



CHAPTER 2: COLLECTIVE SETTING OF WHOLESALE FEES

2.1 Introduction

The Bankcard, MasterCard and Visa credit card schemes in Australia have wholesale fees, known as “interchange fees”, that are paid to the issuer of the card by the acquirer whenever a merchant accepts that credit card for payment. In each of the schemes, the fees for domestic transactions (ie transactions between two Australian members) are set collectively by their Australian members. Interchange fees are a feature of four party credit card schemes in all countries.

Current credit card interchange fees for domestic transactions, the dates from which they were applicable and the previous fees, where known, are shown in Table 2.1. The international card schemes have a two-tier fee structure: an “electronic” rate applies when a transaction is undertaken at an EFT terminal, the card is present and the cardholder signs for the transaction, while a higher “standard” rate applies for all other transactions. These two-tier fee structures are the same for both schemes. Bankcard, in contrast, applies the same interchange fee for all transactions.⁵

Table 2.1: Credit card interchange fees (excluding GST)
per cent of transaction value

	Current standard rate	Current electronic rate	Previous rate
Bankcard	1.2 (1974)	1.2	not applicable
MasterCard	1.2 (1993)	0.8 (1993)	not available ⁶
Visa	1.2 (1993)	0.8 (1993)	1.0 (standard) 0.6 (electronic)

Source: Bankcard, MasterCard and Visa.

5 Bankcard’s members agreed in 1996 to introduce an electronic rate of 0.8 per cent. This rate is scheduled for implementation on 1 December 2001.

6 MasterCard and its Australian members have been unable to provide records of the rates charged prior to 1993.



Acquirers pass on interchange fees to their merchants through the merchant service fee, which also includes a margin, almost always calculated as a percentage of the value of the transaction, to cover the costs of providing acquiring services. Under the “no surcharge” rule imposed by the international card schemes, which is discussed in the next Chapter, merchants are not free to pass on the merchant service fee to credit cardholders. Instead the fees, like other input costs, are passed onto all customers through the prices of goods and services. Hence, although acquirers pay interchange fees, the *economic incidence* of the fees does not fall on acquirers but on the community as a whole through the general level of prices.

Interchange fees are a significant component of revenues from credit card issuing. The Joint Study found that the average interchange fee received by issuers in 1999 was 0.95 per cent (and interchange fees currently generate revenues of around \$775 million a year to issuing banks). Revenue from this source accounted for about one-third of total issuing revenues (Table 2.2). The other two-thirds of total issuing revenues is generated by cardholders who make use of the revolving line of credit (“revolvers”), that is, who do not pay off their accounts by the end of the interest-free period. Preliminary data from the Reserve Bank’s new payments system collection indicate that about three-quarters of credit card outstandings are interest-bearing. Credit cardholders who use the credit card purely as a payment instrument (“transactors”), that is, who pay off their balance by the end of the interest-free period, make only a very small contribution to total issuing revenues, mainly through annual fees.

Table 2.2: Direct contributions to issuing revenues
per \$100 transaction, 1999

	\$	%
Revolvers ^a	1.64	61.2
Transactors ^b	0.10	3.5
Merchants ^c	0.95	35.3
Total revenues	2.69	100.0

a Interest payments plus 75 per cent of revenue from annual fees and other sources.

b 25 per cent of revenue from annual fees and other sources.

c Interchange fee revenue.



The Joint Study found that interchange fees in Australia are not reviewed regularly by credit card scheme members on the basis of any formal methodologies. It also found that the fees are higher than the costs incurred by issuers in providing credit card payment services to merchants and that – because of barriers to entry to the schemes – competition does not seem to be bringing these fees into line with costs. The Joint Study concluded that credit card interchange fee arrangements in Australia are contributing to a structure of incentives that has encouraged the growth of the credit card network at the expense of more economical payment instruments. In its separate enforcement action, the ACCC reached the conclusion that the arrangements for collective setting of interchange fees were in breach of the price-fixing provisions of the *Trade Practices Act 1974*, because they had the effect of controlling or maintaining another price (the merchant service fee).

This Chapter considers whether the arrangements for collective wholesale fee setting in the designated credit card schemes are in the public interest. As background, it introduces some basic concepts in the economics of networks. Next, it reviews the justifications for interchange fees in credit card networks and the argument that card scheme members, acting in their own self-interest, will set interchange fees that maximise the community's welfare. The Chapter then provides a set of principles that, in the Reserve Bank's opinion, need to be met if interchange fee arrangements in credit card schemes are to be accepted as being in the public interest. Various proposals by the card schemes and their members to improve interchange fee-setting practices are assessed against these principles and are judged to fall short in important respects. Accordingly, the Reserve Bank has decided to determine a standard for the setting of credit card interchange fees in Australia to enhance the efficiency and transparency of the price mechanism. The draft standard is discussed in the concluding section.

2.2 The economics of networks

The designated credit card schemes are examples of networks. A network is simply a collection of participants that are connected to each other; well-known examples are telephone systems, the Internet and payment systems.⁷ A defining characteristic of a network is that it involves a number of participants that all benefit from the participation of others. In a four party credit card scheme, for example, the issuer and the acquirer are both needed to produce the credit card transaction, and the cardholder and the merchant jointly consume it. If any one participant is absent, the transaction will not occur.

7 Payment networks are discussed in detail in Reserve Bank of Australia and Australian Competition and Consumer Commission (2000), pp 23-31.



Network effects arise when an individual user values the system more highly as the number of users of the system increases. Since individual merchants and cardholders can benefit from an expanding network, credit card schemes generate network effects for these users. An individual merchant can benefit from the take-up and use of credit cards if it enjoys more sales and higher value sales, and if its customers switch from payment instruments that are more costly to the merchant. An individual consumer can benefit as more merchants accept cards because cards can be used at more places, reducing the need to carry cash and increasing access to purchases that can be made on credit. On this basis, a larger network is preferable for participants to a smaller network. For equivalent services at equivalent prices, consumers and merchants would be expected to prefer participation in a larger credit card network than a smaller one. Product differentiation, however, means that credit card networks of varying sizes can exist at the same time.

Beyond a critical mass, it is possible that network effects diminish as a network gets larger. Katz, for example, notes that once a network has become established, its viability may become less sensitive to small changes in its size, and hence it may need to do less to promote growth in membership.⁸ Leibowitz and Margolis similarly conclude that some network effects are exhausted at the margin. They provide the example of the marginal benefits to other households of increasing the number of households that own a particular type of video recorder, and argue that they “are likely exhausted now that businesses that rent videotapes are about as prevalent as ones that sell milk.”⁹

2.3 The justification for credit card interchange fees

The cost sharing argument

Most submissions to the Reserve Bank have noted that the theoretical rationalisation for interchange fees has its origins in an article by Baxter, written more than ten years after interchange fees were introduced in four party credit card schemes in the United States.¹⁰ The basis of Baxter’s analysis is that a transaction will not occur unless it provides a net benefit to each of the parties involved. In payment systems involving the participation of four parties, this may require “side payments” (such as interchange fees) between the merchant’s bank and the cardholder’s bank if either of these banks is unable to recover its costs directly from its client. Provided

8 Katz (2001), p 14.

9 Leibowitz and Margolis (1994), p 140.

10 Baxter (1983). Baxter’s rationale was accepted by the US courts in the Nabanco case in 1983 as supporting the argument that interchange fees are not necessarily anti-competitive.



the “pooled” willingness of merchants and consumers to pay meets the total costs of the system, the transaction can be facilitated with side payments structured to ensure that there is a net benefit (or at least, no net cost) to all the participants in the transaction.

Though providing a theoretical justification, Baxter’s analysis was silent on the direction in which an interchange fee would flow. That would depend on the relative willingness of cardholders and merchants to pay for credit card transactions, and the relative costs of issuers and acquirers. If credit card issuing would not be profitable at prices cardholders would be willing to pay, but credit card acquiring would be profitable at prices merchants would be willing to pay, it may be possible to make both activities profitable through an interchange fee paid by acquirers to issuers. However, Baxter’s analysis does not establish that the interchange fee would be set collectively by a scheme at the economically efficient level.¹¹

The role of the interchange fee as a balancing device is central to the arguments of the credit card schemes and their members.¹² However, as discussed below, the credit card schemes have not provided any empirical estimates of the demand curves of merchants and cardholders for credit card services, or of the supply curves of credit card issuers and acquirers, that would provide the basis for determining an interchange fee consistent with the Baxter analysis.

Network externalities argument

Another justification for an interchange fee, which has appeared only recently, emphasises its role in internalising *network externalities*.¹³ Network externalities are a class of network effects that arise when market prices do not fully capture the consequences of the actions of one economic agent on another economic agent. In these circumstances, economic agents may not take into account the effects of their actions on others, resulting in a level of community welfare lower than it might otherwise be.¹⁴ The network externalities argument builds on the Baxter analysis.

11 Katz (2001), p 25.

12 MasterCard, for example, argues that “the interchange fee is ... an efficient arrangement to balance the costs and benefits of credit card transactions in the open system between issuers and acquirers, and thereby the cardholders and merchants”. MasterCard International (2001), p 38. See also Bankcard (2001b), p 1.

13 MasterCard International (2001), Visa International (2001a) and Australian Bankers’ Association (2001b).

14 See Leibowitz and Margolis (1994) and Varian (1984), p 259, for some definitions of externalities.



Submissions to the Reserve Bank have argued that, in the absence of interchange fees in a credit card scheme, the prices which card issuers would need to charge cardholders to cover their costs would not reflect the net social benefits of participation in the scheme. Potential cardholders facing these prices would not take into account the benefits to others if they were to join and have no reason to do so, even though it would be beneficial to all the scheme's participants if they did. Interchange fees paid by acquirers to issuers could ensure that these unrealised benefits or externalities are captured ("internalised") by allowing issuers to reduce the prices they charge cardholders – that is, the interchange fees allow issuers to "subsidise" cardholders. In this way, cardholders would face not the private cost of using a credit card, but the social cost (that is, the cost to the issuer when the card is used less the benefits both to cardholders and merchants when cardholders join the scheme and use the card). The subsidy would therefore encourage consumers to take up cards and use them, expanding the scheme to the benefit of merchants and existing cardholders. Merchants would pay a price for credit card services above the costs incurred by acquirers but would do so willingly, it is argued, to ensure that they can enjoy the benefits of a larger credit card network.

The existence of network effects in credit card schemes is clear. However, whether these effects are externalities, which would not be realised without the unusual device of an interchange fee, remains controversial.¹⁵ The existence of network externalities would require that there are net social benefits to the growth of credit card schemes that would not be captured in competitive market prices. Proponents of the externalities argument focus on what they claim to be two main benefits which credit card networks provide to merchants:

- lower transaction costs with credit cards; and
- increased sales.

Transaction costs of credit cards

A number of submissions have asserted that credit cards lead to lower transaction costs for merchants compared to cash and other payment instruments.¹⁶ However, no supporting evidence is provided for this assertion; the available evidence is to the contrary.

A priori, if credit cards were more attractive for merchants than other payment instruments (taking into account both costs incurred and benefits provided),

15 Leibowitz and Margolis argue that "[w]hile network effects are common and important, network externalities as market failures ... are theoretically fragile and empirically undocumented." Leibowitz and Margolis (1994), p 135.

16 Australian Bankers' Association (2001b), Australia and New Zealand Banking Group (2001c), Westpac Banking Corporation (2000).

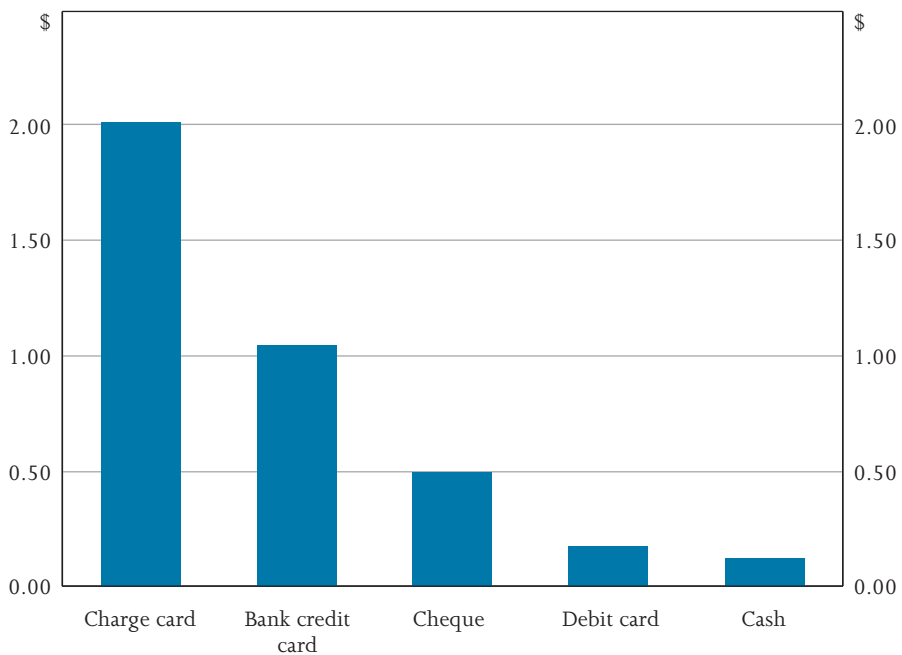


merchants would be expected to encourage the use of credit cards by offering a discount to credit cardholders. What is observed, if anything, is the opposite – ie discounts for cash – undermining the claims of substantial net benefits for merchants at current merchant service fees.

There are no data on net benefits to merchants but the Australian Retailers Association (ARA) has argued that credit cards are one of the most expensive payment instruments for merchants to accept. It surveyed a number of its members, representing a mix of retail spending and store size, about various payment instruments and their costs.¹⁷ Costs included staff time at check-out, cash handling, other staff processing time, collection, security and bank fees (including cash deposit costs); charge cards issued by American Express and Diners Club are separated from bank-issued credit cards.¹⁸

The results of this survey are shown in Figure 2.1, which gives the absolute costs of different payment instruments. A credit card transaction costs the merchants

Figure 2.1: Payment costs to Australian retailers



Source: Australian Retailers Association.

17 Australian Retailers Association (2001b).

18 The data on charge cards also include the cost of store cards.



surveyed an average of \$1.04 per transaction, over six times as much as a debit card transaction. The lowest cost payment instrument is cash, at around \$0.12 per transaction. Charge cards cost about twice as much as credit cards. However, these comparisons do not take into account the differences in the average value of transactions undertaken with the different payment instruments, which are shown in Table 2.3.

Table 2.3: Average transaction values
\$

Cash	17
Cheque	35
Bank credit card	55
Debit card	57
Charge card*	69

* American Express, Diners Club and some store cards.
Source: Australian Retailers Association.

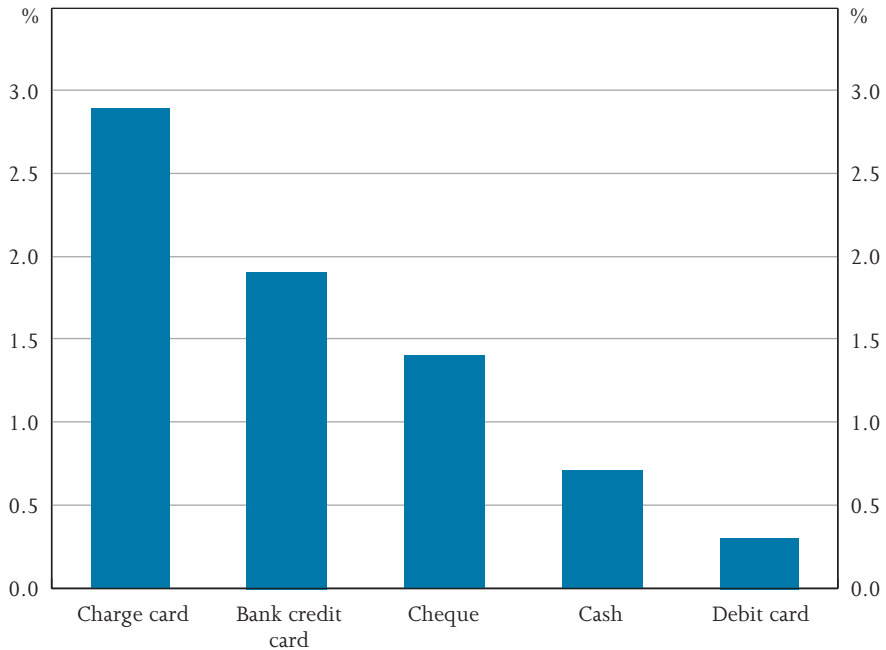
The costs of the different payment instruments, taking into account the average value of transactions undertaken with each instrument, are shown in Figure 2.2. On this measure, credit card transactions cost over twice as much as cash and still around six times as much as debit cards.¹⁹ Even the labour-intensive cheque costs the retailer less to accept than a credit card transaction.

The difference in the costs of the various payment instruments is most pronounced when high-value purchases are considered. Merchant service fees for credit and charge cards are *ad valorem* fees, so merchants' costs of accepting these cards rise in

19 Debit card costs include any rebates that large retailers may receive, and hence understate the processing costs to retailers of a debit card transaction. According to information from the ARA, the processing cost of debit cards for the sample of merchants in Figures 2.1 and 2.2, abstracting from any rebate, is around \$0.20 or 0.4 per cent of the average transaction value. For small merchants that might pay a merchant service fee of as much as \$0.80 per debit card transaction, the cost of accepting debit cards is higher than indicated in these figures. The costs of accepting credit and charge cards are also typically higher for small merchants.



Figure 2.2: Payment costs to Australian retailers
percentage of average transaction value



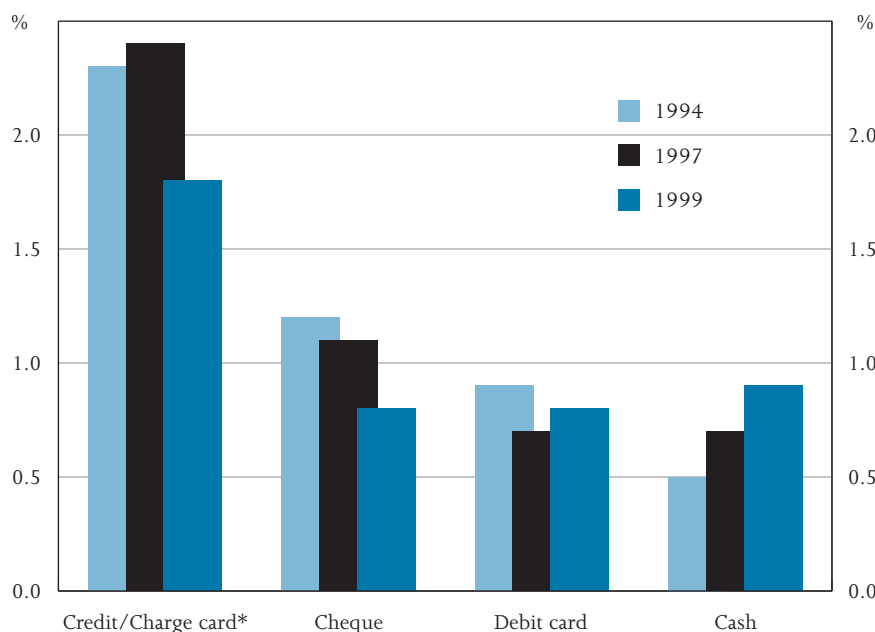
Source: Australian Retailers Association.

absolute terms with the value of the transaction. For debit cards and cash purchases, on the other hand, merchants' costs are largely unaffected by the size of the transaction. On the basis of the ARA data, for example, the purchase of a \$1 000 item would cost a merchant \$29 if paid with a charge card and \$19 with a credit card. If paid by debit card, however, the transaction would cost up to \$1 for a small retailer and as little as \$0.17 for a large retailer. The transaction would cost only \$0.12 if paid by cash.

The evidence for Australia is supported by data from studies of food stores in the United States, undertaken by the Food Marketing Institute (FMI). Figure 2.3 shows the cost of various payment instruments, as a proportion of average transaction value, for the three FMI studies using data for 1994, 1997 and 1999. On this evidence, a credit/charge card transaction in the United States costs around twice as much as a cash or a debit card transaction.



Figure 2.3: Payment costs to US retailers
percentage of average transaction value



* The FMI studies do not provide a breakdown between credit and charge cards.

Source: Food Marketing Institute (1994, 1998 and 2000).

Merchant sales and credit cards

A number of submissions have also asserted that merchants benefit from credit cards because credit cardholders make "... more purchases, larger purchases and in some cases, new types of purchases."²⁰

It is essential that the assertion of network externalities associated with higher merchant sales be stated correctly. Higher sales on credit cards for individual merchants do not, of themselves, give rise to overall merchant benefits if:

- those sales would have taken place anyway using other payment instruments; or
- the sales have merely diverted business from one merchant to another.

20 Visa International (2001a), p 21. See also Australian Bankers' Association (2001b) and (2001c), Australia and New Zealand Banking Group (2001c) and American Express (2001).



If a customer who would otherwise have used a debit card when visiting their normal merchant undertakes a transaction on a credit card to gain loyalty points, the merchant gains no additional sales, but incurs higher transaction costs. If the customer switches to a different merchant because it accepts credit cards while rivals do not, that merchant will gain additional sales but merchants as a group will not. The network externalities argument requires that credit card usage leads to a permanent increase in sales in the economy as a whole. Assuming that what applies to an individual merchant also applies to merchants as a whole would be a simple but fundamental “fallacy of composition”.

None of the submissions asserting network externalities has provided any evidence of a permanent economy-wide increase in sales from credit card usage. The Australian Bankers’ Association (ABA), for example, has stated that studies of the effects of credit cards on sales no longer exist or are not in the public domain.²¹ Visa has asserted that credit cards lead to new and higher merchant sales, although the new uses it cites – grocery, utility, telephone and Internet payments – may simply represent substitution from other payment instruments or different sales distribution channels. Consumers, for example, are unlikely to purchase more groceries or use more electricity because they are paying by credit card. Visa has also claimed that data on the average value of a credit card transaction show that people spend more on credit cards.²² This claim is not supported by data provided to the Reserve Bank by the ARA, and separately by some major retailers. As shown in Table 2.3 above, the average value of a credit card transaction is much higher than the average cash transaction, but little different from a debit card transaction.²³

- 21 “The impact of accepting credit cards on a merchant’s revenue and profits was studied and validated in the 1970’s and 1980’s; those studies no longer exist. Current efforts have been focussed on assessing the merchant benefits of accepting credit cards for new and evolving markets – hypermarkets; utilities; government payments. This work is not in the public domain.” Australian Bankers’ Association (2001c), p 8.
- 22 Visa International (2001b), p 28. Elsewhere, Visa has claimed that credit card use under a no surcharge rule leads to an increase in merchant sales and, because of economies of scale, to lower retail prices for the benefit of all consumers, not just credit cardholders. Visa International (2001a). Katz has dismissed this assertion as “... a seriously flawed argument which fails to recognize that, to the extent card use merely diverts sales among merchants, it has no effect on aggregate sales and the realization of economies of scale.” Katz (2001), pp 41-42.
- 23 These data differ from the average transaction values derived from the Reserve Bank’s Transaction Cards Statistics Collection, which give the average value of a credit card transaction at around \$110 and that of a debit card around \$60. The difference is most likely due to sampling. The ARA survey covered a group of retailers for which big ticket credit card sales are a relatively small share of sales. The Reserve Bank’s data averages all credit card transactions, including big ticket purchases such as home furnishings and travel, that cannot be made on debit cards because of transaction limits imposed by issuers. The data also include cards used for business purposes which have a higher average transaction value.



The difference in average transaction values may reflect a number of factors. First, it is consistent with the fact that consumers use different payment instruments for different types of purchases; small items such as milk and bread will tend to be purchased with cash while more expensive items, such as white goods, tend to be purchased using a credit card or other non-cash instrument. Using a credit card rather than cash is unlikely to result in more milk and bread being consumed. Secondly, if credit card users are more likely to come from higher income groups,²⁴ the higher average expenditure on credit cards may simply reflect the higher income of their users, who would be expected to spend more no matter what payment instrument they use.

The argument that credit card usage leads to higher merchant sales is, equivalently, an argument that credit card usage leads to higher consumption. Proponents of the externalities case have claimed that credit cards, by offering cardholders a “buy now, pay later” facility, enable them to enjoy a higher level of consumption.²⁵ Again, however, it is essential that the network externalities argument be correctly stated: credit card usage must result in a *permanent* increase in consumption for society as a whole. A consumer going into debt – credit card or otherwise – to purchase an item now must pay interest and repay the principal in the future; in so doing, the consumer’s future disposable income and consumption expenditure will be reduced.

There is a considerable body of economic literature on the determinants of aggregate consumption. This literature acknowledges that the availability of credit may alter consumption patterns by enabling consumers to smooth their consumption expenditure over time; this in itself can be of benefit to the economy but it is a characteristic of credit generally, not just credit cards. Fundamentally, however, consumption is determined by expected income and “wealth”, which is determined by the economy’s productive capacity. Consumption now at the expense of savings reduces the level of wealth and future income flowing from that wealth; this, in turn, constrains consumption in the future. The notion of “mortgaging the future” is a real world recognition of this point. The economic literature is summarised by Katz, who concludes that the claim that credit card use leads to a permanent and significant increase in aggregate consumption “is ill founded.”²⁶

24 There is some evidence for this. See Reserve Bank of Australia and Australian Competition and Consumer Commission (2000), p 16.

25 Visa International (2001a), Australian Bankers’ Association (2001b) and (2001c), Westpac Banking Corporation (2000).

26 Katz (2001), p 11.



None of the submissions has provided any evidence supporting the assertion of network externalities in consumption. The ABA cites three academic references but these do not demonstrate that the provision of credit leads to a permanent increase in consumption. In a research report commissioned by Visa for another purpose, KPMG offers the observation that “[t]he period over which credit card debt has expanded most significantly in Australia (ie the last ten years) has also been a period of sustained growth in household consumption and Gross Domestic Product.”²⁷ This says nothing more than that a number of economic variables have been on a strong upward trend; it says nothing about causality. Elsewhere, however, the KPMG report concluded that credit card debt could have an impact on the economy’s savings only if used as a source of long-term finance and that this impact would be marginal.²⁸

A comprehensive study of the impact of credit cards on consumption was undertaken by the Board of Governors of the US Federal Reserve System in 1983, as input to Congressional consideration of a law that encouraged price discounts for cash.²⁹ The Board examined whether credit cards cause overall spending to be larger than would otherwise be the case, or primarily affect the timing or composition of consumer spending. Though the study itself is dated, the issues remain relevant. It noted that “if card use has no appreciable impact on total spending, then retailers as a group would realize no net sales gain to offset the industry-wide costs of honoring credit cards. Of course, merchants who do honor credit cards might gain sales from those who do not accept them, but that situation becomes less likely as credit cards reach a mature stage of development and retailer acceptance of credit cards becomes widespread.”³⁰ The Board looked at microeconomic evidence, in the form of a household survey of unplanned purchases, and macroeconomic evidence on the relationship between credit card use and savings rates. It concluded that “[o]n the whole, the household survey... as well as existing macroeconomic research provide little grounds for believing that credit cards generate incremental sales in sufficient volumes to offset credit card costs to any measurable degree.”³¹

In the Reserve Bank’s opinion, arguments that credit card schemes generate network externalities are unconvincing. In the first place, although credit cards clearly provide benefits to individual cardholders and merchants, the benefits to cardholders and

27 KPMG Consulting (2001), p 40.

28 *ibid*, p 42.

29 Board of Governors of the Federal Reserve System (1983).

30 *ibid*, pp 22-23.

31 *ibid*, p 31.



merchants as a whole are overstated. No evidence has been provided that credit card usage reduces transaction costs for merchants as a whole. Nor has evidence been provided that credit card usage leads to a permanent increase in sales for merchants as a whole, or, equivalently, a permanent increase in aggregate consumption. The evidence that is available contradicts this assertion. The claim that credit cards allow consumers to spend more than they would otherwise has merit, but only at the level of the individual consumer and only over the short run. And, of course, that claim loses force to the extent that credit cardholders do not make use of the revolving credit facility but settle their account in full each month, or on a reasonably regular timetable.³²

Secondly, even if there are potential network externalities in credit card schemes, an interchange fee may not be the only way to internalise them. For some of these effects, the price mechanism itself may achieve the same outcome, through differential pricing by merchants. If merchants did indeed benefit from credit card use through lower transaction costs, they would encourage customers to use credit cards rather than other payment instruments by offering a price discount to credit cardholders. In responding to the differential prices, consumers would take into account not just their own costs and benefits but also those of merchants; the price mechanism would ensure that the benefits received by merchants were passed through to consumers (ie were internalised).³³ Likewise, if merchants faced higher transaction costs from credit card use (after allowing for any merchant benefits), they would have an incentive to reduce credit card use relative to other payment instruments through charging a higher price to credit cardholders; consumers would again confront the social costs of using different payment instruments. Differential pricing may therefore allow the market to internalise effects that would otherwise be externalities.³⁴ The issue of merchant pricing is taken up in the next Chapter.

Thirdly, it is necessary to consider how any externalities would be affected as a network increases in size. Visa has argued that:

“there is nothing in the theory of interchange that suggests that just because a market is mature it will no longer be subject to network

32 The KPMG report estimates that 68 per cent of credit card users pay off their credit card debt in full at least once a year. It also notes that the turnover rate of debt has increased since the mid 1990s, indicating that “[c]redit card debt is becoming shorter in nature.” KPMG Consulting (2001), p 19.

33 Frankel (1998), Gans and King (2001a) and Katz (2001) all recognise this as an alternative way of “internalising” externalities.

34 Katz (2001), p 21.



externalities. Adding a cardholder to the network provides benefits to merchants, whether it is the first cardholder or the last cardholder to join the system. Similarly, when an additional merchant decides to accept credit cards this provides additional benefits to cardholders, even if there are already a large proportion of merchants in the network.”³⁵

Economic analysis casts doubt on whether these effects are significant. For example, two earlier articles sponsored by Visa concluded that network externalities can decline to zero as a network expands. Chang, Evans and Schmalensee note that “... just as economies of scale do not generally persist at all levels of output, in many networks the importance of network externalities falls with network size. At some point, we would expect that additional network efficiencies from new members would fall to zero. It is hard to imagine that the Visa and MasterCard systems would gain anything at all from having one more New York bank join their systems, for instance, even though the addition of the first such bank might well have had profound network externalities.”³⁶ Evans and Schmalensee make the same point, adding that “[t]he natural limits on network externalities together with product differentiation explain why multiple networks can survive in the same industry. Payment cards illustrate this ...”³⁷ In the specific case of credit card networks, Katz has noted that “[i]t is possible that, at a sufficiently high level of membership on either the merchant side or the cardholder side, marginal changes in membership generate smaller or no benefits to other parties. For instance, to the extent that the incremental merchants on a network are substitutes for merchants already on the network, the value to a cardholder from having additional merchants accept cards very likely diminishes as the number of merchants increases.”³⁸

Finally, the pricing behaviour of credit card schemes does not appear consistent with their stated objective of maximising benefits to cardholders and merchants by maximising network size. In Australia, credit cardholders face a positive price to access the network, in the form of annual fees, but many cardholders face a negative price for use of the network, in the form of loyalty points and interest-free credit, even though the marginal cost of a credit card transaction is positive. A pricing strategy that would encourage credit card holding as well as use would be similar to that used by mobile phone companies. It would involve credit card schemes

35 Visa International (2001a), p 15. See also Australian Bankers’ Association (2001b) and Frontier Economics (2001).

36 Chang, Evans and Schmalensee (1998), p 314.

37 Evans and Schmalensee (1999), p 153.

38 Katz (2001), p 14.



heavily subsidising consumers to join, just as mobile phone companies have subsidised the sale of handsets; by lowering the fixed cost of joining, credit card schemes could expand their membership and raise revenue by charging transaction fees on the basis of usage. Under this pricing structure, cardholders who use the system most would contribute most to the cost of running it.

The pricing structure of the credit card schemes is the reverse of this. Katz notes that:

“... economic analysis indicates that, when there are significant network effects, charging below-cost annual fees is a more effective means of encouraging cardholding than is paying rebates or charging below-cost transactions fees. This finding suggests that either the associations and their members have been unable to implement strategies to pursue their objective of encouraging membership, or below-cost pricing is driven by considerations other than internalizing network effects to promote cardholding (e.g., the pricing might be used to promote excessive card use and thus increase issuer profits).”³⁹

2.4 Interchange fees and economic welfare

The previous section analysed the theoretical justifications for interchange fees in credit card schemes. From the public interest viewpoint, a related and equally important issue is whether profit-maximising credit card scheme members, acting collectively, will have an incentive to set an interchange fee at approximately the level that maximises economic welfare (ie is “socially optimal”).

In standard economic models of markets with perfect competition, the pursuit of profit maximisation by individual firms generates a set of market prices that enable consumers to make efficient decisions; in this way, economic welfare is maximised. In recent years, formal economic models have been developed to assess the conditions under which the collective setting of interchange fees, by credit card scheme members pursuing their own self-interest, will produce outcomes that also maximise economic welfare. This work, which has been sponsored by Visa, is best represented by the models of Schmalensee and of Rochet and Tirole.⁴⁰ The models are cited as providing a theoretical underpinning for claims that credit card interchange fees are as close to optimal as could be expected.

Schmalensee’s model shows that an interchange fee determined by scheme members will not only maximise usage of the credit card system (and system

39 Katz (2001), pp 48-49.

40 See Schmalensee (2001) and Rochet and Tirole (2000).



profits) but also economic welfare. Schmalensee compares the interchange fee that maximises total issuer and acquirer profits with the fee that would maximise a measure of economic welfare. Under certain specific conditions – a monopoly issuer, a monopoly acquirer and linear demand functions for consumers and merchants – profit maximisation is shown to maximise card use and Schmalensee’s measure of economic welfare.

In reviewing Schmalensee’s model, Katz has drawn attention to the measure of economic welfare on which his results are based. Schmalensee adopts the assumption that merchant willingness to accept cards can be taken as a measure of the social benefits of credit cards. But, as has already been established, this may be a very misleading measure of economic welfare because summing up individual merchants’ willingness to accept credit cards, without accounting for the impact on rival merchants, overestimates the benefits of card use to merchants as a group. Katz shows that the mismeasurement of welfare in Schmalensee’s model overstates the benefits of card use by 100 per cent and therefore errs toward supporting interchange fees that encourage excessive card use. Katz’s conclusion on the Schmalensee model is that it “... does not provide a rigorous basis for concluding that privately set interchange rates will be efficient.”⁴¹

In the Rochet and Tirole model, the optimal interchange fee is zero if issuing and acquiring are perfectly competitive. However, when issuers are less than perfectly competitive, the model shows that an interchange fee can promote efficiency. It does this not by internalising network externalities but by inducing issuers to reduce their fee to cardholders and encourage the take-up of credit cards, thereby compensating for the natural tendency of issuers with market power to restrict output (ie the number of credit cards). With market power, issuers’ profits rise with the interchange fee and issuers have an incentive to push the fee up as high as possible without forcing merchants out of the system. The relationship between the fee determined by an issuer-controlled credit card scheme and the socially optimal fee in this model therefore depends on the degree of merchant “resistance” to card acceptance. Where merchants have a strong degree of resistance, both the privately and socially optimal interchange fees are equal to the highest level consistent with merchant acceptance of cards.

Rochet and Tirole also find, however, that if merchants have limited resistance to accepting cards, issuers will push the interchange fee above the socially optimal level, allowing them to reduce cardholder fees below the optimal level and resulting in the overprovision of credit card services: “a low merchant resistance is the worst

41 Katz (2001), p 27.



case scenario for the social optimality of an issuer-determined interchange fee.”⁴² Rochet and Tirole note that merchants may accept credit cards even though the merchant service fee exceeds the technological and payment guarantee benefits they derive from card acceptance because “[p]ayment card systems can exploit each merchant’s eagerness to obtain a competitive edge over other merchants.”⁴³ They also note that the use of cash rebates and other inducements also weaken merchant resistance, increasing the ability of issuer-controlled schemes to set interchange fees higher than is socially optimal.

An alternative approach to analysing the impact of interchange fees on economic welfare is the *neutrality argument*.⁴⁴ It states that the interchange fee has no impact on the size of the credit card system and no harmful effects on cash customers, no matter at what rate it is set; ie the interchange fee is “neutral”. If the interchange fee were to change, merchant service fees and rebates to credit cardholders would both change by the same amount and in the same direction. This could happen if merchants are able to recover the costs of different payment instruments from their customers; it could also happen even if merchants are not able to do so. According to this view, if credit card transactions are more costly for merchants than cash transactions, some merchants will specialise in cash sales and will be able to undercut merchants selling to both cash and credit card customers. Cash customers will therefore not shop at stores that also serve credit card customers. The market will ultimately segment into two groups: those stores selling at lower prices to cash customers only, and those stores selling only to credit card customers at higher prices incorporating merchants’ costs of accepting credit cards. It should be noted, however, that credit card schemes and their members do not accept this neutrality argument; on the contrary, they argue that any interchange fee lower than the current level would have a very deleterious impact on the card schemes.⁴⁵

Whatever its theoretical support, the neutrality argument would seem to have little practical weight. Though there can be a significant difference in costs to merchants between accepting cash and credit card transactions, that difference in most cases would not be enough to make it attractive for merchants to set up as cash-only

42 Rochet and Tirole (2000), p 18.

43 *ibid*, p 33.

44 The notion that interchange fees might be neutral under certain conditions was discussed by Carlton and Frankel (1995) and Frankel (1998) and more recently by Gans and King (2001a).

45 Visa International (2001a) and MasterCard International (2001). MasterCard characterises the “self reinforcing cycle” set in train by lowering the interchange fee as a “death spiral”, p 11.



merchants simply to avoid merchant service fees on credit cards. Submissions can give only one example of a cash-only merchant in a sector that now usually accepts credit cards – the supermarket chain, Aldi. However, Aldi’s low prices are the result of its general “no frills” approach to grocery retailing, of which its unwillingness to accept credit cards is only one part.⁴⁶ For high-value transactions, however, the ready availability of cash discounts for items such as white goods demonstrates that there may well be an incentive for a merchant to adjust prices where the resulting dollar difference is sufficiently large. Drawing on the ARA survey quoted earlier, the average cost to a merchant of accepting a credit card for payment on a \$1 000 refrigerator, for example, would be \$19 but the same cost on a \$200 basket of groceries would be \$4 and on a tank full of petrol not much more than \$1. It is quite unrealistic to expect that retailers will set up separate stores to compete on one aspect of their business – the payment method – when other means by which they differentiate themselves are at least as, and usually more, important.

In summing up, the economic literature on credit card networks is undeveloped compared to other branches of economics.⁴⁷ Model results are highly sensitive to the assumptions made and, by focusing only on the choice between cash and credit cards, the models do not deal with the more general situation of competition between different payment networks. In the Reserve Bank’s opinion, the economic literature gives grounds for concluding that the collective setting of interchange fees has the potential to generate a fee structure that promotes overuse of credit cards. After reviewing recent contributions, Katz states that:

“The findings on the relationship between the interchange rate chosen by a rationally self-interested association and the socially optimal interchange fee can be summarized as follows. In general, they can be expected to differ from one another. One source of the divergence is that private parties will respond to merchants’ willingness to accept cards, which may be a poor measure of the overall effects of card acceptance on merchant welfare. Because of this distortion in acceptance incentives, privately optimal interchange fees may promote socially excessive card use.”⁴⁸

46 For example, Aldi only stocks its own brands which it sources in bulk from its own suppliers; it only stocks 600 items rather than 20 000 or more in a typical supermarket. It also charges for shopping trolleys and bags, and reduces handling costs by selling goods from cartons rather than unpacking onto shelves.

47 “The payment card industry has received scant theoretical attention, and it won’t come as a surprise to the reader that more research is warranted.” Rochet and Tirole (2000), p 34.

48 Katz (2001), p 29.



2.5 The setting of interchange fees in Australia

Notwithstanding the lack of strong theoretical support, MasterCard and Visa have claimed that the processes by which interchange fees are set in Australia produce efficient outcomes for the schemes and the community generally.

Visa has argued that, under competitive pressures, the interchange fee is set at or close to the optimal level by scheme members using their commercial judgment. Visa claims that this judgment "... is then tested in the negotiating process over interchange between members, which elicits information about the likely outcomes associated with alternative possible fee levels."⁴⁹ The ABA has claimed that "... the competitive process by which interchange fees have been determined is as follows. The division of revenues from cardholders and merchants is determined by the interaction of (i) the relative price elasticity of demand of cardholders and merchants (ii) the positive externality arising from cardholder membership and use and (iii) competition between open and closed schemes."⁵⁰

Despite these descriptions of a competitive negotiating process for determining interchange fees, the actual interchange fee structure in Australia has been highly rigid. Australian members of MasterCard have not changed interchange fees for domestic transactions since 1993; no records have been made available on interchange fees charged prior to that date.⁵¹ Australian members of Visa increased interchange fees for domestic transactions in 1993, when they set domestic fees to over-ride those set by the relevant Asia/Pacific boards/executive committees, but have left the fees unchanged since then. Australian members of the MasterCard and Visa schemes reviewed domestic interchange fees in the mid 1990s using the international methodologies of the respective schemes, but fees were not adjusted.⁵² Nonetheless, none of the Australian members of either scheme could provide any information to the Reserve Bank on how the current level of interchange fees had been determined. Bankcard has not changed its interchange fee since the scheme was established in 1974. Bankcard and its members were unable to offer any justification for the original fee – they claimed to have “no records that deal with the setting of this fee at that time”⁵³ – or provide any evidence of any reviews of that fee.

49 Visa International (2001a), p 25.

50 Australian Bankers' Association (2001d), p 10.

51 As noted above, MasterCard and its members have claimed to have no record of the interchange fee charged prior to 1993.

52 MasterCard and Visa supplied this work to the Reserve Bank during preparation of the Joint Study.

53 Bankcard (1999).



In short, as the Joint Study found, there is no evidence that credit card interchange fees in Australia have been regularly reviewed by scheme members. In contrast to the practices of the international schemes in other countries, no formal methodologies for determining these fees have been applied.

This rigidity in interchange fee setting in Australia has had a number of consequences:

- Australia has not enjoyed reductions in interchange fees as the credit card networks have grown in scale and per unit costs declined, as happened in the United States in the earlier years of the networks;⁵⁴
- interchange fees were not lowered when annual fees to cardholders were introduced from 1993, and cardholders began to bear more of the card scheme costs directly. Visa members actually increased interchange fees at that time; and
- Australia does not have the range of interchange fees for different types of merchants or transactions that other countries have. In the United States, for example, there is a range of different interchange fees including fees for electronic, paper and “card not present” transactions (for example, Internet) and supermarkets.⁵⁵

None of the Australian members of the designated credit card schemes has sought to defend the *status quo*. However, the ABA has provided evidence suggesting that interchange fees in Australia are low by international standards.⁵⁶ The figures shown – which are normally secret – differ in some cases from those quoted by other sources and, in one case (the United Kingdom), give numbers that the international card schemes were not prepared to have published in the recent official review of competition in UK banking (the Cruickshank Report).⁵⁷ The ARA, on the other hand, has claimed that a number of other countries in Europe have interchange fees lower than the 0.8 per cent electronic rate which applies in Australia.⁵⁸ The

54 Evans and Schmalensee note that both interchange fees and merchant discounts declined in the 1980s in the United States, citing this as evidence that Visa’s interchange fee did not have anti-competitive consequences. Evans and Schmalensee (1995), p 892. Since then, the pressures on interchange fees in the United States have been upwards as the schemes, with their large merchant bases, compete for issuers. See Balto (2000).

55 See www.chase.com for some US interchange fees and a brief description of the reasons for differential fees. Chakravorti and Shah (2001) report a large number of different interchange fees for MasterCard and Visa in the United States. Also see Evans and Schmalensee (1999), p 132.

56 Australian Bankers’ Association (2001b), p 39.

57 See Cruickshank (2000).

58 Australian Retailers Association (2001b), p 17.



Reserve Bank asked both MasterCard and Visa if they would verify the data on interchange fees in other countries, but neither scheme has responded to this request. In any event, interchange fees in Europe can be expected to fall over time as a result of intervention by competition authorities, which is discussed below. Visa, for example, has proposed a reduction in its weighted average interchange fees for intra-regional European transactions to a maximum of 0.7 per cent over a five-year period.

On the other hand, the international card schemes have argued that strong competition ensures that current arrangements for the collective setting of interchange fees produce outcomes that are in the public interest.⁵⁹ They claim that competition between credit card schemes and between credit cards and other payment instruments ensures that interchange fees in their schemes cannot go too high or too low. If the interchange fee (and hence the merchant service fee) is too high, merchants will stop accepting credit cards in favour of cheaper payment instruments. If the interchange fee is too low, issuers will be unwilling to issue cards and the system will be underdeveloped.⁶⁰ MasterCard claims that "... given the healthy growth of the open systems, the absence of market fragmentation, and the proliferation of interchanged transactions in Australia, the interchange fees of the open systems in Australia would appear to be set at appropriate levels."⁶¹

Since the claim of strong competition between different brands and types of payment instruments in Australia is critical to judgments about whether collective interchange fee setting is in the public interest, this claim needs to be explored in some detail.

The analysis of interchange fees and their impact on economic welfare suggests that a collectively set interchange fee is more likely to be consistent with maximising economic welfare under conditions of:

- strong competition between the credit card schemes;
- strong competition between credit cards and other payment instruments; and
- a balance of issuing and acquiring interests in the fee-setting process.

59 Visa International (2001a) and MasterCard International (2001). Wright (2000), based on Rochet and Tirole (2000), also makes some claims about the optimality of Visa's collective fee setting on p 117 of Visa (2001a).

60 MasterCard argues that the low merchant acceptance of credit cards in Korea and Japan, where interchange fees are around 3 per cent and up to 5 per cent, respectively, is evidence of the competitive effect. MasterCard International (2001), pp 6-9.

61 MasterCard International (2001), p 9.



Competition between credit card schemes

Although the card schemes assert otherwise, there appears very limited competition between the designated credit card schemes in Australia. A major factor is scheme governance. Overlapping governance means that the same banks control all three schemes in Australia; in particular, the four major banks are on the governing boards and executive committees of all three schemes (Table 2.4). Given these arrangements, there appears little incentive for members to promote one scheme over another:

- members typically issue all three brands and some of the major banks and other members provide customers with a single application form for all three card

**Table 2.4: Membership of Australian boards/
executive committees of credit card schemes**

	Bankcard	MasterCard	Visa
ANZ	✓	✓	✓
Commonwealth	✓	✓	✓
National Australia	✓	✓	✓
Westpac	✓	✓	✓
St George		✓	✓
Bank of Western Australia		✓	✓
Bank of Queensland		✓	
Citibank		✓	✓
CUSCAL		✓	✓
CreditLink		✓	
GE Capital		✓	
IMB Ltd			✓

Source: Bankcard, MasterCard and Visa.



schemes.⁶² Each of the major banks offers a choice of credit cards from the three schemes with almost identical payment services and fees;

- acquirers do not promote any particular card scheme to merchants but offer to acquire transactions from all three schemes, generally for the same fee for each scheme; and
- in loyalty programs offered by some of the major banks, loyalty points accrue to a customer irrespective of the credit card used. As discussed later, loyalty programs of this type are designed to promote allegiance to the card issuer, not competition between credit card schemes.⁶³

In brief, competition between the credit card schemes appears limited to advertising that is funded by the schemes themselves to promote the brand to cardholders.

Competition with other payment instruments

Competition between payment instruments is critical to the claim that interchange fees cannot rise above “efficient” levels because such competition will keep them in check. If a particular scheme dominates credit card payments or has a sufficiently strong card base, merchants would find it difficult to opt out of that scheme and scheme members would be able to set the interchange fee above the efficient level. Though supportive of the collective setting of interchange fees, Baxter himself concluded that “antitrust and banking authorities should be alert to ensure that the number of payment systems is as large as the attainment of scale economies permits. Though unbridled autonomy within a system cannot be attained, unbridled rivalry between a multiplicity of systems should be encouraged.”⁶⁴

In Australia, the designated credit card schemes appear to have a dominant market position. Visa alone accounts for around 53 per cent of all credit and charge cards on issue in Australia. If MasterCard and Bankcard are included, cards issued by members of the three designated credit card schemes account for around 92 per cent of credit and charge cards on issue.⁶⁵ American Express and Diners

62 “Net issuer” rules in the credit card schemes, discussed in Chapter 4, encourage members to issue all three cards. An acquiring institution needs to be able to acquire all brands in order to attract merchants but, to avoid financial penalties imposed by the schemes, also needs to issue some volume of cards. Hence, any member that wants to acquire will typically issue all three brands.

63 For example, the Commonwealth Bank’s True Awards program is the same for cards issued in all three card schemes and National Australia Bank’s Gold Rewards program is the same for cards issued by both Visa and MasterCard.

64 Baxter (1983), p 587.

65 Roy Morgan Research, quoted in Table 1.2 above.



Club have a higher share of transaction values than of cards on issue, although preliminary data collected by the Reserve Bank suggest that the three designated credit card schemes still account for around 85 per cent of the value of credit and charge card transactions.⁶⁶

Nonetheless, the designated credit card schemes claim that the three party schemes, American Express and Diners Club, remain their closest competitors. However, according to the ARA, merchant service fees for the three party schemes are around 100 basis points above those charged by the designated credit card schemes. The three party schemes also have much smaller cardholder and merchant bases, raising the question about the degree of competitive pressure that these schemes can apply. Visa itself has claimed that "... the fact that there are more VISA cardholders makes accepting VISA cards more attractive to merchants than accepting AMEX cards, even if the terms and conditions of accepting these cards were identical."⁶⁷ Competition between the three and four party card schemes is discussed more fully in Chapter 5.

Debit cards are also a potentially strong competitor for credit cards. From the viewpoint of the merchant, a debit card also provides a guaranteed, pre-authorised payment; for cardholders who do not face a cash constraint, a debit card is a close substitute for a credit card.⁶⁸ Until recently, debit cards accounted for a larger number of transactions than credit cards. However, debit cards are not actively promoted – through loyalty programs, other forms of inducements or advertising – by financial institutions that are also members of the designated credit card schemes.⁶⁹ Moreover, the pricing structure for debit cards, which is determined by the four major banks, discourages consumers from using these cards in preference to credit cards. Debit cardholders face a per transaction fee for using their debit card (beyond a fee-free threshold) while credit cardholders do not face a per transaction fee and earn a rebate (ie a negative cost) if they participate in a credit card loyalty program. Competition between payment instruments has also been undermined by the limited promotion in Australia of the debit cards of the

66 The ACCC has ruled that, in its competitive analysis of the Commonwealth/Colonial merger, credit cards are a relevant market distinct from other personal lending on the credit side and from transaction accounts on the payments side. See Goddard and Walker (2001).

67 Visa International (2001a), p 3.

68 Proprietary debit cards do not provide a refund for goods and services paid for but not delivered. The right to a refund can be important for purchases where goods and services are normally delivered after payment, but is largely irrelevant for purchases such as in service stations, supermarkets or restaurants.

69 The exception appears to be the Commonwealth Bank's "Ezy banking" debit card, which provides loyalty points if the card is used for transactions at Woolworths' stores.



international card schemes which, unlike proprietary debit cards, have world-wide acceptance.⁷⁰

The preference of card issuers to promote the use of credit cards over debit cards is not difficult to understand. At the simplest level, card issuers receive interchange fees each time a credit cardholder makes a purchase (averaging around \$0.95 for a \$100 transaction) but they pay interchange fees (averaging around \$0.20-\$0.25 a transaction) whenever a debit card is used. Credit cardholders who do not pay off their accounts in full each month also generate interest revenue to issuers. The Joint Study showed that issuers incur higher costs in providing credit card services compared with debit cards (largely because of the costs of the interest-free period, credit losses and fraud), but nonetheless earn more net revenue when their customers use credit cards rather than debit cards.

In the face of well-established credit card schemes with wide customer popularity, merchants claim they have little option but to accept credit cards; once they do, however, they are locked in. The Reserve Bank is not aware of any evidence, in Australia or elsewhere, of merchants quitting credit card schemes on any significant scale after they had signed up. Shell has stated that “[i]n the case of Shell (as in the case of most other retailers) the non-acceptance of credit cards is simply not an option. Card acceptance is necessary simply to gain entry to consumer consideration.”⁷¹ The lack of effective merchant resistance gives credit card schemes the potential to set interchange fees above the socially optimal level and promote inefficiently high levels of credit card usage, with little risk of losing merchant acceptance. This danger has already been illustrated by experience in the United States, where MasterCard and Visa have competed for issuers by increasing interchange fees, both in the credit card market and in the off-line debit card market (which in the United States has an interchange fee structure similar to that of credit cards).⁷²

Balancing of issuing and acquiring interests

The interests of merchants and cardholders both need to be taken into account in assessing the effects on economic efficiency of the negotiating process on interchange fees which the international card schemes have described. If issuing

70 The Joint Study expressed concerns about the interchange fees applying to Visa debit cards, which the Reserve Bank has taken up with Visa and domestic issuers, but not about the product itself.

71 Shell (2001), p 13. The Restaurant and Catering Association of Australia noted that the business of its members “... relies on credit card transactions for the majority of its settlement activity”, Restaurant and Catering Association of Australia (2001), p 2.

72 Balto (2000).



is more strongly represented in this process than acquiring, there is likely to be insufficient account taken of merchants' interests; the opposite would apply if acquiring is more strongly represented.

The fact that, in Australia, the large issuers are also large acquirers might suggest that the voice of acquirers will be strong. The ARA has argued, however, that the interchange fee "... is not subject to independent assessment and negotiation from acquirers as they are all issuers under current card scheme rules".⁷³ In practice, there is every indication that the issuing side of the business takes precedence. Submissions from card schemes and their members have consistently put the issuers' viewpoint – that any lowering of interchange fees will have a deleterious impact on issuers and cardholders. The Reserve Bank has not received a single submission from credit card scheme members that emphasised the positive impact of lower interchange fees on acquirers' and merchants' business. The obligation on merchants under the "no surcharge" rule to pass on higher merchant service fees in prices charged to all customers also weakens the balancing forces needed for efficient interchange fee setting. The Joint Study reached the conclusion that: "... card scheme members are under little pressure to lower interchange fees – as issuers they receive revenue from these fees and as acquirers they can pass the fees on to merchants. Merchants, in turn, have little scope to resist since they do not have the option of shopping around for an acquirer seeking to recover a lower interchange fee; their only option is the extreme one of refusing to accept credit cards."⁷⁴

More generally, there is no evidence of any competitive negotiations on interchange fees in any of the three designated credit card schemes, and the processes that do occur lack transparency. Interchange fees have been rigid and, since 1993, have been the same for all three schemes for transactions incurring the "standard" rate. Despite the Reserve Bank's request, none of the three designated credit card schemes or their members was able to produce any evidence that this rigidity in fees is the result of ongoing negotiation, taking into account changing market and cost conditions.

To sum up, the competitive conditions necessary to ensure that the collective setting of interchange fees is in the public interest are not present in Australia. Competition between the three designated credit card schemes, and between credit cards and other payment instruments, lacks vigour in the face of overlapping governance arrangements and the dominant position of the four major banks, which are the

73 Australian Retailers Association (2001b), p 7.

74 Reserve Bank of Australia and Australian Competition and Consumer Commission (2000), p 58.



main suppliers of credit card services and most other payment instruments in Australia. These banks have clearly preferred to promote credit cards at the expense of other payment instruments. The only competitors about which they have expressed concern – American Express and Diners Club – are the only payment instruments in which they have no direct involvement.⁷⁵

The obvious manifestation of the absence of effective competition is the fee-setting process itself. The longstanding arrangements are characterised by secrecy, rigidity and lack of any objective and clearly articulated methodology. Such arrangements, in the pursuit of maximum credit card usage and scheme members' profits, run the serious risk of leading to overprovision of credit card services and inefficiently high merchant service fees. Under scheme restrictions on merchant pricing, discussed in the following Chapter, any overprovision of credit card services is paid for by the community as a whole through the general level of prices. In the Reserve Bank's opinion, the current arrangements for the collective setting of interchange fees, were they to persist, would not be in the public interest.

Community welfare would clearly be enhanced by greater competition between payment card networks. However, because of network effects, it is very difficult for small and/or new networks to compete with large, established ones; as the card schemes themselves acknowledge, individual cardholders and merchants prefer larger networks to smaller networks at the same price.⁷⁶

2.6 Principles for setting interchange fees

As noted in Chapter 1, regulatory authorities in some other countries are currently reviewing credit card interchange fee arrangements from a public interest perspective. Although these reviews are not complete, the approaches being taken by these authorities eschew “black box” methodologies, which treat interchange fees as a balancing device to be left entirely to negotiations between card scheme members, in favour of transparent, cost-based rules or methodologies for determining interchange fees. These rules or methodologies focus on the credit card payment services, separately identified, which are provided to merchants.

In its response to the Cruickshank Report on competition in UK banking, the UK Government concluded that, while there were respectable economic arguments for a balancing approach, “... for established payment systems it would appear

75 See, for example, Australian Bankers' Association (2001b and 2001c) and Visa International (2001b).

76 Visa International (2001a), p 3.



that there were more damaging effects associated with a high, non-cost based interchange rate than with a lower, cost-based interchange rate.”⁷⁷ The damaging effects of inflated interchange fees identified in the Cruickshank Report included:

- high costs for merchants which in turn lead to higher prices for consumers;
- weakened incentives for issuers to cut costs through greater efficiency; and
- distortion in competition between payment instruments in favour of instruments with artificially high interchange fees (when those interchange fees are used to fund loyalty schemes).

Accordingly, the UK Government has announced its intention to introduce a set of competition-oriented rules to govern participants in the UK payments system, with one rule aimed at ensuring efficient wholesale pricing (including interchange fees). In the latter case, the proposal is that wholesale prices be derived through a published methodology that is based on legitimate costs, and that anticipates achievable cost reductions.

Similarly, the European Commission has rejected the balancing approach to determining interchange fees in favour of a cost-based methodology in its investigations of Visa’s interchange fee arrangements in its intra-European operations. This is discussed further below.

In the absence of a vigorous competitive environment, the Reserve Bank believes that the public interest requires a transparent and objective methodology for the setting of credit card interchange fees in Australia, and that the fee-setting process be open to public scrutiny. This would give cardholders, merchants and the community confidence in the integrity of arrangements by which a crucial wholesale price in credit card schemes is determined. In the Reserve Bank’s view, any methodology for determining an interchange fee should be consistent with a set of principles that would promote more efficient and transparent pricing of credit card services to both merchants and cardholders. These principles would require any methodology to:

- (i) provide a cost-based justification for the level of interchange fees that is transparent to merchants, cardholders and the community in general;
- (ii) be based on the credit card payment services which are provided to merchants, and for which card issuers recover costs through interchange fees;
- (iii) exclude from its calculations costs that are not related to payment network considerations, and are therefore not relevant to interchange fee calculations;

⁷⁷ HM Treasury (2000), p 29.



-
- (iv) provide for different interchange fees for different types of transactions and/or differences in the credit card payment services provided to merchants;
 - (v) have the data independently verified; and
 - (vi) be subject to regular reviews.

The international card schemes have suggested to the Reserve Bank that the methodologies they have applied in other countries could form the basis for interchange fee setting in Australia. However, the Australian members of the schemes have, through the ABA, proposed a quite different approach. In contrast, retailers have argued for the abolition of credit card interchange fees and their replacement with a “fee for service”. These different approaches need to be assessed against the principles set out above.

The MasterCard approach

The MasterCard methodology used in other countries sees the interchange fee as the means by which issuers recover costs for specific services provided to acquirers (and hence to merchants).⁷⁸ Under this approach, the three main components of issuers’ costs included in the interchange fee are:

- the cost of providing a payment guarantee, including the cost of fraud and credit write-offs. The justification for including fraud costs is that a merchant still receives payment from the card issuer if it accepts a credit card transaction that turns out to be fraudulent.⁷⁹ The justification for including credit losses is that the merchant is guaranteed payment by the card issuer even if the cardholder does not repay the issuer. If the merchant itself had been extending credit, it would have lost money in the event of customer default;
- the cost of funding the interest-free period. The justification is that provision of interest-free credit to cardholders benefits the merchant by increasing its sales and saving it the direct costs of providing this service itself; and
- the costs of processing transactions from acquirers. These include costs of receiving and verifying the transaction and the cost of settlement. The justification for including these costs is that they benefit the merchant by enabling it to transact with customers of financial institutions other than its own acquirer.

78 MasterCard International (2001), p 40.

79 This guarantee, however, does not apply for all credit card transactions. For “card not present” transactions where there is no signature (for example, Internet or telephone transactions), the merchant does not have a guarantee of payment in the event of fraud.



MasterCard claims that “[t]he interchange fee is then established by taking these costs as a starting point and taking into consideration other factors, including the need to provide incentives for widespread issuance and for merchants to accept cards or deploy technology and the level of competitors’ fees”.⁸⁰ The MasterCard approach does not include other costs incurred by card issuers, such as loyalty programs and other marketing costs, a return on capital or sunk costs; these costs are left for issuers to recover directly from their customers.

The MasterCard methodology has been under review by competition authorities in the United Kingdom. In September 2001, the Office of Fair Trading (OFT) notified MasterCard/Europay that it proposed to make a decision that agreement among MasterCard/Europay members on the level of their multilateral interchange fee is in breach of UK competition law and does not qualify for exemption. The OFT considers that the agreement on this fee increases retail costs and the prices paid by consumers for goods and services. The OFT is now taking representations from MasterCard/Europay before making a final decision.⁸¹

The Visa approach

The Visa methodology is used in some other countries as a basis for determining interchange fees for domestic transactions, and in some regions for determining international interchange fees. Drawing on the original Baxter analysis, Visa sees the interchange fee as a financial adjustment which reduces the imbalance between the costs of credit card issuing and acquiring.⁸² The appropriate interchange fee is that fee that equates the acquirer’s share of total payment system costs with its share of revenues.

Visa’s approach focuses on the costs of providing only the payment services of credit cards; it excludes costs that are related to the provision of the revolving credit facility. Visa states that it undertakes detailed data collection and calculations in determining interchange fees. The Reserve Bank understands that these calculations do not include estimates of the various demand and supply elasticities for credit card payment services; nor do they provide for a return on capital or for loyalty programs and marketing costs. The calculated fee is used by members as a benchmark in deciding actual fee levels; other considerations, such as competitors’ interchange fees, different merchant sectors, innovation and incentives are also said to be taken into account. Visa claims that its international interchange fees have always been set below the amount calculated by its methodology.

80 MasterCard International (2001), p 40.

81 Office of Fair Trading (2001).

82 See Visa International (2001a), pp 21-22.



Visa has provided the Reserve Bank with summary worksheets from its review of domestic interchange fees in Australia in the mid 1990s, but not with detailed spreadsheets that would show how interchange fees are calculated in other regions. In the United Kingdom, similarly, Visa did not allow any information about the application of the Visa methodology to be published in the Cruickshank Report. This lack of transparency makes it very difficult to assess the methodology and whether, in particular, it can generate differential interchange fees in any systematic way.

The Australian members of Visa have not recommended that the Visa methodology be adopted for the determination of interchange fees in Australia. In any event, Visa has recently abandoned its balancing approach in the case of its intra-regional interchange fees in Europe, in response to concerns expressed by the European Commission.⁸³ In its original Statement of Objections, the Commission stated that Visa's interchange fee for intra-regional transactions amounted to a collective price agreement, which is restrictive of competition. Visa has subsequently proposed moving to a simple cost-based methodology that would be used as an objective benchmark against which its intra-regional interchange fees would be assessed. The three broad categories of costs for inclusion in this methodology are identical to the MasterCard approach – viz, the costs of providing the payment guarantee, the interest-free period and processing costs – but details of these costs and on the proportion that would be attributed to merchants are not available. The interchange fee would be the lower of the fee determined by this methodology and Visa's proposed reduction in its weighted average interchange fees to a maximum of 0.7 per cent over five years. The European Commission has invited submissions from interested third parties before finalising its decision on whether to respond favourably to Visa's revised methodology.

The ABA proposal

The ABA, on behalf of nine member banks, has proposed what it has called the “avoidable cost” methodology for determining interchange fees. This is the third attempt by Australian banks to propose a suitable methodology; two previous proposals which might have formed the basis for an authorisation of interchange fee arrangements under the *Trade Practices Act 1974* were provided to the ACCC in early 2001 but these proposals were not submitted to the Reserve Bank.

83 European Commission (2001b).



The ABA describes its methodology as being based on the question “[w]hat costs would be unavoidable if an issuer were to provide (on a sustainable basis) only credit card payment services?”⁸⁴ This leads to the proposition that efficient interchange fees should be no higher than the stand-alone cost of sustainably providing the “buy now pay later” functionality, and no lower than the incremental cost.⁸⁵ In the ABA’s proposal, the fee calculated using the avoidable cost methodology would provide an “envelope” for interchange fees – the designated credit card schemes could use whatever approach they wished provided the resulting interchange fee is not higher than the envelope.

The avoidable cost methodology does not include issuers’ costs associated with the provision of the revolving credit facility. However, it does include a wide range of other costs, such as fraud costs, credit losses associated with the use of the interest-free period, operating costs, marketing, promotion and retention costs, the cost of equity capital and sunk costs.⁸⁶ Any issuers’ revenues from annual fees can be taken into account but, in principle, all issuers’ costs incurred in providing the payment functionality of the credit card could be passed to merchants through the interchange fee under this methodology. The ABA argues that this avoids the need for an “arbitrary” allocation of costs between merchants and cardholders; in doing so, however, the avoidable cost methodology provides no incentives to issuers to recover any costs from cardholders.

Assessment of the methodologies

The costs that would be included under the different cost-based methodologies, including Visa’s compromise proposal to the European Commission, are summarised in Table 2.5.

In the Reserve Bank’s judgment, none of these methodologies fully meets the principles for interchange fee setting established earlier. Each includes costs which are not related to payment network considerations or to specific services provided to merchants. A number of cost categories do not meet the principles.

84 Australian Bankers’ Association (2001b), p 51.

85 The stand-alone cost is defined as “the costs for an organisation to establish and operate a payment card with the buy now and pay later functionality.” *ibid*, p 75. The incremental cost is the cost “that would be incurred if that functionality [buy now, pay later] was added to an existing card product.” *ibid*, p 78. The ABA submission argues that “to be consistent with economic allocative efficiency, the ceiling for the interchange fee should be the *stand alone cost* of providing credit card payment services.” *ibid*, p 47.

86 *ibid*, p 6.



Table 2.5: Summary of alternative interchange fee methodologies: categories included

	MasterCard	Visa	ABA
Issuing revenue			
Cardholder annual fees			✓
Issuing costs			
Payment guarantee:		a	
Credit losses	✓	?	b
Fraud	✓	?	✓
Authorisation	✓	?	✓
Other	✓	?	✓
Cost of funding:			
Interest free period	✓	✓	✓
Operational costs:			
Transaction processing	✓	✓	✓
Card production and delivery			✓
Loyalty/marketing			✓
Other operational costs			✓
Other costs:			
Equity capital and sunk costs			✓

a Details of the payment guarantee costs that would be included in the Visa methodology are not available.

b Credit losses associated only with the use of the interest-free period.

Credit losses

Costs associated with credit assessment, credit losses and recovery, which are included in the MasterCard methodology, are not related to payment network considerations.⁸⁷ The ARA has argued that these costs should not be included as they arise out of the provision of credit facilities to cardholders, based on credit risk assessments carried out by individual card issuers and on terms and conditions

87 At this stage, it has not been announced whether these costs would be included in payment guarantee costs under Visa's compromise methodology.



set by them. Neither the credit card schemes nor merchants have input into the terms and conditions. The Reserve Bank agrees with this argument. In principle, efficient pricing requires that the credit risks be incorporated into credit card lending rates paid by cardholders.⁸⁸ In practice, the Joint Study found that cardholders in Australia using revolving credit facilities are fully covering average credit losses by paying interest rates well above rates on other unsecured personal lending.⁸⁹ If card scheme members were to include credit losses in interchange fee calculations, card issuers would be recovering the costs of credit losses twice. Moreover, a pricing structure which passed average credit losses to merchants through interchange fees would create a “moral hazard”, in that card schemes would have an incentive to promote inefficiently low credit standards.

Although it excludes issuers’ costs associated with the provision of the revolving credit facility, the avoidable cost methodology does include some proportion of credit losses in the interchange fee. The ABA has argued that a proportion of these credit losses arises from cardholders who pay no interest (ie transactors) and likens these losses to credit losses in charge card schemes that do not have a revolving credit facility.⁹⁰ The ABA has provided no evidence on the size of such losses but they are likely to be very small: default on credit card debt, whether revolving or otherwise, accounts for only around one per cent of total credit card outstandings.⁹¹ Furthermore, unlike charge cardholders, credit cardholders do not need to default immediately if they get into difficulties – they can choose to pay the minimum monthly amount. For these reasons, it seems highly unlikely that non-revolvers that suddenly default would constitute a significant group. In a different argument, the ABA has claimed that “[w]hen a cardholder defaults on payment, the outstanding balance may include both purchases and cash advances made in prior periods (and that have been revolved) and purchases and cash advances made during the current period. Therefore the costs associated with credit losses and collections relate partially to the payment functionality of the credit card and partially to the other functionalities.”⁹² This argument fails to recognise that once cardholders use the revolving credit facility, they usually receive no interest-free period; they pay interest on all purchases, even those in the current period. The issuer therefore receives

88 This point has been acknowledged by Visa International (2001a) and the Australian Retailers Association (2001b).

89 Reserve Bank of Australia and Australian Competition and Consumer Commission (2000), p 50.

90 Australian Bankers’ Association (2001b), p 33.

91 KPMG Consulting (2001), p 22.

92 Australian Bankers’ Association (2001b), p 77.



recompense for credit losses from these customers directly through the credit card interest rate.

Interest-free period

As with the revolving credit facility, provision of the interest-free period is a credit service provided to cardholders on terms and conditions set exclusively by individual card issuers; it is not related to payment network considerations. Neither the credit card schemes nor merchants have any input into the terms and conditions on which this service is provided. Although the interest-free period has been an integral feature of a credit card, some card issuers in Australia offer their customers a credit card without it, at a lower annual fee and interest rate on the revolving credit facility. The interest-free period is clearly a benefit to cardholders, enabling them to manage their liquidity by reducing their use of cash and their balances in low-yielding transaction accounts. Some submissions have claimed that the interest-free period encourages cash-constrained customers to make “impulse” purchases at individual merchants but, as discussed earlier in this Chapter, there is no evidence that merchants as a whole enjoy a permanent increase in sales from credit card usage.

The ARA has pointed out that although house builders benefit when financial institutions provide mortgages to their customers, no-one expects builders to pay “interchange fees” to these financial institutions.⁹³ Similarly, the Cruickshank Report argued that recovering the costs of the interest-free period from merchants through an interchange fee distorts consumers’ choices between a credit card and alternative payment instruments. A customer making a purchase by debit card or cheque, and drawing on an attached overdraft facility, does not have the costs of this overdraft paid for by the merchants that supplied the goods. In the Reserve Bank’s view, since the provision of the interest-free period is a matter exclusively between individual card issuers and their customers, passing the costs of the interest-free period to merchants through interchange fees would not meet the Reserve Bank’s principles for interchange fee setting.

Loyalty programs

The avoidable cost methodology includes the cost of loyalty programs in the interchange fee, on the basis that these are resource costs incurred by issuers as a means of promoting credit card schemes.⁹⁴ The ABA and its members are alone in arguing for the inclusion of such costs in interchange fees; as far as the Reserve

93 Australian Retailers Association (2001b), p 7.

94 Australian Bankers’ Association (2001b), p 31.



Bank is aware, neither MasterCard nor Visa treat them as eligible costs in their methodologies in any country (nor does Visa in its compromise proposal to the European Commission).

The Reserve Bank is unconvinced by the ABA's arguments. Loyalty programs do impose costs on credit card issuers that offer such programs, but these costs are not integral to the provision of payment services. The payment services of a credit card – in particular, its “buy now, pay later” feature and guaranteed refund – have not changed since the credit card was first introduced. Loyalty programs do not add to these services – a cardholder receiving loyalty points cannot effect a credit card transaction more efficiently, more speedily or more securely than a cardholder who does not receive loyalty points. The costs of loyalty programs are a discretionary cost for card issuers, and a number of issuers have chosen not to offer such programs.⁹⁵ Nor are these costs related to payment network considerations. Many successful payment networks exist without loyalty schemes and, until the last few years, so did the credit card network in Australia. Loyalty schemes are a relatively recent ‘add on’ (they were introduced from around 1995) to an existing credit card system in Australia that had operated successfully since its establishment. Loyalty schemes may encourage consumers to use credit cards in preference to other payment instruments; however, no evidence has been presented that this results in a permanent increase in sales for merchants as a whole. Indeed, merchants themselves are strongly critical of the use of credit card loyalty programs to encourage credit card usage because they believe they bear the cost of these programs in their merchant service fees.⁹⁶

Credit card loyalty programs in Australia are used by individual financial institutions mainly as a means of retaining their customers. The programs are not provided by the credit card schemes themselves and are not integral to them. For some of the major banks, the same loyalty points are provided to customers irrespective of which card is used, and scheme points cannot usually be transferred if a customer wishes to remain in the same card scheme but switches to another card issuer. One of the major banks has advised that its loyalty programs are promoted in the bank's interest. According to this bank, the two main objectives of its loyalty

95 Although Visa does not include the cost of loyalty programs in its interchange fee calculations in other countries, it has recently offered the view that provision of a loyalty scheme has now become a function of a payment system. Visa International (2001b), p 48. Elsewhere, Visa has claimed that loyalty points are part of the payment service of a credit card in the same way that air conditioning in a motor vehicle is a resource cost associated with the provision of motoring services. This analogy is incorrect; loyalty points are analogous to a rebate on running costs for the use of a motor vehicle. See Visa International (2001a), pp 23-24.

96 Australian Retailers Association (2001b) and Shell (2001), p 13.



programs are the retention of existing customers and maintenance of its competitive position in the market. Neither of these objectives relates to the provision of payment services or to payment network effects.

In the Reserve Bank's view, loyalty points are price discounts or rebates. They are transfers to credit cardholders rather than costs associated with the provision of payment card services, and hence are not eligible for inclusion in the determination of interchange fees. This view is supported by Gans and King, consultants to National Australia Bank, and is consistent with the treatment of rebates in recent theoretical models of optimal interchange fees.⁹⁷ In reviewing this issue, Katz also drew attention to the consequences that would arise if the costs of loyalty programs were included in interchange fees.⁹⁸ He concluded that this would place little effective limit on the ability of issuers to impose inefficiently high interchange fees to fund loyalty programs, since the cost of the programs would be incorporated in the calculation of allowable interchange fees.

Cardholder services

The avoidable cost methodology includes in the interchange fee the costs of providing cardholder services, such as the printing and distribution of statements and the acceptance of repayments. These costs are unrelated to the payment services of a credit card or to payment network considerations. They are pure account services to cardholders, just as they are when provided in conjunction with other payment instruments.

Cost of capital and sunk costs

The avoidable cost methodology includes in the interchange fee a return on the capital committed by card issuers and an allowance for the sunk costs of issuers, in the form of past losses on credit card issuing. Although these two concepts are different in principle, the argument for their inclusion amounts to the same thing – the interchange fee should have built into it a rate of return on credit card issuing.⁹⁹

97 See Gans and King (2001d), p 32 and Katz (2001), p 35. In his critical analysis of interchange fees, Frankel has observed that banks "... pass some of the additional profits [generated by interchange fees] on to credit card customers in the form of rebates". Frankel (1998), p 344.

98 Katz (2001), p 35.

99 "From a practical perspective, sunk costs are typically reflected in the return on equity capital that is earned to recognize the risk of the business and the life cycle return on capital requirements." Australian Bankers' Association (2001b), p 77.



All firms need to commit capital to support their activities and require a sufficient return on that capital if they are to remain in the business. If the return on capital is too low, the capital would be better employed elsewhere. The concept of an allowance for past losses is slightly different. It recognises that firms may incur losses in the early years of an investment in the expectation of building the business and realising profits in the future that would offset the earlier losses.

The Reserve Bank acknowledges that credit card issuers have undertaken a substantial investment in the development of credit card networks and that they are entitled to earn a return, both on the capital currently committed and on past investments. It does not agree, however, that these returns should be earned entirely through the interchange fee, as the avoidable cost methodology requires. There would be logic in individual issuers seeking from merchants a return on the capital committed to providing payment services to merchants (eg that part of the capital costs of chip technology aimed at fraud prevention), although it is not clear how different “hurdle” rates of return for different issuers could be credibly averaged for inclusion in an interchange fee.

However, there is no obvious logic in the argument that card issuers should seek to earn a return on the *total* capital committed to the card issuing business exclusively through an interchange fee passed onto merchants. Such a process would amount to card scheme members collectively underwriting an industry average rate of return for credit card issuing. To include it in any standard on interchange fees would imply an official endorsement of that average. Issuers have revenue sources other than interchange fees and are able to earn returns through the pricing of their card services to cardholders, just as they do for other financial products. In this way, the rate of return for an individual issuer is largely subject to competitive forces.

The Reserve Bank’s views on the treatment of the costs of capital and sunk costs is consistent with the approach taken by MasterCard and Visa and is supported by Gans and King. The latter note that:

“If interchange fees for issuers are reduced because their sunk investment costs are not taken into account, issuers will be able to recover those costs from other revenue sources. This is precisely because all issuers receive a common interchange fee and so changes in that fee would, for the most part, not impact on their profits in competition with one another.

In effect, issuers and acquirers will earn their sunk entry costs in the marketplace ... As in all markets, firms will enter or exit issuing and acquiring only if they can earn a return on sunk expenditures and



hence, there is no further need for regulatory underwriting of such returns.”¹⁰⁰

The retailers’ proposal

In contrast to the different methodologies discussed above, the ARA has argued for the abolition of interchange fees in the credit card system in Australia and their replacement with a “fee for service”.¹⁰¹ This fee would vary depending on the infrastructure investment and actual costs incurred by those parties, including merchants, involved in the processing of credit card transactions.

Under the ARA proposal, which has been explained to the Reserve Bank in consultations, the cardholder would pay for those costs that the issuer incurs on its behalf, including the cost of the interest-free period, credit losses and account maintenance costs. The issuer would negotiate to pay the acquirer a fee for access to merchants and, where the merchant provides the infrastructure, this fee would pass to the merchant. The merchant would pay the acquirer for settlement services and any other costs relating to its access to the network.

The underlying logic of this proposal is that the providers of the network infrastructure (acquirers and sometimes merchants) ensure cardholders and merchants have access to a payment system and that providers should be recompensed for this. That same logic implies that card issuers do not provide payment services for which merchants are the main beneficiary, hence eschewing the need for an interchange fee. It also implies that negotiations between issuers and acquirers would be bilateral, as they are in Australia’s debit card system.

The ARA proposal has strong similarities with the justifications for the flow of interchange fees from issuers to acquirers (and some merchants) in Australia’s debit card system. The proposal would represent a major departure from long-established credit card arrangements, for which there is no precedent in any country. It could also pose substantial practical difficulties. Many of the difficulties the Reserve Bank has identified with interchange fee setting for credit cards – the rigidity of fees and the lack of transparency in fee setting – are present, if not worse, in systems with bilateral negotiations, as the ATM and debit card systems in Australia have illustrated. Furthermore, fee setting based on a web of bilateral agreements could make access difficult for small participants. Under current credit card scheme arrangements, membership criteria are at least objective.

100 Gans and King (2001d), pp 33-34.

101 Australian Retailers Association (2001b).



2.7 A draft standard for wholesale fee setting

In the Reserve Bank's opinion, current arrangements for the collective setting of interchange fees in the designated credit card schemes are not in the public interest. As noted earlier, these arrangements are characterised by their rigidity, lack of transparency and absence of any clearly articulated methodology, and they have been able to persist because of the absence of strong competitive conditions. Given the major changes that have taken place in technology, credit card volumes and costs over the period, it would be purely fortuitous that a particular interchange fee set by Bankcard in 1974, and that was also adopted by the international card schemes in 1993, results in efficient pricing of credit card services to cardholders and merchants, and maximises community welfare, in 2001. The card schemes and their members have proposed alternative methodologies for setting interchange fees, but these do not meet the principles which the Reserve Bank believes are needed to promote efficiency and transparency in fee setting. The methodologies would charge to merchants, and to the community as a whole, credit card costs that arise out of the provision of specific credit card services to cardholders.

For these reasons, the Reserve Bank has concluded that a standard is needed, in the public interest, that would enshrine its principles for interchange fee setting. The standard would apply to participants in the three designated credit card schemes, under the *Payment Systems (Regulation) Act 1998*.¹⁰²

The Reserve Bank's draft standard seeks to ensure that interchange fees in designated credit card schemes are calculated on the basis of an objective, transparent and cost-based methodology and are regularly reviewed. The methodology is based on the credit card payment services which are provided to merchants, and for which card issuers recover costs through interchange fees. In the Reserve Bank's opinion, only two categories of issuers' costs are eligible for inclusion in the calculation. These are:

- (i) costs incurred for processing transactions received from other scheme members that would not be incurred if the issuer were also the acquirer. These are costs associated with operating the credit card payment network and include the costs of receiving, verifying, reconciling and settlement of transactions from other scheme members. The costs would be separately calculated for electronic and paper-based transactions; and

102 The ABA has submitted that, if the Reserve Bank is to use its payments system powers, interchange fee setting should be regulated via an access regime rather than a standard. Australian Bankers' Association (2001b), Chapter 2. The Reserve Bank, drawing on advice from senior counsel, does not accept this interpretation of its powers.



-
- (ii) costs for fraud and fraud prevention and authorisation incurred in providing any payment guarantees. The payment guarantee is a payment service provided by a credit card of which merchants are the main beneficiary. Again, costs will be separately calculated for electronic and paper-based transactions. However, where issuers can charge fraud costs back to the merchant, such as in “card not present” transactions, these costs would not be included in the interchange fee (nor presumably in a merchant service fee); to do so would be double counting.

In principle, the payment guarantee could be “unbundled” from other credit card payment services and provided to merchants by third parties, such as insurance companies. At this point, there are no signs of alternative suppliers of this product emerging in Australia. However, if such a market were to develop, arguments for inclusion of the costs of the payment guarantee in the interchange fee would need to be revisited.

The draft standard provides for differential interchange fees for different types of transactions (paper vs electronic) and differences in the credit card payment services provided to merchants (payment guarantee vs no payment guarantee).

The draft standard requires that interchange fees in a designated credit card scheme be based on the eligible costs of participants accounting for at least 90 per cent of the value of transactions in that scheme. Costs would be provided to an independent expert agreed to by the Reserve Bank, who would calculate interchange fees for that scheme on a weighted average basis. Interchange fees so calculated would be the maximum interchange fees for that scheme, but individual issuers would be free to “post” lower interchange fees. The data and the interchange fee calculations of the independent expert must be provided to the Reserve Bank, which would satisfy itself that the data were consistent with the standard. In the interests of transparency, each designated credit card scheme must also publish the data (in aggregate form) and its interchange fees. Interchange fees must be reviewed by the designated credit card schemes if the Reserve Bank considered that changes in costs warranted a review or, in any event, on a three-year cycle.

The draft standard also aims to provide legal certainty to the designated credit card schemes and their members. As noted earlier, the ACCC has advised that the collective setting of interchange fees is a breach of the price-fixing prohibitions of the *Trade Practices Act 1974*. At the time the credit card schemes were designated, the Reserve Bank and the ACCC stated that it was their intention to ensure that credit card schemes and their members would not be at risk under the *Trade Practices Act 1974* as a result of complying with the Reserve Bank’s requirements. The draft



standard does not require the credit card schemes or their members to act in a way that would put them in breach of the *Trade Practices Act 1974*.

The draft standard on wholesale fee setting is set out below.



Standard No. 1

Draft Standard for Designated Credit Card Schemes

The Setting of Wholesale (“Interchange”) Fees

Objective

The objective of this Standard is to promote:

- (i) efficiency; and
- (ii) competition

in the payments system by ensuring that any wholesale (“interchange”) fees in designated credit card schemes are determined on the basis of an objective, transparent and cost-based methodology and are regularly reviewed.

Application

1. This Standard is determined under Section 18 of the *Payment Systems (Regulation) Act 1998*.
2. This Standard applies to the three credit card systems designated on 12 April 2001 by the Reserve Bank of Australia under Section 11 of the *Payment Systems (Regulation) Act 1998*, being:
 - (i) the credit card system operated within Australia known as the Bankcard Scheme;
 - (ii) the credit card system operated within Australia known as the MasterCard System or MasterCard Network Card System; and
 - (iii) the credit card system operated within Australia known as the Visa System or the Visa Network Card System,each referred to as follows as a Scheme.
3. In this Standard:
 - an “acquirer” provides services to merchants to allow the merchant to accept a Scheme’s credit cards;
 - “credit card transaction” or “transaction” means a transaction between a credit card holder and a merchant involving the purchase of goods or services on credit by that credit card holder using a credit card;



“electronic transaction” means a credit card transaction for which authorisation is obtained by the merchant electronically;

“financial year” is the 12 month period ending 30 June;

an “issuer” issues a Scheme’s credit cards to its customers;

“nominated Scheme participants” are those issuers in a Scheme that issued, in aggregate, credit cards which were used in at least 90 per cent of credit card transactions by value in that Scheme in the financial year prior to the year in which interchange fees must be calculated;

“payment guarantee” means a guarantee provided to a merchant in respect of a credit card transaction;

“rules of a Scheme” or “rules” include the constitution of a Scheme, rules, by-laws, procedures or any arrangement in relation to a Scheme by which participants in the Scheme in Australia may consider themselves bound;

“Scheme Administrator” is the administrator of the Scheme, if any;

a “Scheme’s credit card” is a credit card issued in accordance with the rules of that Scheme;

use of a credit card includes use of a credit card number.

4. This Standard refers to wholesale fees, known as “interchange” fees, which are paid to an issuer in Australia in a Scheme by an acquirer in Australia in that Scheme in relation to a credit card transaction.
5. This Standard is to be interpreted:
 - in accordance with its objective; and
 - by looking beyond form to substance.
6. This Standard comes into force on [].

Methodology

7. Interchange fees must be based on credit card payment services which are provided to merchants. The only amounts that can be included in the calculation of an interchange fee in a Scheme are the following costs in respect of that scheme:
 - (i) issuers’ costs incurred in processing credit card transactions received from an acquirer that would not be incurred if the issuer was also



the acquirer in those transactions. This category includes the costs of receiving, verifying, reconciling and settling such transactions;

- (ii) issuers' costs incurred in respect of fraud and fraud prevention; and
- (iii) issuers' costs incurred in providing authorisation of credit card transactions,

(collectively the “**eligible costs**”).

8. In a Scheme separate interchange fees must apply to:
 - (i) electronic transactions that are the subject of a payment guarantee;
 - (ii) transactions (other than electronic transactions) that are the subject of a payment guarantee;
 - (iii) transactions (other than electronic transactions) that are not the subject of a payment guarantee; and
 - (iv) electronic transactions that are not the subject of a payment guarantee,(collectively the “**specified transactions**”) to take into account the difference in eligible costs incurred by the issuer.

Determination of fees

9. Data on eligible costs of each nominated Scheme participant for each type of specified transaction must be provided by that participant to an independent expert agreed to by the Reserve Bank of Australia. The data must be drawn from accounting records of the nominated Scheme participant for the previous financial year prepared in accordance with generally accepted accounting standards.
10. The expert must review the data to determine if the costs included are eligible costs and use the data on eligible costs to calculate an interchange fee for each type of specified transaction. The interchange fee for each type of specified transaction must be calculated as a weighted average of the nominated Scheme participants' eligible costs for that specified transaction. The weights to be used are the shares of each nominated Scheme participant in the total value of the transactions undertaken on credit cards issued by all the nominated Scheme participants in the financial year to which the data relates.



11. The Scheme Administrator or, if none, the nominated Scheme participants, must provide the Reserve Bank of Australia with the data on eligible costs used by the independent expert and the interchange fees calculated by that expert.
12. The Scheme Administrator or, if none, participants in the Scheme must publish in a national newspaper and permanently publish on the Scheme Administrator's website, or, if none, on another relevant website:
 - (i) the aggregate data used by the expert to calculate interchange fees; and
 - (ii) the interchange fees calculated by the expert in accordance with paragraph 10 of this Standard.
13. Any interchange fees charged or paid by a participant in respect of a specified transaction in a Scheme must not exceed the interchange fee calculated by the expert for that specified transaction in accordance with this Standard.
14. The interchange fees of a Scheme must be calculated and published in accordance with this Standard within [3] months after this Standard comes into force.

Review of fees

15. The interchange fees must be recalculated and published in accordance with this Standard every three years from the date this Standard comes into force. If the Reserve Bank of Australia considers that changes in costs warrant an earlier recalculation of interchange fees, it can so advise the Administrator of a Scheme or, if none, each of the participants in the Scheme. A recalculation of interchange fees in accordance with this Standard must be carried out and completed and any new interchange fee published in accordance with this Standard within [3] months of that advice.

Reserve Bank of Australia
SYDNEY