Malcolm Edey: Inertia and coordination problems in payment networks

Remarks by Mr Malcolm Edey, Assistant Governor (Financial System) of the Reserve Bank of Australia, at a panel session on “Public policy and innovation” at the Federal Reserve Bank of Kansas City Payments Conference, Kansas City, 30 March 2012 (to be delivered 31 March 2012).

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The question I have been asked to address is whether inertia (or coordination failure) is an obstacle to payments system innovation. And if so, what do we do about it?

To begin with, it helps to distinguish between two types of innovation: proprietary and systemic.

An example of the first type might be a new piece of card technology, or a new customer platform for an individual bank. An example of the second might be the adoption of a new interbank messaging standard or a system-wide shift to faster payment times. The difference lies in whether the benefit can in some sense be captured by the innovator, or whether the benefits are more dispersed and dependent on coordinated action.

Payments service providers are good at proprietary innovation, as you would expect – they have an incentive to be good at it. It’s in the second area that problems of inertia and coordination failure can come into play.

I can think of two general reasons why this is the case.

The first is the problem of capturing benefits so as to give a return to the innovator. To give a concrete historical example, think of the question of faster cheque clearing. For a given cost, faster clearing is obviously an improvement, but it can only be achieved collectively. Yet doing so confers no competitive advantage to any individual participant in the cheque-clearing system, so there is little incentive to agree on costly action to make it happen.

To make the example more up-to-date, the same problem exists with incentives to deliver faster (or real-time) electronic transfers at the retail level. Faster payments can only happen if the system as a whole is set up for it, and then only if a critical mass of the individual participants are set up to provide timely access. But putting this in place will obviously involve some cost, with little or no proprietary benefit to the investor, particularly where it may cannibalise other potentially profitable product lines. This problem would exist even if all the payments industry participants faced identical incentives. Without an effective coordinating mechanism, industry will tend to under-invest in this kind of innovation.

The second reason is that the costs and benefits of participating in coordinated actions of this kind are *not* in fact evenly distributed across participants. Some participants will benefit more than others from a given innovation, or may find it more costly than others, for reasons to do with their size or their business model. Another factor is the timing of investment cycles: collective action has to be collective, but the timing of any given investment in payments technology will always be more advantageous to some than to others. A bank that is just about to undertake a regular technology upgrade may be quite receptive to aligning that with a general change in standards; whereas a bank that has just completed a major round of investment may not be.

These things can make it very hard for industry participants to agree on the timing of a systemic innovation, or on the pricing arrangements that will underpin it. The end result can be a degree of inertia, or a slower pace of innovation than would be socially efficient.

I think this problem is inherent in any network that doesn’t operate as a kind of proprietary unit in the way that, for example, a credit card network does (competing of course with other networks).

For the payments system as a whole, then, this points to the need for coordination mechanisms. What sorts of mechanisms might we be talking about?

For a lot of issues, the appropriate coordination mechanism could be an industry body – especially where the issue is mainly technical in nature and where there are no strong proprietary interests at stake. An example would be routine updating of technical standards.

But where there are significantly conflicting incentives that make coordinated decision-making more difficult, it may need a regulator to take a leadership role.

In Australia the payments system regulator is the central bank, and regulatory decisions are made by the Reserve Bank Payments System Board. We have a mandate to promote stability and efficiency, which I think we can view as including the efficient resolution of the coordination problems that I've just described. And we have significant powers that can be directed to that end.

For these reasons, the RBA has been increasing its focus on these coordination issues in recent times.

As you may be aware, we announced a *Strategic Review of Innovation in the Payments System* in July 2010, and we are now in the finishing stages of that review. In the course of the review, we held two rounds of extensive consultation with service providers as well as with end-users of the payments system.

Broadly speaking, the *Review* focused on three questions, which I could sum up as Gaps, Governance and Hubs.

On Gaps, the question is, are there potential innovations that would be in the public interest that are not happening because of coordination failures?

Responses to the consultation suggested that there might be. The main points highlighted as possible areas for improvement were:

- Faster or real-time payments at the retail level
- Greater availability of payments systems outside normal banking hours
- Improved capacity to send information with payments
- And, greater ease of addressing payments

The last one of these can be illustrated by analogy with the cheque. A cheque payment can be addressed very easily when all you know is the name of the recipient. But we don't yet have a comparably easy mechanism for addressing electronic payments.

Obviously it is not costless to deliver these things, and so a coordinated decision process would need to have some way of taking into account both the costs and benefits, including benefits to end-users, in order to determine whether an investment is worth making.

That raises the further question of who should provide that leadership and under what arrangements – the general question of Governance.

To make it more concrete, we can pose the following questions. In the Australian case, should the Payments System Board take a more prescriptive approach to setting objectives for payments system innovation? Could it, for example, set an objective of real-time consumer payments, or the adoption of new messaging standards, by a specified target date? Could it then perhaps delegate the implementation of those targets to an industry body with the necessary technical expertise?

All of that would amount to a governance model where the regulator makes high-level decisions as to the public interest, while industry participants determine the most efficient means of implementing them. I won't foreshadow what we might conclude on these things, but these are the sorts of questions the Payments System Board is now considering.

The Board is also considering a third area, namely Hubs, or specifically the question of whether there needs to be greater use of centralised architecture for clearing and settlement of retail payments. This is a particular issue in Australia, because many of our payments systems are built on bilateral links between institutions. Arguments can be made in favour of hubs on the basis that they may be more efficient than bilateral networks and more conducive to both competition and innovation. But these considerations need to be balanced against the costs of the investment. Again, this is a key question of system design for which there needs to be a coordinated answer, whether the eventual decision is for or against.

To sum up:

- Coordination failures can be an obstacle to innovation.
- That problem is inherent in the nature of payment networks.
- It's very hard to design governance structures that make appropriate provision for coordination while still allowing for normal competition to occur.
- That suggests a role for leadership by payments regulators or central banks
- In some ways, central banks have a natural leadership role because they act as a hub already in many payment systems. In Australia's case, the central bank is also the regulator for payments-system efficiency and stability.
- Finally, in carrying out any leadership role in this area, it's very important to consult. The advantage we have (as regulators or as central banks) is that we can take a public-interest perspective. But we also need to make use of the expertise of payments industry participants in determining what is feasible and what is the most efficient means of delivery.