do so, participants would have been required to provide commitments to underwrite one another's settlement obligations. Without a preparedness of major participants to do so, the system would revert to a RTGS system. It has become apparent in recent months that some banks have had substantial doubts about whether they would be prepared to enter the underwriting market as sellers of underwriting commitments — these doubts have focussed on the need for disclosure of such contingent liabilities, capital treatment and the difficulties of risk assessment and pricing.

(c) Costs

The design and specification of PRESS has resulted in tender proposals that are considerably more expensive than were expected. The Reserve Bank's proposal for a RTGS system should be considerably less expensive. The design is simpler. There are economies in building on existing operating systems and procedures, hardware and legal infrastructure.

RITS will give widespread basic access to the RTGS system. Nevertheless, participants will be free to select the most cost-effective means of linking their proprietary payments processing systems to the central RTGS system, subject to meeting agreed interface standards. They will not be constrained to a single industry solution although this would not, of course, be ruled out.

Conclusion

In summary, the move to a RTGS system has been the Reserve Bank's medium-term goal for some time for important policy reasons. Developments over the past few years have made it feasible to move to it more quickly. If RTGS can be built on an existing platform — as is now being explored by this Bank — it will be considerably cheaper than the proposals that have been developed to build a deferred net settlement system.

Reserve Bank of Australia
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APPENDIX

INTERNATIONAL ACCEPTANCE OF RTGS

Countries with RTGS systems	Date established
Denmark	1981
Finland	1991
Germany	1988 (1995)[a]
Italy	1989 (1996)[a]
Japan	1988
Netherlands	1985 (1996)[a]
Sweden	1990
Switzerland	1987 (1995)[a]
United States	1918

[a] These countries are in the process of upgrading their existing RTGS systems. The dates in brackets refer to the expected year of completion.

Countries implementing RTGS systems	Date planned
Austria	1997
Belgium	1995
China	1996/1997
France	1996
Greece	1996
Hong Kong	1996
Ireland	1996
Luxembourg	n.a.[b]
New Zealand	1995
Norway	1996
Portugal	1995
Saudi Arabia	1997
South Korea	1995
Spain	1996
Thailand	1995
United Kingdom	1996

[b] The Luxembourg Monetary Institute is presently involved in the implementation of an automated net settlement system that satisfies the Lamfalussy Standards. Once this system is fully operational, further work will be carried out on a RTGS system.