

Discussion

1. Jenny Fagg¹

Thank you Vince. I would also like to thank the RBA and Melbourne Business School for organising this Conference. You have put together an impressive agenda and I am very pleased to have been invited to be a discussant for this session. For the purposes of my discussion I plan to limit my comments to the RBA's Costs Study (Payment Costs in Australia).

As a lead-in to my comments, I would like to show you two ANZ advertisements which in my view highlight some key advantages associated with credit cards and ATMs. These are two of the more commonly run banking advertisements in Australia.

Dr Fagg screened two ANZ advertisements at this point during her presentation. Both had been used on television in Australia in recent times. The first advertisement depicted the use of ANZ's proprietary anti-fraud system, known as 'Falcon', to identify and prevent fraudulent spending on a customer's credit card overseas. The second advertisement showed an ATM following a customer around the streets to emphasise the widespread availability of ANZ's ATMs.

These advertisements highlight to consumers the security benefits of using a credit card and the convenience of using an ATM network.

As rational bankers we are prepared to invest in advertising these product features because we know they are valued by customers. Our market research tells us that consumers are concerned about more than the price of the payment instrument they use. We have identified security and convenience as core customer requirements and sought to position ourselves as a market leader in card security and having an extensive ATM network offering access to cash when it's needed.

The 'honour all cards' rule is key to the branding of convenience and security – no matter where they are in the world, customers need to know they can use their card wherever their card's brand is accepted.

We agree therefore with the statement in the RBA's Costs Study that (page 128):

... costs are only one aspect of ... the efficiency of the payments system; increased use of the lowest-cost payment system does not necessarily promote efficiency of the overall system. The benefits offered by various payment systems are also important to consider, as is the speed and degree of innovation over time.

It is not entirely clear what definition of efficiency is being used to judge the success of the RBA's payments system reforms. The quote from the Costs Study tells us that while recognising the importance of what economists call 'dynamic efficiency' in practice it is not built into the analysis.

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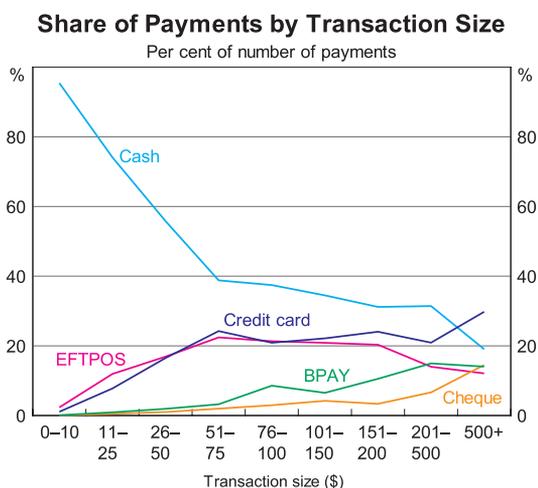
Of course, measuring the costs and benefits of payment instruments with precision is difficult. We can say with confidence, though, that these will vary over time and we know that consumer preferences and behaviour change over time.

Cost rankings

The Study's main finding is that based on average cost of point-of-sale payments, cash is the lowest cost payment instrument, followed by EFTPOS, scheme debit, credit cards then cheque. This is consistent with ANZ's own estimates and is an outcome we would have expected.

Costs vary with the size of transaction. The cost of cash payments increases with transaction value so that for larger payments of \$50 to \$100, depending on the cost measurement approach, EFTPOS is cheaper. For all transaction sizes the Study finds that credit card payments are more costly than EFTPOS.

Graph 1



Notes: Data sourced from consumer payment diaries created over a two week period as part of the Reserve Bank's study 'Household Payment Patterns in Australia'. Scheme debit and 'other' instruments have been excluded as each has less than a 10 per cent share.
Sources: RBA; Roy Morgan Research

The payment instrument used by consumers depends on transaction size (Graph 1). Cash is the dominant payment means for low value transactions. Credit cards and EFTPOS are similar up to transactions of around \$100. Above \$100, credit cards' share of transactions begins to rise, though they do not really dominate until transactions are around \$500 or higher. The share of cash transactions drops sharply for transactions over \$500.

To the extent that the share of transactions made by EFTPOS and credit card is similar for transaction sizes of \$25 to \$100 we would suggest that this reflects the value placed by consumers on these payment instruments for transactions of that size. For larger transactions, credit cards are preferred for their security and their credit function. It is worth noting that since the credit interchange reforms of 2003 consumers are now paying more through annual fees on credit card accounts. The fact that consumers continue to use credit cards despite this increase in costs clearly demonstrates that they value the additional features offered by credit cards as a payment mechanism.

Overall, consumers are transacting as we might expect.

Over time we would expect to see a continued shift away from cash. As electronic payment volumes grow, it is likely that the cost per transaction will fall somewhat as economies of scale are further realised. In addition, as chip plus PIN functionality is rolled out we are also likely

to see some narrowing in the gap between credit card and EFTPOS costs due to a reduction in tender time and lower fraud costs.

Study assumptions

The Study is broader in scope than the Joint Study published in October 2000 and it includes the full range of payment instruments which is useful. However, we think it likely that the Study has underestimated the cost of cash and of EFTPOS transactions and overestimated the cost of credit cards and cheques.

Some examples of why we think this is the case are:

- There has been negligible investment in the EFTPOS infrastructure for many years so that the ongoing overhead cost (maintenance and cost of capital) of this system is understated. However, were an EFTPOS scheme to be established we would expect an injection of investment into the scheme which would lead to an increase in EFTPOS costing;
- While the cost of fraud and fraud prevention is included for credit cards, equivalent costs for cash (such as robbery or loss) or BPAY do not appear to be included in the estimates;
- The Study uses lower limits for the time taken to make cash withdrawals (rather than a weighted average) and makes no allowance for having to occasionally queue at an ATM. Equally, when the ATM visit is part of another activity, travel time is assumed to be zero, despite the fact that each trip probably involves a minor detour of some kind;
- The Study includes the time spent checking statements for credit cards, but does not include the time spent checking cash receipts against a weekly budget, or in fact ATM withdrawals against an account statement; and
- The Study does not include a portion of the cost of maintaining internet banking and phone banking services in estimating the costs associated with BPAY and direct entry payments.

Obviously, assumptions have to be made in developing a costing methodology, but the decisions on which assumptions to use and which not to use will ultimately affect the conclusions. It is a subjective process but one which can significantly impact on the outcomes. We do not assert that allowing for these shortcomings would necessarily change the rank order of payment instruments. However, they do illustrate the limitations of this Study and for that matter other cost studies that have been published around the world, as instruments for intervening in markets to set prices.

Concluding remarks

As noted in the Study, cost is not the only measure of the efficiency of a payments system, which suggests that defining or designing an optimally efficient payments system is a particularly difficult exercise.

As I have outlined, the RBA reforms have influenced the final cost to consumers in that banks have passed on a portion of the interchange fee previously paid by merchants to cardholders. Notwithstanding the Study's conclusions regarding the costs of individual payment instruments, we believe the relative cost rankings are about right and are broadly what we would have expected to have seen. It is therefore difficult to argue that additional reform, such as reducing regulated interchange fees further, is required.

Numerous studies – including this one – have tackled the subject of the cost of payment instruments and their use in an efficient system, yet there is still no answer as to what the ideal or optimal structure looks like within a regulated environment. It is ANZ’s view that it would now be appropriate for the RBA to allow the market to set interchange rates.

2. Ric Simes²

Let me begin by welcoming the latest research that Carl and his Reserve Bank colleagues have undertaken into the operations of the retail payments system. As with all economic policy, the better the quality of the data and the empirical analysis, the easier it is to develop appropriate responses. My comments will concentrate on the RBA’s paper on payment costs since this is more directly relevant to the 2007-08 Review deliberations than the accompanying paper on payment patterns.

Early in 2006, along with Ian Harper and Annette Lancy, I explored some of the issues covered in the Bank’s paper on the costs of different instruments.³ At that point, our basic conclusion was that the resource costs associated with card schemes that had been estimated in the RBA/ACCC Joint Study⁴ were overstated relative to costs for other instruments, and that this may have unduly influenced the regulations that the Payments System Board subsequently introduced.

We also emphasised conceptual and practical difficulties in this exercise and encouraged further work to be undertaken. I am thus pleased to see that the Bank has done so, and done so in a whole-hearted fashion.

I would like to comment on two aspects of the paper:

- Firstly, and quite briefly, the relevance of the notion of resource costs for decisions to regulate different payment systems.
- Secondly, some of the main findings concerning the relative (resource) costs, namely the findings related to the costs of:
 - (i) cash;
 - (ii) EFTPOS relative to scheme cards; and
 - (iii) BPAY and direct debit relative to scheme cards.

Relevance

Having clearer information about the workings of the payments system will help decision-making in government and business. However, the issues being addressed in this paper are very narrow. They may point to the need for deeper analysis if there is a substantial difference in resource costs but, by themselves, differences in resource costs provide little guidance for how the system should be regulated.

² Ric Simes is a Director of Access Economics. He has consulted on payments systems for Visa International. The views expressed here are his own.

³ Harper, Lancy and Simes (2006).

⁴ RBA and ACCC (2000).

It appears from the outside that the Reserve Bank experts understand that the basis for the regulations on card systems that the Payments System Board has introduced over recent years has theoretical shortcomings, but that the empirical relevance of these is not sufficient to prevent the regulations being imposed. For example, the authors state that (page 88):

... the Payments System Board was concerned that, due to a variety of practices and restrictions, the relative resource costs associated with the credit card and EFTPOS systems were not being reflected in the relative prices that consumers faced when deciding between these payment instruments. The result, in the Board's view, was a less efficient payments system than might otherwise have been the case.

There are two main problems with the Board's view as expressed here:

- it only looks at costs and not the benefits provided by the different instruments; and
- it ignores the efficiency considerations associated with two-sided networks, which mean that it would be sheer luck if relative resource costs should in fact be directly reflected in relative prices that consumers face, for economic efficiency to be maximised.

That is, resource costs considered in isolation could well provide a poor guide for the design of policy. We simply do not know whether the regulations are resulting in an improved allocation of resources or not. Without such a clear basis for judging that measures would lead to efficiency improvements, a less interventionist approach should be pursued for (especially) the regulation of interchange.

But let me put that caveat to one side and just consider the results from the paper in its more narrow context.

Main Findings

As I see it, the three central findings from the paper that may be most relevant to the Review are:

- Cash is the least costly instrument for transactions of up to around \$50 in value.
- The difference in resource costs for the payment function of credit (and presumably scheme debit) cards and EFTPOS is between about 30 and 50 cents depending on transaction size. It is around 40 cents for a \$100 transaction.
- BPAY and direct debit involve fewer resource costs than scheme cards for non-point-of-sale payments.

Cost of cash

The result that I found most surprising was that cash involved fewer costs than EFTPOS for transactions up to \$50 in value,⁵ and than credit cards for transactions over \$100 in value.⁶ In part, I think that my surprise results from the research only focusing on the costs side of the equation. Personally, I rarely use cash for transactions over about \$20 in value and I think that the reasons that I do not use cash for higher valued transactions relate to convenience and security.

⁵ This assumes the use of 'Approach 1' – it is \$100 in value using 'Approach 2'.

⁶ Only the estimated costs for the payment function of credit cards are considered here.

On *convenience*, the survey evidence reported in the paper indicates that individuals make an average of eight cash transactions between trips to the ATM, and most of these trips are incidental to their daily business. This evidence seems reasonable although, for me, it applies to a situation where my average transaction size when using cash is much lower than the averages presented in the paper. I already find cash handling to be a minor irritant and that would become more so if I were to use cash for either \$50 or \$100 transactions.

The *security* issue raises a more fundamental, conceptual point with the paper, namely what is a cost and what is a benefit? The risk of losing cash for individuals or petty theft for merchants is not included in the estimates. Implicitly, these are treated as benefits rather than costs. In contrast, the costs of fraud and fraud prevention are included for scheme cards (and in a more muted form, for EFTPOS).

Intuitively, it would seem to me that the *net* costs associated with theft and/or loss for cash are higher for cash than for electronic payments, but this is not reflected in the results for resource costs in the paper.

EFTPOS versus scheme cards

The issue of the relative (resource and user) costs of using EFTPOS versus scheme cards has been a particular focus of the Board's attention. Because of the way that the data have been compiled, most of the information provided in the report is presented in the form of costs per transaction rather than adjusted for transaction size. However, for the purposes of the Review, the relevant comparisons should analyse the costs and benefits of using different instruments for a common transaction. Hence, the (summary) material in Section 7 is the most relevant for the Review.

The gap between the resource costs for using a credit card for payment purposes and EFTPOS – the most relevant point of comparison – varies between about 30 cents on a \$20 transaction to 50 cents on a \$200 transaction (see Table 14). For a \$100 transaction the gap in estimated costs is 40 cents.

In part the gap reflects differences in tender time – how long it takes to make a transaction at the till using EFTPOS versus a credit card. To the extent that this is an issue, the obvious solution would be for credit cards to make use of PINs rather than rely on signatures, something that the marketplace may deliver.

Most of the rest of the gap is accounted for by a combination of:

- scheme fees;
- costs of fraud and fraud prevention;
- IT costs; and
- marketing costs.

In each case, the estimates of the costs are intimately dependent on how the authors – or those being surveyed – attribute costs in the context of services that are being jointly produced and offered as bundles of services. Any attribution in these circumstances will be problematic.

In addition, there are reasons to believe that the approach will artificially widen the gap between the estimated resource costs for EFTPOS and scheme cards. Three examples may help to illustrate why this may be the case.

Firstly, direct marketing costs for transaction accounts will be low because the services tend to be offered as part of broader packages. In particular, consumers' selection of which bank to use as their primary banking relationship is often related to where they hold a mortgage or, less frequently, where their employer deposits their pay. Decisions related to the use of transaction accounts will form part of this wider decision.

In addition, switching between primary banks is relatively low. There is little incentive for financial institutions to heavily promote transaction accounts *per se* but, instead, they will use more generic forms of marketing to support the broader relationships.

- In contrast, it is easy to switch between credit card providers. Marketing specifically related to credit cards then becomes important.⁷
- As a consequence, a financial institution's marketing costs that are identified in the survey used by the authors as directly relevant for transaction accounts are likely to be understated relative to those identified for scheme cards.

Secondly, the greater functionality of scheme cards complicates any comparison. For example, the wider range of outlets at which scheme cards can be used requires additional fraud prevention expenditure whereas fraud control related to EFTPOS will tend to be subsumed within a bank's overall budget.

The final example of the difficulty in attributing costs relates to scheme fees. In a sense, the card schemes represent an outsourcing of services that could be carried out in-house (as in the case of EFTPOS). The costs associated with the outsourcing are clearly identified while many of the comparable in-house costs will be hard to separate given that they are produced jointly with other services:

- Indeed, the RBA estimates do not identify a comparable in-house cost to the scheme fees for EFTPOS.

To illustrate the nature of the problems that arise in trying to identify comparable costs, consider the trend to using outsourced services in many parts of the economy. It is hard to conceive how the methodology that has been employed in the paper would have supported, for example, Westpac's decision to outsource some of its IT systems to IBM. This decision was presumably taken on the basis of reduction in in-house IT services, plus a recognition that there was expertise and support within IBM that may be difficult to duplicate in-house. Neither factor, however, is likely to be fully captured in a survey along the lines conducted here.

BPAY and direct debit

One of the reasons why card schemes are attractive to consumers is that cards can be readily used at many more outlets, both domestically and internationally, than can EFTPOS. These benefits increase the attractiveness of scheme cards to consumers and, in turn, make it attractive

⁷ *Indeed, the marketing of cards will form part of a bank's broader marketing program and may even generate indirect benefits for the profitability of the bank's transaction accounts.*

for financial institutions to support them as part of their offerings on transaction accounts. This makes it easier for card schemes to compete in other areas.

The cost estimates outlined in the RBA paper, however, imply that financial institutions will have an incentive to continue to support and promote BPAY and direct debit, thereby further increasing competition across platforms. While the magnitude of the effect is not certain – and, as I have said, the costs identified here are only one part of the full picture – this should place some downward pressure on merchant service fees (and interchange fees) in all payments.

Conclusion

Let me reiterate the point I made at the outset, namely that the data and analysis that are presented in these papers represent a significant enriching of our understanding of how Australia's retail payment systems operate. This will provide a much more solid base for future research on a range of related issues.

Also, as I have said, the findings need to be treated very carefully from the perspective of the 2007-08 Review into the regulation of the retail payments system. To the extent that they are relevant, however, the conclusion that I draw is that they lend some support to the proposition that a more light-handed regulatory regime should be adopted, especially with regard to interchange regulation. I base this conclusion on two observations:

- The likelihood that cost considerations will see the growth of other electronic payment platforms continuing to assume a stronger competitive position in the non-point-of-sale space.
- The fact that the gap between the resource costs for EFTPOS and card schemes is estimated to be around 40 cents for a \$100 transaction, a figure that is much lower than the estimates in the earlier ACCC/RBA Joint Study. Indeed, for reasons alluded to above, even the 40 cent figure looks to be an overestimate of the gap and a value closer to the 10-20 cent range we found in our earlier – albeit more rough and ready – work may be close to the mark.

Given these estimates do not take into account the additional functionality that card schemes entail compared with, in particular, EFTPOS, it hardly seems to be a strong basis for regulatory intervention.

References

Harper, I, A Lancy and R Simes (2006), 'Costs and Benefits of Alternative Payments Instruments in Australia', Melbourne Business School Working Paper No 2006-08.

RBA and ACCC (2000), 'Debit and Credit Card Schemes in Australia: A Study of Interchange Fees and Access', October.

3. General Discussion

The discussion in this session focused primarily on the Reserve Bank's study of payment costs in Australia.

It was generally acknowledged that the study provides a comprehensive picture of the costs of Australia's main payment systems. A recurring theme of the discussion, however, was the *scope* of the study. In particular, it was noted that the study does not consider the economic benefits of the various payment methods. Some specific examples of these benefits were cited, including the ability to use scheme debit online and overseas, and the credit functionality of credit cards. It was noted that there may also be external benefits associated with particular payment methods; electronic tolls, for example, provide a benefit of faster clearance for all drivers, even those paying by cash.

Although it was accepted that benefits must also be considered in any assessment of efficiency, it was noted that some of these benefits are difficult to measure. It was suggested that the results from the study of payment patterns might provide some evidence by revealing actual choices of consumers in particular circumstances.

There was also considerable interest in the costs of cash and, in particular, whether the study underestimated them. For example, the cost of theft might not have been adequately captured in the study. Furthermore, it was noted that there are social costs associated with cash – including cash-related criminal activity and the informal economy – that potentially make cash a costly payment instrument for society.

Discussion of credit card transactions focused on the significant costs incurred by issuers of credit cards. It was noted that, if there were no interchange fees, issuers would need to recover these costs directly from cardholders which could lead to a substantial increase in the cost of holding and using credit cards and potentially large changes in consumer behaviour.

The methodology of the study was also discussed. It was noted that attributing the costs of establishing and maintaining a banking relationship to specific payment methods can be difficult. Mr Schwartz acknowledged that the bundling of services presented a challenge to measuring costs but noted that the study did offer guidance on the allocation methods used.