

Current policy issues in the payments system

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I Introduction

In looking at the programme for this conference, I was struck by the wide scope and apparent diversity of the various topics. We are going to be looking back at some very old payment technologies, and looking forward to some very new ones. We will - implicitly at least - be questioning the roles of virtually all of the institutions and entities involved in the payments industry. While this seems somewhat daunting, it is also perhaps necessary for us not to get too carried away by some of the hype. While it is true that many things are changing, much remains the same. Indeed, one of my themes will be that the fundamentals of payments system analysis apply to all kinds of payment technologies; and that a balanced consideration of these fundamentals is essential to any payment system reform - whether re-engineering or innovation.

Those fundamentals are both boringly familiar and blindingly obvious. Sadly, that does not mean that they are always universally applied. Let me list the main ones as follows.

- A sound business case needs to be established.
- The technology must be robust.
- A comprehensive analysis of risks is required, and of who bears those risks when anything goes wrong.
- There must be satisfactory legal and/or contractual underpinnings, so that the rights and obligations of the various parties to a transaction are clear; and so that the status of transactions is clear at all stages they may pass through.

Some of these fundamental points underpin much of the remainder of what I have to say this morning.

II Roles and responsibilities

Before I get into the nitty-gritty, can I say a few words about the roles and responsibilities of the various players in the payment system. Who's in charge here?

One way into this question is provided by a distinguished Italian central banker, Tommaso Padoa-Schioppa - cur-

rently Chairman of the Basle Committee on Banking Supervision. In a speech back in 1989, he talked of the need to achieve the right balance in the payments industry amongst "competition, co-operation and control" (this is partly my own characterisation of his remarks). For today's purposes, let me focus on two main questions which arise from this characterisation:

How can competitive and co-operative forces be reconciled?

Multilateral payments arrangements must inevitably be based on some strong co-operative elements. It is self-evident that transactions can only be processed efficiently and reliably if certain standards are set and followed, and if common rules are applied to all participants. These features will also contribute to widespread customer acceptance - the common standards applied to many payment technologies (including cheques) have enabled them to become ubiquitous methods of payment. However, this is not an enormously attractive feature from a competitive viewpoint. If customers are unable to perceive any difference between the payment services offered by different providers, then there is little competitive incentive to invest in improvements to those services. The result can be under-investment in co-operative systems. Moreover, at least up until now, the economies of scale in the payments industry have led to a fair degree of concentration - banks and other payment service providers have had little or no choice between competing payment systems, and so there have not been strong market incentives operating to keep those systems efficient and innovative.

Governance arrangements within co-operative payment systems can also have a similar effect. However good the intentions of the participants, the need (in many cases) for consensus or unanimity amongst all the members means that a number of problems are not uncommon:

- The adoption of "lowest common denominator" solutions rather than "best practice" solutions;
- slowness to update and innovate;
- lengthy and costly negotiations;
- conflicts over access to the systems.

The combined effect of these competitive and governance features seems to suggest that competition and co-operation are uneasy bed-fellows, and may not always produce the most efficient results or the best customer service. The best form of market solution to this problem is probably to ensure that payments system governance arrangements are put onto a basis which replicates - as far as possible - the incentives that would apply if these systems had close competitors. But this may be somewhat easier said than done.

Do market incentives deal adequately with systemic risks?

Not all payments arrangements contain significant risks, but some certainly do. In particular, the typical model that has applied to date - where payments are exchanged (sometimes irrevocably) during the day, but not finally settled until some later time - potentially involves quite large risks if one or more participants fail to settle their obligations. In principle, these risks are manageable in the sense that credit risks against direct counterparties can be managed and, where warranted, limited. But, in a fully multilateral system, it may not be a direct counterparty that causes the problem. As Padoa-Schioppa (again) put it: *“Against this indirect risk, the individual bank is powerless by definition. A clearing system can be likened to a boat that may capsize even if just one passenger falls overboard.”*

The key point here is that while payments system participants have strong incentives to manage their settlement risks, they may not in practice always have available to them sufficient up-to-date information to carry out this task to the fullest extent. The use of robust failure-to-settle arrangements (perhaps supported by collateral) may be helpful in spreading and/or capping the risks, but such approaches do not eliminate the problem, and they have their own costs. Nor have they been used in New Zealand.

The answers to these two questions provide the basic rationale for addressing the third issue of “control”. Conventional approaches to payments systems, based on competition and co-operation alone, may not produce outcomes that are either as efficient or as sound as they could be. However, given the importance of the payments infrastructure to the modern economy - probably right up there in importance with roads, telephones and electricity supplies - there is a strong public interest in ensuring that payments arrangements do indeed deliver efficiency and soundness. It is against that background that the Reserve Bank has developed a stronger interest in payment system developments over recent years. In contrast to the position in many other countries, we have not - so far - found it necessary to assert any direct jurisdiction over

payment arrangements, but rather have sought to achieve improvements in both the soundness and efficiency of current systems by discussing problems and potential solutions with industry participants, and by promoting changes to the law and to our own operating systems where appropriate. While this process has not been without some frustrations, it has produced some useful results. However, a good deal remains to be done; and new challenges are emerging all the time. I must say that we do sometimes wonder if some kind of reform of the payments system’s institutional arrangements would be helpful in achieving a more integrated and a more purposeful approach.

In focusing on the payments system, we have been pursuing a number of specific objectives. These are:

- to ensure that payment system risks are reduced to acceptable levels, and are managed appropriately by system participants;
- to ensure that the payments system can continue to operate without disruption in the event of the sudden withdrawal of a participant from the system, or following other types of financial crisis, or following natural disasters etc;
- to encourage movement towards delivery versus payment arrangements in all financial markets - especially with respect to high value transactions;
- to help ensure that the status of payments is certain at all times, and, in particular, that the legal environment supports “finality” and “irrevocability” in payment instructions;
- to encourage banks and others to offer efficient, reliable and relevant payments services to their customers;
- to maintain an open, flexible and competitive system, and ensure that no unwarranted entry or operational barriers exist.

Let me now discuss how we are getting on with respect to achieving some of these objectives.

III Settlement risks

Settlement risks exist at present with respect to both domestic and cross-border (foreign exchange) transactions. They arise essentially where there are time gaps between the point where transaction instructions are irrevocable (either in theory or in practice) and the final settlements or deliveries in respect of those transactions. The nature

of these time gaps can vary a good deal, depending on the type of transaction (eg "pure" payment; security deal, foreign exchange deal); whether they are "own account" transactions or "customer" transactions; and the rules and practices of the actual clearing and settlement systems that are being used. Many clearing and settlement arrangements rely in practice on the end-of-day netting of payments, which means that the actual cash flows at settlement time may be quite small in relation to the very large volume of gross transactions. However, if the settlement does not occur, the only alternative may be to unwind all of the gross transactions which have taken place - which could, in turn, be impossible or impracticable.

There are three basic methods of dealing with the problems arising from deferred settlement:

- moving transactions onto a real-time gross settlement (RTGS) basis, where the underlying transaction and the interbank settlement in respect of that transaction go through the system essentially simultaneously, on a real time basis. In such a system, settlements are final and irrevocable at the point when they occur;
- adopting legally robust bilateral or multilateral netting arrangements for certain transactions. With binding netting arrangements in place, the various "gross" obligations to make payments are offset against one another, and it is only the net amounts due which are called into question in the event of a failure. This reduces the risks involved, and also eliminates the disruption which would be caused by full unwinding (which would no longer be necessary);
- adopting legally and financially robust failure-to-settle arrangements in respect of any payment streams which continue to involve deferred settlement or netting, at least where the risks remain material.

In New Zealand, all of these techniques may have some role to play.

Domestic settlements

With regard to settlement risks within New Zealand, our main emphasis has been on developing the first option - an RTGS system. This first requires putting the Reserve Bank's Exchange Settlement Accounts (the accounts maintained by the commercial banks at the Reserve Bank) onto an electronic system which can be operated by our commercial bank customers on a real time basis. This system (called "ESAS") has already been built, and is now ready for operation. Secondly, the individual banks (and the various payments "switches" which they use to process their transactions) have had to design and modify their systems in order to interface with ESAS. This work - which has been

substantial - is now well advanced. I hope that it will soon be possible to set a firm date in 1997 for implementing the overall RTGS system. The implementation of RTGS will represent a significant milestone in the reduction of domestic payment system risks. The overall result, once the reforms are complete, should be not only a significant reduction in payments system risks, but also a much greater assurance that the domestic payment system will continue to function smoothly in the face of a financial crisis or the failure of one of the participants.

Cross-border settlements

With work on RTGS almost complete, we will soon be turning our attention more actively to dealing with the similar risks (sometimes referred to as "Herstatt" risks) which exist with respect to cross-border foreign exchange transactions. In this case, the effective delay between the point when a bank issues an irrevocable payment instruction and the point when it actually receives the corresponding payment from the counterparty bank can amount to some days. Much attention is currently being focused on this problem internationally, and the solutions being suggested are similar in character to those outlined above. It remains to be seen how international practice will develop, but New Zealand should be relatively well placed to move towards any of these solutions.

As a first step, we will soon be approaching particularly those banks which are active in the foreign exchange market, in order to improve our understanding of the size and duration of these risks in the New Zealand context; and we will start to explore more fully the possible options for managing the risks more effectively - whether through better internal management arrangements, through the use of netting systems, or through some kind of linkage of RTGS systems to provide Payment v. Payment (PVP) arrangements (where the two legs of a deal are settled simultaneously). We will also need to look at some stage at whether or not these credit exposures should be explicitly included in the disclosure requirements for registered banks, and whether they should be included in the capital framework.

IV Disaster planning

As well as considering the possible impact of financial crises etc, we have started to give increased attention to the potential impact of natural disasters and other physical or technical disruptions on the payments system. Again, our principle interest is in whether the system as a whole can continue to operate smoothly in the face of certain kinds of disruption - which could initially be located in a particular city or region, a particular institution (including the Reserve Bank) or a particular clearing system; and which could be short-term or fairly long-term

in their impact. Our hopes would be that problems which are essentially “local” (albeit perhaps serious) do not prevent life going on pretty much as normal outside the affected area. and that recovery of normal operations can be achieved within an acceptable time-scale.

At this point, we have made some good progress in reviewing the Reserve Bank’s own arrangements for maintaining operational capacity in the face of certain kinds of disabling event; and we have commenced some enquiries with banks and payment switches as to the nature of the back-up arrangements which they have in place. Clearly this is an area where everyone has to take some responsibility: most systems are only as good as their weakest link.

We have not yet come to any particular conclusions as to the current state of preparedness within the industry. If we do come across areas of significant weakness, then we will certainly be encouraging those concerned to address them. However, there are not any absolute standards to aim for in this area, other than the maintenance of data integrity. The main goals are to help facilitate the adoption of appropriately high, and reasonably common, standards across all areas of the industry.

V New payment technologies

We are starting to hear a lot of talk about new payment and banking technologies. The main areas of likely innovation are the introduction of Stored Value Cards (such as Mondex) as a substitute for the use of cash, and the use of the Internet for the provision of banking and payments services. I will not spend much time on these innovations today, as I have discussed them on other occasions¹ Let me just repeat my earlier comment - that these kinds of innovations do not raise many new issues of principle; but that is important that both the providers and the users of these types of products and services fully understand their risk characteristics, and, in particular, what forms of redress are available when things go wrong.

The Reserve Bank’s role with respect to these innovations is mainly to keep abreast of developments, identify any important risk features which could have systemic significance, and to keep an eye on any potential legal implications. One thing we are *not* going to do is “approve” the introduction of these new products - we have never done that in the past, and we have left it to banks and other providers to ensure that the technologies involved and the security features are robust, and that any

risks involved are managed appropriately. However, we will continue to try to get the message across to the general public that they may need to exercise some caution when they use some of these kinds of services. Most people are well aware that when they are buying a carpet in a foreign bazaar, they are on their own - the Fair Trading Act and the Consumer Guarantees Act do not apply. Much the same attitude may need to be cultivated with respect to Internet transactions, for example. People will need to satisfy themselves that they are dealing with reputable service providers, and that they are not taking unwarranted risks.

Of course, banks and other service providers located in New Zealand are fully subject to New Zealand law, and, in addition to the Reserve Bank, it may be that other agencies including the Securities Commission, the Commerce Commission and the Ministry of Consumer Affairs will have some role to play with respect to some of these innovations.

VI Legal issues

Over recent years, we have been putting quite a lot of effort into reviewing aspects of the law underpinning payments arrangements, with the overall aims of ensuring that it fits well with current banking and business practice, and that it promotes both efficiency and soundness. Many of our initiatives arise from some of the comments that I have already made.

Cheques law

Cheques are unusual in relation to other methods of payment in that the rules governing cheques have - at least in part - a statutory basis (in the Bills of Exchange Act and in the Cheques Act). Other payment methods have developed on the basis of contracts and codes of conduct, and a statutory underpinning has not been felt to be necessary. This distinction has occurred essentially for historical reasons. If we were introducing cheques at this point in our history, it is perhaps unlikely that the rules would be entrenched in legislation. However, given that we have had this legislation for a long time, that the case law is now well developed and generally well understood, and that the statutory rules do not seem to impose any serious inefficiencies on the system, there is probably little to be gained by moving to a fundamentally different approach.

The Reserve Bank recently took over responsibility for administering the Bills of Exchange Act and the Cheques Act. We commenced a review of these pieces of legislation in 1992, in close consultation with the banking industry. The general aims of the exercise were to promote efficiency, enable better customer service, and improve

¹ See ‘Pre-paid cards’, Reserve Bank of New Zealand *Bulletin*, December 1994; and ‘The Policy Implications of Electronic Payments’, a paper presented at a conference on consumer payment systems, Auckland, 16 May 1996.

certainty and clarity where necessary. Our deliberations led to the adoption of a two-stage approach. In the first stage, which was completed last year, we repealed the Banking Act (which had become an anachronism), introduced a facility for non-transferable cheques, and some amendments to enable truncation² in cheque processing³. These were seen as the more urgent areas for reform, and should be helpful in enabling banks to reduce fraud, improve efficiency, reduce costs, and speed up the cheque clearance process.

Although these changes to the law were enacted in June 1995, we have not yet seen much sign of general implementation of truncation arrangements, or of smarter arrangements for dishonours. This is somewhat disappointing given the potential cost savings that are presumably available, and given that cheque clearance times (still typically 5-7 days) are a common source of complaints. I hope that the industry will be able to make some good progress on these matters before too long.

A second stage of cheques law reform remains on the agenda, but we are not giving it a high priority at this point. We are not aware of too many serious issues that remain to be addressed, and it may well be the case that some areas which have caused some difficulty - such as the dishonouring of bank cheques - may be better addressed by the development of alternative technologies rather than by changes to the law. We are also well aware that cheque usage is now on a reasonably rapid decline. While I am not expecting that they will disappear entirely in my lifetime, I think it is appropriate for the time being to concentrate our efforts on some other priorities.

Netting and payments finality

In August this year, the Reserve Bank released two discussion papers - on the enforceability of netting arrangements and on the so-called "zero hour" rule for the commencement of a liquidation.⁴

"Netting" is a process which - in various different forms - is widely used in financial markets. It occurs when parties making payments to and from one another are able to set-off these payments, and settle only the net balance due. When used properly, netting can be very helpful both in reducing risk exposures within the financial sys-

tem, and in enabling very large volumes of gross payments to be settled efficiently. However, there is considerable legal uncertainty as to whether different types of netting arrangements would be robust in the event of the failure of one of the counterparties. Accordingly, the Reserve Bank's key aims are to ensure that sensible business practice within the financial markets is adequately supported by the law; and to achieve as much certainty as possible, so that netting agreements can be entered into with full confidence that they can be relied upon in all circumstances.

We have cast our proposals for reform fairly widely, so that all forms of netting, both multilateral and bilateral, all types of transactions, and all types of counterparties are potentially covered. We are currently busy working through the submissions we have received on the discussion paper. While objections have been raised to some aspects of the proposals, we are hoping that we will be able to find a way through these, and make some firm recommendations to the Government for the legislative reforms required within the next few months. While the introduction of RTGS will substantially reduce the extent of payments netting which occurs at present, there will still be many netting arrangements which will benefit from the reform. Moreover, with respect to cross-border foreign exchange transactions, it seems quite likely that netting arrangements could play a significant role in reducing settlement risks - and, indeed, netting schemes such as ECHO are already in operation.

The "zero hour" issues are rather more straightforward. Current insolvency law provides that a court-ordered liquidation commences from the beginning of the day on which the liquidator is appointed, implying that any payments or settlement made after the beginning of that day would have to be reversed. This would be contrary to the principles underlying the RTGS system, in particular, where it is envisaged that payments will be final and irrevocable at the point they occur. The solution, in essence, is to move the commencement of liquidation onto a real-time basis, and ensure that the time of commencement of a liquidation, bankruptcy or statutory management is specified. These proposals should improve certainty in all such cases, and appear to be widely supported.

VII Conclusion

The programme of payments system reform which I have outlined here is a major one - although it is very similar to what is happening in many other countries as well. New Zealand has been a world leader in some aspects of pay-

² "Truncation" is a system which enables banks to "present" cheques to the paying bank branch by electronic means rather than by physical delivery of the pieces of paper to the branch concerned.

³ For a fuller description, see Sachin Zodgekar, "Banking law reforms: changes to cheques law and repeal of the Banking Act", Reserve Bank of New Zealand *Bulletin*, September 1995.

⁴ For a summary of the proposals, see Sachin Zodgekar, "Netting and payments finality: proposed changes to the law", Reserve Bank of New Zealand *Bulletin*, September 1996.

ments system modernisation, but has lagged behind in some other aspects. A lot has now been done to recognise some of the problems which have accumulated, and in some cases the implementation of solutions is well advanced. A good deal remains to be done, and I expect that we will be busy working on these various areas for some time yet. Once the process is complete, I hope that we will have the kind of system that I described earlier in this paper - one that is both efficient and sound; both innovative and reliable; both responsive and resilient.

