Australian Bankers' Association

Submission to the
Reserve Bank of Australia

Inquiry into Credit Card Systems

ABA Supplementary Submission: Assessment of the Impact of Inappropriate Interchange Fee Levels

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Assessment of the Impact of Inappropriate Interchange Fee Levels[1]

Introduction

The current inquiry into the setting of credit card interchange fees for domestic purchase transactions has focused to a large degree on the economic theory that supports the methodology that is used to determine the level of the interchange fee.

The marketplace is elusive and the link between theory and practice is not perfect. Therefore, there is a need to assess what the marketplace may actually do in addition to assessing what theoretically should happen.

In theory there may be a very precise interchange fee that will optimize the size of the credit card network.[2] The practicality of the marketplace is that the precise level is likely to be impossible to determine. However, there is likely to be a range within which interchange fees will yield a near optimal result; the cost of deriving greater precision is likely to be higher than the benefit derived.

This document describes scenarios that could result if interchange fees are establish too low or too high in relation to that range of interchange fees that would yield the greatest (or near greatest) benefit. The marketplace is not made up of homogenous participants. Some are larger and some are smaller; some are net card issuers and some are net card acquirers. Change will not impact all participants equally. This has important implications for both the magnitude of any change and the timing and approach used to implement changes.

The credit card network is complex with many variables. Wholesale prices are only one factor that impacts the direction and well being of the network. What is perceived as a positive change in one variable (lower wholesale prices) may have a significant adverse impact on another variable (e.g. competition) that adversely impacts the entire network. However, this document is not a forecast or prophesy; the word "could" is used rather than the word "would". The intent is to describe likely linkages and possible outcomes, not the probability or significance of those outcomes other than to confirm that the greater the change and the more rapidly it is made, the greater the impact and the less likely the outcome will look like the status quo.

[1] The analysis in this document has been conducted and prepared on the ABA's behalf by independent economic and accounting consultants. It does not represent input from or consideration by any member bank or the views of any member bank, as to possible responses to the consequences of different interchange fee determinations that may be made.

[2] "Network refers to that complex of inter-relationships, not to physical interconnections", *ABA Submission*, p. 42.

Overview

The analysis provided below relates to the credit card market for domestic purchase transactions. In particular it is based on "not-on-us" transactions for which there are different parties (e.g. banks) that provide the acquiring functions and the issuing functions. This type of network is a "four-party network" as opposed to "three-party networks" in which the same institution (e.g. Amex or Diners) provides both the issuing function and the acquiring function.

Wholesale pricing only explicitly relates to not-on-us transactions. In the instance of an on-us transaction, one bank has a direct relationship with both the cardholder and merchant. In that case the bank receives 100 per cent of the revenue related to the transaction and incurs 100 per cent of the cost. There is no explicit interchange fee and the bank has complete (subject to competition for the merchant business and cardholder business) discretion of how much to charge the merchant and the cardholder.

In the instance of not-on-us transactions, there are also two ultimate revenue sources: the cardholder and the merchant. For the issuer to recover its costs, revenue is obtained directly from the cardholder from annual and other fees and from the merchant indirectly by means of the interchange fee that the issuer charges to the acquirer.[3]

In order to maintain a viable buy now, pay later payment card network, an excessive reduction in interchange fees could leave the issuer with no choice but to attempt to either (1) reduce costs, (2) reduce services to their cardholders and acquirers or (3) increase prices to their cardholders. This could adversely impact the cooperative nature of the network; upset the needed network balance between issuers and acquirers (a concern that is not an issue in three-party charge card or closed networks in which interchange fees are implicit); and return the four-party networks to a less attractive payment alternative for both consumers and merchants — looking much as they did twenty to thirty years ago. The parties most adversely impacted would be the segments of the cardholder base (least credit-worthy customers) and merchant base (small to medium enterprises) that have the fewest alternative buy now, pay later payment product options (e.g. store cards or store credit).

Without an appropriate level and balance of contribution to the issuers' cost recovery from both sources of revenue (the merchant via the acquirer and the cardholder), either the issuer or the acquirer is motivated to take unilateral actions to maintain its profits, often at the expense and to the detriment of other participants (including cardholders and merchants). These actions could result in an industry structure in which the four-party networks would function more similarly to three-party networks with lower economies of scale; fewer cardholders and higher cardholder fees; fewer merchants with higher merchant fees; and less competition to the nearest product substitute (the charge cards of Amex and Diners).

The interchange process allows the four parties involved in a buy now, pay later transaction to smoothly complete it with almost complete transparency to the end customers — the cardholder and the merchant. The interchange fee allows the transfer of economic benefit among the participants recognising the role that each plays. In order for a four-party payment network to achieve — and perhaps surpass — the benefits of a single bank network or three-party charge card network requires the issuing

[3] The fact that the issuer charges an interchange fee to the acquirer is not a guarantee that the acquirer will be able to recover those fees from the merchant. Pricing to the merchant is driven by the competitive acquiring market and may, in the short term, result in merchant prices below total acquirer costs.

and acquiring sides of the network to interact effectively and efficiently. Domestic and international card associations assist in this process through rule setting, switching of data and financial transactions and brand management related to both cardholders and merchants. If the economics of interchange (including recognition of costs and setting of fees) are not consistent with the practicable commercial requirements allowing a four party payment network to operate efficiently, the cooperative structure of the four-party network could be lost. Issuers and acquirers begin to act only in their own interests (as opposed to the interests of the payment network), resulting in a decline of not-on-us transaction volumes and revenues, and ultimately eliminating the need for a card association brand and processing.

There are several examples (e.g. Korea and Japan) where "interchange"[4] has been established either "too low" (or non-existent) or "too high". Competitive market forces have then created a situation where, with insufficient economic incentive to encourage and reward participants for issuing (i.e. when interchange is too low) or acquiring (i.e. when interchange is too high), members have focused on on-us transactions where they control and capture all or most of the end-to-end economics of the transaction. These situations have led to low card use and higher costs to the merchants.

The following discussion provides a more detailed analysis of what could occur if interchange fees are too low or too high. Examples taken from Japanese and Korean buy now, pay later four-party payment networks are provided.

Interchange Too Low

Background

Issuers would be unlikely to significantly reduce services and features that are provided to merchants (e.g. near immediate settlement) or cardholders (a reasonable deferred payment period), as these would adversely impact the attractiveness of the product. They would likely initially seek to reduce costs to offset any reduction in revenue, but opportunities to do this would be limited without major investment or industry restructuring — issuers already have very strong incentives to keep costs to the minimum. Moreover at some point there is a limit to how much network infrastructure and card centre costs can be reduced, regardless of transaction levels.

Notwithstanding limited cost reduction opportunities, to mitigate revenue lost if interchange fees are set too low, issuers have several actual or theoretical additional revenue sources for replacing a greatly reduced interchange revenue stream, all of which involve increased charges to the Cardholder:

- Annual and late fees
- Transaction fees to the cardholder.

[4] There are marketplace instances in which the concept of interchange, interchange costs and interchange fees is not well understood. In those cases, fees are established under the name of "interchange" but the underlying rationale is not consistent with the interchange fee rationale that was established by the international card associations during the 1970's.

Regardless of how the revenue is replaced, the result could be a substantial increase in the explicit cost to the cardholder and the inevitable reduction in this use of the product. This can be illustrated whether the increased charges are applied to payment transactions (impacting all cardholders) or an increase in the APR (impacting only the cardholders that use the extended credit functionality). The analysis is based on the following assumptions:

Annual fees—$ 15.00[6]

Transactions per card per year: 50

Average transaction value: $ 100

Annual turnover—$ 5,000 (50 * $100)

Interest rate on Revolving Balances—15 per cent

Average Interchange Fee—0.95 per cent of transaction value.

The following analyses are based on the assumption that interchange fees decline from the current average of 0.95 per cent of purchase transaction value to a very low figure of 0.40 per cent,[7] corresponding (approximately) to the upper end of the "indicative interchange fee — alternative cost recovery basis" range of 0.28 to 0.41 per cent presented in Table 5.3 of the RBA/ACCC *Joint Study* — a calculation whose basis the ABA strongly contests, on grounds set out in earlier submissions to this Inquiry.

Cardholder Impact

Payment Transactions

Assuming a per transaction fee charged to the cardholder is implemented to replace the interchange revenue loss to the issuer, annual charges to the cardholder, through a combination of annual fees and transaction fees, would need to rise by about 183 per cent to $42.50[8].

- Annual fee: $ 15.00[9]
- Transaction fees replace the interchange fee revenue loss: (0.95 per cent - 0.40 per cent) * $100.00 * 50 transactions per year = $ 27.50
- A total annual cost of $ 42.50 (an increase of 183 per cent).

Net Result

Increasing charges to cardholders to recover lower interchange revenues could result in fewer cardholders, fewer purchase transactions, an advantage to three-party charge card networks and cardholders that no longer have access to credit:

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[6] This would be a relatively low fee in Australia. The average annual fee would at present be over $20.

[7] Alternative scenarios can be assessed by assuming different levels of interchange fees. The simplified calculation is linear (eg the reduction of interchange fees from 0.95 per cent to 0.85 pere cent will have the same incremental dollar impact as a reduction from 0.85 per cent to 0.75 per cent). However, the actual marketplace results may be different. As interchange fees are reduced and the Issuers increase cardholder charges, more cardholders are likely to opt out, which results in the revenue shortfall being spread over fewer cardholders. Thus an incremental X per cent decrease in interchange fees is likely to have greater than an X per cent impact on Cardholder charges.

[8] Heavy transactors would see an increase greater than 183 per cent and cardholders with less usage would see an increase of less than 183 per cent.

[9] See footnote 6.

- Many cardholders might abandon the card in favour of a three-party charge card whose issuing costs were shared proportionately more with the merchant (e.g. Amex or Diners). In effect, setting interchange fees too low would provide a competitive advantage to a near substitute.

  The cardholder might also opt to use other payment products such as cash or cheques and forgo the buy now, pay later functionality of a credit card. This would be the case for those cardholders (1) for whom, by the reduction of interchange fees, the payment functionality had been priced beyond its value to them or (2) who would not qualify for a three-party buy now, pay later card, which is a close product substitute.

  Some cardholders would retain the card because of inertia (however the number of these cardholders would erode over time as they eventually responded to the increased charges).

  Some cardholders would retain the card because of brand loyalty or as a fallback payment product (but reduce card usage).

- Because issuers would have to look directly to the individual cardholder for recovery of a higher portion of issuing costs, it would be unlikely that all current cardholders would qualify for a credit card, thereby further reducing the cardholder base.

  Banks might not be willing to provide a buy now, pay later purchase credit limit to many cardholders, unless it was secured-- and many cardholders might not be able to meet the requirements. Therefore, many people would lose access to the only credit available to them.

If the annual card fees were increased in place of imposing a per transaction fee, it is likely that as many or more cardholders would abandon the card, depending on current card usage (eg for high transactors, the effective cost per transaction would be low; for low transactors the effective cost per card would be high).

The net result could be a significant decline in the number of cardholders and a higher percentage decline in the number of purchase transactions (because card use would decline for those cardholders that retained the card). As the number of credit cards on issue and purchase transactions declined, the issuers would need to increase prices even further to the extent that they were not able to cut costs as fast as cards on issue and purchase transactions declined.

Issuer Impact

Faced with a declining cardholder base and transaction volumes, issuers would be forced to find ways to decrease costs to maintain a profitable, albeit smaller credit card business. The issuer might first look infrastructure costs but there is a limit to opportunities to reduce costs in this area, given their fixed nature and given that such opportunities are constantly being pursued anyway. They would then turn to certain product functionalities and services that are provided by the issuer but benefit the acquirer. For example, merchants with high fraud would be dropped and the universal payment guarantee would be curtailed to merchants or groups of merchants whose historical transactions had generated significant losses of any type. The use of the card as a ubiquitous payment product would decline as merchants could not qualify for the system and as issuers avoided potential loss situations where recovery of the cost of providing the payment guarantee could not be assured.

Another option would be to eliminate near-immediate settlement with the acquirer. In that case, the acquirer would be required to finance the buy now, pay later purchase transaction and would likely charge the merchant for that function.

A smaller cardholder base and reduced services could lead to diseconomies of scale for issuing and higher unit costs:

- As cardholders left the network, the remaining fixed costs would be spread over fewer and fewer cardholders.
- The reduced cardholder base would require a further increase in fees and reduction in services provided for the benefit of the merchant / acquirers.
- Additional increase in fees would lead to a further reduction in cardholders and transaction volume.

A likely outcome is a credit card network that is sufficiently small that it could not viably support an intense, competitive issuer market. In that case, one or two issuers could consolidate the business to achieve economies of scale comparable to a three-party charge card brand. Unfettered by the four-party interchange constraints, these banks would sign up merchants and cardholders and charge both parties whatever the market would bear. The three-party payment card network model of relatively high cardholder fees combined with higher (than four-party network) merchant fees is the best example of where this could lead for merchants and cardholders.

Acquirer Impact

The (very) immediate impact on acquirers of a reduction in interchange fees could be windfall profits for the acquirer, except where the merchant service fee is based on an interchange cost plus pricing arrangement.

In the intermediate term, this decrease in the acquirers' costs may be passed through to merchants:

- Aggressive acquiring competition could result in the reduction in interchange fees being passed on to merchants – or at least the large merchants.
- During this period, the issuers' loss would be the merchants' gain.

Longer term, the merchant / acquirer would be impacted by steps taken by the issuers to maintain a viable issuing business:

- As noted above, the issuers are likely to modify the payment guarantee resulting in merchants incurring higher direct costs to mitigate payment risks such as customer fraud and counterfeit card usage. These costs are likely to be higher when the merchant has to arrange them individually because currently costs are spread across a wide (and for some relevant costs, a global) merchant base.

- If the issuer modifies the settlement terms with the acquirer / merchant, either the merchant will have to finance the buy now, pay later transaction, have the acquirer finance it (at some fee charged to the merchant) or decide not to accept credit cards.

- Payment network members would limit merchants that could accept credit cards to those who could guarantee (at some cost to the merchant) some base quality in their acceptance (e.g. fraud loss control, authorisation procedures, and so forth). The merchants that would be dropped from the system would likely be small and medium sized organizations that could not maintain quality standards and procedures required to adequately mitigate issuer and acquirer risk.

Thus, an inappropriate reduction in interchange fees paid by the merchant / acquirer could create a situation where the merchant base would be reduced and merchant costs would not decline (and could possibly increase even if the merchant fee declined).

In addition the merchant / acquirers could be impacted in the longer term by the decrease in the number of cardholders and the reduction in purchase transaction volumes:

- As transaction volumes decrease, some merchants would find it not economically viable to accept credit cards and the merchant base would decline.

- As the merchant base declines, the acquirers' costs would have to be spread over a smaller and smaller base, putting upward pressure on merchant fees.

- This reduction in economies of scale could result in merchant fees attaining the same level they were before interchange was significantly reduced or the credit card would become a "niche" business and merchant fees would be comparable to three-party charge card networks.

Participating Financial Institutions and the Card Associations[10]

With a greatly reduced four-party payment network (number of cardholders, volume of transactions, number of merchants), many current members might opt out of the network. Members that remain could find they are not able to support their issuing business based on cardholder revenue only. Large issuers faced with this situation would have another choice. They could in effect form their own payment card association that would treat all transactions as "on-us". They could sign up merchants (for a fee) and provide cardholders with a card to be used at those merchants.

One of two scenarios could evolve:

- One large member will become the dominant or only issuer and acquirer for the payment card network (although it may be owned by a number of financial institutions), or

- A few financial institutions could come together to form a "card company" similar to the card companies in Korea.

[10] Applicable to domestic and international associations.

Either of these outcomes is effectively moving the clock back in the sense of recreating a series of three-party credit card networks (as existed in the 1960s and 1970s in the United States) — with fewer merchants, fewer cardholders, lower economies of scale, less competition and higher fees to all parties.

Interchange Too High

If interchange fees were set too high (above the appropriate issuing costs), there could be consequences similar to the situation if interchange fees were too low. Certain merchant categories would no longer accept cards, as the cost would be too high compared to the benefits received and the availability of other payment products. The primary reason that merchants accept credit cards is to (1) reduce the cost of providing a buy now, pay later payment option to their customers to a level lower than they could achieve by providing the functionality themselves; (2) expand their potential customer base; (3) increase revenues and operating margins; and (4) reduce the total cost of the payment function.[11]

If interchange is set too high, the cost of this payment product becomes non-competitive and many or most merchants will not realise benefits equal or greater to the costs involved. Thus the higher the interchange fee, the less appealing the product is to the existing merchant base and new merchants.

Whenever merchants deem the cost of accepting credit cards is out of line with alternatives, they will opt to accept other methods of payment. Because credit card costs that are passed on to the merchants are average costs, merchants who otherwise could not afford to offer a deferred payment option to their customers are able to provide this option to a wide customer base. If the cost of participation is too high, the merchant will opt out of accepting buy now, pay later credit cards or accept only three-party payment cards.

With interchange fees too high (and cardholder fees likely to be very low) the number of merchants that accept credit cards would be small, making the acquiring business relatively unattractive. On the other hand issuers may be able to issue cards to a large number of customers, perhaps even “for free”. There might be less downward pressure on merchant fees in this “high interchange” scenario, because of attenuated competition in acquiring, and issuers would try to set as high a price as possible to the merchants that do accept cards and that they themselves acquire, because of the large (targeted) cardholder base they could deliver. They would seek to do the same via other acquirers. This scenario is characterised by a small and high cost payment network: few merchants and high merchant fees; relatively many cardholders and low cardholder fees; a strong bias towards on-us transactions, and relatively few transactions per card.

[11] 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 focused 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.

Korea and Japan

Korea and Japan are unique domestic credit card markets with high merchant fees, low per card transaction volumes and unattractive acquiring economics.

Country	Merchant Fee	Purchase Txns[12]	Average Interchange	% On-Us Txns[13]
Korea	3.2% (average)	8.8	2.9%	99^{+}%
Japan	1.5% - 8% (range)	5.6	2.4%	83%

Interchange fees in Japan are high by international comparisons. The Korean market for credit card purchase transactions shares the same economic characteristics as Japan. However, the evolution of the Korean market is different in that for a long period there were no interchange fees for domestic purchase transactions and only recently have (high) interchange fees been implemented.

- Until recently, all domestic purchase transactions were on-us. There was no domestic interchange fee because transactions were not exchanged between acquiring and issuing institutions (card companies).
- Because the card companies captured 100 per cent of the end-to-end economics of the credit card transaction, they were not motivated to change the structure of the credit card payment network to allow for interchanged (not-on-us) transactions. Therefore an explicit interchange fee was not required. If it had been commercially attractive to interchange transactions and expand the network in the absence of an interchange fee (i.e. with a *de facto* interchange fee of 0), market forces could have, but did not, lead in that direction.
- The card companies functioned in a manner similar to three-party charge card companies and had economic characteristics (indicated in the table above) similar to Japan, which has high interchange fees
- Korea recently introduced an interchange fee for domestic purchase transactions in order to stimulate the growth of the network and the benefits of economies of scale. The interchange fee established is very high (effectively 90 per cent of the merchant service fee that is obtained by the acquirer) and has not been effective in stimulating the interchange of transactions and the growth in transaction volumes.

Card companies in Japan and Korea perform the issuing and acquiring functions for most transactions they process (i.e. most transactions are on-us). The result is that the economics of the domestic credit card networks in Korea and Japan are different than in those countries where the networks operate as typical four-party networks (i.e. with a higher percentage of not-on-us transactions and "reasonable" domestic interchange). The following characterises the environment in Japan and Korea.

[12] Per card per year.
[13] Excludes international purchase transactions.

- Merchant fees are high and vary significantly between merchant categories.

  With three-party networks, merchant fees are set based on "what the market will bear". Unencumbered by acquiring competition, in Japan merchant fees range from 1.5 per cent to 8 per cent, depending on merchant category.

- Merchant fees are higher because high interchange fees mean that relatively few merchants are willing to accept the cards, hence weakening the incentive to acquire merchant transactions and potentially weakening competition in acquiring.

- High interchange fees lead to low acquiring margins because of merchant resistance to paying high enough merchant fees to give acquirers adequate margins.[14] As a result, the card companies are neither motivated to cooperate in the exchange of transactions, establish stand-alone acquiring business units nor compete for merchant transactions. Lack of acquiring competition limits downward competitive pressure on merchant fees from the acquirer side. Instead, card companies protect their self-interests by capturing as much of the merchant fee as possible to sustain a profitable card business. This is accomplished by mostly acquiring on-us transactions.

- The merchant cost to accept credit cards, including merchant fees, are higher because of inefficiencies related to card companies primarily acquiring on-us transactions (duplicate services and low economies of scale).

  In order to acquire on-us transactions, card companies require a merchant to sign a merchant agreement with each card company whose cards the merchant wants to accept. Managing and reconciling multiple acquiring contracts is time consuming and inefficient for the merchants. It is also inefficient for each of the card companies to have to sign an acquiring contract with each merchant, leading to diminished economies of scale and higher costs, which are passed on in the merchant fee.

- Card companies cannot expand and support merchant acceptance as quickly or as efficiently as four-party networks.

  Card companies have had to rely primarily on on-us transactions to support the cost of expanding acceptance (geographic or merchant categories). This lowers economies of scale (compared to an acquirer that acquires transactions for all issuers), which slows (or precludes) penetration of new merchant segments, denying them the benefits of credit card acceptance.

[14] In the Korean market, there is an implicit interchange fee for on-us transactions that is 70 per cent to 100 per cent of the merchant service fee. It is paid by the member of the credit card company that acquires the payment transaction to the member of the credit card company that issues the credit card.

- The larger number of three-party type payment networks in the market may lead to higher merchant fees.

  The ability of a three-party network to sign merchants (i.e. to have a merchant accept their particular card) is based on the value proposition that the card company brings to a particular merchant segment. The value proposition is based on the number of cards and collective customer profile of the card company's cardholder base.

- Additional three-party networks in the market tend to increase competition to obtain cardholders. This competition results in lower cardholder annual fees but can lead to higher "hidden" cardholder fees. In Korea and Japan, cardholder annual fees are in the US$5.00 to US$10.00 range but late fees are high (e.g. Korea charges 29 per cent interest on balances not paid on the due date). To the degree a card company cannot generate revenue from the cardholder, it is required to generate additional revenue from merchants through merchant fees.

  The practicable outcome is that each card company targets a select consumer group and merchant categories. In this way, each card company can exert greater pressure on merchant fees.

- One might expect that the relatively large number of card companies "competing" for the merchant's business in Japan and Korea would protect merchants from high merchant fees. However, in a business based on three-party systems, card companies are free to design strategies to avoid such competition. For example, each card company can target a different consumer group, which is attractive to particular merchant categories, and then concentrate its acceptance business on those merchant categories. In this way a card company can limit acquiring competition and charge higher merchant fees. Such strategies could not succeed in four-party payment networks because every merchant that signs with any acquirer in the network obtains the right to accept all cards issued by all network issuers.

It is interesting to note that in Korea there is keen competition to acquire international purchase transactions where international interchange fees apply. The reason for this is that the operating margin (merchant fee less the international interchange fee of 1 per cent to 1.2 per cent) for the acquirer for these transactions is attractive. Conversely, the introduction in Korea of a high interchange fee for domestic purchase transactions (approximately 2.9 per cent, based on the average merchant fee of 3.2 per cent) has not resulted in any significant interest in acquiring not-on-us transactions.