Retail Payment Systems Review Prepared for Retail NZ

12 January 2017

www.berl.co.nz



M4KING SEN5E OF 7HE NUMBERS

Author(s): Julian Williams, Fiona Stokes, Konrad Hurren

All work is done, and services rendered at the request of, and for the purposes of the client only. Neither BERL nor any of its employees accepts any responsibility on any grounds whatsoever, including negligence, to any other person.

While every effort is made by BERL to ensure that the information, opinions and forecasts provided to the client are accurate and reliable, BERL shall not be liable for any adverse consequences of the client's decisions made in reliance of any report provided by BERL, nor shall BERL be held to have given or implied any warranty as to whether any report provided by BERL will assist in the performance of the client's functions.

©BERL

Reference No: #5754

January 2017



M4KING SEN5E OF 7HE NUMBERS

Executive Summary

BERL prepared this report to inform the submissions of Retail NZ in response to an issues paper prepared by the Ministry of Business, Innovation and Employment entitled: "Retail payment systems in New Zealand". That paper summarises the problems of retail payment card systems in New Zealand and summarises their causes. It invites submissions by stakeholders on 32 questions on potential solutions to the issues identified. BERL is not itself making submissions to MBIE.

In this report we show issues for public policy arising from the current operation of payments card systems, in terms of four perspectives:

- Inefficiency
- Competition
- Inducements
- Technology.

The issues arising under inefficiency and competition require oversight and/or regulation by a regulatory body with appropriate powers. This is clear from international practice. The absence of a similar regulatory jurisdiction in New Zealand leads to excessive inefficiency that is undesirable to society.

Economic models widely show that retail payment card systems are inherently inefficient.

This inefficiency is a consequence of the systems' characteristic arrangements, hence it is a systematic inefficiency, because:

- payment systems raise merchant service fees (MSFs) in response to merchants' need to accept cards, despite the price rise, because merchants accept cards to attract customers from each other
- the issuing banks have substantial market power and this enables them to set high interchange fees that influence MSFs
- more intense competition alone will not reverse or mitigate this form of pricing because competition in the payments market is focused on banks gaining cardholders but the cardholders do not meet the costs of payments directly. In fact, over time, competition in this market is leading to higher costs.

Inefficiency in the payments card market needs to be addressed with regulation. That is a widely held view of economists and international bodies. Accordingly, we recommend the establishment of a regulatory body (potentially located within the Commerce Commission) with powers in the payments card systems to:

- identify excessive inefficiency
- investigate cases of excessive inefficiency
- propose remedies for excessive inefficiency
- enforce remedies for excessive inefficiency.

A large part of remedying excessive inefficiency will focus on setting and enforcing MSF levels. It will also involve deletion or monitoring of restrictive card scheme rules, particularly rules requiring honouring of all cards.

Improved competition in the acquirer market will increase overall efficiency. Competition in the acquirer market is enhanced by:

- increased transparency
- improved access to the acquiring market
- regulations prohibiting actions by incumbents to prevent entry to the acquiring market
- absence of the three rules: no surcharge; no steering; accept all cards and products.



The absence of a suitable level of competition is not easily remedied, since the definition of a market can be disputed as can the level of appropriate competition in these cases of imperfectly competitive markets, where some degree of a lack of competition is expected.

As well as this, competition can be encouraged and guided. Accordingly, in addition to the establishment of a regulator, we recommend the establishment of an oversight group in the payments card systems to:

- identify opportunities for improved competition in the payments card system
- recommend actions for the regulatory body to improve competition.

The competition oversight group and the regulatory body would work together. The oversight group should recommend action which the regulatory body can investigate and implement. The oversight group should advise the regulatory body.

The issues presently arising, and potential future issues from new technology are complex, and risk being misrepresented by various sector interest groups. New Zealand agencies and institutions do not possess the resources to commence their own investigations of global developments. Hence it seems reasonable to keep close contact with global organisations that do perform these investigations.

Accordingly, we recommend that the government allocate resources to developing international networks with forums such as the OECD, where these information exchanges occur.

In summary we recommend a range of actions ranging from regulation through to networking. These would likely occur simultaneously and so we can envisage a continuum of policy action to address the policy issues arising from the operation of the payments card systems.



Contents

	1.0	Introduction1			
	1.1	Ineffici	Inefficiency of payment card systems1		
		1.1.1	Economics1		
		1.1.2	Evidence2		
		1.1.3	Policy rationale		
	1.2 Competition within payment card systems		tition within payment card systems4		
		1.2.1	Economics4		
		1.2.2	Evidence5		
		1.2.3	Policy rationale6		
1.3 Inducements in pa		Induce	ments in payment card systems7		
		1.3.1	Economics7		
		1.3.2	Evidence7		
		1.3.3	Policy rationale8		
	1.4 Contactless and disruptive technologies		tless and disruptive technologies8		
		1.4.1	Economics		
		1.4.2	Evidence		
		1.4.3	Policy rationale10		
1.5 Recommendations for government policy interven		Recom	mendations for government policy intervention11		
Appendix A REFERENCES					



Review of retail payments card systems in New Zealand

1.0 Introduction

BERL prepared this report¹ to inform the submissions of Retail NZ in response to an issues paper prepared by the Ministry of Business, Innovation and Employment entitled: "Retail payment systems in New Zealand". That paper summarises the problems of retail payment card systems in New Zealand and summarises their causes. It invites submissions by stakeholders on 32 questions on potential solutions to the issues identified. BERL is not itself making submissions to MBIE.

We present analysis together with a knowledge base that support draft submissions prepared by BERL for Retail NZ. The knowledge base is an assembly of insights from reported studies and from selected stakeholder interviews. The analysis discusses the problems of the present retail cards payment systems in terms of four themes:

- 1. inefficiency of retail payment card systems
- 2. competition within retail payment card systems
- 3. inducements in payment card systems
- 4. contactless and disruptive technologies.

Within each theme, we assess the problems in terms of:

- economics underlying the issues
- evidence indicating them
- rationale for policy intervention to mitigate them.

We conclude with a set of recommendations that underscore the draft submissions to MBIE's 32 questions.

1.1 Inefficiency of payment card systems

1.1.1 Economics

Economic models widely show that retail payment card systems are inherently inefficient.

According to Wright (2012):

the fee structure in debit and credit cards is likely to be distorted with merchants paying too much to accept payment cards and cardholders paying too little, resulting in excessive usage of payment cards by consumers, a cost which is ultimately passed on to consumers paying by cash.

This inefficiency is a consequence of the systems' characteristic arrangements, hence it is a systematic inefficiency, because:

- payment card systems raise merchant service fees (MSFs) in response to merchants' need to accept cards despite the price rise, because merchants accept cards to attract customers from each other and remain competitive
- the issuing banks have substantial market power and this enables them to set high interchange fees that influence MSFs
- more intense competition alone will not reverse or mitigate this form of pricing.

¹ We gratefully acknowledge review of this paper and comments by John Land.



Wright (2012) presents a model that captures these two themes and establishes that privately set interchange rates (and therefore, MSFs) are systematically too high. Of these two themes, Wright indicates that merchants' need to accept cards is the primary source of the excessive inefficiency.

MSFs in this model are expected to systematically trend upwards, because as Carlton and Frankel (1995) observe, it is likely that the growing use of inducements from issuing banks to card holders, is: " a direct function not only of intensified competition among credit card Issuers, but also...of high interchange fees". In fact in these retail payment arrangements, excessive interchange fees encourage issuing banks to offer more inducements to consumers, thereby leading to increased consumer use of cards and so to higher interchange revenue.

Potentially, merchants may: (i) surcharge payments with cards differently to other payment types; (ii) steer customers away from certain cards and products; and (iii) decline to honour some cards and some products. However, Wright (2012) notes that different merchants across different industries face different transaction costs that vary in ways that a card product cannot perfectly correspond to. Consequently, excessive inefficiencies prevail in payment systems whether or not a merchant surcharges differentially for different card usage.

Excessive inefficiencies can be mitigated in part where there is:

- transparency of costs of different cards and products
- discretion of merchants to refuse to apply the 'three rules' (as the OECD term them of : (i) no surcharging; (ii) no steering; and (iii) honour all cards and products).

It is clear that different merchants are affected differently by the excessive MSFs. Some have the capacity, through economies of scale for example, to negotiate MSFs, while others do not.

1.1.2 Evidence

The evidence illustrating the excessive inefficiency of payment card systems includes:

- rising MSFs are evidence of the consequences of the systematic and excessive inefficiency of the retail payments card market:
 - in 2015, research by Covec for Retail NZ² showed that, on average, New Zealand merchants pay substantially more than merchants in Australia and the UK for handling credit and contactless debit card transactions³
 - in 2016, Retail NZ completed its second annual payments survey. This showed that, on average, merchant service fees for contactless debit transactions have remained constant, at 1.0 per cent, while an increase was observed in merchant service fees for Visa and MasterCard credit transactions from 1.4 to 1.7 per cent⁴.

Covec (2015) estimates that over 10 years from 2015 to 2024, total electronic payment costs faced by New Zealand retailers will be between \$2.9 billion and \$3.8 billion in present value terms. They estimate that regulatory intervention could potentially reduce these costs by between \$1.0 billion and nearly \$1.6 billion:

- stakeholders point to the BNZ's loss of market share of 7% on removal of its Airpoints programme indicating that the customers representing such market share were targeting rewards rather than credit card use
- the ability of some retailers to negotiate MSFs below standard levels indicates inefficiencies are present.

⁴ In reality, banks can charge fees in various ways



²Retrieved from <u>http://www.retail.kiwi/advocacy/payments/2016-payments-survey-show-upwards-trend-in-new-zealand-merchant-service-fees-for-credit-card-payments</u>

³ EFTPOS attracts no interchange and results in no merchant service fee to merchants.

1.1.3 Policy rationale

The rationale for policy intervention to remedy the inefficiencies noted above is provided by:

- economic analysis Wright (2012, discussed above) notes retail payment systems are inherently inefficient and that this problem is by exacerbated by competition not improved by it. Accordingly a regulatory solution is required. Carlton and Frankel (above) and Cabrel (2005) also concur that regulation is necessary in some instances.
- **regulatory policy** the Payments System Board (PSB) of the Reserve Bank of Australia (RBA, 2016), is mandated with the power to promote competition and efficiency in payments system markets and, among other things, has expressed the following important views:
 - there is little justification for significant interchange fees in mature card systems. It concluded that there is an ongoing role for regulation in the cards market, in part because of the perverse way in which competition between card schemes can drive up costs in the payments system
 - the right of merchants to surcharge for expensive payment methods is important for payments system efficiency and helps to hold down the cost of goods and services to consumers generally
- The Reserve Bank of Australia has also played an important role in regulating restrictive card scheme rules. For example, in July 2006 (with effect from 1 January 2007) it notified required reform of card scheme honour all cards rules preventing schemes from mandating that merchants must accept the scheme's debit cards as a choice of accepting the scheme's credit cards. This has been important in providing merchants with some countervailing power to the substantial market power of the schemes.
- regulatory policy globally Covec (2015) reviewed global policy interventions and concludes that a trend is emerging towards a structure in which a single body is charged with oversight and directed to pursue goals that include economic efficiency. These global interventions are also summarised by the RBA (2016)⁵
- a review of governance of payments systems⁶ (Summers, 2014) identified that the existence of a governance body leads to greatly reduced payments fees. The study established six principles for the effective governance of such systems:
 - o explicit objectives that reflect public policy considerations
 - o a means for measuring whether each of the major payments schemes meets the needs of endusers
 - o broad stakeholder participation in key decisions including strategy, design and rules
 - o arrangements that provide clear responsibility and accountability for outcomes
 - o incentives that promote the policy objectives, including fair and effective enforcement
 - o openness and transparency.

In New Zealand, there is currently no effective mandate for oversight or regulation of fee structures in payment card networks. Covec (2015) observes that while there are two main parties involved in payment systems governance in New Zealand, neither of these has a structure or mandate to pursue oversight of the payments system:

 the Reserve Bank is assigned responsibility for oversight of payment systems under section 5B of the Reserve Bank Act 1989. In exercising its powers, RBNZ is obliged (s156B) to promote "the maintenance of a sound and efficient financial system". This is a much broader objective than one related to payment systems. Moreover, in previous discussions with RBNZ officials we have found that they consider "sound" to be the primary consideration. In effect, RBNZ assumes that market forces will ensure efficiency

 ⁵ <u>http://www.rba.gov.au/payments-system/legal-framework/current-regulations.html</u>
⁶ Retail NZ (2015) Towards Fairer Payments Fees.



Payments New Zealand (PNZ) is owned by eight banks. Eleven other organisations have member status.
PNZ says that it "sets the rules that keep our payment system open, safe and efficient"⁷. PNZ focuses on technical inter-operability issues and the development of clearing systems.

In conclusion, a rationale for policy intervention to provide oversight or regulation in New Zealand to remedy the excessive inefficiencies of payments systems is supported by:

- economic analysis and assessment of international regulatory bodies
- oversight and regulation in foreign jurisdictions where regulatory bodies possess mandates to act.

New Zealand currently lacks arrangements to implement such oversight or regulation. However, such an oversight regime will not be entirely foreign to the banks operating in the New Zealand market since:

- many are Australasian banks which are already regulated in the Australian market
- many were previously subject to some level of constraint under Commerce Commission requirements for weighted average reduction in interchange fees following the 2009 settlement of the price fixing case against the schemes and banks and remain subject to the prohibitions in the settlement on enforcing scheme rules restricting surcharging and steering⁸.

The inefficiency in the current payment cards market is exacerbated by merchants facing a "must take" situation; they must accept cards at any fee because if they do not then they risk losing patronage.

1.2 Competition within payment card systems

1.2.1 Economics

Retail card payment systems operate in a complex market. Competition exists to varying degrees in its different parts. There are a small number of participating issuing banks (Issuers), card schemes and acquiring institutions (Acquirers). As noted above, they earn profits by capitalising / leveraging on the need of merchants to accept cards for payments.

In economic terms, the retail payment card market is modelled with five groups of agents:

- Consumers
- Merchants
- Platforms (card schemes) credit and debit, including EFTPOS
- Issuers and
- Acquirers.

We recognise that EFTPOS in New Zealand is a debit card scheme, albeit one that behaves differently to the others. It offers no inducements to consumers beyond convenience and, at least historically, has incurred a transaction fee for consumers. Some consumers still do pay a transaction fee on EFTPOS transactions⁹.

The agents operate in two markets, because as described by Rochet and Tirole (2004), the card schemes can affect the volume of transactions by charging more to one side of the market (in this case merchants) and reducing the price paid by the other side (in this case consumers) by an equal amount.

some accounts if average monthly account balance is less than \$5k, thereby a disadvantage for low income groups. Most home loan customers will be exempt though.



⁷ <u>http://www.paymentsnz.co.nz/</u>

⁸http://www.comcom.govt.nz/the-commission/media-centre/media-releases/detail/2009/creditcardsettlementslowernewzeala

⁹ ASB still charges 40 cents for Omni transactions - see https://www.asb.co.nz/bank-accounts/interest-rates-fees.html; Westpac still has on some accounts see <u>https://www.westpac.co.nz/managing-your-money/resources/fees/personal-bank-accounts/</u>; and so does Kiwibank see https://www.kiwibank.co.nz/personal-banking/rates-and-fees/fees/everyday-accounts-savings-accounts-investments/#everyday-accounts. Westpac and ASB fees apply on

The type and level of competition in each of these market segments varies:

- consumers are assumed not to be competing there exists ample supply of goods such that consumers never have to out-bid each other
- merchants are able to be split into two groups:
 - o SMEs which are numerous and sufficiently small to be engaged in essentially perfect competition (they are price takers)
 - o large firms which are dominant enough in their market to be able to affect the market price for their goods
- scheme debit platforms are offered by banks and these platforms compete with EFTPOS. These debit platforms use the same pricing structure as credit platforms (although the interchange rates for scheme debit transactions are not currently as high as for scheme credit transactions)
- credit schemes (currently, Visa and Mastercard) are engaged in competition for the custom of the Issuers and Acquirers.

Broadly speaking, the schemes compete with each other in order to attract the banks to offer their cards. The Issuers then compete with each other by attracting consumers to use cards and exploiting the need of merchants to accept cards once issued. The Acquirers (other institutions including banks and large retailers) attract merchants to accept cards.

The OECD (2012) notes that:

It is generally accepted that competition authorities and regulators should try to minimise barriers to entry or exit into a payments system and to abolish restrictions on market participants' behaviour, like the "no surcharge" rule, the "no steering" rule, or the "honour all cards" rule. However, there can be unintended consequences and not all systems require the same approach.

Imposition of the three rules (above) prevents merchants from steering customers towards certain bank Issuers. With the ability to surcharge, steer or not honour cards, different merchants can prefer the card products of different issuers. Consequently, this would put a constraint on issuers and the terms they can impose on acquirers (and therefore indirectly on the terms acquirers impose on merchants). Hence absence of the three rules enhances competition in the payment card system.

Improved opportunities for Acquirers to do business improves access to the Acquirers market.

1.2.2 Evidence

Acquirers compete against each other to attract merchants. They maximise profits by offsetting the merchant service fee they charge to merchants against the interchange and other fees they pay to Issuers and card Schemes.

It is generally observed that if competition between Acquirers for merchants is low, Acquirers will maximise profits with a high merchant service fee which will also include the interchange fee charged by the Issuer.

Issuers also compete for cardholders in a state of imperfect competition. The retail payments system model in New Zealand (following the settlement of the Commerce Commission price fixing litigation in 2009) is such that the card schemes (Visa and Mastercard) set a cap for the interchange fee between Issuers and Acquirers. (The 2016 MBIE issues paper at one point suggests that the Commission settlement of the interchange fee litigation has come to an end. That is not correct except in relation to the Commission's agreement with issuing banks for a weighted average reduction in interchange fees over a 3 year period. The terms of the settlement by the Commission with the card schemes and issuing banks remains in place in terms of providing for the method for setting interchange fees and also in imposing restrictions on the ability to enforce scheme rules prohibiting surcharging or steering by merchants.)



This interchange fee cap set by the schemes effectively becomes the default interchange rate as Issuers want to set the highest possible rate and merchants must accept cards. In practice issuers have consistently set their interchange fees at the maximum levels notified by the schemes. The market structure also allows the Issuers to charge interchange fees higher than required to cover transaction costs because merchants need to accept the cards they offer. Carlton and Frankel (1995) argue that Issuers use revenue from increased interchange fees to fund inducements (such as Rewards programmes). If interchange fees are too high and Issuers lose business due to merchants no longer accepting cards, they can simply increase inducements to attract more cardholders, with costs borne by merchants. This creates excessive inefficiency.

Importantly, this excessive inefficiency is not mitigated by more competition amongst Issuers because the inefficiency is a consequence of the need of merchants to accept cards.

An anecdotal report describes a situation where a large retailer became a self-acquirer. Subsequently, a card scheme exercised its market power and raised the scheme fee, which removed any cost savings the selfg acquirer would have had by processing transactions directly to the Issuer, and sent a signal that other aspirants would face similar action.

Only some merchants are able to negotiate better terms with acquiring banks. SMEs are not able to do either of these things to a significant degree and are forced to bear the brunt of the bias against merchants explained by Wright (2012). In addition, large merchants may be able to qualify for "strategic merchant rates" which are much lower than the standard rate offered to other businesses. Strategic merchant rates are offered to some large merchants but not others, according to criteria which are not made widely known. Not all large merchants satisfy these criteria. In some cases the strategic merchants from resisting the introduction of new high-interchange products or from imposing surcharges on such products.

1.2.3 Policy rationale

Many jurisdictions have regulatory bodies to uphold competition in markets. In New Zealand there is a power to do this within the Commerce Act (1986). Such power in New Zealand is not capable of improving the competition of the retail payment card system in ways that will improve its efficiency.

A desirable outcome and goal of policy would be to induce (or at least facilitate) an equilibrium where merchants are charged much lower merchant service fees by acquirers. A large part of these fees (70-80%) are the interchange fees charged to Acquirers by Issuers.

An effective policy intervention would be to improve the competitiveness of the acquiring market. This may be achieved by:

- increased transparency
- improved access to the acquiring market
- regulation prohibiting actions by incumbents to prevent entry of competitors
- regulation prohibiting scheme rules which prevent the exercise of countervailing power by merchants (such as, for example, the honour all cards rule).

As noted above there are no regulatory frameworks to provide such increased competitiveness, which is at odds with other like jurisdictions. However, the validity of such intervention is highlighted by regulations in countries with such frameworks, as noted by the Reserve Bank of Australia¹⁰ in 2016:

• Australia – Acquirers and payment facilitators will be required to provide merchants with easy-tounderstand information on the cost of acceptance for each scheme from 1 June 2017

¹⁰ http://www.rba.gov.au/publications/annual-reports/psb/2016/retail-payments-policy-and-developments.html



the United Kingdom – the Payments Systems Regulator (PSR) published a report (RBA, 2016) on the competitiveness of the country's payments system infrastructure. The report noted that the same group of banks owned both the UK's major interbank payments systems, and the infrastructure provider that services these systems. The PSR found that these ownership arrangements limited innovation and competition, and proposed that the banks sell their stake in the infrastructure provider.

1.3 Inducements in payment card systems

1.3.1 Economics

Loyalty schemes offered by Issuers and Acquirers¹¹ seek to attract a greater number of consumers. This is achieved with a strategy called *divide and conquer*. Following the logic of Rochet and Tirole (2004) the fee structure is set so that the market is *divided* – by subsidising the consumers, and *conquered* – by charging the merchants. The subsidisation of consumers manifests itself in the form of rewards and loyalty schemes offered by issuing banks on behalf of card platforms, while the *conquered* merchants face a merchant services fee. To the extent that it is possible, merchants will raise prices to all consumers in order to recoup the costs they bear through the merchant services fee.

1.3.2 Evidence

Merchant service fees in New Zealand are already among the highest in the world – as noted by Covec (2015). This is due to the structure of the market which encourages issuing banks to offer as high rewards as possible to attract consumers. The costs of these rewards are funded through the interchange fee between Issuers and Acquirers which is in turn funded by the merchant services fee.

Covec (2015) presents the results of their econometric model of fee growth in an unregulated market. They show that under a set of realistic assumptions about contactless payment method growth, total merchant services fees continue to grow over time.¹²

This increase is due to issuing banks competing for consumers by offering ever increasing rewards to achieve card holder loyalty.

Anecdotal reports indicate that an increasing number of consumers are using cards with rewards attached, which imposes additional costs on merchants with little additional benefit to merchants (or to consumers as an overall class). These consumers could just have easily used EFTPOS but are attracted to scheme credit cards because of the rewards.

It is generally observed that loyalty schemes distort the value of different payment methods. In order for Issuers to reward users of the high reward cards, they charge higher interchange fees to Acquirers which are in turn passed on to merchants through higher MSFs. These fees are then passed onto the consumer in the form of higher prices, regardless of the method of payment that the consumer uses. This effectively sets up a system where one type of payment method (such as cash) is subsidising the cost of another payment method (high reward cards).

It is generally observed that loyalty schemes produce a wealth transfer from card users with low rewards programmes, to card users with high rewards programmes, since

• all consumers face the same one price from a merchant

¹² Covec (2015) Figure 4



¹¹ In contrast, loyalty schemes offered by merchants are a strategy to retain and win customers by rewarding repeat purchasing, and gaining insight into consumer behaviour. These are funded by the merchant, and both consumers and merchants benefit.

• there is a higher propensity of high reward card users to use their cards more and so achieve higher rewards.

In addition, there is likely to be a transfer from low-income to high-income households. While there are no detailed studies on this question we can note that, while some low-income families may use credit cards:

- card users with low incomes are not generally granted access to high rewards cards
- card users with high incomes can satisfy the criteria for access to high rewards cards.

These observations linked with the usual result that high reward cards users are subsidised by other consumers, suggest that low-income card users and cash users, subsidise high-income card users.

Acquirers further incentivise card users with high incomes by increasing the rewards offered to those with higher credit limits. The natural conclusion to this is that those with higher incomes are not only granted access to high rewards cards, but are given disproportionate rewards due to the depth of their credit limit.

1.3.3 Policy rationale

There is a rationale to support policy intervention to constrain excessive loyalty rewards from issuing banks to consumers. Such excessive rewards produce excessive inefficiency, with an increase in overall costs and no increase in benefits overall to consumers as a class. There is, in fact, a decrease in benefits for many consumers, which comes in the form of higher prices for goods.

1.4 Contactless and disruptive technologies

1.4.1 Economics

Entrepreneurs invest and introduce disruptive technologies to capture market and earn a profit. This process can displace existing products and is known in economics as 'creative destruction'.

In general, innovations in a market can be in goods and services, their production processes, the organisation of a firm, and/or the marketing of a good or service. All three of these types of innovation are relevant to the introduction of future contactless and other payment technologies.

Innovation provides a good or service, process, organisation or marketing that has better quality or has a lower cost or both. Creative destruction can happen through an adaptation of existing technology or existing technologies (for example contactless debit cards) or through a completely new technology (such as a distributed ledger cryptocurrency like Bitcoin.) Often, serendipity underpins innovation and so it is impossible to be certain about future opportunities. At the same time, current trends are strong indicators of new developments, at least in the medium term of 5 to 10 years. This is particularly so given the emergence of innovations that exploit the "Internet of Things".

Applied specifically to the payments market, a new technology will have a higher quality if it is more convenient for consumers to use, or it enables consumers to behave in a way they prefer. Additionally the payment method could have the potential to decrease costs for merchants, providing profit opportunities for technology suppliers and operators.

For these reasons:

- consumers are likely to take up new payment technologies
- new technology firms are likely to emerge to produce and maintain these technologies, with different organisational structures than currently used, and with different operating procedures.

In general, new infrastructure will likely be required to accommodate new technologies and their applications, in particular because of new conditions they introduce for security, privacy, safety and reliability. Further, there



are many regulatory challenges (OECD, 2012), such as allowing innovations to develop, to be implemented, and to be adopted, before their impact is fully understood. In addition, changes in competition brought about by new technologies may not be understood prior to implementation. Hence, subsequent regulation may be required to ensure market efficiency. Future regulatory frameworks will likely need to be sufficiently flexible to accommodate this.

There is a possibility (OECD, 2012) that innovation in payments system technology will be driven, in future, not by banks or networks, but by other players such as telecommunication companies.

It is commonly questioned why a merchant should accept a new disruptive technology if it costs more. This argument is made especially in relation to accepting contactless debit cards which are the equivalent of EFTPOS. However, instead of being free to the merchant they incur a merchant service fee. So what is the incentive to accept these cards?

The incentives for firms to accept contactless debit cards are the same as their incentives to accept credit cards. A small number of consumers may gain some benefits from contactless scheme debit through rewards programmes, although most banks currently do not offer rewards on scheme debit. Consumers may, however, perceive a contactless transaction to be faster and simpler if no PIN is required. Merchants respond to customer demand and will use contactless debit cards in order to interact with the consumer.

This argument can be repeated for any new payment system; as long as the benefit to consumers of the new system is greater than the current system they will demand to use it. Merchants are obliged to accept it or risk losing customers.

New payment technologies may be preferred by specific groups of consumers and in specific markets. For example, some technologies can facilitate easier transactions in the personalised consumer goods market. Personalised goods include tailored suits and airline tickets where each customer has some quite specific needs. Consumers in this space would benefit greatly from new payment technology that stores information about their needs. This would enable them to purchase personalised products with the same ease as they can purchase mass market goods. Consumers in mass markets (such as supermarket retail), by comparison, may have no preference for new payment technologies. However, personalising the supermarket experience may change this.

Importantly, EFTPOS as a technology may be replaced by contactless and other disruptive technologies. While this may appear to be consistent with consumer preferences in the short-term, consumers are unlikely to be aware that the acceptance of contactless debit cards attracts an additional cost to merchants compared with present EFTPOS cards. That additional cost will necessarily result in consumers overall paying more for products or services. Further, the position will likely worsen in the long-term; if banks raise interchange fees for scheme debit cards to levels observed for credit cards.

In addition, the schemes have applied significant pressure to important retailers to encourage or compel them to introduce contactless technology and ensure that a "tipping point" is reached for the acceptance by merchants of such technology in the New Zealand market. For example, in the absence of regulation against anticompetitive scheme rules, schemes can make qualifications for concessionary "strategic merchant" interchange rates conditional on acceptance of contactless scheme debit. They could also potentially threaten to withhold availability of credit card acceptance unless contactless scheme debit is also accepted by the merchant. Schemes have also incentivised the introduction of contactless technology through financial contributions.

1.4.2 Evidence

MBIE has compiled a list of current and emerging payments technologies in its issues paper on retail payments systems at page 24. We do not repeat these here. These technologies include virtual wallets like Apple Pay or



Paypal (which typically are still underpinned by card scheme systems) and direct payment methods which take the inconvenience out of direct debit transactions, such as POLi.

We identify Bitcoin and distributed ledger cryptocurrencies as additions to this list. These technologies replace our fiat currency altogether and remove the issuing and acquiring banks from the transaction. However, their acceptance by customers, merchants and governments is significantly limited.

We note that Visa and Mastercard are already working to release biometric payments technology. This will replace the need for a consumer to carry any wallet or device because their information is part of their body. Accepting these technologies allows merchants to track consumer behaviour and increase automation, both of which can create a competitive advantage.

In the context of the introduction of new technologies, it is important to recognise that EFTPOS is a highly efficient incumbent technology. EFTPOS use is diminishing and anecdotal reports attribute this to an active campaign by banks to attract customers to new scheme debit cards, on which they may later apply interchange fees similar to those on credit cards, once EFTPOS has entirely ceased. It is important to note that many of the technical rules relating to EFTPOS, and their ongoing amendments, are driven by compliance with Visa and Mastercard acceptance rules, not by the needs of domestic EFTPOS itself.

1.4.3 Policy rationale

There is a policy rationale to provide a payments system with infrastructure to support diverse contactless and other disruptive technologies. The rationale is underpinned by the need to support future consumer practices with adequate standards of security, privacy, safety and reliability. Such future need will likely be:

- driven by different leaders than currently in the payments card market
- based to some extent on an interchange model and its associated incentives
- segmented more than currently, since new technologies will provide additional payment card options
- influenced by short-term trends (such as towards contactless debit)
- similar to current needs, as well proven technologies such as EFTPOS, endure, although somewhat modified.

This policy rationale is demonstrated internationally. Regulatory bodies such as the Payments Systems Board of the Reserve Bank of Australia recognise the findings of the final report of the Murray Financial Sector Inquiry (FSI). The FSI suggests that regulatory frameworks for the RBA and ASIC be clarified to ensure that they can accommodate new mediums of exchange, including digital currencies. The Australian government has undertaken to ensure that ASIC and the RBA "have the power to regulate new payment systems in a graduated way".

This rationale is strengthened by the incentives faced by incumbent platforms, Issuers and Acquirers with substantial market power to prevent the entry of new payment systems – particularly if these new payment systems might remove the need for these firms entirely.

Concern to provide for the diversity of long-term potential preferences, notwithstanding short-term trends, underpins a policy rationale to develop infrastructure to maintain the current EFTPOS system as a highly efficient payment method, which risks elimination and replacement by highly inefficient methods. The Reserve Bank of Australia has recognised this rationale and acted upon it. At the same time the infrastructure and governance of EFTPOS need to be innovated to bring it in line with other new and emerging payment methods.

One of the greatest barriers to the introduction of new non-interchange-based technology, arises where banks are essential to this introduction. Banks will have little incentive to provide access for a potential new technology if it risks compromising the revenue they earn from the interchange model. There is scope for legislation to secure access for potential new technologies to bank accounts.



1.5 Recommendations for government policy intervention

We have shown issues for public policy arising from the current operation of the payments card system, in terms of four themes:

- Inefficiency
- Competition
- Inducements
- Technology.

As is clear from international practice, the issues arising under inefficiency and competition require oversight and/or regulation by a regulatory body with appropriate powers. The absence of a similar jurisdiction in New Zealand means New Zealand is not addressing the presence of excessive inefficiency that is undesirable to society.

Inefficiency in the payments card market needs to be addressed with regulation. That is a widely held view of economists and international bodies. Accordingly, we recommend the establishment of a regulatory body (potentially located within the Commerce Commissions) with powers in the payments card system to:

- identify excessive inefficiency
- investigate cases of excessive inefficiency
- propose remedies for excessive inefficiency
- enforce remedies for excessive inefficiency.

A large part of remedying excessive inefficiency will focus on setting and enforcing interchange fee levels and scheme fee levels. Overseas regulation has tended to address interchange fee levels but there is equal scope for overly high scheme fees to have the same inefficient outcomes as overly high interchange fees.

It is also desirable to improve the competitiveness of the acquiring market. This may be achieved by:

- increased transparency
- improved access to the acquiring market
- regulations prohibiting actions by incumbents to prevent entry to the acquiring market
- regulation prohibiting scheme rules which prevent or significantly hinder the exercise of countervailing power by merchants. As a minimum this requires absence of the following three scheme rules: no surcharge; no steering; accept all cards (and products).

The absence of a suitable level of competition is not easily remedied, since the definition of a market can be disputed as can the level of appropriate competition in these cases of imperfectly competitive markets, where some degree of a lack of competition is expected.

Additionally, competition can be encouraged and guided. Accordingly, we recommend the establishment of an oversight group in the payments card system:

- to identify opportunities for improved competition in the payments card system
- to recommend actions for the regulatory body to improve competition
- the competition oversight group and the inefficiency regulatory body would work together. The oversight group should recommend action which the regulatory body can investigate and implement. The oversight group should advise the regulatory body.

The issues arising and potential future issues from new technology are complex and risk being misrepresented by various sector interest groups. New Zealand agencies and institutions do not possess the resources to commence their own investigations of global developments. Hence it seems reasonable to keep close contact with global organisations that do perform these investigations.



Accordingly, we recommend that the government allocate resources to developing international networks with forums such as the OECD, where these information exchanges occur.

As a general observation, we note that the domestic New Zealand market is being influenced by rules that the card schemes (Visa and Mastercard) apply internationally. Globally, nations have responded on behalf of their consumers to scrutinise and to check the impact of these rules on the spending power of the consumer. In the absence of similar governance in New Zealand, there is no advocate for the consumer.

In summary we recommend a range of actions ranging from regulation through to networking. These would likely occur simultaneously and so we can envisage a continuum of policy action to address the policy issues arising from the operation of the payments card system.



Appendix A REFERENCES

Cabral, L. (2005). Market power and efficiency in card payment systems: A comment. *Review of Network Economics*, 5(1).

Carlton, D. W., & Frankel, A. S. (1995). The antitrust economics of credit card networks. *Antitrust Law Journal*, *63*(2), 643-668.

Covec (2015). Cost of Payments Systems in New Zealand. New Zealand.

OECD (2012), Competition and Payment Systems, Directorate for Financial and Enterprise Affairs, Competition Committee, DAF/COMP(2012)24, Paris.

Rochet, Jean-Charles, and Jean Tirole (2004). "Two-sided markets: an overview." *Institut d'Economie Industrielle working paper*.

Wright, J. (2012). Why payment card fees are biased against retailers. *The RAND Journal of Economics*, 43(4), 761-780

