MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT
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Retail payment systems in New Zealand

Issues Paper

October 2016

New Zealand Government

Contents

How to have your say

The Ministry of Business, Innovation and Employment (MBIE) seeks written submissions on the issues raised in this document by 5pm on Tuesday, 13 December 2016. Questions are posed throughout the document to guide your submission.

Your submission may respond to any or all of these questions. We also encourage your input on any other relevant issues. Where possible, please include evidence to support your views, for example references to independent research, facts and figures, or relevant examples.

You can make your submission:

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- By mailing your submission to:

  Competition and Consumer Policy
  Building, Resources and Markets
  Ministry of Business, Innovation & Employment
  PO Box 1473
  Wellington 6140
  New Zealand

Please direct any questions that you have in relation to the submissions process to Steven Sue on steven.sue@mbie.govt.nz.

Use of information

The information provided in submissions will be used to inform MBIE's policy development process, and will inform advice to Ministers on retail payment systems.

We may contact submitters directly if we require clarification of any matters in submissions.

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Glossary of terms

Acquirer: An organisation, typically a bank, which provides access to the payment system on behalf of merchants for the clearing and settlement of funds in a transaction. An acquirer may or may not also be the bank that provides other services to a merchant, such as lending and deposits.

Cardholder/customer/consumer: Buys goods and services from merchants in exchange for payment.

Card-present transaction: Any transaction where a customer is in the same physical location as the merchant.

Card-not-present transaction: Any transaction made online, over the phone, or in other situations in which a customer is not in the same physical location as the merchant.

Contactless transaction: Any transaction made using contactless technology (such as Visa PayWave and MasterCard PayPass) where the customer is in the same physical location as the merchant. Includes card- and app-based payments.

Customer interface: Either the physical terminal (card-present) or digital customer gateway (card-not-present) through which the customer makes a payment to a merchant.

Direct entry: A method of transferring funds between bank accounts that does not rely on scheme or proprietary EFTPOS rails. Also known as account-to-account payments. Can include manual bank transfers, automatic payments, direct debit transactions, etc.

Interchange fee: A payment made from an acquirer to an issuer (or occasionally the reverse), each time certain forms of retail payments are made.

Issuer: An organisation, typically a bank, which issues cards and provides debit and/or credit services to customers.

Merchant: A party that provides goods or services in return for payment. Includes retailers, wholesalers, utilities companies, and central and local government.

Merchant service fee (MSF): A payment made from a merchant to an acquirer each time certain forms of retail payments are made.

Proprietary EFTPOS: The 'traditional' form of card payment in New Zealand, which utilises mag-stripe technology. Standards are maintained by Payments New Zealand, but no 'owner' as such.

Resource cost: The economic resources expended by system participants to 'produce' a payment. This includes fraud prevention costs, authorisation and transaction processing costs, and other back-office costs. Excludes transfers between parties, such as rewards or MSFs.

Scheme: Includes Visa, MasterCard, American Express, and Diners Club. Schemes develop technology and base product features, and set the commercial model and card system rules. They may issue cards and attract merchants through banks (open system – Visa and MasterCard) or directly (closed system – American Express, Diners Club, etc.). Only relevant for non-proprietary-EFTPOS transactions.

Steering: When a merchant does not accept, or discourages, payment via certain means.

Surcharging: When a merchant charges more to accept payment via certain means.

Switch: Payments infrastructure that sends transaction information to the correct issuer or acquirer (depending on the type of transaction) so that the funds can be taken from the customer's account and delivered to the merchant.

Switch-to-acquirer: The process by which information about certain card payments, notably credit cards, contactless scheme debit, card-not present and international transactions, is sent between institutions. Attracts interchange (except for closed schemes) and MSFs.

Switch-to-issuer: The process by which information about certain card payments, notably proprietary EFTPOS and inserted/swiped scheme debit, is sent between institutions. Attracts no interchange fee or MSF.

Executive Summary

Overview

1. In February 2016, the Minister of Finance and the Minister of Commerce and Consumer Affairs commissioned a study into New Zealand's retail payment system in the context of:

   - merchant concerns about increasing fees for the processing of electronic transactions;
   - industry developments, including the adoption of new technologies; and
   - ongoing reforms to the oversight and regulation of retail payment systems in overseas jurisdictions.

2. In addition to outlining how retail payment systems work in New Zealand, this Issues Paper looks at the economic outcomes that result from New Zealand's retail payment system (as opposed to, for example, financial system stability outcomes which are considered by the Reserve Bank). It focuses predominantly, but not exclusively, on credit and debit cards, in reflection of their dominance of retail payments.

3. This Issues Paper was developed by the Ministry of Business, Innovation and Employment so the views expressed in this paper should be read as the Ministry's preliminary views, not necessarily those of the Government.

4. The Government is now wishing to test the Ministry's analysis with the public. Retail payment systems are extremely complex and it is important to fully understand the issues before the Government decides whether to proceed any further. While the Government is not at the stage of considering options, it is also important to bear in mind that if we proceed to that stage, any potential solution would need to be tested against the harm it is designed to address and that all the consequences are taken into account.

5. For example, some overseas jurisdictions have regulated interchange fees to address the issues discussed in this Issues Paper. While this approach is designed to address the issues at hand by reducing the ability of banks to provide generous rewards to incentivise credit card use, it could also see banks increase annual fees on credit cards to maintain reward levels, or reduce the generosity of reward programmes. It is therefore important to understand all of these impacts when considering the issues.

Background

6. Each year consumers make approximately 1.5 billion electronic card transactions, representing more than $76 billion in expenditure. Transactions made using electronic cards are responsible for around two thirds of retail trade revenue in core industries, and this share of retail revenue has been growing steadily compared to other payment methods such as cash. Within card-based payments, currently around 42 per cent of transactions (by value) are made using credit cards, 36 per cent using proprietary EFTPOS, 15 per cent using swiped/inserted scheme debit, and 7 per cent using contactless scheme debit. While cash remains an important retail currency, New Zealand has the lowest proportion of cash to GDP in circulation in the world. The

payment card market can be considered to be at saturation, with 93.8 per cent of adults in possession of and using a debit card.

7. Electronic payments provide a number of key benefits to consumers, merchants (such as retailers), and government. This includes greater convenience; reduced risk of fraud, theft, and bad debts; the ability to purchase online; reduced cash-handling costs; greater certainty of tax revenue; and – in the case of credit cards – the ability to smooth consumption over time.

8. We estimate that the inherent 'resource cost' of processing card payments each year is around $950 million, or roughly 1.3 per cent of the value of the $76 billion dollars of transactions made on payment cards across the economy. This is the economic resource required to facilitate these transactions. Merchants carry the bulk of the direct costs, paying an estimated $461 million in merchant service fees in 2015. We expect that these fees could increase significantly in coming years with rapid uptake of contactless payment. This could increase the fees paid by another $216 million annually.

9. In preparing this Paper, we asked the following questions:

   - Are consumers and merchants benefiting from ongoing innovation?
   - Are card payment systems being used efficiently?
   - Are consumers and merchants bearing a fair share of the costs?

Issues identified

10. The Ministry has found that the market dynamics suggest cause for concern in both the credit and debit card markets.

Issue 1: Economic inefficiency in the credit card market

11. We consider that there is economic inefficiency in the credit card market. While credit cards provide a number of benefits to both consumers and merchants, we estimate that current market incentives drive at least $45 million per year of additional cost to the economy through the use of more expensive credit card networks compared to lower cost EFTPOS networks. This figure focuses on the transactions that are induced by the incentives in the system, not the ones that are placed on credit cards on the basis of their inherent credit functionality or their ability to be used overseas. $45 million represents 5 percent of the total resource cost for processing electronic card payments in New Zealand, and around 0.13 per cent of the total value of expenditure on credit cards in the year to March 2016.

Issue 2: Increased prices for all consumers, with only higher-income consumers benefiting from rewards

12. The costs of merchant service fees are ultimately likely to be passed onto consumers through the price of goods and services. Some of the cost that is passed on is used to fund rewards and other inducements for using credit cards. We estimate that merchants have to increase their prices to all consumers by around $187 million per year to fund rewards paid to certain credit card users. Because of the way credit card reward schemes are structured, this leads to an annual regressive cross-subsidy of $59 million from low-income to high-income households. These costs are ongoing, so they add up over many years.

13. Issues 1 and 2 are a result of the business model under which credit card schemes operate. Payment systems are two-sided markets, in that they rely on uptake by both

consumers and merchants to be valuable. At the centre of this business model is the use of interchange fees, which place charges on merchants and pass them on to the banks that issue credit cards. Interchange fees allow banks that issue credit cards to incentivise credit card use, such as through rewards schemes, effectively paying many consumers to use their credit card instead of the cheaper EFTPOS system. These interchange fees are then passed onto all consumers (irrespective of the type of card used) through higher prices because most merchants do not recover those fees through surcharges.

14. Credit card schemes have traditionally operated under this interchange business model, but there is evidence that the inefficiencies generated are increasing, with recent competition driving up interchange fees and the value of rewards. We are also seeing banks "flipping" credit card users to higher cost premium cards that offer higher levels of rewards. All but the largest merchants hold little bargaining power over these fees, with consumer demand giving them little choice but to accept payment via credit card.

15. These outcomes are not the result of irrational or anti-competitive behaviour by any particular party. It is completely rational for credit card holders to maximise usage to obtain rewards in the presence of distorted price signals. Similarly, the setting of interchange and use of rewards schemes is perfectly rational profit maximising behaviour on the part of the schemes and the banks. Despite this individual rationality, without price signals, this business model results in an inefficient overall outcome.

16. Based on the information available to us, merchants in New Zealand appear to pay higher fees to accept payment via credit card than merchants in some overseas countries. New Zealand's credit interchange fees are roughly comparable to what is paid in the USA and Canada, where credit interchange is not regulated. However, New Zealand interchange rates and merchant service fees are significantly higher than those in regulated environments, such as the European Union and Australia. The overall higher cost of electronic transactions may be offset to some extent because no charges are applied to EFTPOS and swiped/inserted scheme debit transactions, which currently account for around half of all card transactions.

Issue 3: Emerging inefficiency in the debit card market

17. Similar market dynamics are beginning to emerge in the debit card space, with rapid growth of the market share of scheme debit products in place of New Zealand's proprietary EFTPOS system. Contactless and online scheme debit now make up about 15 per cent of the debit card market, up from about two per cent two years ago. New Zealand is different to many economies in still having a domestic EFTPOS system that does not charge per-transaction fees to merchants. It is, however, unlikely that such a model is sustainable when competing with scheme products, regardless of the underlying efficiency of domestic EFTPOS.

18. The growth of scheme debit products provides many benefits – such as additional security, and the ability to make contactless and online transactions – in contrast to proprietary EFTPOS which has suffered from a sustained lack of investment.

19. Nevertheless, such benefits come with additional cost, as schemes have introduced interchange fees on contactless (and online) debit transactions, in contrast to proprietary EFTPOS, which does not attract such fees. We estimate that fees to merchants on scheme debit transactions could rise by $216 million per year if contactless usage increases to 60 per cent of debit payments.

20. The imposition of fees in itself is not inherently a problem, given that the lack of fees is a key reason behind the lack of investment in proprietary EFTPOS. However, as

contactless debit becomes entrenched, we are concerned that the competitive constraint on fees to merchants currently provided by proprietary EFTPOS will reduce. This could result in the interchange dynamics we currently see in the credit card market driving inefficiency and large scale cross-subsidisation in the debit market as well.

Issue 4: Barriers to entry in the debit market

21. We are also concerned about the impact that a scheme-dominated debit market would have on market entry and expansion. While it is possible for a new entrant to disrupt the market before full scheme dominance occurs, the interchange model sets up entry and expansion barriers by giving card issuers (banks) significant financial incentives to favour payment systems that offer interchange income. Potential new payment options would likely need to compete on an interchange-like system (bidding up prices and distorting price signals) in addition to providing improved functionality, if they are to be attractive to consumers and banks.

Issue 5: Impact on small business

22. In addition to the inefficiency that the scheme interchange model is driving, there appears to be systemically higher costs placed on smaller merchants to pay for the processing of retail transactions. The interchange charged for small merchants can in some cases be two and a half times the interchange rates for the largest, 'strategic' merchants. While there is likely to be some cost differential underlying the gap between fees charged to large and small merchants, a closer look at the marginal costs involved in processing transactions suggests that differences in underlying system costs are unlikely to be a dominant driver of the growing differential in merchant service fees between small and large merchants. If the spread were to increase further, we are concerned that the disadvantage faced by smaller merchants could ultimately harm retail competition.

Next steps

23. The Ministry of Business, Innovation and Employment considers that the nature and the scale of the issues identified in the credit market, and the potential for these issues to develop in the debit market, warrant additional work to address these issues. Similar issues have been identified around the world, and it is only in countries where some sort of regulatory intervention has occurred that these impacts have been addressed.

24. The Government is now testing the Ministry's analysis and proposed next steps before any decision is made about whether to progress this work further. Questions have been posed throughout this paper for your consideration.

25. If the Government does choose to progress this work further, the complexity of the retail payment system and the potential pace of change means that it will be important for the following to be taken into account when developing a way forward:

    - the New Zealand context;
    - the effectiveness and net benefits of each option;
    - any consequential impacts on consumers and merchants, investment in innovation, and development of the broader retail payments sector; and
    - the timeliness of any intervention.

26. Should further work be undertaken, it would involve close engagement with stakeholders, in order to ensure that any proposals make the best use of industry expertise and take into account any stakeholder concerns.

27. The Ministry considers that further investigation would be worthwhile on the following:

- The costs and benefits of applying interchange regulation to the credit market (and the under which it would be applied in the debit market).
- Whether there are economic, institutional and technical barriers to entry and expansion for new payment methods in the debit market, and options for addressing any such barriers.
- Examination of other options, including: whether the governance of payment systems can be improved; whether lighter-touch regulation, such as an industry code of conduct, would have merit; whether EFTPOS could be made a sustainable alternative to scheme debit products; and whether the retail payment system, or a part of the system, should be treated like a utility.

1. Introduction

28. In February 2016, the Minister of Finance, the Hon Bill English; and the Minister of Commerce and Consumer Affairs, the Hon Paul Goldsmith, asked officials to undertake a study into retail payment systems in New Zealand. The objective of the study was to test whether the system – in its current state, and as it is likely to develop in the future – is delivering good outcomes for consumers and merchants and the New Zealand economy as a whole.

29. The decision to undertake a study into retail payments was triggered by a number of factors, including:

    - merchant concerns about increasing fees for the processing of electronic transactions;
    - industry developments, including the adoption of new technologies; and
    - ongoing reforms to the oversight and regulation of retail payment systems in overseas jurisdictions.

30. Officials from the Ministry of Business, Innovation and Employment (MBIE) provided the Government with a report in July 2016. It was developed in consultation with around 30 industry participants, including Retail New Zealand; small and large retailers; all major banks, credit card schemes and 'switches'; Consumer New Zealand; market challengers; and independent experts. Some stakeholders provided us with non-public data to support us to draw conclusions. While we have included as much information as possible in this document, we have not published commercially sensitive information.

31. The report was independently reviewed by Dominic White of Pebble Payments and Mike Laing of LWT Advisers. Both are payment systems specialists based in Australia.

32. The Government is now seeking feedback from stakeholders and the wider public on the issues and proposed next steps outlined in this report. Questions have been posed throughout this paper for your consideration.

1.1 Structure of this Issues Paper

33. The remainder of the Introduction sets the scene for the analysis that follows, by defining the scope of the issues addressed in this Issues Paper, proposing public policy objectives for retail payment systems, and outlining how retail payment systems are currently regulated in New Zealand.

34. Section 2 outlines how retail payment systems work – the main participants in the system, the mechanics of how payments are processed, and trends in how different retail payment options are being used.

35. Section 3 looks at the business models underpinning retail payment options, how costs and charges flow through the system, and the incentives that result. This section also considers the relative resource cost of putting payments through the various payment channels.

36. Section 4 presents the issues we have identified with retail payment systems, as they currently operate. This section looks at whether the market set up is achieving the sorts

of economic outcomes that are desirable, and whether this is likely to be the case as the market evolves.

37. The final section outlines our preliminary thinking about next steps to address these issues.

1.2 What are retail payment systems?

38. A payment system can be defined as the arrangements that allow consumers, businesses and other organisations to transfer funds usually held in an account at one financial institution to another. It includes the payment instruments – cash, cheques and electronic funds transfers which consumers use to make payments – and the usually unseen arrangements that ensure that funds move from accounts at one financial institution to another.[1]

39. There are various layers to a payment system:

- the underlying network or "rails", each with its own technical and operational standards – such as the Visa or MasterCard card networks, the Electronic Funds Transfer at Point of Sale (EFTPOS) system, 'direct entry' into a bank account, or cash;
- the product or method of payment that sits on these rails – such as automatic payments, direct debits, bank transfers, credit cards, online banking and mobile apps, scheme debit cards, and proprietary EFTPOS cards; and
- the initiator of the transaction – i.e. consumer, business, or government.

40. This study considers *retail* payment systems, which we take to mean a system that is used to clear (the transmission of information through the system to authenticate identities and the availability of funds) and settle (the actual transfer of funds between accounts) financial transactions between consumers and merchants[2] in return for goods and services. Retail payment systems are distinguished from large-value payment systems, which largely involve transactions made between financial institutions.

41. This study focuses particularly, but not exclusively, on card networks (Visa and MasterCard) and the EFTPOS system, although other underlying networks and products – including potential emerging disruptors – are considered throughout this report as comparisons. While our focus is primarily on transactions made by consumers, many of the issues discussed will nevertheless apply to business-to-business transactions.

42. Retail payment systems involve network effects, in that the value of the payment system as a whole rises as more people use it. In particular, retail payment systems are a form of two-sided market. Essentially, this means that for a given system to be successful, it must attract both consumers and merchants to use its system. No consumer will use a payment method if it is not accepted by a merchant, and no merchant will accept a payment method that is not used by any consumer.

1.3 Objectives

43. This study is focussed on the economic outcomes delivered by retail payment systems in New Zealand. This is complementary to the objectives held by other regulatory bodies in New Zealand. For example, it is vital that payment systems are safe, secure and subject

[1] Reserve Bank of Australia. (n.d.). *Payments System.* Retrieved from http://www.rba.gov.au/payments-and-infrastructure/payments-system.html.

[2] We use this term in a relatively wide sense in this Issues Paper to include payments made by consumers to retailers, wholesalers, utilities companies, and central and local government.

to prudential supervision. However, we do not focus on these objectives here, as the Reserve Bank largely holds responsibility for these outcomes in its prudential role.

44. In considering whether good economic outcomes are being delivered, we have used the following objectives to assess New Zealand's retail payment systems:

- **Objective One:** There is innovation and development of payment options that are valued by consumers and businesses.
- **Objective Two:** Resources are allocated efficiently at a *system level*. In the context of retail payments, this means that the mix of transaction methods used represents the underlying preferences of consumers and merchants, taking into account the marginal benefits and costs of certain forms of payment to the system as a whole.
- **Objective Three:** The cost associated with payment systems is distributed fairly across consumers and merchants at an *individual level*.

45. These objectives – of innovation, efficiency, and fair distribution of cost – are tied to the Government's priority of *building a more productive and competitive economy*.

1	Are these objectives for retail payment systems appropriate?

46. We have not explicitly considered the competitiveness of the market. Competition can take place *within* a payment system (such as between Visa and MasterCard), and *between* payment systems (such as between credit cards and proprietary EFTPOS). In terms of the former, as will be discussed throughout the Issues Paper, the two-sided nature of retail payment systems means that it is possible for there to be competition within a payment system, but for this to result in inefficient overall outcomes. In terms of the latter, we see the outcomes (as captured by Objectives One to Three) as more important than the input (i.e. the number of competing payment networks).

47. The ability to extract excessive profits is usually checked by competitive processes. We have not examined profit levels, and whether these are 'reasonable', at any level of the market. Such an exercise would be resource-intensive and difficult to undertake based on publicly-available data. The analysis in this Issues Paper instead centres on the economic incentives faced by market participants.

1.4 Regulation of retail payments in New Zealand

48. Retail payment systems are subject to relatively light-handed regulation in New Zealand. Nevertheless, the following government and non-government regulatory bodies have some form of oversight of their operation.

1.4.1 Prudential and system stability: Reserve Bank of New Zealand

49. Under the Reserve Bank Act 1989, the Reserve Bank has a mandate to promote the maintenance of a sound and efficient financial system. In practice, the Reserve Bank has not tended to treat efficiency as a standalone objective, but rather something that should be pursued in conjunction with its soundness objective. Partly this is because a focus on soundness is inherent in prudential regulation, and partly it is because soundness and efficiency are mutually supporting concepts over the longer term.

50. In light of the fact that the Reserve Bank does not treat efficiency as a standalone objective, it has minimised its role in respect of efficiency issues to a focus on access to, and governance of, payment systems, minimising regulatory barriers to entry and compliance costs, and effective market disclosure on soundness issues. As a result, the performance and efficiency (allocative, dynamic, and productive) of retail payment

systems are not the primary focus of the Reserve Bank. This is in contrast to its counterparts in countries such as Australia, which has a more direct 'efficiency' element in their mandate. Since 2012, the Reserve Bank has been undertaking a review of its oversight of financial market infrastructures (FMIs). That work is not designed to alter the Reserve Bank's approach to the retail payment systems we consider here.

1.4.2 Rules and standards for interoperability: Payments New Zealand

51. Payments New Zealand is the operator of a number of payment systems in New Zealand (including the Consumer Electronic Clearing System, which includes proprietary EFTPOS). It aims to promote "simple, innovative, and secure payment systems in New Zealand". Payments New Zealand was established in 2010 by eight banks (the *shareholders*) with a mandate to open access to and preserve the integrity of New Zealand's payment systems. Prior to Payments New Zealand's establishment, many of its functions were undertaken by the New Zealand Bankers' Association.

52. Payments New Zealand's *participants* are banks that have joined one or more of its clearing systems. Its *members* are payment system organisations (such as card schemes, merchants, smaller non-shareholding banks, and payments infrastructure owners) that want to be actively involved in the ongoing development and strategic direction of payment systems. Its *Board* has 11 Directors made up of an Independent Chair, two further Independent Directors and a Director appointed by each shareholder.

53. Payments New Zealand's role is to:

- Manage the rules and standards of its payment systems.
- Encourage and facilitate new participants in its payment systems.
- Facilitate interoperability of payments between its Participants.
- Promote interoperable, innovative, safe, open and efficient payment systems.

54. In respect of the Consumer Electronic Clearing System, Payments New Zealand sets standards relating to:

- What an EFTPOS card must have and do, such as the requirement for a PIN.
- What a merchant must do, such as make available a receipt.
- The minimum requirements of the terminals that cardholders use to initiate their transactions.
- What, how, and when information gets exchanged through a switch.

55. Payments New Zealand has no (self-defined) role in determining the allocation of costs or incentives within the retail payments system, or the business models that schemes operate under.

1.4.3 Competition issues: Commerce Commission

56. The Commerce Commission (the Commission) has no prescribed role in relation to retail payment systems, other than through its general role in enforcing the Commerce Act 1986, with the aim of promoting competition in markets for the long-term benefit of New Zealand consumers.

57. In 2009, the Commission reached a settlement with the card schemes and major banks, in which the parties made a number of undertakings to address what the Commission considered was anti-competitive conduct in the operation of retail payment systems. Annex 2 summarises the detail of the settlement.

58. The settlement with banks and schemes expired in 2013. However, the settlement continues to have residual impact. This is because if any of the parties re-commence any of the practices that the Commission deemed to be anti-competitive, they may be re-challenged for potentially breaching the Commerce Act. The exception may be the level of interchange fees, which is not necessarily a breach of the Commerce Act in itself.

2. Payment systems in New Zealand

2.1 Introduction

59. Electronic payment systems are a key piece of infrastructure for commerce. While alternative payment options (such as cash and cheques) remain, they are increasingly on the fringe and compete poorly with their electronic competitors in a number of dimensions. For example, electronic payments:

- Often provide greater convenience for consumers (such no need to visit a bank or an ATM to withdraw cash, greater payment speed, and the ability to track and record transactions).
- Allow consumers to purchase online with ease.
- Avoid the cost to merchants associated with processing cash and cheques (although as discussed later, electronic payments are by no means costless).
- May reduce the risk of bad debts, and cash and cheque-related fraud and theft.
- In the case of credit cards, allow consumers to smooth consumption over time (this also means that merchants do not need to operate their own credit schemes).
- Generate greater certainty of tax revenue for governments.

Box 1: The value of credit cards for merchants

Many of the stakeholders we spoke to emphasised the value that electronic payments, particularly credit cards, provide to merchants. These included the ability to accept international transactions, the avoided cost of cash acceptance, payment guarantees against fraud and credit losses, prompt payment benefits, and increased sales from existing and new customers.

As noted above, electronic payments, including credit cards, unquestionably provide a number of benefits to both merchants and consumers. However, we consider that the levels of some of these benefits are contestable. For example:

- Some parties noted that the value of average credit card transactions is higher than the value of cash or debit transactions, and viewed this as evidence that credit cards encourage higher levels of spending. An alternative interpretation is that any increase in spending in the current period is countered by a reduction in spending in future periods, and that higher credit card transaction values relative to other methods is correlation, rather than causation. That is, higher-income individuals usually have larger than average transaction sizes, and often use credit cards, but their transaction size would be unlikely to change if they used a different payment method.
- Some stakeholders also noted that the cost of payment card fraud sometimes rests with merchants, i.e. it is not always covered by scheme or bank payment guarantees.
- Similarly, while cash is unquestionably costly to process for merchants, we consider that many of these costs are fixed, and unlikely to disappear without a complete withdrawal of cash from circulation.

60. New Zealand is highly regarded internationally for having one of the most developed, dynamic, safe and secure payment systems in the world.[3] In line with this, uptake of electronic payments in New Zealand is high: 93.8 per cent of adults have and use an EFTPOS/debit card; New Zealand has the highest number of electronic payments made per capita; and New Zealand has the lowest proportion of cash to GDP in circulation.[4] Furthermore, a 2014 survey ranked New Zealand as the number one global pioneering payments market. This was based on consumer preferences for using electronic payment options for low-value payments, willingness to use contactless forms of electronic payments, and receptivity to changes in electronic payments.[5]

61. As will be discussed later, much of this is attributable to the business model that underpinned the rollout of proprietary EFTPOS, which encouraged almost universal acceptance of card payments by merchants.

62. The remainder of this section outlines at a high level the main participants involved in retail payment systems in New Zealand, the main types of card payment, and how these payments are processed. It also briefly outlines emerging payment methods, such as Apple Pay.

2.2 Parties in the system

63. There are a number of parties involved in any card-based transaction. The parties involved and the interactions between them will differ depending on the type of card being used. Nevertheless, the key parties and their key roles include:

- **Cardholder/customer/consumer:** Buys goods and services from merchants in exchange for payment.
- **Merchant:** A party that provides goods or services in return for payment. Includes retailers, wholesalers, utilities companies, and central and local government.
- **Issuer:** An organisation, typically a bank, which issues cards and provides debit and/or credit services to consumers.
- **Acquirer:** An organisation, typically a bank, which provides access to the payment system on behalf of merchants for the clearing and settlement of funds in a transaction. An acquirer may or may not also be the bank that provides other services to a merchant, such as lending and deposits.
- **Scheme:** Includes Visa, MasterCard, American Express and Diners. Schemes develop technology and base product features, and set the commercial model and card system rules. They may issue cards and attract merchants through banks (open system – Visa and MasterCard) or directly (closed system – American Express, Diners Club, etc.). Only relevant for non-proprietary-EFTPOS transactions.
- **Switch:** Infrastructure that sends the transaction information to the correct card issuer or acquirer (depending on the type of transaction) so the funds can be taken from the consumer's account and delivered to the merchant. Switching functions can be performed by various parties, including stand-alone switches (most notably

[3] Payments New Zealand. (2016). *Benchmarking New Zealand's payment systems.* Unpublished.
[4] Payments New Zealand. (2015). *Are our payment systems as good as we think they are?* Retrieved from http://www.paymentsnz.co.nz/articles/are-our-payment-systems-as-good-as-we-think-they-are.
[5] RFIntelligence. (2014). *Identifying global leaders in the race to transform national payment markets.* Retrieved from http://www.rfintelligence.com/downloads/RFi_Global%20Report%20May%202014%20-%20FINAL%20VERSION.pdf

Paymark), schemes, and vertically-integrated terminal providers and customer gateways (such as Verifone and Payment Express). The term here is distinguished from an inter-bank switch that processes high-value payments, which is not further discussed in this Issues Paper.

- **Customer interface:** Either the terminal hardware and software (for card-present transactions) or digital customer gateway (for card-not-present transactions) through which the customer makes a payment to a merchant.

2.3 Types of payment card and the types of transactions

64. This subsection outlines the types of debit and credit cards that are available, the types of transactions that they can be used for, and how they are processed (or "switched") in the system. These relationships are summarised in Table 1. The method of switching is important because it is tied to the business model applied to the transaction by banks and schemes. This is discussed further in Sections 3 and 4.

Table 1: Cards, transactions and switches

Type of card	Type of transaction	Method of switch/network
Proprietary EFTPOS	Swiped	Switch to issuer (domestic 'rails')
Scheme debit	Inserted/swiped	
	Contactless/card-not-present	Switch to acquirer (scheme 'rails')
Open or closed credit	Swiped/inserted/contactless/card-not-present	

2.3.1 Proprietary EFTPOS cards

65. Proprietary EFTPOS is the traditional form of debit payment card used in New Zealand. According to data provided to us by one of New Zealand's switches, it has a current market share of roughly 46 per cent of transactions (by volume). It was introduced in New Zealand in 1984 as a series of separately run switches and trials, and was progressively rolled out and consolidated through the 1980s.[6] The system was developed by banks as a means of reducing the high cost associated with processing cash and cheque payments, largely without government involvement. Cards are issued by a consumer's bank, and while Payments New Zealand maintains an interoperability standard for EFTPOS, there is no 'owner' of EFTPOS as a product.

66. For reasons explored later in this Issues Paper – and in contrast to other countries such as Australia and Canada – EFTPOS as a technology in New Zealand remains fundamentally unchanged from when it was introduced in the 1980s. Payment information is transmitted via a magnetic strip on an EFTPOS card, which is less secure than other methods of electronic transmission of information. In addition, at present, EFTPOS cards can only be used to pay for face-to-face transactions (card-present

[6] Wilkinson, M. (2011). *Development of Retail Payment Systems since 1949.* Master's Thesis. Retrieved from http://hdl.handle.net/10063/1747

transactions), rather than online or over-the-phone sales (card-not-present transactions). EFTPOS cards are also unable to be used for transactions made overseas.

67. Proprietary EFTPOS transactions are processed via a 'switch to issuer' model (domestic rails – see Section 2.4).

2.3.2 Standard scheme debit cards

68. The first standard scheme debit card (named as such to distinguish it from contactless scheme debit – see below) was introduced to New Zealand in 2006. The cards are issued by a consumer's bank using the technology and standards set by a card scheme – at present, either Visa or MasterCard. In addition to a magnetic strip, scheme debit cards also contain a chip that is inserted into a terminal, which provides greater security. When inserted or swiped, scheme debit cards are currently processed under a 'switch to issuer' model (discussed below) in the same way as proprietary EFTPOS, and funds are accessed from the same bank account.

69. In addition to 'card-present' transactions, scheme debit cards can be also be used to pay any merchant that accepts payments via the relevant scheme online, over the phone, or overseas. In these instances, debit cards are 'switched to acquirer' (see below) process. Scheme debit cards, when inserted or swiped, represent approximately 20 per cent of transactions.

2.3.3 Contactless scheme debit

70. Since 2011, contactless debit cards (known as Visa PayWave and MasterCard PayPass) have progressively entered circulation in New Zealand. In addition to inserting or swiping a card, consumers have the option of 'tapping' their card against a terminal. This allows payment for transactions below a threshold (currently $80, as set by Visa and MasterCard) to be made contactlessly without the use of a PIN or signature.

71. When contactless functionality is used, scheme debit cards operate under a 'switch to acquirer' model, even if the transaction exceeds the $80 limit and a PIN is required. Swiping or inserting a contactless scheme debit card will see the transaction switched to the issuer instead, in the same way that proprietary EFTPOS and standard scheme debit transactions are processed. Contactless scheme debit is used for approximately 10 per cent of transactions (but this share is rapidly growing).

2.3.4 Open credit card schemes

72. The first credit cards were introduced to New Zealand in the late 1970s. Open credit card systems (often known as four-party systems) are the dominant form of credit card system in New Zealand, and involve a card scheme (predominantly Visa and MasterCard) working through issuers and acquirers (mainly banks) to attract consumers and merchants to use and accept their product, respectively.

73. Open credit card schemes provide functionality similar to that of scheme debit cards, with the obvious difference that they involve credit- rather than debit-based transactions. It is the banks (as issuers), rather than card schemes, that provide consumers with credit, and who guarantee the payment to merchants through their acquirers. Open credit card systems are processed under a 'switch to acquirer' model (see below).

74. Open credit cards have benefited from considerable investment and innovation on the part of the schemes and banks. As a result of this, and significant marketing efforts (discussed later), schemes have built an extensive international network of usage and acceptance.

75. Open credit cards often have contactless functionality but regardless of whether a credit card is inserted, swiped or used contactlessly, the transaction is switched to the acquirer. Open and closed (see below) credit cards are collectively used for approximately 24 per cent of transactions.

2.3.5 Closed credit card schemes

76. The last major form of payment card is a closed credit card scheme (often known as a three-party system). Under such a system, the scheme – such as American Express or Diners Club – is also the issuer and acquirer of payment cards. That means that the scheme directly works to attract consumers to use, and merchants to accept, their payment cards. In addition, it is the scheme that is the provider of credit to a consumer.

77. Closed credit card schemes are processed under a 'switch to acquirer' model. We understand that the market share of closed credit card schemes in New Zealand is relatively low, at around 2 per cent of all card-based transactions.

2.4 Methods of switching

78. There are two main ways in which a card-based transaction can be processed, or 'switched': switch-to-issuer and switch-to-acquirer.

2.4.1 Switch to issuer (domestic rails)

79. When a proprietary EFTPOS card is used, or a scheme debit card is inserted or swiped, the transaction is processed via a 'switch to issuer' model. Under this process:

- A switch sends the transaction details from the customer interface to the issuing bank for authorisation.
- The issuing bank authorises or declines the transaction and returns the message to the customer interface.
- The money is immediately debited (cleared) from the customer's account at the time it is authorised.
- Funds are settled between the cardholder's and merchant's financial institutions via the inter-bank settlement process and deposited in the merchant's account in a lump-sum each day after inter-bank settlement.

2.4.2 Switch to acquirer (scheme rails)

80. A payment is processed using a 'switch to acquirer' model for all credit card transactions, and for contactless, card-not-present, and international scheme debit transactions. When this occurs:

- A transaction is switched from a customer interface to an acquirer (how it gets there depends on the channel in which the transaction originates).
- The acquirer switches the transaction details to the card scheme.
- The scheme sends the authorisation request to the issuing bank.
- The issuing bank confirms whether the cardholder has sufficient available credit to cover the purchase, and returns a response through the card scheme network, either granting or denying authorisation.
- The acquirer receives the response and returns the message to the customer interface.

- The acquiring bank reconciles and transmits authorisations via the appropriate scheme. Funds are deposited in a merchant's account in a lump-sum after inter-bank settlement, and debited from a customer's balance in accordance with the relevant scheme's rules.
- Schemes settle funds with acquirers within 72 hours of the transaction occurring.

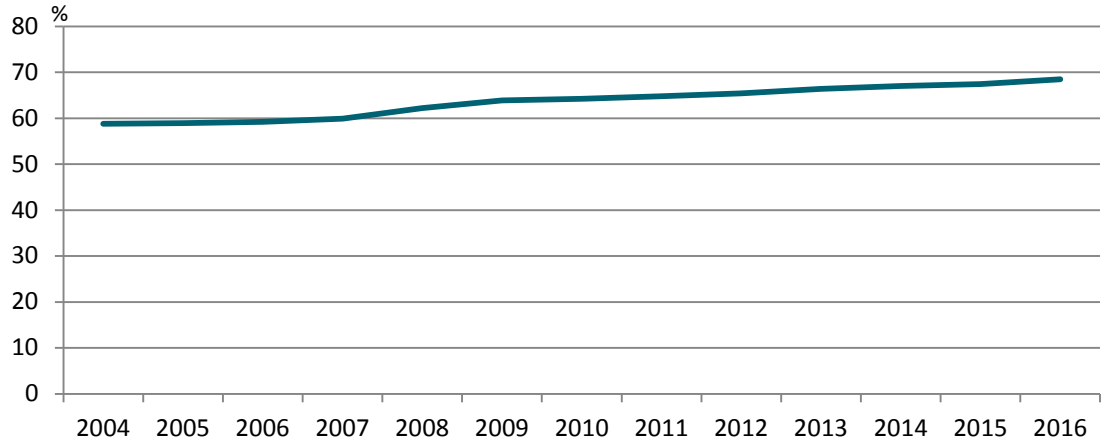
2.4.3 Variations

81. There are a number of variations to these two methods. These include cases where the customer interface also acts as the switch, where the transaction bypasses a stand-alone switch to be switched purely by a scheme, and when a transaction is processed by a self-acquirer. These variations are not important for the purposes of this Issues Paper. As will be discussed in Sections 3 and 4, what matters is whether a transaction passes through a scheme – as all switch-to-acquirer transactions inherently do – since this determines the business model under which the transaction takes place.

2.5 Trends in usage of payment options

82. In the year to March 2016, New Zealanders made more than 1.5 billion electronic card transactions, representing more than $76 billion in expenditure. Transactions made using electronic cards were responsible for 68.5 per cent of retail trade revenue in core industries (excluding vehicle and fuel sales), an increase from 58.8 per cent in 2004 (see Figure 1).[7] This means that the total share of other forms of payment (including cash, cheques, bank transfers, and direct debits) is falling. In addition, the average value of each electronic transaction is falling over time, reflecting the displacement of cash (which is often used for low-value transactions).

Figure 1: Value of electronic card transactions as a percentage of total core retail trade sales (Statistics New Zealand data)

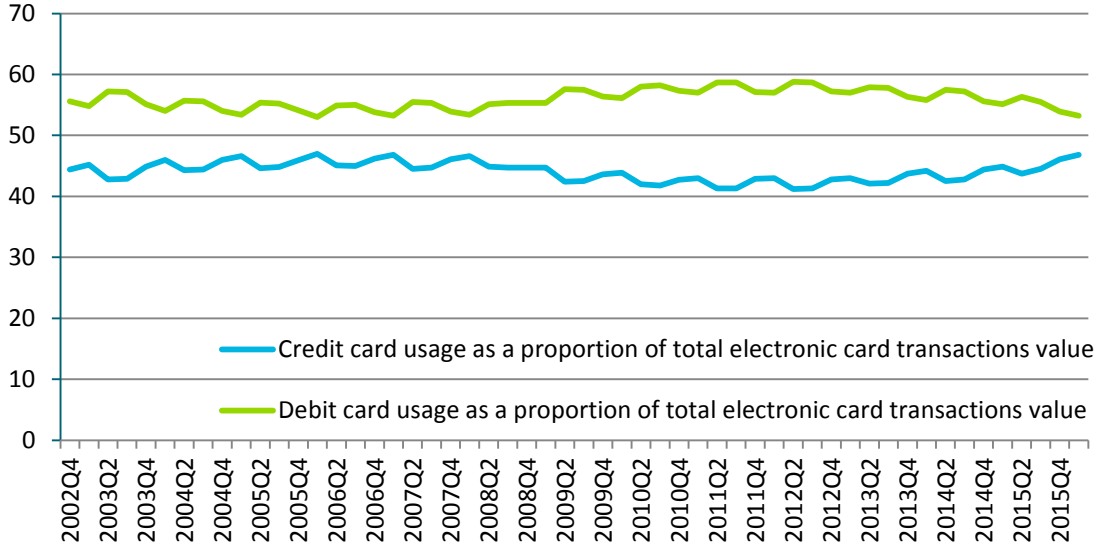


83. Figure 2 shows that the split between credit and debit has remained relatively constant since 2002.[8]

[7] Statistics New Zealand. (2016). *Electronic Card Transactions.* Retrieved from http://www.stats.govt.nz/browse_for_stats/businesses/business_characteristics/electronic-card-transactions-info-releases.aspx.

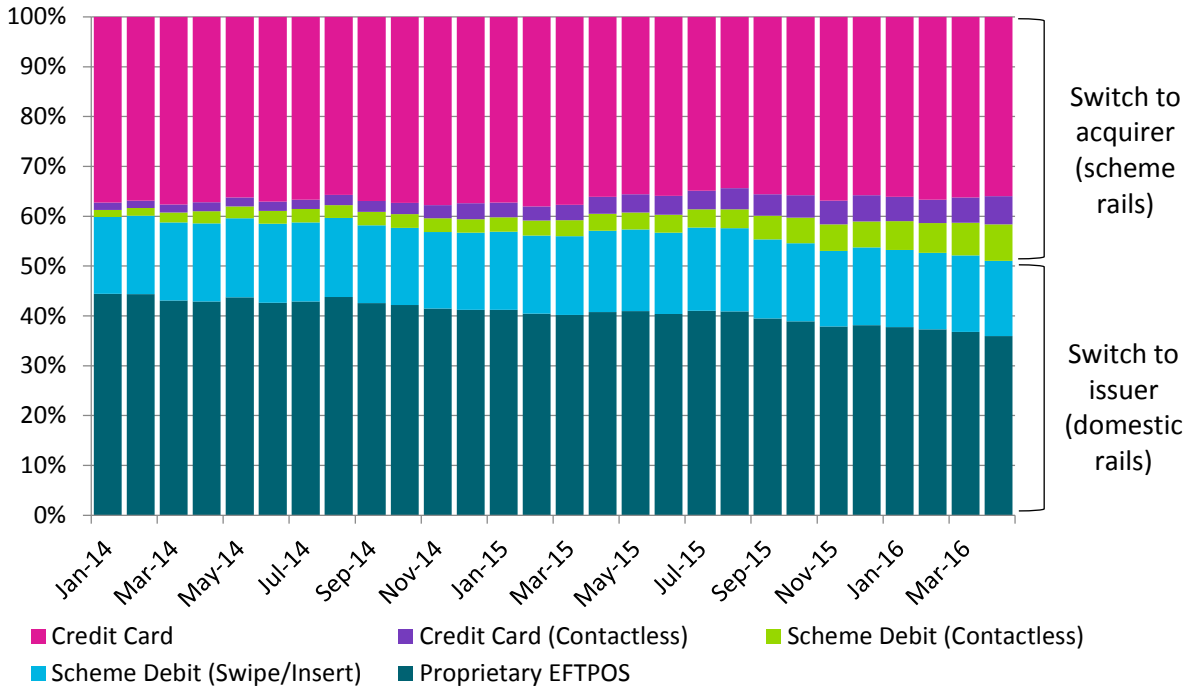
[8] The slight upward trend in credit card usage in the last two years is misleading and represents the miscategorisation of contactless debit transactions as credit transactions in the data provided to Statistics New Zealand by New Zealand switches.

Figure 2: Credit and debit card transactions as a percentage of electronic card transactions (Statistics New Zealand data)



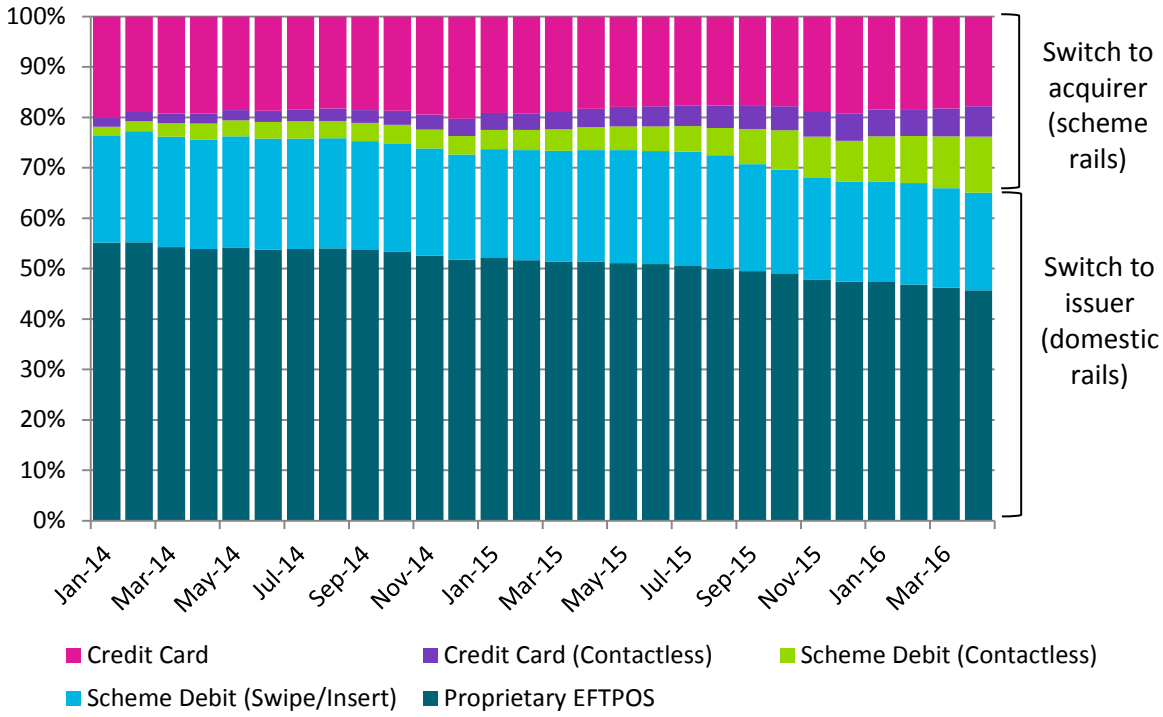
84. Even though the split between debit and credit spend has remained relatively constant, there has been a notable shift in the types of transaction taking place over the last two years, according to figures provided to us by one of New Zealand's domestic switches. Figure 3 (below) shows a significant decline in the value of transactions made with proprietary EFTPOS cards, from around 44 per cent of card transactions in January 2014, to 36 per cent in April 2016. There has also been a corresponding increase in the value of contactless debit transactions, from 1 to 7 per cent of total transaction value. This has taken the share of transactions that are processed via scheme rails from 40 to 49 per cent of the transactions processed by this switch.

Figure 3: Value of electronic card transactions by card type (New Zealand switch data)



85. Figure 4 provides the same transaction data, but by the number of transactions, rather than their value. Switch-to-acquirer transactions form a lower proportion of this graph than Figure 3, because the average value of credit card transactions is higher than for other cards.

Figure 4: Number of electronic card transactions by card type (New Zealand switch data)



2.6 Emerging payment methods

86. In addition to card-based payments, there are a number of other payment methods that have been launched over the past few years, or are soon to be released. These can be broken down into:

- Those that utilise existing scheme rails, which mean that a scheme debit or credit card is required for payment.
- Those that do not rely on scheme rails. Many of these involve 'direct entry' to a consumer's bank account, otherwise known as a bank-to-bank transfer. While direct entry methods are not new, the integration of them into a merchant's point-of-sale (POS) system is.

87. Payment methods can also be distinguished by whether they are used for card-present or card-not-present (predominantly online) transactions, although over time this distinction may blur.

88. Table 2 outlines many of these emerging methods.

Table 2: Types of emerging payment method

Name	Rails	Type of transaction	Description
Apple Pay	Scheme	Card-present and card-not-present	Contactless payment option that utilises Apple devices instead of a card. Recently launched in New Zealand for ANZ customers. Utilises near-field communication technology to enable payment at any terminal where contactless payments are accepted. In addition, Apple Pay facilitates faster payments within apps on Apple devices.
Android Pay	Scheme	Card-present and card-not-present	Similar to Apple Pay, but for Android devices. Not yet available in New Zealand. Android Pay also facilitates faster purchases within Android apps.
goMoney wallet	Scheme	Card-present	Launched by ANZ in 2015. Similar to the above, but operates from within the existing ANZ mobile app on compatible Android phones. GoMoney also supports payments between ANZ accounts using a cell phone number, so is also a direct entry payment method in this respect.
	Direct entry	Card-not-present	
ASB Virtual	Scheme	Card-present	Similar to GoMoney wallet. ASB's mobile app also supports direct entry payment through the use of cell phone numbers or email addresses.
	Direct entry	Card-not-present	
PayTag	Scheme	Card-present	A sticker that a consumer attaches to their phone (or anything else). This utilises the same technology as that contained in a contactless card. Offered by ASB for Visa products, and Westpac for MasterCard products.
PayPal	Scheme or direct entry	Card-not-present	Allows consumers to pay for goods and services online by entering their email address and password. While generally linked to a scheme card, a PayPal account can also be funded through direct entry methods. PayPal acts an alternate acquirer for merchants who may not have a relationship with an acquiring bank.
MasterPass	Scheme	Card-not-present	A digital wallet developed by MasterCard that stores a consumer's payment and

			shipping information in one location. This allows consumers to make faster online payments with merchants that have integrated MasterPass into their payment gateway. Despite being developed by MasterCard, it can also be used with Visa, American Express and Diners Club cards.
Visa Checkout	Scheme	Card-not-present	Similar to MasterPass.
POLi	Direct entry	Card-not-present	Introduced in New Zealand in 2009. When paying via POLi at an online checkout, a consumer selects their bank and enters their internet banking details, POLi populates the transaction details, and the consumer confirms payment. While a number of online merchants, including Air New Zealand and the Warehouse accept POLi, banks have expressed concern that payment methods like POLi expose consumers to increased risk and could be in breach of banks' terms and conditions.
Account2 Account	Direct entry	Card-not-present	Operated by Payment Express. Similar to POLi.
PayHere	Direct entry	Card-not-present	Launched by ASB in 2013. Under this system, any ASB customer can pay a participating merchant by entering their cell phone number in the merchant's payment gateway, and confirming the payment via their ASB mobile app. No bank account details are exchanged, and transactions are processed instantly. Because PayHere sits within a merchant gateway, businesses do not need to have a banking relationship with ASB to accept PayHere payments. Merchant acceptance of PayHere appears to be relatively low.

89. In addition, we understand that Paymark is in the process of finalising its own online EFTPOS solution, which works similarly to PayHere.

90. Many of the above scheme-based methods utilise what is known as 'tokenisation'. This supports greater security – rather than providing the scheme card number to the terminal, the terminal receives a device-specific 'token' and a one-use-only security code. The token is translated into a credit card number only when it reaches the scheme, meaning that only the scheme and the issuer have information about both the

person and the transaction. Tokenisation also avoids the technical limitations that can be associated with the unique card number on a physical card.

91. Crucially, other than switch-to-issuer transactions, there are not currently any mainstream electronic payment methods in New Zealand that facilitate direct entry for store-based (i.e. card-present) transactions. However, we are aware of industry participants that are exploring options around the development of payment methods that bypass scheme infrastructure through the use of:

- **Blockchain** – a digital ledger that records transactions which resides not on a single server, but across a distributed network of computers. **Ripple** is a company that utilises a distributed ledger process to enable participants to directly transact with each other in real time, without the need for a central counterparty. The widespread applicability of this technology to retail payments is seemingly some time away, but should not be discounted.
- **Application programme interfaces (APIs) –** sets of routines, protocols, and tools for building software applications. These have the potential to make it easier for industry to offer bank-to-bank payment solutions that build off a common set of infrastructure. For example, if banks allowed APIs to access their internet banking platforms, it would allow non-banks to develop payment products over the top of the issuer-customer banking relationship. The European Union's revised Directive on Payment Services (PSD2) is an example of an attempt by government to stimulate competition in payments by allowing authorised third parties to use a consumer's bank details to make payments from their account.

2	Are there any other emerging payment methods that we have missed? If so, what is their likely impact on the market?

3. Market business models and resource costs

93. The previous section described, at a basic level, how retail payments are processed between parties. This section builds on that by describing the flows of fees and inducements under the various business models operating in New Zealand.

94. First, we introduce the business model underpinning switch-to-issuer transactions, which is relatively straightforward. We then move onto describing the interchange business model that underpins switch-to-acquirer transactions. This is a complex set of relationships that drives the uptake of each product as well as the market share of various products. In particular, we focus on the following four relationships:

- Card issuers (generally banks) and consumers.
- Issuers and acquirers (and the flow of interchange fees).
- Acquirers (generally banks) and merchants (and the payment of merchant service fees, MSFs).
- Consumers and merchants (and the use of surcharging and steering).

3.1 Switch-to issuer transactions

3.1.1 Overview

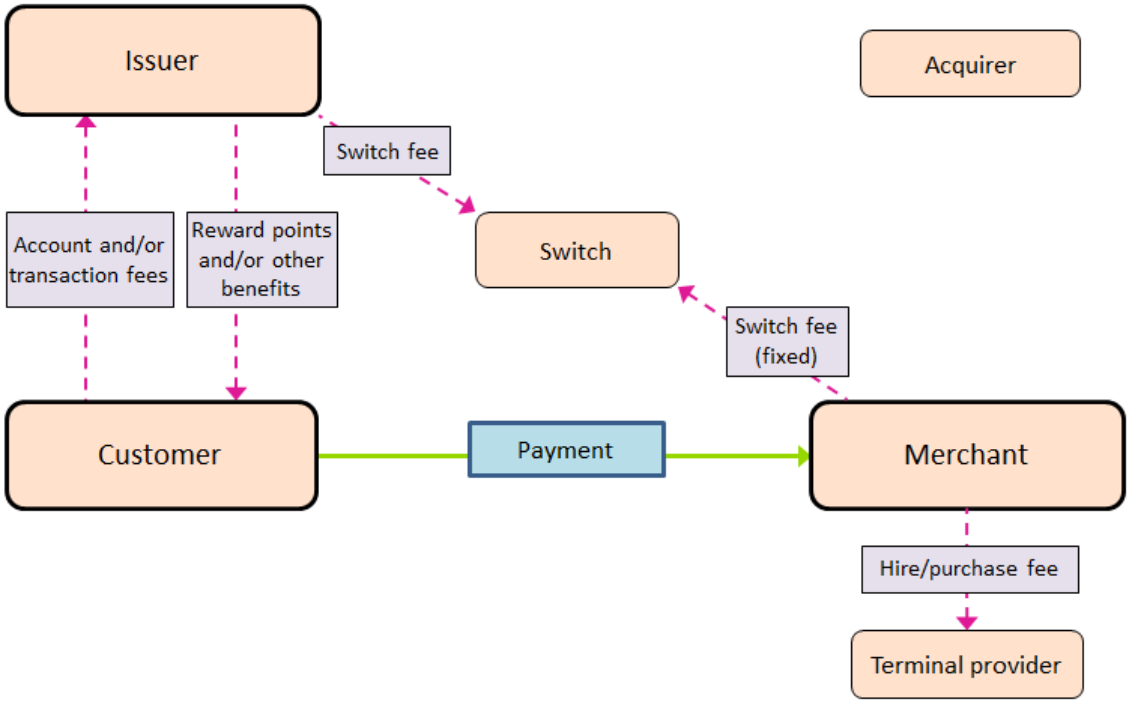
95. Very little flows in the way of fees and charges when it comes to transactions that are switched to the issuer (run on domestic rails), including all payments made on proprietary EFTPOS cards and inserted and swiped transactions made on scheme debit cards.

96. Charges to cardholders for switch-to-issuer transactions are rare, and the marginal cost of these transactions to merchants is zero. While merchants do face fixed costs for terminal hire and the per-terminal cost of being connected to a switch, these costs are carried by all merchants that take electronic card payments, regardless of which payment types they accept. We therefore refer to switch-to-issuer transactions as being "free" to merchants for the remainder of this Issues Paper.

97. As a result, the cost to banks of processing these transactions is met from other bank income sources. A key (but still relatively small) cost of processing switch-to-issuer transactions is the cost of switching itself, a function provided by Paymark and Verifone for these transactions. The issuing bank pays these switching costs.

98. Figure 5 below shows the flows of fees and inducements that underlie the relationship between different parties for switch-to-issuer transactions. Some of these flows are only applicable in certain situations. The majority of the lines in the diagram are dashed, which represents the fact that the flows of funds are not substantial in respect of switch-to-issuer transactions.

Figure 5: Fees and inducements in switch-to-issuer transactions



3.1.2 Customer-issuer relationships

99. It is important to see issuing banks' competition for debit payment products as part of their broader competition for personal banking consumers. This is because debit cards are tied to a customer's current account and a customer usually has their current account with the bank that provides the remainder of their more significant banking services (for example, their mortgage). This contrasts with credit cards, where it is more common for someone to take out a credit card with a different bank to the one that provides their other personal banking services.

100. There are flows of funds in both directions between customers and issuers related to the maintenance of transactional bank accounts:

- Account fees, transaction fees and card fees that are paid from the customer to the issuer.
- Interest, and occasionally rewards, that are paid to the customer by the issuer.

101. It is difficult to separate the flows relating to the operation of the account from flows relating to the use of the payment functionality of a proprietary EFTPOS or scheme debit card. Nevertheless, in general, banks do not charge consumers to use proprietary EFTPOS or scheme debit cards, although some current accounts do attract a low monthly fee that contributes to the overall cost of running the account. Per-transaction fees were common when EFTPOS was introduced but over time they have been largely competed away for most account types. Some banks also charge consumers a low annual fee for a scheme debit card.

102. We have been advised that these charges do not fully offset the cost of providing these debit payment options. Therefore, these costs are generally partially funded by banks through other mechanisms, such as reduced interest payments to consumers on debit balances (and interchange fees when the card is used contactlessly).

103. Table 3 presents four (relatively representative) account types – tied to scheme debit cards – that were available in January 2016.

Table 3: Examples of scheme debit fees, interest and rewards as at January 2016 (public data)

	BNZ YouMoney FlexiDebit Visa	ASB Omni	Westpac Access Airpoints Debit MasterCard	TSB Personal Visa Debit
Account fee	$5/month	$0	$3.50/month	$0
Transaction fee	$0	$0.40/transaction	$0	$0
Card fee	$10.00 p.a.	$10.00 p.a.	$15.00 p.a.	$10.00 p.a.
Interest rate (on savings)	0% p.a.	0% p.a.	0% p.a.	1.00% p.a. on balances above $500; 1.50% p.a. on balances above $10,000.
Rewards	NA.	NA.	1 Airpoint per $250 spent.	NA.

104. There are generally no inducements to use proprietary EFTPOS or scheme debit cards. This is likely to be less to do with a lack of competition in the debit card market, and more because (with the exception of contactless debit transactions) there is no interchange revenue to fund the inducements (see Section 3.2.3 for a discussion of interchange). However, in 2015, Westpac introduced a modest rewards programme with the launch of its Airpoints Debit MasterCard. So far, no other bank has followed suit in launching a debit card rewards programme.

105. We are not aware of any major bank that does not continue to offer proprietary EFTPOS cards to customers who request them. However, scheme debit cards have largely become the default card offered by many issuers due to customer demand for the greater functionality of scheme debit (such as online payment), and financial incentives on issuers (see Section 4).[9] Banks have told us that the schemes now require all scheme debit cards that are issued to contain contactless technology.

3.1.3 Issuer-acquirer relationships

106. A flow of funds between issuers and acquirers is known as interchange, and is discussed further in Section 3.2.3 below. However, no interchange is charged on debit transactions that are switched to issuer. This is a long-standing feature for proprietary EFTPOS transactions and was continued for inserted and swiped scheme debit transactions when scheme debit cards entered the market in 2006.

[9] At least one major bank continues to have a high number of proprietary EFTPOS cards in circulation. However, we know from Figures 3 and 4 (above) that usage of these cards is nevertheless declining relatively quickly.

107. Our understanding is that New Zealand is relatively unique in the schemes not charging interchange on the majority of scheme debit transactions.[10] The explanation for this situation appears to be largely that, because merchants do not pay a fee to accept proprietary EFTPOS payments (see below), few merchants would have accepted scheme debit cards upon their introduction were there an associated charge. In addition, because (at introduction) no issuer offered rewards on scheme debit products, there was no need to meet the cost associated with these inducements.

3.1.4 Acquirer-merchant relationships

108. Merchants face costs as part of their overall relationship with a bank. However, because switch-to-issuer transactions operate outside of the interchange business model, merchants do not face any per-transaction charge for these payments. This traces back to the introduction of EFTPOS in the 1980s, in which banks – keen to see a shift away from cash and cheques and their associated cost – placed charges for EFTPOS on consumers, rather than merchants, in order to drive acceptance.

109. As noted above, over time these charges on cardholders have largely been competed away, meaning banks receive no direct revenue source from the processing of EFTPOS and standard scheme debit cards. At least one acquirer attempted to introduce a MSF for proprietary EFTPOS in the 1990s, but quickly removed these in the face of heavy attrition from merchant customers.

3.2 Switch-to-acquirer transactions

3.2.1 Overview

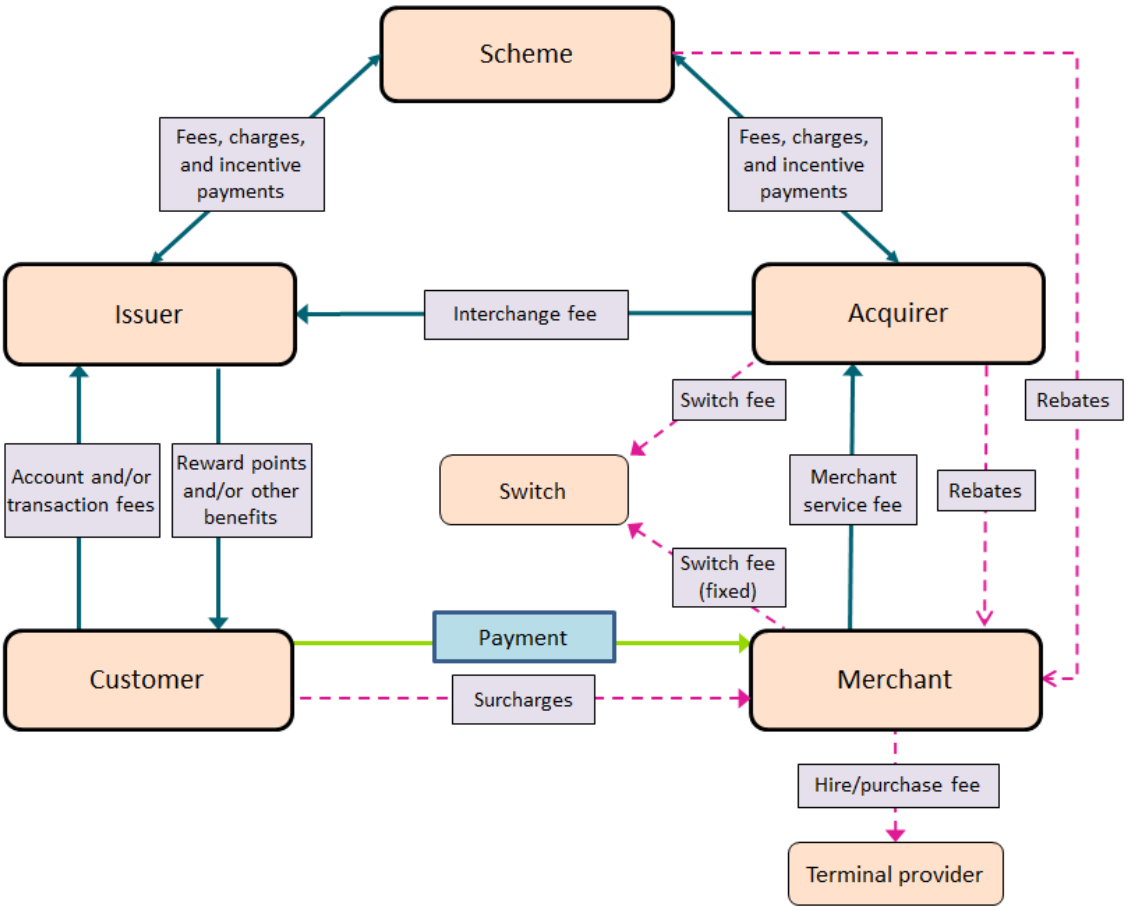
110. Scheme-based transactions involve a significantly more complex series of fees and inducements that flow between more parties in the system. In this Issues Paper, we call the nexus of relationships underpinning scheme-based transactions the "interchange business model". This business model applies to:

- All open (Visa and MasterCard) credit cards.
- Contactless scheme debit transactions.
- Card-not-present scheme debit transactions (mainly online).
- International scheme debit transactions.

111. Figure 6 below shows the main flows of fees and inducements in switch-to-acquirer transactions. Once again, not all flows are applicable to all situations. Bold lines represent flows that are 'core' to understanding the system, while dotted lines represent secondary flows.

[10] However, there are many markets worldwide in which EFTPOS-like systems have been developed without the use of interchange.

Figure 6: Fees and inducements in switch-to-acquirer transactions



3.2.2 Customer-issuer relationships

112. Generally speaking, there are three variables on which credit card issuers compete for credit card customers: card annual fees, interest rates on credit, and reward programmes. There are therefore three main types of credit card offered in the market at present: low fee/low rewards/high interest rate; high fee/high rewards/high interest rate; and low fee/no rewards/low interest rate. Table 4 provides examples of five (relatively representative) credit cards available in January 2016.

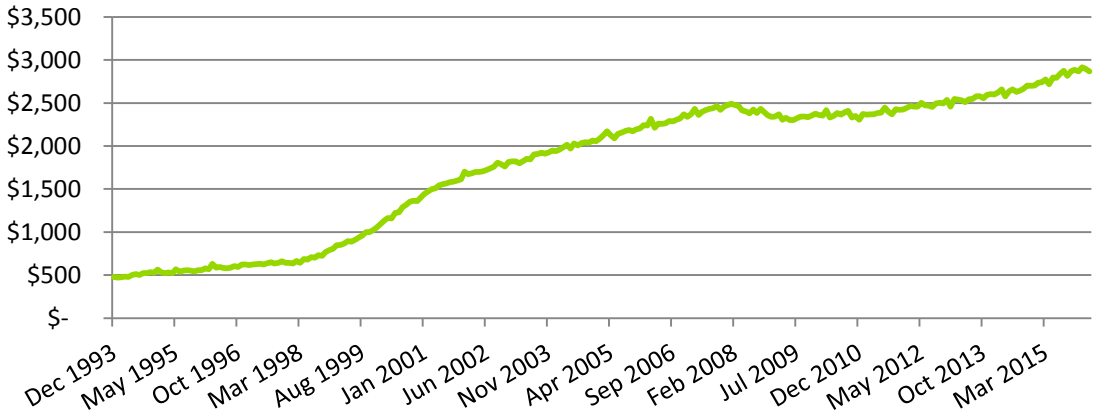
Table 4: Example of credit card fees, interest and rewards as at January 2016

	ANZ Low Rate MasterCard	ASB Visa Gold Rewards Platinum	Kiwibank Airpoints Standard MasterCard	American Express Air New Zealand	Westpac Airpoints World MasterCard
Card fee	$58 p.a.	$150 p.a.	$65 p.a.	$0 p.a.	$390 p.a.
Interest rate (on credit)	13.90% p.a.	20.95% p.a.	20.95% p.a.	19.95% p.a.	16.95% p.a.
Rewards	NA.	$1 True Rewards per $100 spent, travel insurance.	$1 Airpoint dollar per $120 spent.	1 Airpoint per $100 spent.	1 Airpoint per $65 spent, 1 status point per $225, travel insurance, extended warrantee insurance, airport lounge access, valet parking.

113. It seems more likely that a consumer will switch bank on the basis of a credit card offering than a debit card – for one thing, a credit card customer does not need to hold funds with an issuer, while a debit customer does. In line with this, competition between issuers in relation to credit cards appears to be relatively intense. Issuers invest significantly in marketing to attract customers to their product. This appears to be happening through both churn of existing customers between issuers, and the drawing of non-credit card users to credit. For example, Reserve Bank data[11] shows domestic inflation-adjusted spending on credit cards has increased nearly six-fold since 1993 (see Figure 7). In fact, in the year to February 2016, domestic spending on credit cards increased by 13.6 per cent on the year before.[12]

114. Having said this, as noted above, the share of credit card transactions as a proportion of all electronic card transactions has remained relatively constant since 2002 (when records began) indicating that there has been a similar growth in the level of transactions carried out on debit cards over this period.

Figure 7: Monthly spend on New Zealand-issued credit cards, seasonally adjusted, 2016 dollars ($ millions, RBNZ data, MBIE calculations)



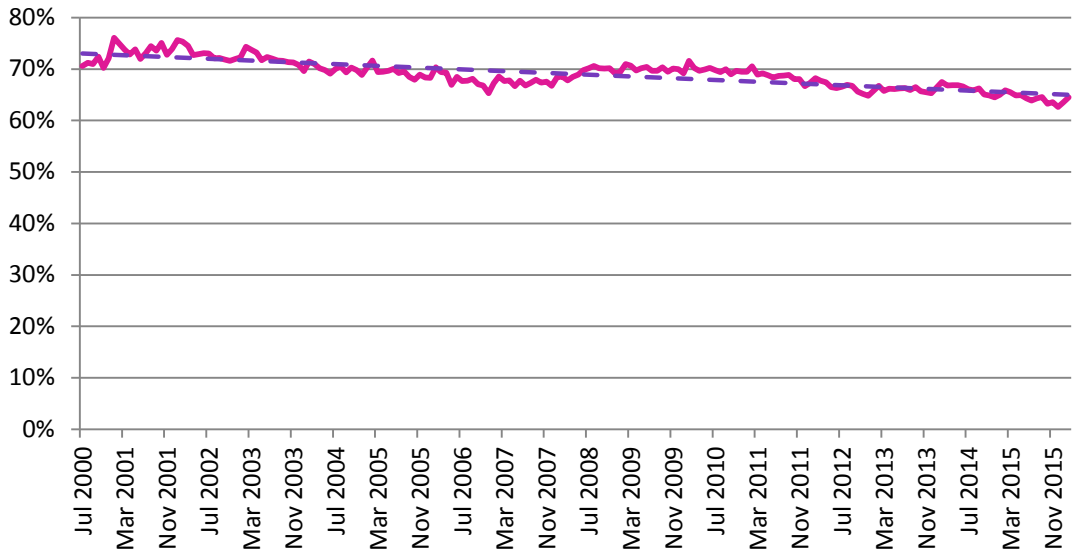
[11] Reserve Bank of New Zealand. (2016). *Credit card spending.* Retrieved from http://www.rbnz.govt.nz/statistics/c13.
[12] MWE Consulting. (2016). *New Zealand Cards Report: February 2016.*

115. Reserve Bank data[13] also shows that credit card usage may be increasing for reasons other than consumers needing credit. Figure 8 shows that the revolve ratio on credit cards – that is, the ratio of interest-bearing advances to all advances – is at its lowest point since records began, with 36 per cent of balances attracting no interest. We assume that interest-bearing advances are spending that *is* dependent on credit (since it is not being paid off before it attracts interest) and that non-interest-bearing advances are spending that *is not* dependent on credit (or, at the most, only on very short-term credit, since it is paid off within a very short timeframe). Therefore, the decrease in the revolve ratio suggests that consumers may be being induced to use credit more than they otherwise would.

3 What explains the decline in the revolve ratio on credit cards?

116. Similarly, the ratio of credit card *expenditure* to outstanding *balances* is also increasing. These trends align with bank assertions that while around half of credit card customers use their cards primarily for the credit functionality, another 40 per cent are using them primarily on the basis of the rewards they provide.

Figure 8: Revolve ratio on credit cards (RBNZ data, MBIE calculations)



117. Issuers have three main revenue streams from which the costs associated with credit cards are funded: annual fees, interchange income (discussed later), and interest rates. Ultimately, these all feed into the same 'pool' of funds for the bank, so they cannot be considered completely separately. However, at least for one major bank, these revenue streams are generally tied to different costs:

- **Annual fees** to customers are generally used to cover costs related to the physical cost of the card, customer service and administration, and statements. They are also used to fund some benefits of holding or using the card, such as travel insurance, concierge services and Visa Entertainment.
- **Interchange income** is used to pay for rewards such as Air New Zealand Airpoints, or issuer-specific cash-back or voucher-style rewards programmes, which are tied to the value of spending on a card. Rewards are determined by the issuer, rather than the

[13] Reserve Bank of New Zealand. (2016). *C12: Credit card balances.* Retrieved from http://www.rbnz.govt.nz/statistics/c12.

scheme. Interchange income may also cover scheme fees and the cost of fraud, meaning that not all interchange income necessarily flows to cardholders.

- **Interest income** from interest-bearing balances is used to pay for the cost of credit (including the interest-free period) and bad debts, rather than the cost of payment *per se*. For this reason, it is not the focus of this study. Nevertheless, Reserve Bank data[14] shows that weighted average interest rates on credit card balances have remained relatively stable over the past 15 years, at around 18 per cent on interest-bearing balances, and 12 per cent across all balances (i.e. the average of the balance attracting interest and the balance not attracting interest).

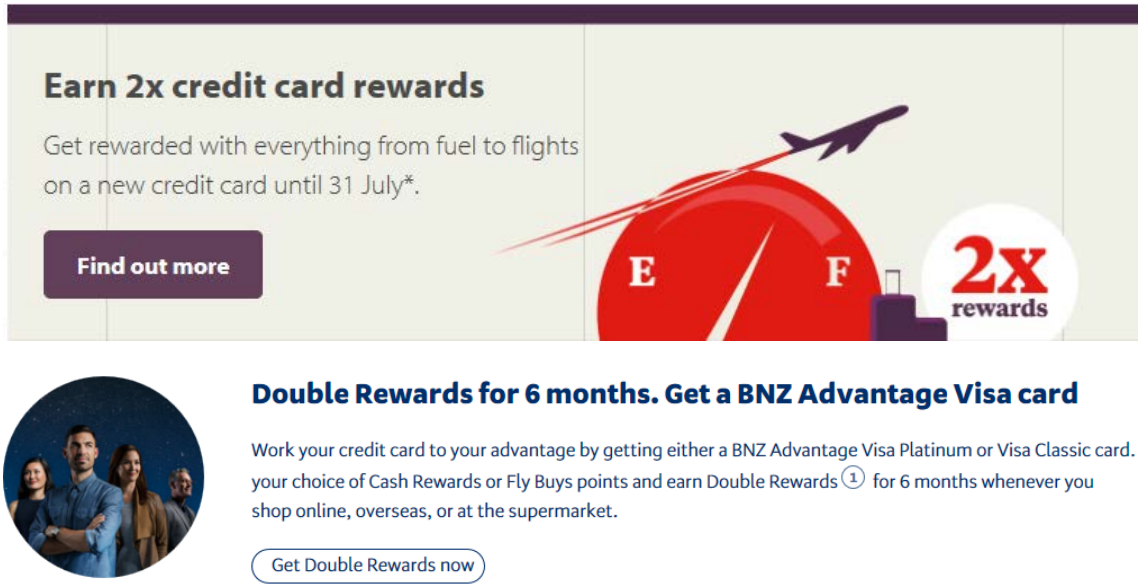
118. One bank provided us with information about the levels of rewards paid out, relative to the annual fees collected on credit cards over the last three years. While the two are not necessarily connected, the rewards paid out have substantially exceeded the annual fees collected in all three years, with significant growth in rewards paid (but not annual fees collected) out over the last two years.

119. One bank has told us that more than 70 per cent of credit card spending attracts rewards (this will vary by issuer depending on their product range). Reward levels are difficult to track using publicly available data due to frequent changes in the structure of reward programmes. However, data provided to us by a major bank shows that the level of reward per dollar spent was relatively flat between 2009 and 2014, before rising significantly in 2015 and 2016. Much of this appears to be attributable to increased competition between issuers to attract (and retain) the customers of BNZ, following the end of its Airpoints arrangement with Air New Zealand.

120. The overall increase in rewards paid out therefore likely reflects two factors:

- increased spending on rewards-based credit cards; and
- an increase in the rewards offered per dollar spent.

Figure 9: Examples of the strong competition between banks for rewards



121. Much of both the increased spending on rewards-based credit cards and the increase in the average level of rewards per dollar is likely attributable to the increase in the

[14] Reserve Bank of New Zealand. (2016). *C12: Credit card balances.* Retrieved from http://www.rbnz.govt.nz/statistics/c12..

number of customers on 'premium' credit cards (those with high rewards, and correspondingly higher interchange fees – discussed later) in recent years. This has been a consistent theme of our discussions with stakeholders, and is confirmed by data provided to us by one bank, which shows that the number of premium cards issued by that bank has quintupled (albeit from a relatively low base) since 2008.

122. Interest-free periods are another form of credit card inducement. These generally last for up to either 44 or 55 days, depending on the period in a billing cycle in which a payment is made. These periods serve to make credit card payments more attractive by making the cost of short-term credit effectively zero – equivalent to debit, and much cheaper than other forms of credit such as overdrafts, which do not generally have interest-free periods.

123. Closed credit cards schemes such as American Express generally operate similarly to open schemes in respect of fees and rewards.

3.2.3 Issuer-acquirer relationships

The theory of interchange

124. The flow of funds between issuers and acquirers that takes place under switch-to-acquirer transactions is known as an interchange fee. This generally flows from the acquirer to the issuer as a percentage of the value of a transaction. Interchange allows schemes, issuers, and acquirers to place different prices on cardholders and merchants in a way that promotes the widest possible use and acceptance of a scheme's product.

125. These prices need not be equal for both parties, and they can even be negative (i.e. a party can be paid to use the product). This is generally determined by the maturity of the scheme and the relative price sensitivities of consumers and merchants. The fact that interchange generally flows from the acquiring bank (from merchants) to the issuing bank (to subsidise use by cardholders) is seen by The European Central Bank[15] (ECB) as evidence that merchants are less price-sensitive with respect to the cost of payment than consumers.

126. This means that merchant acceptance of card schemes will vary less in response to an increase in the price of accepting payment than consumer use of card payments in response to a change in the price they face. According to the ECB, this is due mainly to the fact that accepting card payments has become a necessity for merchants in many business sectors. Another way of explaining this is that merchants "multi-home" (i.e. they feel the need to accept most forms of payment), whereas card-holders "single-home" (i.e. most consumers choose the payment types that suit them best, rather than holding a whole suite of cards). Therefore, increasing the price of acceptance to merchants has a relatively small impact on acceptance, whereas reducing the price to consumers can plausibly induce them to switch from one card brand or issuer to another.

127. As explained in a 2012 paper[16], without interchange, issuers and acquirers would both set prices independently of each other in order to maximise their own profit. The paper argues that without interchange, issuers would not take into account the externality that attracting additional cardholders and card usage generates additional revenues for the acquirer by increasing the number of card transactions. The issuer would therefore

[15] Borestam, A., & Schmiedel, H. (2011). *Interchange fees in card payments.* Occasional Paper Series No. 131. Retrieved from https://www.ecb.europa.eu/pub/pdf/scpops/ecbocp131.pdf

[16] Rysman, M., & Wright, J. (2012). *The Economics of Payment Cards.* Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2183420

tend to set its price to cardholders too high in terms of maximising the profits of the system as a whole, resulting in fewer card transactions. There is also an externality in the reverse direction, in that each additional merchant acquired will generate additional transactions and revenue for the issuer.[17]

128. This is not unique to retail payment systems. Interchange is a perfectly rational profit-maximising mechanism from the perspective of a network owner where there is a two-sided market. Actively balancing prices on both sides of the market is particularly valuable when a network is first being built up. Another example of where an interchange-like mechanism is used is the newspaper industry, in which the newspaper must balance the cost of production between readers and advertisers, with much of the cost falling on the latter in practice. While there is no explicit interchange fee in such a situation, there is an internal transfer of value.

4	Do you agree with our explanation of the rationale for interchange?

Interchange in practice

129. In New Zealand, interchange is charged on virtually all Visa and MasterCard credit card transactions. Since 2009, interchange caps have been set individually by the schemes (as noted in Annex 2, prior to 2009, it was set collectively between each scheme and its issuers). The schemes set a complex range of interchange caps depending on the merchant type and the form of card used. For example, schemes set a lower interchange cap for strategic merchants – a handful of large merchants such as supermarkets and fuel chains.

130. Schemes receive no revenue from the interchange fee – this is passed from the acquirer to the issuer.

131. Issuers are free to charge interchange below the cap. We understand that generally, issuers charge the maximum allowable interchange, with two exceptions:

- In the case of whole categories of 'merchants', such as charities, in which issuers notify schemes that they wish to charge a lower rate of interchange (this is reflected in the reported average weighted interchange figures).
- When large merchants negotiate directly with the issuing side of the merchant's acquirer to have them charge a lower rate of interchange on transactions made by the issuer's customers with the merchant. This is distinct from merchant-scheme or merchant-acquirer negotiations that may also take place (see below), and is not captured in the interchange figures that have been provided to us. It is unclear how often these negotiations actually result in lower interchange being applied.[18]

132. While the two open credit card schemes appear to compete vigorously to attract issuers and merchants, this competition appears to have the natural impact of increasing, rather than decreasing, the interchange caps that are set by the schemes. This is essentially because:

[17] Whether interchange is still justifiable on this basis in a mature, near-ubiquitous market – as with Visa and MasterCard – is contested in academic literature.

[18] Issuers appear to have very little reason to agree to charge a lower rate of interchange. This is because we understand that margins on acquiring services for large merchants are generally relatively low. Therefore, there is little incentive for the issuer to reduce its revenue stream so that the acquirer will win the merchant's business. In fact, there is actually a disincentive on the issuer in that if the merchant's services were provided by another acquirer, then that acquirer would have to pay the issuer the full interchange rate.

- Issuers prefer high interchange fees, because it makes it easier to attract cardholders through greater rewards and inducements, and allows them to recoup the costs of processing payments.
- Acquirers prefer low interchange fees, because it makes it easier to attract merchants.
- As noted above, merchants appear to be less price sensitive than consumers in regards to the cost of payment. This flows through to the sensitivity of issuers and acquirers, to the point where the issuer is more sensitive to a decrease in interchange than the acquirer is to an increase. Moreover, merchants are able to pass costs through to consumers in the form of higher overall prices.
- Most acquirers are also issuers, and therefore any increase in cost to an acquirer through an increase in interchange is directly netted off as an increase in revenue to the issuer (assuming no change in card usage). This means that the acquiring side of an issuing bank is likely to be considerably less opposed to an increase in interchange than a solo-acquirer (rare in New Zealand).
- As markets mature and change, merchants become less price-sensitive to the cost of accepting payment as consumer demand to use a particular payment method increases. This makes it relatively more attractive to increase interchange to attract additional cardholders, rather than decrease it to attract additional merchants.

133. The level of competitive constraint on interchange caps will ultimately depend on merchants' willingness to pay the resulting MSF (see below). This in turn depends on how close consumers see other forms of payment as substitutes. For example, the declining use of proprietary EFTPOS cards would suggest that consumers now see it as less of a substitute for scheme products than previously, and there are seemingly no mainstream 'direct entry' payment options on the immediate horizon to compete with scheme products in the card-present context.

5	Have we accurately described the incentives on parties in relation to interchange?

Credit interchange rates

134. Current interchange caps are published publicly on the website of Visa and MasterCard, although a record of the changes over time (or the effective rate, where this differs from the cap) is not. As an illustration of the broad range of interchange categories available, Table 5 outlines the interchange rates applicable to Visa credit and debit cards, as at May 2016.[19] Of note is the significantly higher interchange cap that is applicable to Visa Platinum as opposed to Visa Classic or Visa Gold cards for electronic and standard transactions (which was adjusted up in 2015 from 1.85 to 2.1 per cent). This arguably creates a significant incentive for issuers to steer customers towards premium credit cards.

[19] Visa New Zealand (n.d.). *Interchange.* Retrieved from http://www.visa.co.nz/aboutvisa/interchange/interchange.shtml

Table 5: Interchange rates applicable to Visa credit and debit cards (May 2016)

<table>
<tr><th rowspan="2">Fee Program</th><th colspan="4">Credit</th><th colspan="2">Debit</th></tr>
<tr><th>Visa Classic
Visa Gold</th><th>Visa Platinum</th><th>Visa Signature</th><th>Visa Commercial</th><th>Visa Consumer</th><th>Visa Commercial</th></tr>
<tr><td>Industry Program – Charities</td><td colspan="6">0.39%</td></tr>
<tr><td>Strategic Merchants – Card Present (CP) – Rate 1</td><td colspan="4">0.50%</td><td colspan="2">$0.04</td></tr>
<tr><td>Strategic Merchants – CP – Rate 2</td><td colspan="4">0.55%</td><td colspan="2">$0.05</td></tr>
<tr><td>Strategic Merchants – Card Not Present (CNP) – Rate 1</td><td colspan="6">0.50%</td></tr>
<tr><td>Strategic Merchants – CNP – Rate 2</td><td colspan="6">0.55%</td></tr>
<tr><td>Strategic Merchants – CP and CNP (Credit) and CNP (Debit) – Rate 3</td><td colspan="4">0.60%</td><td colspan="2">0.60%</td></tr>
<tr><td>Strategic Merchants – CP and CNP (Credit) and CNP (Debit) – Rate 4</td><td colspan="4">0.70%</td><td colspan="2">0.70%</td></tr>
<tr><td>Strategic Merchants – CP and CNP (Credit) and CNP (Debit) – Rate 5</td><td colspan="4">0.80%</td><td colspan="2">0.80%</td></tr>
<tr><td>Strategic Merchants – CP and CNP (Credit) and CNP (Debit) – Rate 6</td><td colspan="4">0.98%</td><td colspan="2">0.98%</td></tr>
<tr><td>Industry Program – Government, Utilities & Telecom</td><td colspan="4">NZ$0.70</td><td colspan="2">NZ$0.70</td></tr>
<tr><td>Industry Program – Insurance</td><td colspan="4">NZ$1.00</td><td colspan="2">NZ$1.00</td></tr>
<tr><td>Industry Program – Recurring Payments</td><td colspan="4">0.70%</td><td colspan="2">0.70%</td></tr>
<tr><td>Electronic (CP)</td><td>0.85%</td><td rowspan="2">2.10%</td><td rowspan="2">2.30%</td><td rowspan="2">2.00%</td><td colspan="2">0.30%</td></tr>
<tr><td>Standard (CNP)</td><td>1.25%</td><td>1.25%</td><td>2.00%</td></tr>
</table>

135. One scheme has provided data which shows that the average weighted interchange charged for credit was relatively flat between 2009 and 2015, before rising modestly in 2016. Another scheme provided us with data showing that of the 11 changes it had made to credit interchange rates since March 2014, 9 of them were decreases. However, this does not necessarily reflect the direction of change for overall weighted-average interchange.

136. We have also been provided with data by a bank which shows that between 2012 and 2015, for its merchant base:

- Overall weighted average interchange fees for (open) credit cards increased by around 9 per cent.
- Credit interchange rates charged to acquirers of small merchants increased by around 16 per cent.
- Credit interchange rates charged to acquirers of strategic merchants (generally the largest merchants, such as supermarket and petrol station chains) *decreased* by around 20 per cent. We understand that this was as a result of direct pressure placed on schemes by large merchants, following a reduction in the rebates received from

acquirers on expiry of the settlement with the Commerce Commission in 2013 (see below).

137. For this acquirer, the effect of these changes is that interchange charged for small merchants is now around two and a half times the interchange charged for strategic merchants.

6	Why are interchange rates falling for large merchants but increasing for small-medium merchants?

138. Overall, the data we have received from banks and schemes tells a similar story – while weighted average interchange rates fluctuate, and growth is not rapid, the trend is up, rather than down.

139. There is no interchange on closed credit cards such as American Express. This is because American Express is both the issuer and acquirer. Nevertheless, American Express still implicitly replicates an interchange fee by balancing the charges it places on cardholders and merchants in order to maximise profits.

Interchange for debit transactions

140. Card-not-present and contactless scheme debit transactions work under the same interchange business model as credit transactions. Interchange fees for card-not-present and contactless scheme debit transactions are generally lower than the equivalent credit interchange rate. Contactless debit interchange was justified by schemes on the basis of the significant investment that the development of the technology required. Nevertheless, the interchange cap has been falling over time, largely to encourage merchant acceptance in the context of merchants continuing to face no direct cost from inserted and swiped debit transactions.

141. Data provided by a bank shows that average debit interchange for its merchant mix fell significantly between 2012 and 2015. Much of this decrease is seemingly attributable to the shift from debit interchange being applied only to card-not-present (online) transactions, to it also being applied (at a lower rate) to contactless transactions as their uptake increased.

Acquirer-merchant relationships

Structure of merchant service fees

142. Merchant service fees (MSFs) are a key feature of payment options that operate under the interchange business model (credit cards and contactless and card-not-present scheme debit transactions). Acquiring banks collect MSFs from merchants to pay for scheme fees (see below), switch fees, float costs (the cost of paying a merchant before the issuer reimburses the acquirer), merchant servicing costs, as well as a bank margin. Most importantly, however, the MSF covers the interchange fee paid to the issuing bank. Stakeholders consistently told us that around 70 to 80 per cent of the MSF is paid out as interchange. As discussed above, no MSF is charged on switch-to-issuer (domestic rails) transactions and there is no associated interchange fee.

143. Prior to the Commission's 2009 settlement (see Annex 2), we understand that most acquirers simply provided merchants with one 'blended' MSF, which averaged out the cost of accepting various payment types into a fixed percentage per transaction, regardless of the mix of cards used in a particular month. These blended MSF percentages are fixed for a given period of time.

144. As part of the 2009 settlement, acquirers are also required to offer merchants:

- Unblended MSFs, which are separate fees for Visa and MasterCard transactions, enabling merchants to see the cost of accepting each scheme's credit cards.
- Unbundled MSFs, which are separate fees for all types of Visa and MasterCard transactions, allowing merchants to see the cost of accepting every type of card.

145. In practice, acquirers differ in the bundling options that they provide to merchants. For example, one bank told us that it splits out credit and debit merchant service fees by default, whereas other banks do not. Unbundling is known as cost-plus pricing, in that acquirers pass along the interchange fee that they are charged, with a margin built on top.

146. All of the banks that we spoke to told us that they prefer to unbundle. This is likely because, when an acquirer sets a bundled rate, it does so based on the estimated mix of high- and low-cost transactions that a merchant will process. Unbundling avoids the risk for a bank that a merchant will process a greater proportion of high-cost transactions than anticipated.

147. There has not been great uptake of unbundling by merchants – banks have told us that only around 5 per cent of merchants choose to unbundle. This is likely to be because unbundled rates are more difficult for all but the largest merchants to understand, and because unbundling creates greater cost uncertainty for merchants. We spoke to a range of merchants and noted that while some of the largest merchants had the capacity and financial incentive to understand MSFs, many others did not. Retail New Zealand noted that many smaller merchants would not take the time to unpick MSFs, as these costs are only one of many costs they face.

Level of merchant service fees

148. Based on information about MSFs provided to us by a bank, we estimate that the total cost of MSFs to merchants in 2015 from transactions made on scheme rails was $461 million.[20] In addition, Retail New Zealand has conducted surveys of its members' MSFs in 2014 and 2015. According to its survey, which was weighted by industry sector (but not necessarily representative of the economy as a whole), merchants faced an average MSF in 2014 of 1 per cent for contactless debit and 1.4 per cent for Visa and MasterCard credit. In the 2015 survey, merchants' average MSF for contactless debit remained at 1 per cent, with the MSF for credit rising to 1.7 per cent.[21] These figures somewhat exceed those provided to us by banks in both their rate and level of growth between 2014 and 2015. Using the Retail New Zealand figures, total MSFs in 2015 would have been closer to $589 million.

149. Based on information provided to us by a bank, headline average MSFs appear to track closely to changes in interchange, with a modest rise in MSFs over the last three years in line with a growth in weighted average interchange. In line with this, headline acquirer margins have seemingly remained relatively constant. However, we understand that these figures do not tell the full story. Some banks provide merchants with rebates to attract or retain them as a customer and these rebates are not factored into the

[20] Covec estimated that the total cost of MSFs to merchants in 2015 was $373 million, however this is in 2010 dollars, and utilises different sector coverage figures and MSF assumptions.
[21] These figures include merchants who pay the same bundled MSF for debit and credit, so a merchant receiving an unbundled MSF would generally face a lower contactless rate, and higher credit rate, than the reported averages.

headline MSF figures. However, we understand that rebate levels have reduced since 2013, potentially increasing acquirer margins.[22]

150. Any competition that occurs between acquirers for merchants is seemingly restricted to the acquiring margin, with the interchange rate charged by the issuer acting as a relatively hard floor for overall MSFs.[23]

151. A consistent theme of our discussions with stakeholders was the gap between the MSFs faced by large and small merchants. This appears to be largely a function of the differing interchange caps set by schemes, with much lower caps set for strategic merchants than for smaller merchants. However, as will be discussed later (see Section 4.4), while interchange caps for strategic and non-strategic merchants are diverging, this is not necessarily leading to a divergence in MSFs to the same extent.

152. Despite the higher MSFs that smaller merchants face, they are – in some cases – able to negotiate discounts. For example, Retail New Zealand has negotiated a (seemingly modest) reduction in MSFs for its members with Westpac of 1.49 per cent where transactions exceed $150 on average, 1.64 per cent where transactions are below $150 on average, and 1.79 per cent for card-not-present transactions. However, this rate is limited in that it only applies to bundled fees.

153. A final complicating factor is the introduction of contactless debit, and its associated MSF. Because the interchange and associated MSF for contactless debit is generally lower than for credit, the growth of contactless transactions (and the inclusion of contactless debit in the bundled figure) can, in some instances, give the impression that bundled MSFs are falling. However in reality, the total amount paid in MSFs is increasing. This is because contactless debit payments have replaced proprietary EFTPOS and cash, which do not attract a MSF.

154. Closed credit card schemes such as American Express also charge merchants a MSF for accepting their cards (in this case, directly). The business model of American Express differs slightly from those of Visa and MasterCard. It charges a higher MSF on the premise that it provides merchants with higher-value consumers than its competitors, among other benefits. As a result, merchant acceptance of American Express and other closed credit cards is significantly lower than for open credit cards, and mostly limited to larger merchants.

155. American Express charges a flat rate to merchants, regardless of the type of American Express card used. Nevertheless, American Express does differentiate its MSFs between merchants, depending on relative bargaining power and (relatedly) the level of value that a merchant considers that American Express provides.

3.2.4 Scheme-merchant relationships

156. The situation in respect of MSFs is further complicated by the direct negotiation that occurs between schemes and a handful of large merchants regarding credit cards and contactless scheme debit. Under these negotiations, these merchants receive an additional rebate off their MSF, in addition to the lower base interchange rates that they face as a 'strategic' merchant (as shown in Table 5 above). In return, schemes may

[22] The Commerce Commission's 2009 settlement, which expired in 2013, required banks to reduce the weighted-average interchange fee that was applied overall. Banks chose to comply with this by giving rebates to merchants.

[23] As noted above, merchants have the ability to negotiate directly with issuers to seek to reduce the interchange charged on transactions at their businesses. However the extent to which this actually results in lower interchange rates being applied is unclear.

impose conditions on merchants, such as agreeing not to surcharge for a period of time, or agreeing to enable contactless payment. These agreements are not in breach of the Commission's 2009 settlement because they are not a 'standard contracting procedure'. They are also not taken into account in the published interchange rates.

3.2.5 Customer-merchant relationships

157. Merchants are able to influence the payment option a consumer uses by:

- **Surcharging**, where merchants add an additional fee for particular payment options to recoup the cost of accepting payment without passing on an overall price increase (and thereby sending more accurate price signals to the consumers).
- **Steering,** which means not accepting (or discouraging) some forms of payment, or preventing a payment type being used in some circumstances (such as low-value transactions) if it is generally accepted.

Surcharging

158. The prevalence of surcharging by merchants for switch-to-acquirer transactions is relatively low in New Zealand. In a 2012 survey of merchants, less than 10 per cent (weighted by turnover) reported surcharging customers for credit card payments.[24] Similarly, in Retail New Zealand's 2016 survey of its members, almost none of the respondents reported charging their customers extra for the use of certain payment methods. Nevertheless, there are some sectors in which surcharging for credit and card-not-present debit is more prevalent. These include hotels, airlines, and central and local government. We are unaware of any merchant that surcharges for contactless debit payments.

159. Historically, there appear to have been four main barriers to surcharging:

- Prior to the Commerce Commission's 2009 settlement, the schemes imposed '**no surcharge rules**', which prohibited surcharging of credit card transactions by merchants. American Express, which was not part of the settlement, still prohibits surcharging by merchants, although its success in enforcing this condition is seemingly limited.
- Surcharging can be **technically difficult**. While we understand that many terminals can now detect the type of card being used, this still needs to be linked into the merchant's POS system, or otherwise the surcharge will need to be manually applied.
- **Lack of information** about the cost of accepting different payment types. Because merchant uptake of unbundling is low (for whatever reason), many merchants will not have enough information about the cost of accepting different cards from their bank or the scheme to be able to make an informed decision about whether they should surcharge and if they do, at what rate.
- **Customers react negatively** to surcharging. An Australian survey sponsored by American Express[25] found that 93 per cent of consumers wanted surcharges

[24] Commerce Commission (2013). *Evaluation of the 2009 interchange and credit card settlements.* Retrieved from http://www.comcom.govt.nz/business-competition/enforcement-response-register-commerce/investigation-reports/research-report-evaluation-of-the-2009-interchange-and-credit-card-settlements

[25] RDG Insights. (2015). *Every Good Buy is the Next Hello.* Retrieved from http://www.retaildoctor.com.au/wp-content/uploads/2015/03/RDG-Insights-Payment-Surcharges-Report_03032015.pdf.

removed, 43 per cent left with a bad impression of the business that surcharged them, and 25 per cent claimed that they would not return to a business that surcharged them. While these sorts of opinions are not necessarily reflected in actual behaviour[26], this sort of customer reaction made all of the merchants we spoke to incredibly reluctant to surcharge, for fear of being the first mover and thereby losing significant business. As a result, stakeholders we spoke to noted that surcharging is often most prevalent in sectors where merchants have some degree of market power.

Steering

160. In contrast, a reasonable portion of merchants steer in relation to switch-to-acquirer (scheme rails) transactions. One bank that we spoke to told us that around 25 per cent of their merchant customers did not accept credit. Another, which has a higher proportion of small merchants as customers, placed non-acceptance of credit cards by their merchants in the region of 40 per cent.

161. These figures may, however, understate the level of credit card acceptance, and therefore the countervailing power of merchants in respect of MSFs and interchange. For example, when weighted by volume, a 2012 survey of merchants[27] found that around 85 per cent accepted Visa or MasterCard credit cards. Nevertheless, nearly 50 per cent did not accept American Express, and more than 60 per cent did not accept Diners Club.

162. Because schemes still impose honour-all-cards rules (see Annex 2), merchants who accept a scheme's credit cards are not allowed to steer customers away from high-cost cards, towards low-cost credit cards.

163. Merchants also steer by not accepting contactless debit. Our understanding is that only around 30 per cent of merchants accept contactless payment, although this is growing, and likely to be significantly higher when weighted by volume.

3.2.6 Scheme relationship with banks (as issuers and acquirers)

164. While schemes do not see any revenue from interchange, they instead receive revenue from issuers and acquirers for the use of scheme debit and credit cards. The exact business model underlying the flows, and the value of these flows, is not public. Nevertheless, our understanding is that:

- Issuers pay schemes a service fee in proportion to the number and value of transactions that take place on their cards.
- In some instances issuers receive a rebate from a scheme, for example, if they solely offer that scheme's products, or undertake programmes that increase the volume of transactions that are processed on that scheme's rails.
- Issuers receive a rebate from a scheme if they increase the volume of transactions that are processed on a scheme's cards.
- Acquirers pay a fixed scheme processing fee per transaction and a fee based on the value of transactions they process.

[26] According to figures from IKEA, the introduction of surcharging for credit in the UK simply led to a near one-for-one replacement of credit transactions with debit transactions. See Symons, C. (2012). *Submission to Canadian Competition Tribunal.* Retrieved from http://www.ct-tc.gc.ca/CMFiles/CT-2010-010_Witness%20Statement%20of%20Charles%20Symons_229_45_3-13-2012_6999.pdf

[27] Commerce Commission (2013). *Evaluation of the 2009 interchange and credit card settlements.*

165. The monetary flows between schemes, issuers and acquirers therefore mean that both schemes and issuers have incentives to increase card usage so that more revenue can be collected. Nevertheless, in theory, competition in these markets should constrain the per-transaction revenues of the schemes, at least from issuers. This is because issuers have a choice over which scheme's products they offer. Of the five major banks, just two (ANZ and BNZ) offer both Visa and MasterCard credit cards, while none offer both Visa and MasterCard debit cards. Therefore, if scheme fees to issuers were to increase, issuers could threaten to only offer the other scheme's products.

166. There may be less competitive pressure in the scheme-acquirer market. This is because, since the 1990s, in order to attract merchants, all banks have acquired transactions from both schemes.[28] Therefore, any threat to not acquire a scheme's transactions following an increase in scheme fees may have limited credibility. Nevertheless, schemes are likely to face some limit in their ability to profitably raise their fees to acquirers. This is because, assuming these costs are a passed on to merchants, any increase in the MSF will have a (possibly small) negative effect on merchant acceptance.

3.3 Ancillary relationships

3.3.1 Switch relationships with banks (as issuers and acquirers)

167. As noted above, most transactions are 'switched' by either Paymark or Verifone New Zealand. Both charge a per-transaction fee to either the issuer (for switch-to-issuer transactions) or acquirer (for switch-to-acquirer transactions). Verifone's switch was initially operated by ANZ (branded as EFTPOS NZ), before being sold to Verifone in 2013. Currently Verifone is only able to process transactions where the merchant's acquirer is ANZ, although Verifone is trying to gain access to process transactions for merchants who acquire with BNZ, Westpac and ASB. Schemes also have the ability to process some transactions directly, bypassing a switch, but we understand that the vast majority of transactions still pass through a domestic switch.

168. There are a number of entities, known as payment gateways, that complement or substitute for Paymark and Verifone for card-not-present transactions. In New Zealand, Payment Express handles many web-based transactions. Other competitors include Paymark's Click service, Paystation, and Swipe. In addition to online payments, these systems also facilitate manual (e.g. mail order) processing of credit card payments. For online payments, these switches also act as the customer interface.

3.3.2 Switch-merchant relationships

169. Merchants also face a nominal fee to be connected to a switch, regardless of payment types or volumes. This connection is required for the merchant to accept any type of electronic card. For example, Paymark charges $13.50 a month per terminal, capped at five terminals per store. Competition over these charges is likely to be similar to competition in the switch-issuer and switch-acquirer markets. We do not consider this flow to be central to the system and therefore do not discuss it further.

3.3.3 Merchant-terminal provider relationships

170. In addition to the MSFs that merchants pay to acquirers, merchants with a physical presence also face separate costs for using the physical payment hardware that provides a customer interface. These terminals are required regardless of which payment cards the merchant chooses to accept. Merchants may either purchase a terminal (for in the

[28] Prior to this, merchants may have needed to have a relationship with multiple acquiring banks if they wanted to accept cards processed by both schemes.

region of $1,000) or hire a terminal for a monthly fee. In some cases, merchants have the option of paying a per-transaction fee to the terminal provider in return for a lower monthly rate. There are, anecdotally, at least 80 terminal providers in New Zealand.

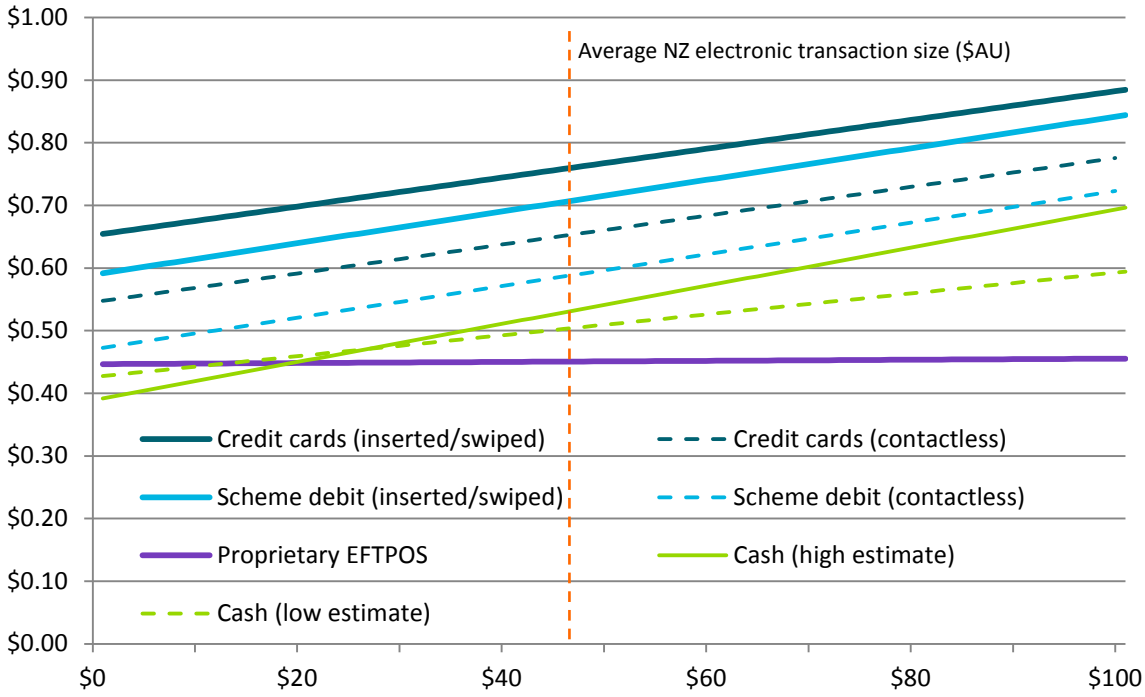
171. Payments New Zealand requires all terminals to comply with various security standards. This means that merchants are required to replace their terminals every few years. Some of the stakeholders we spoke argued that the requirement to upgrade terminals was an unnecessary additional cost for merchants. However, the cost of terminals seems to be a relatively small component of retail payment systems as a whole.

3.4 Resource costs

172. This section has examined the fees and inducements that support the business models of retail payment systems. It has not, however, outlined the underlying costs that different participants face – regardless of whether there is an explicit fee or charge – associated with a particular method of payment. To do so is difficult because most of the data required to determine this is not public, and no work has been done to estimate these costs in New Zealand.

173. Nevertheless, staff at the Reserve Bank of Australia[29] (RBA) have attempted to calculate the 'resource cost' of various methods of payment – that is, the economic resources expended by the various system participants to 'produce' a payment. This includes factors such as fraud prevention, authorisation and transaction processing, tender time at the point of sale, and other back-office costs. Crucially, this measure does not account for transfers between parties, such as rewards or merchant service fees. While these are private benefits and costs, they are not a cost to the system as a whole.

Figure 10: Australian resource costs by transaction value (RBA data, Australian dollars)



[29] Stewart et al (2014). *The Evolution of Payment Costs in Australia.* Retrieved from: http://www.rba.gov.au/publications/rdp/2014/pdf/rdp2014-14.pdf

174. Figure 10 shows the RBA staff's estimates of resource costs for various payment methods, and how they differ based on differing transaction values (some resource costs are fixed, while others are variable with the transaction amount). Applying these cost estimates to the average electronic transaction size in New Zealand in 2016 ($50 – approximately AU$47), yields the following resource costs (converted into New Zealand dollars):

- Cash: NZ$0.55 (1.1 per cent of transaction value).
- Australian EFTPOS: NZ$0.48 (0.96 per cent).
- Credit cards: NZ$0.81 (1.62 per cent).
- Contactless credit: NZ$0.70 (1.40 per cent).
- Scheme debit cards: NZ$0.76 (1.52 per cent).
- Contactless debit: NZ$0.63 (1.26 per cent).

175. The dashed lines in Figure 10 are for contactless transactions. The lower resource cost for contactless cards is due to reduced tender time for the merchants at the point of sale.

176. If we assume that New Zealand has a similar level of inherent resource costs to Australia, this would suggest that the cost to process an average-sized ($50) electronic transaction via credit card is around two-thirds higher than the cost of processing an EFTPOS transaction. Based on current transaction volumes, **we estimate that the total resource costs of processing card payments to the New Zealand system is around $950 million annually**.[30]

177. In fact, there is reason to believe that the difference in cost between credit and our EFTPOS system is actually greater. This is because, at the time the RBA's study was undertaken, Australia's system relied on a relatively costly system of bilateral linkages between banks. This is in contrast to New Zealand, and what is generally considered to be our more efficient system of switching based around Paymark (and to a lesser extent Verifone). We understand that Australia has since implemented a more efficient, centralised EFTPOS system.

7	Is the resource cost data robust? Is the Australian data likely to over-state or under-state the costs of running New Zealand payment systems?

[30] This takes data provided to us by a switch about the volumes of different types of transactions and multiplies them by the resource cost per average-sized transaction from the RBA study. This may underestimate the resource cost in that we know that credit card transactions are, on average, considerably larger than debit transactions and would therefore incur a higher resource cost than is calculated based on the average overall transaction size. On the other hand, use of Australian data about the cost of proprietary EFTPOS may overstate the resource cost of proprietary EFTPOS transactions in New Zealand.

4. Issues identified

4.1 Overview

178. We have identified a number of issues in both the credit and debit card markets. Many of these issues result from the interchange business model operating in New Zealand.

179. We consider that there are two main issues in the credit card market, where the interchange business model is resulting in:

- **Issue 1**: Economic inefficiency of $45 million dollars of additional cost annually as a result of the induced usage of the relatively more expensive credit card network.
- **Issue 2:** Increased prices for all consumers (estimated at $187 million annually) to fund credit card rewards, with mainly higher-income consumers benefiting from those rewards.

180. The basis for these calculations is outlined in the remainder of this section, and in Annex 4.

181. This is the result of the fact that consumers do not face accurate price signals, and leads to overall higher costs for consumers. These issues are long-standing, although there is some evidence that these inefficiencies have been growing in recent years as a result of the premiumisation of credit cards.

182. Similar issues are developing in the debit market, where the interchange business model is now competing with "free" debit transactions (EFTPOS and inserted or swiped scheme debit).

- **Issue 3:** Given the dynamics of the interchange business model, the inefficiencies and wealth transfers of the credit card market could also emerge in the debit market.
- **Issue 4:** There may be technical or institutional barriers to entry or expansion for new debit payment products.

183. The size of the issues in the debit market is difficult to quantify at this stage. This is because recent technological developments could allow for significant retail payments innovation. The timing and scale of any new developments are difficult to predict.

184. The interchange business model is also impacting on small and medium enterprises (SMEs) in both markets:

- **Issue 5:** The gap between merchant service fees paid by large ("strategic") merchants and others is significant and seemingly growing, reducing the competitiveness of smaller businesses. The lack of pricing and cost transparency may be reducing the ability of these businesses to negotiate better fees with acquiring banks and make decisions about which payment options to accept and whether to surcharge.

4.2 The interchange business model is resulting in inefficient outcomes in the credit card market

4.2.1 Consumers do not face accurate price signals…

185. We consider that the incentives faced by all market participants – consumers, merchants, issuers, acquirers and schemes – lead to a greater use of credit cards relative to other payment options, compared to a situation in which these incentives did not exist. Fundamentally, consumers' choices between payment options are distorted by the incentives placed on them by card issuers and merchants. This means that, in making their decisions – while acting completely rationally and in their best interest at an individual level – consumers do not face or take into account the system-wide costs and benefits of various payment options.

186. As noted in Section 2.1, credit cards offer benefits to both consumers and merchants, allowing consumers to spend when they do not have cash on hand and allowing merchants to accept payment from a larger pool of potential customers (particularly international consumers). We do not dispute this, and these benefits are justifiably reflected in the existence of a price placed on merchants for credit card transactions. The question explored in the remainder of this section is whether the incentives in the system distort this price beyond what is efficient.

187. Ordinarily, it is not the role of government to second-guess how consumers choose to spend. In general, we assume that transactions only take place if both the buyer and the seller consider themselves to benefit from the transaction. We also generally assume that this decision is made in the absence of significant externalities, and therefore the private costs and benefits to the consumer are close to the system-wide costs and benefits.

188. This is not the case when a consumer selects a payment option. Due to the flow of interchange, in many cases consumers do not face anywhere near the full cost of their payment choice. This is because, as discussed in Section 3:

- More than 70 per cent of credit card spend now earns rewards, and a growing proportion of credit cards are 'premium' cards, which attract a higher interchange rate and MSF. These rewards can be a significant incentive to use a particular card, in addition to other financial benefits provided to credit card users, such as an interest-free period.
- These rewards are substantially funded through interchange, rather than annual fees. This means that the cost of using a credit card can be negative for a cardholder. That is, many credit card holders are effectively paid to use their card.
- Few merchants surcharge, meaning that the costs a merchant faces in accepting payment are averaged out across all consumers.

189. The lack of price signals to cardholders is a problem because it leads to:

- Higher costs for processing retail transactions than would likely be the case if clear price signals did exist (and consumers responded to these signals).
- A redistribution of wealth from users of low-cost payment methods to those who receive rewards.
- Higher overall costs of goods and services as a result of the costs merchants face in accepting payment.

190. The overall process is referred to in the economic literature as "price coherence and adverse intermediation"[31]. In such markets, intermediaries (schemes and banks) can charge fees to merchants to incentivise consumers (through rewards) to use their service (credit cards). Cardholders then switch to using higher-cost cards, with increased costs ultimately borne by all consumers. This system works because the financial incentives to cardholders are large enough to effectively motivate their choice of payment option. These financial incentives are funded by a wider base (all consumers) through slightly higher overall prices on all goods which are difficult to detect (and therefore do not influence cardholders decisions).

4.2.2 …which results in higher costs to process retail transactions…

191. As noted in Section 3.4, the RBA found that the resource cost of a scheme credit card transaction is roughly two-thirds higher than the cost of an EFTPOS transaction, excluding the cost of credit and rewards. If we assume that New Zealand has a similar ratio of costs between payment methods to Australia, we estimate that **the use of credit cards instead of proprietary EFTPOS adds $137 million in costs to the New Zealand economy annually**.[32] Even though it is not borne by consumers in direct costs, these costs will be passed onto consumers in higher overall prices.

192. It could be argued that this outcome is efficient by default because it is the result of market participants' decisions. However, we know from Section 3.2.2 that a high proportion of consumers pay their credit card account balance before it attracts any interest, and that around 40 per cent choose credit cards primarily for the rewards they attract. For these rewards-focused consumers, credit card transactions are not made for the credit itself, which might justify the greater resource cost to the system; rather, the credit option is used to attract the financial benefit attached to using the premium card. Extra resource cost is incurred in putting through these credit card transactions, with no overall benefit to the economy, just a transfer of rewards to the individual consumer. Therefore, **a conservative estimate of the added cost to the economy that arises from the use of credit cards by this 40 per cent is $45 million annually.**[33]

193. Put another way, 40 per cent of credit card users have no need for the credit; they have sufficient funds in their accounts to pay for the purchases. However, they use their cards because they are incentivised to do so through rewards and do not face the full cost of doing so, since surcharging is uncommon. This individually rational behaviour then leads to system-wide inefficiencies.

8	Do you agree with the logic underpinning our assessment that there is inefficiency in the credit card market?

[31] Edelman and Wright. (2014). *Price coherence and adverse intermediation.* Retrieved from http://www.hbs.edu/faculty/Publication%20Files/14-052_41d72e17-7ca8-4090-99eb-a7d24e8eaa0f.pdf

[32] This is distinct from the estimated $461-589 million in MSFs that merchants face to accept payment. MSFs can exceed resource costs in some instances, as resource costs ignore transfers (most notably rewards) and profit margins, while in the case of proprietary EFTPOS, the resource cost exceeds the (zero) MSF.

[33] We assume that around 20% of credit card transactions are made by business or international cardholders, and have removed these from the analysis on the basis these transactions are unlikely to have been induced by rewards. The $45 million represents around 0.13 per cent of the total value of expenditure on credit cards in the year to March 2016.

4.2.3 …and higher overall prices for consumers…

194. Competition between issuers for consumers through rewards programmes results in upwards pressure on interchange fees paid by merchants, which are in turn passed onto all consumers as higher prices for all goods and services. We estimate that **the presence of credit card rewards increase prices of goods and services for consumers by $187 million per annum**. This is just a portion of the fees paid by merchants.

195. Higher prices are faced by all consumers, as a result of the low prevalence of surcharging by merchants. If surcharging occurred, merchants would not have to factor the cost of electronic transactions into the general prices because they would be recovered directly from each customer depending on payment method used in each case.

4.2.4 …although these higher prices can be partially or fully offset for consumers who receive credit card rewards

196. The increase in costs faced by consumers can be offset for the holders of rewards-offering credit cards, who in some cases may receive rewards that greatly exceed the overall increase in price that they face. On the other hand, those who do not hold rewards-offering credit cards face an increase in price, with no corresponding benefit. This represents a wealth transfer from the users of low-cost payment options to users of high-cost cards.

197. This wealth transfer is strongly regressive. This is because users of high-cost credit cards are likely to be on high incomes due either to issuer rules (for example, the Air New Zealand American Express Platinum Card has a minimum income requirement of $65,000), or self-selection as a result of higher-annual fees (that nevertheless do not cover the full cost of rewards). In contrast, the cost that merchants face is passed on to all consumers, including those on low incomes. Our rough estimate is that **this results in an ongoing cross-subsidy from low-income households to high-income households of $59 million per annum.**[34]

9	Do you agree with the logic underpinning our assessment that reward schemes result in higher overall prices and cross-subsidies?

Box 2: Are payment system cross-subsidies worse than any other cross-subsidy?

A repeated theme in our discussion with stakeholders was that, while credit card rewards likely result in a cross-subsidy from users of low-cost cards to users of high-cost cards, there are a range of cross-subsidies that exist across the economy. Stakeholders argued that cross-subsidies that occur in retail payments are fundamentally no different to those that might exist in respect of loyalty schemes (such as FlyBuys), petrol rebates, free car parking, or the cost of labour on weekends.

We agree that cross-subsidies are prevalent across the economy. While cross-subsidies may be allocatively inefficient, they can be valued by consumers, and are clearly profit-enhancing

[34] In arriving at this figure, we assume that 10% of credit card transactions are made by international cardholders, and remove them from the analysis. We include business cardholders in the analysis. We assume that 75% of credit card spending attracts rewards, that the average value of rewards is 1% of expenditure, that 20% of rewards are funded through annual fees, that only the highest-earning 40% of households earn rewards, and that these households are responsible for 68% of retail expenditure. The $59 million figure represents around 0.17 per cent of the total value of expenditure on credit cards in the year to March 2016.

for firms that introduce them. Nevertheless, it is not uncommon for firms to seek to minimise them. For example, surcharging on public holidays is becoming more common.

Cross-subsidies associated with credit card rewards can be distinguished from other cross-subsidies in two main ways:

- Firstly, card payments are pervasive across the economy in a way that few, if any, other cross-subsidies are. Individual businesses may offer free car parking to their consumers, or pay staff more to work on weekends without surcharging. However, the cross-subsidy in relation to card payments essentially extends to any merchant who accepts a credit card payment.
- Secondly, when businesses cross-subsidise a product or service, they generally make an active decision to do so. For example, a business that decides to offer FlyBuys does so knowing that it will have to charge extra to all of its customers to pay for the benefits that those who utilise the reward scheme receive. In contrast, a merchant is not a participant in the decision-making around the cost of rewards that are embedded in their MSF. Therefore, because rewards are *tied* to the payment method, a merchant cannot choose to accept credit card payments without also accepting the higher-cost cards that also provide rewards.

4.2.5 These issues are unlikely be resolved by market mechanisms

198. There are several ways that the lack of price signals could theoretically be resolved through market mechanisms. One way is through increased surcharging for expensive payment methods by merchants. However, as alluded to in Section 3.2.6, merchants in a competitive market face a significant first-mover disadvantage through a negative customer reaction if they introduce surcharges, making it unlikely that surcharging will become significantly more widespread. Box 3 explores the possibility of surcharging further.

Box 3: Is surcharging the solution?

Accurate surcharging for the use of higher-cost payment options would reduce the impact of premium card rewards. This is because a surcharge at every purchase would negate any benefit that would accrue to the premium card holder over and above what is the intrinsic value of using that payment option. A consumer would only choose to use a payment option that attracted a surcharge if they valued the benefits (such as the credit or contactless function) more than the cost.

However, Section 3.2.5 outlined that merchants face technical and customer experience barriers to surcharging. There are also challenges in accurate pricing in the first place. This is because merchants do not face prices for each payment option on the same basis. In New Zealand, acquiring banks charge merchants for costs associated with credit transactions and contactless scheme debit transactions, but not for EFTPOS or contacted scheme debit transactions. Nor do merchants face all of the costs associated with cash. This means that any menu of surcharges based on these costs would not send accurate price signals to consumers; they would act as rough proxies at best.

The use of discounts is a possible alternative to surcharging. While theoretically equivalent,

and psychologically more acceptable to consumers, discounting is potentially less effective at influencing behaviour[35], can make merchants' headline prices look less competitive than those who don't discount, and presents similar implementation issues to surcharging.

199. Another way of providing consumers with accurate price signals would be for issuers to increase annual fees to more closely reflect the benefit received by cardholders. However, in a (seemingly) competitive market between issuers for consumers, there is little incentive to do so when it would discourage consumers from choosing their product, and when there is already a substantial flow of income from interchange to fund rewards.[36] This means that we see it as highly unlikely that unilateral action by issuers will correct the price signals to consumers in the foreseeable future.

200. If the inaccurate price signals cannot be corrected for directly, the extent of the inaccuracy could at least be reduced if merchants or acquirers had greater ability to negotiate down interchange and MSFs. Section 3.2.3 outlined the reasons why acquirers that form part of issuing banks have limited incentive to negotiate down interchange rates. In addition, Box 4 explores the reasons that self-acquirers are also unlikely to act as a countervailing force on interchange.

Box 4: Will self-acquirers place downward pressure on interchange?

The Commission's 2009 settlement (see Annex 2) allowed for entities to become acquirers of card transactions without also being card issuers or financial institutions. In theory, this has the potential to place downward pressure on interchange fees, because self-acquirers are likely to be significantly more averse to an increase in interchange fees than combined issuer-acquirers (see Section 3.2.3).

In practice, it is unlikely that the provision for self-acquiring has had any material impact on interchange rates. We are only aware of one merchant that self-acquires in New Zealand: Countdown. It informed us that becoming a self-acquirer required a substantial investment that was only viable due to two reasons. Firstly, Countdown had the ability to leverage off infrastructure developed by its parent company, Woolworths Australia. Secondly, self-acquirers formerly faced a significant financial advantage in terms of lower scheme fees on transactions that self-acquirers routed directly to an issuer ("on-us") as opposed to the scheme fees associated with the traditional flow of transactions via an acquirer ("off-us"). However, shortly after Countdown began acting as a self-acquirer, changes were made by a scheme to remove any pricing differential between on-us and off-us credit transactions, largely eliminating the financial advantage associated with self-acquiring.

While Countdown noted that being a self-acquirer has given it the benefit of being able to directly negotiate with issuers in respect of interchange, it stated that, given the current pricing structure, it may not have made the decision to self-acquire. Countdown also noted that in the absence of any regulated access rules, not all issuers have agreed to participate in Countdown's self-acquiring model. The investment required to become a self-acquirer, combined with the new pricing structure of one of the schemes and the lack of stipulated

[35] See, for example, Canadian Competition Tribunal. (2012). *Closing Submissions of the Commissioner of Competition in the matter certain agreements or arrangements implemented or enforced by Visa Canada Corporation and MasterCard International Incorporated.* Retrieved from http://www.ct-tc.gc.ca/CMFiles/CT-2010-010_Closing%20Argument%20of%20the%20Commissioner%20of%20Competition_303_45_7-5-2012_6244.pdf

[36] In addition, annual fees are a fixed revenue source, whereas rewards are variable depending on spend, so there would be inefficiencies associated with the use of greater annual fees to fund rewards.

access rules, has had the effect of making it appear highly unlikely that any other self-acquirers will enter the New Zealand market. This means that issuers and schemes are unlikely to face any real pressure to reduce interchange rates and caps via this mechanism.

10	Do you agree that self-acquirers are unlikely to place downward pressure on interchange?

201. Section 3.2.4 noted that merchants do have some ability to negotiate down the MSF they face, but pointed out that this ability to negotiate is largely limited to negotiating over the extent of the acquirer's mark-up over the interchange rate. In addition, large merchants are able to place some downward pressure on the interchange rates they face. However, these efforts to date have not been large enough to make an appreciable difference to the overall price incentives faced by consumers. We do not foresee any market developments in the near future that would substantially increase merchants' ability to negotiate down MSFs or interchange on credit cards, and in doing so, reduce the level of distortion of price signals that currently exists.

202. This is because, as long as credit card rewards exist at their current rates, many consumers will not see other payment methods (such as debit cards or direct entry payment methods) as direct substitutes. In fact, the recent growth in rewards, to the extent that it is sustained, will serve to widen the distinction between credit cards and other forms of payment that do not attract rewards. The less that other payment products are seen as competitive substitutes to credit, the more consumers will demand the ability to pay with credit, and the less bargaining power a merchant will have over MSFs. We think that this dynamic, combined with the migration of consumers to cards that attract higher interchange, may explain the recent rise in MSFs for small and medium-size merchants.

203. As long as merchants feel compelled to accept credit card payments (due to consumer demand), the schemes will face little incentive to reduce interchange caps, because to do so would make other schemes' products more attractive to issuers and, in turn, consumers. For the same reasons, there is little reason to believe that issuers will unilaterally choose to reduce the interchange they charge within these caps when doing so would harm their ability to attract consumers.

11	How much negotiating power do merchants have over the merchant service fees they face? Is this likely to change in the future?

4.2.6 This is a long-standing economic distortion that is growing

204. The issues relating to high-cost credit card payments, allocative inefficiency, and cross-subsidies in relation to credit card transactions are long-standing. Long-run weighted average interchange rates for credit card transactions fluctuate, with some recent growth, but are not rising sharply. Similarly, as noted in Section 3.2.2, the value of rewards for New Zealand credit cards appears to have remained reasonably consistent until last year, when rewards grew (and many annual fees were waived) following the renegotiation of the Air New Zealand Airpoints programme with banks.

205. Even at their current level, we think that the issues described here represent an unnecessary economic distortion that there is merit in addressing. These issues are largely independent of the investment and innovation in credit card products – that is, reducing the level of inefficiency in the market should not have a negative impact on

innovation. Moreover, there is also evidence that the overall level of distortion is increasing. As noted in Section 3.2.2, we know that there has been an overall premiumisation of cards of late, with more cards attracting higher rewards, interchange, and MSFs, and therefore potentially increasing allocative inefficiency and cross-subsidies above the estimates provided in this section.

12	Do you think that the issues in the credit card market are of a scale that warrants intervention? If not, do you think that the size of the issue is likely to grow over time?

4.2.7 Summary

206. In summary, the current inducements to use credit cards substantially distort price signals which result in a greater use of economic resources to process retail payments and a cross-subsidy from users of low-cost payment methods to high-cost users. It appears unlikely that this dynamic will be resolved by market mechanisms in the foreseeable future – in fact the dynamics inherent in the market may actually serve to exacerbate this issue over time – meaning that government intervention may be required to resolve this issue.

4.3 Inefficiencies could develop in the debit market

4.3.1 The growth of scheme-based debit payments creates cause for concern…

207. In addition to the issues in the credit market, the debit market could also be heading in a direction that would not deliver good overall outcomes for consumers. As Figures 3 and 4 demonstrate, the debit market is currently dominated by transactions that are switched to issuer (proprietary EFTPOS and inserted/swiped scheme debit), although the use of switch-to-acquirer and the associated interchange business model is growing rapidly as a result of the growth of contactless and online transactions.

208. The share of contactless transactions will continue to grow as more merchants start accepting contactless debit payment. We predict that the share of card-present transactions made contactlessly could increase to at least 60 per cent of all debit transactions by 2024 (compared to around 15 per cent currently, and around 2 per cent in January 2014).[37] However, ultimately, the level of growth will depend on the following interrelated factors:

- The financial incentives for use set by schemes, issuers, and acquirers.
- The level of pressure from consumers for contactless payment.
- The extent of growth of online purchases.
- The development of technology that encourages contactless payment, such as mobile apps.
- The levels of merchant acceptance.

209. There are real benefits associated with contactless technology for both consumers and merchants. However, because of the commercial model that underpins it, the growth of contactless transactions creates cause for concern due to:

[37] We consider this to be reasonably conservative, assuming steady growth in merchant acceptance. For example, liner modelling based on current trends would actually place contactless debit usage at more than 70 per cent of all debit transactions by 2024.

- The potential for schemes, issuers and acquirers to increase interchange and MSFs as contactless payment becomes entrenched and price sensitivities of consumers and merchants change.
- The potential for cross-subsidies and a negative impact on allocative efficiency, as with the use of credit cards.
- The possibility that the schemes' interchange business model limits uptake of cheap or innovative payment options by consumers.

4.3.2 …and many participants face incentives to encourage its uptake…

210. Many participants face an incentive to encourage the uptake of contactless payment. Firstly, it is in the interests of **schemes** to increase the volume of contactless transactions. This is because the schemes receive revenue from issuers and acquirers when transactions are processed via switch-to-acquirer, as contactless is. In doing so, the schemes are competing with each other's products, as well as with proprietary EFTPOS (and other payment methods). Thus, in order to grow consumer usage, the schemes need to balance the interchange cap set to ensure that issuers are incentivised to issue their product to consumers over proprietary EFTPOS, while ensuring that charges to acquirers (and then merchants) do not harm (and promote) the acceptance of contactless products.

211. Secondly, it is also in the interests of **issuers** to increase the volume of contactless transactions. This is because they receive revenue from the associated interchange fee. Issuing banks receive no such revenue from proprietary EFTPOS or swiped/inserted scheme debit transactions. In fact, these latter transactions cost banks (see below). Issuers are also responding to consumer demand for scheme debit cards on the basis of their greater functionality (i.e. they can be used internationally and online). While many of the transactions that take place on these scheme cards will not attract a revenue source immediately, they know that the percentage of revenue-earning transactions will increase quickly as contactless uptake increases.

212. We also expect that **consumer** pressure for contactless acceptance will continue to grow. This pressure is completely rational from the perspective of an individual consumer. Contactless payment is more convenient for the consumer, and as with credit cards (see Section 4.2 above), consumers do not face the direct costs of this added convenience. The time saving provided by contactless payment is marginal (though proportionately more important in short-interaction contexts such as bars or fast-food). Nevertheless, contactless payment does offer a better customer experience. While subtle, many merchants are likely to be conscious of the negative impression a customer receives when they expect to be able to pay contactlessly only to find that they cannot.

213. Finally, the **merchant**'s decision whether to accept contactless payment depends on whether they consider the additional cost to justify the benefits that accrue to them. In this case, relevant factors may include:

- Whether acceptance of contactless payment would increase sales.
- Whether the time saving that results from the use of contactless payment is valuable in the context of the merchant's business model.
- If contactless payment displaces another payment option, the cost or saving of that incremental change. For example, shifts from proprietary EFTPOS and inserted/swiped scheme debit and cash to contactless debit payment will cost the merchant, but shifts from credit card to contactless debit will save the merchant

money. It seems likely, however, that the former shifts involving added cost (from EFTPOS and cash) will outweigh the latter shift involving savings (from credit).

214. In addition, as more merchants accept contactless payment, the remaining merchants will face increasing competitive pressure to also do so. This is being driven by larger, "strategic" merchants taking up contactless payment, partly in response to bank and scheme incentives, including significantly lower interchange rates compared to smaller merchants and rebates directly from the schemes. This pressure to accept contactless payment arises because consumers more frequently shop at strategic merchants (such as supermarkets) and come to expect this option when they shop elsewhere.

13	Do you agree with our assessment of the incentives held by different parties in relation to debit card usage?

4.3.3 …but there is little incentive to invest in proprietary EFTPOS

215. Just as dial-up internet was long left behind as a competitor to broadband, proprietary EFTPOS is quickly reaching the stage where its limited functionality (and security) means that it is no longer an effective competitor to scheme cards. This lack of innovation is largely due to the incentives on the banks that have evolved as the EFTPOS system developed. There is no "owner" of proprietary EFTPOS – it is not a scheme that seeks to compete for market share. At present, the banks:

- Own Paymark, the switch that processes around three-quarters of electronic transactions (the remainder are largely processed by Verifone, formerly owned by ANZ).
- Have a majority on the Board of Payments New Zealand and on its Consumer Electronic Clearing System committee.
- Are card issuers, providing EFTPOS and scheme debit cards to consumers.

216. As it stands, Paymark's main business is to act as a switch for transactions. From the outside, it appears that its shareholders have little incentive to support or fund other activities, such as the development of online EFTPOS or greater functionality of non-scheme payment cards. This is because issuing banks do not receive a revenue stream from proprietary EFTPOS transactions, and therefore directly carry the cost of processing the EFTPOS transactions made by the cards they issue. Any investment in Paymark therefore represents a direct cost to the banks.

217. Payments New Zealand had previously undertaken work to explore adding greater functionality to proprietary EFTPOS, but has largely abandoned this work due to conflicting interests among its shareholders, directors and participants.

218. On the other hand, as already discussed, issuers of scheme debit cards receive interchange revenue each time the scheme debit card is used contactlessly. As it stands, this makes contactless scheme debit products sufficiently attractive to justify not investing in the upgrades to the proprietary EFTPOS scheme that would be required to make it a viable competitor.

14	Do you agree that there is little incentive to invest in proprietary EFTPOS?

4.3.4 Merchants will face an increase in costs …

219. The "free"-to-merchant proprietary EFTPOS business model that has prevailed in New Zealand for nearly 30 years has had the effect of making it effectively unviable to charge

merchants for inserted or swiped scheme debit transactions. When scheme debit was introduced, the schemes and issuers understood that doing so would substantially limit acceptance by merchants when, in the card-present context, proprietary EFTPOS and scheme debit are substantively equivalent. It is only the introduction of contactless debit, arguably an added service at the point of sale, which allowed the schemes and banks to introduce the interchange business model to mainstream debit transactions when it was previously confined to online and international debit transactions.

Box 5: Will schemes start imposing interchange on swiped/inserted scheme debit?

One of the concerns aired by merchants is that once scheme debit products are sufficiently embedded in the New Zealand market, schemes could start switching these transactions to acquirers and apply interchange, increasing costs for merchants. In our discussions with them, schemes have been adamant that they will not introduce interchange on scheme debit. If they were to do so, they argue that many merchants would either stop accepting their cards or surcharge, and that many consumers would move back to proprietary EFTPOS.

This appears to be the case. Given the relatively rapid increase in contactless payment, there is little need for the schemes and issuers to risk reducing acceptance of their product by applying interchange when revenues are already rising relatively rapidly through the increased use of contactless debit.

Nevertheless, there are scenarios – such as if banks were to stop issuing proprietary EFTPOS cards and thereby remove this payment method as a competitive constraint – that it could be advantageous to schemes and issuers to start applying interchange. For this reason, it may be beneficial for schemes and issuers to make their intentions clear to the market.

15	Do you agree that it is unlikely that schemes will start imposing interchange on swiped/inserted scheme debit transactions?

220. An immediate impact of proprietary EFTPOS gradually losing market share to contactless scheme debit is an increase in the overall cost to merchants for transactions to be processed. This increase in cost is not tied to the contactless technology, but to the interchange business model that it utilises. Based on current uptake, the cost to merchants of accepting contactless debit was likely around $36 million in the 12 months to March 2016.[38] **If 60 per cent of card-present debit payments were made contactlessly, the annual cost to merchants of accepting contactless debit could increase to $252 million**.[39]

221. This projection assumes no change to the contactless interchange fee or MSFs charged by acquiring banks. In fact, in the *short-term*, it seems plausible that interchange and associated MSFs on contactless debit may fall further in order to drive greater acceptance. Costs to merchants will nevertheless increase over time as a greater proportion of payments attract MSFs. As with credit card interchange, the relative

[38] Based on switch data and Retail NZ MSF estimations. The $36 million estimate uses different MSF assumptions to the $461 million estimate of total MSFs in Section 3.2.4, but it conceptually forms part of the $461 million total (rather than being on top of it). The $36 million does not include the cost of card-not-present debit payments (which are captured in the data as credit transactions).

[39] Based on MBIE uptake modelling and Retail NZ MSF estimations. This figure assumes no change to MSFs, retail sales, or electronic transactions as a proportion of total retail sales. It does not include the cost of card-not-present debit payments.

burden of the cost increases will be more severe for smaller merchants, given the higher MSFs they face on average.

222. Merchants are, as would be expected, concerned about the increase in cost to their business that they will face as a result of accepting contactless payment. However, we do not, in itself, see this as a problem (see Box 6).

Box 6: The impact of "free" EFTPOS on innovation

The discussion about how the interchange business model will drive outcomes in the debit payment market should not be read as an endorsement of the "free" pricing of proprietary EFTPOS. Domestic EFTPOS was the most efficient debit payment option for a long time, particularly compared to the main contenders at the time (cash and cheques). Given how advanced the system was at the time it was introduced, there was limited gain in investment to develop successor systems.

However, what was essentially the 'under-pricing' of EFTPOS created significant barriers to enter the debit payment market. It also meant that the system received only the bare-minimum level of investment, with few improvements to security or functionality over the last 30 years, despite improving technology and increasing consumer expectations. Overall, the legacy of the "free" pricing strategy is the inability of domestic EFTPOS to compete with scheme debit.

16	Do you agree that merchants facing a per-transaction charge for accepting debit payments is not an issue in itself?

4.3.5 …but the system-wide efficiency implications are less clear

223. Arguably more relevant to the efficiency of the system as a whole is the increase in resource costs arising from the shift from proprietary EFTPOS to contactless debit. Using the RBA's resource cost data, the increase in resource cost to the system for each average-sized transaction will be around 14 cents. At 60 per cent contactless uptake, **we estimate that the increase in resource cost to the economy arising from the use of contactless payment instead of proprietary EFTPOS would be $97 million annually.**[40]

224. It should be noted that this comparison of resource cost relates to the cost of running the systems as they stand. They do not address questions of price, or the level of investment that would be required to support innovation and the development of proprietary EFTPOS to a comparable standard to contactless debit.[41] This lack of reinvestment is a key reason why the card schemes are now able to easily gain market share, even though they are imposing an explicit cost for contactless debit transactions.

225. It is therefore not possible to make a strong judgement about the cost-effectiveness of the shift towards scheme contactless debit, given the ongoing investment that would be required to upgrade the proprietary EFTPOS system to allow it to compete with scheme debit (again, assuming constant MSFs). In other words, while this short-term burden of increasing costs associated with the shift to contactless payment will be directly borne by merchants (and passed onto consumers through overall higher prices) it is not clear

[40] This increase in cost is potentially conservative, given that it may overstate the cost of the New Zealand proprietary EFTPOS system.

[41] It has been suggested to us that the revenue required to maintain and invest in EFTPOS over time would be a couple of additional cents per transaction.

that the net increase in system costs (including scheme, issuer, acquirer, merchant and consumer resource costs) is unreasonable given the sustained lack of investment in proprietary EFTPOS.

17	Is the shift towards contactless debit cost-effective, taking into account the costs and benefits to all parties in the system?

226. Even though it is inherently more costly to process a scheme contactless transaction than an equivalent proprietary EFTPOS transaction, this would not be inefficient in itself if the use of scheme products was the result of clear price signals to consumers. However, this is not the case. As with credit cards, consumers do not face accurate price signals when deciding to make a contactless transaction. This occurs at both ends of the market. We know that surcharging is virtually non-existent for contactless payments, and – at the fringes (such as Westpac's AirPoints Debit MasterCard) – cardholders are being subsidised to use contactless cards through interchange.

227. This means that the choice of which payment option to use will not be made by consumers based on the relative costs of each option, as they will lack the relevant price signals. The choice between payment options will instead be heavily influenced by schemes, issuers and acquirers, based on the relative profitability of each payment option, with these participants being able to determine the relative prices for consumers and merchants. This includes the ability to require merchants to pay an interchange fee (through their acquiring bank) to the card issuer. As with the credit market, the lack of price signals can therefore be expected to lead to allocative inefficiency as the use of the interchange business model in the debit market grows.[42]

228. In addition, as with credit, there will also be a cross-subsidy associated with the use of contactless debit, as merchants increase prices across the board. Given the lower average MSF on contactless debit, the cross-subsidy will be lower than for credit, although still non-trivial.

18	Do you agree that the lack of price signals in the debit market is likely to lead to inefficient outcomes of a similar nature to those in the credit card market?

4.3.6 Increases in interchange fees and MSFs seem likely in the medium term

229. As with credit, schemes and banks (as issuers and acquirers) have significant scope to compete for consumer volume, either by absorbing the cost (waiving card fees) or going further by making the effective price of using their product negative, by offering rewards or other inducements. This can be done by bidding up interchange fees, to allow card issuers to compete for consumers, as long as merchants remain relatively insensitive to price.

[42] Having said this, there could also be a decrease in allocative efficiency as the use of proprietary EFTPOS declines. If it is accepted that merchants should face a per-transaction cost from their bank for accepting payment via proprietary EFTPOS (and not all stakeholders do), then the lack of price signals on EFTPOS from the acquirer to the merchant creates a level of allocative inefficiency in itself. Therefore, the overall impact on allocative efficiency depends on the net effect of a) a reduction in allocative inefficiency as the number of transactions that are 'under-priced' to merchants by acquirers reduces; and b) an increase in allocative inefficiency as the number of transactions that are 'under-priced' to consumers by merchants increases.

230. In addition to this outcome arising through an *increase* in competition within the interchange model, it may also arise through a *reduction* in competitive pressure from outside of the model (i.e. as proprietary EFTPOS and inserted/swiped scheme debit usage reduces). There has been a recent decline in interchange caps for contactless debit, as schemes work to increase acceptance of the contactless payment by merchants. However, as consumers become more accustomed to paying with contactless, the pressure on merchants to accept contactless payments will grow. As with credit, this effectively means that merchants' negotiating power with acquirers (and acquirers' negotiating power with issuers and schemes) will reduce.

231. Therefore, once a certain threshold of acceptance is reached, we think there is likely to be an increase in the level of interchange (and MSFs) on contactless debit, entrenching the allocative inefficiency and cross-subsidy issues discussed above, and ultimately further increasing the prices paid for goods and services by consumers.

19	Do you agree that merchant service fees are likely to increase for contactless debit once acceptance reaches a certain threshold?

4.3.7 New entrants will likely need to offer interchange revenue to issuers

232. A corollary of the dynamics that are facilitating the replacement of proprietary EFTPOS is that any serious potential competitor to contactless payment will need to offer a revenue stream to induce banks to issue their cards (or other payment mechanisms, such as mobile payment applications). Aside from devising an exceptionally superior product, any new entrant will have to offer a competitive income stream to issuing banks to what they currently receive under the scheme model. This draws out a broader point: the issuing bank will be a barrier to the uptake of any potential new payment system as long as the bank is in control of access to the consumer's bank account.

233. There are three caveats to this, in which a mainstream business model could be developed without relying on the interchange business model:

- Firstly, banks may not always remain in control of the bank account. While banks might resist third-party direct entry, there are already third party providers in the card-not-present space – such as Poli – that utilise direct entry methods despite this resistance.
- Secondly, consumers could hold secondary accounts with non-bank providers such as PayPal themselves, mitigating the need for banks to provide access to a consumer's main account.
- Thirdly, banks might consider there to be strategic advantages from there being a strong competitor to scheme products. This could include limiting the ability of schemes to increase scheme fees, or attracting consumers from competing banks.

234. However, the likelihood of these three scenarios having a significant impact is limited by the following factors:

- Issuers or non-bank payment providers are likely to require some level of revenue from their product, as a strategic advantage is not useful if the business is not making any money. There are seemingly a limited number of scenarios in which a consumer would be willing to pay to use the product, given that existing mainstream card-based products are largely free to use.

- As noted in Section 3.1.2, it seems unlikely that many consumers would switch bank or utilise a competing payment service on the basis of a superior debit product alone, unless it was vastly superior.
- Relatedly, the network effects required to sustain an effective payment platform are likely to be difficult to achieve – the withdrawal of Snapper in Wellington for store-based payments is seemingly one example of this.
- This situation is different to the high cost of cash and cheques that motivated the development of EFTPOS – even if the cost of debit scheme fees to the banks became significant, banks wouldn't necessarily have the incentive to build an alternative together because there is a revenue flow associated with the interchange model that there wasn't with cash or cheques.
- Finally, even if there is an incentive for a particular bank to develop new products that do not utilise an interchange model, they will still need to bilaterally negotiate access to other banks' systems to achieve a workable network. This could be difficult to achieve.

20	Do you agree with our assessment that the interchange business model imposes significant barriers to entry in the debit market?

4.3.8 A number of unknowns will affect how the market will develop

235. The upshot of the dynamics discussed above is that:
    - Contactless debit payment, and the associated interchange model, is likely to become pervasive in a relatively short timeframe.
    - Competition within the interchange model will ultimately distort price signals and increase overall prices of goods and services for consumers.
    - There are significant impediments to the successful emergence of a mainstream competitor that does not rely on the interchange model.
236. Nevertheless, unlike the credit market, where the issues discussed above have existed for some time, there are a number of unknowns that make it uncertain how the debit market will unfold. These include:
    - **The level of take-up of contactless payment through mobile phones such as Apple Pay.** Such payment options (which utilise scheme rails) are still in their infancy or awaiting a New Zealand launch. If such payments gain popularity, and consumers start expecting to be able to use their mobile wallets exclusively (leaving cash and their payment cards behind), merchants will face greater pressure to accept contactless payment.
    - **Whether new interchange-based payment options enter the market.** While we have recently seen the introduction of China UnionPay to the New Zealand market (primarily for the benefit of Chinese tourists), the network effects of a payment system make it difficult for new participants to gain traction. In any case, it is unclear whether additional participants that utilise the existing business model would actually improve outcomes, given the natural upward pressure on interchange.
    - **Whether non-interchange-based payment methods enter the market.** As noted above, barriers to entry are high, and new products would likely need to be a step-change above the status quo if they are to gain traction. Nevertheless, it is possible that payment options could be offered by existing businesses in other sectors, such

as social media platforms or other apps. Depending on the underlying rails, these could utilise a significantly different business model, which could alter the dynamics and outcomes of the overall market.

- **Whether proprietary EFTPOS exits the market altogether.** It has been suggested that if the costs to banks of maintaining the proprietary EFTPOS system reach a point where they exceed the benefits (for example, if levels of fraud on these cards start to increase), banks could individually make the decision to stop issuing them. This could reduce the competitive constraint on scheme debit fees paid to schemes, although for this reason banks may be incentivised to keep proprietary EFTPOS around.
- **Whether merchants start to steer and surcharge more.** Greater use of these techniques by merchants could lead to consumers using lower cost payment options. Given the barriers discussed in Section 3.2.6, this seems unlikely, but could occur if MSFs continue to increase.

21	How do you think the debit market is likely to evolve in respect of these 'unknowns'?

4.3.9 Summary

237. While the exact outcomes in the debit market over the medium-term are far from certain, the likely upshot of the dynamics discussed above is that contactless debit payment, and the associated interchange model, is likely to become pervasive over a relative short timeframe. Over time, competition between schemes and the entrenchment of the interchange model may ultimately distort price signals and increase overall prices of goods and services for consumers.

238. There is seemingly little prospect of the successful emergence of a competitor that does not rely on the interchange model. This makes it unlikely that these emerging issues – should they develop as expected – will be resolved by the market alone, meaning that government intervention may be necessary in the future. As noted in Annex 1, Australia, the United States, and the European Union have chosen to regulate interchange levels for debit.

4.4 There is a large gap between the MSFs faced by small and large merchants

239. The data provided to us by banks suggest that there is a large – and widening – spread in the MSFs faced by merchants of different sizes, with interchange rates for small merchants being around two and a half times the rate of the interchange rates for large, 'strategic', merchants. This spread of costs means that smaller merchants face a competitive disadvantage with their customers relative to large merchants.

240. However, discussions with industry suggest that, while the gap between large and small merchants has increased, it has not increased to the extent that the data suggests. This is because, prior to the expiry of the Commerce Commission's settlement, large merchants received significant rebates from acquirers that weren't captured in these figures. Following the expiry of the settlement, these rebates were reduced, and large merchants went directly to the schemes to negotiate reductions in the headline interchange rate that they faced.

241. Differences in bargaining power (and thus cost faced) between small and large merchants are pervasive across a number of industries. As one example, major users of electricity face much lower energy tariffs than households and small businesses. Often

these differences reflect the lower average cost, and greater benefit, that sellers face from servicing larger buyers.

242. It is therefore to be expected that acquirers would face different costs between servicing large and small merchants, and therefore that a MSF might be justifiably higher for a smaller merchant on the basis of these costs. However, it is difficult to understand why interchange should vary between different sized merchants on a cost basis. This is because the costs funded out of interchange (principally rewards) seemingly do not differ based on the size of the retailer.

243. If the spread were to increase further, we are concerned that the competitive disadvantage faced by smaller firms could ultimately harm retail competition. While we see the spread in fees as being part of the broader issue relating to the credit card market, any government intervention to address the issues identified in this Issues Paper should nevertheless consider the impact on the spread of MSFs.

22	Do you consider the extent of the difference in the interchange relating to small and large merchants to be justified?

Box 7: Can MSF pricing be made clearer to merchants?

It was clear in the discussions we had with merchants that there could be greater clarity in the fees and charges they were paying. Some merchants noted that the information provided by schemes, banks, switches and terminal providers could be conflicting. There may therefore be opportunities to ensure that basic information is consistent and correct. Merchants also noted that some banks do not separate out the cost of credit and debit transactions, or make clear the impact of accepting contactless payment. These concerns were shared by both small and large merchants, indicating that scale alone does not ensure that merchants can understand the information they receive.

We have already noted that merchants are not making use of unbundled rates. While this could be in part due to a lack of merchant understanding that unbundled rates are available or potentially advantageous, better information could allow merchants to surcharge or steer customers more effectively, and better negotiate fees with their acquirer. This breakdown of information would be useful for these purposes regardless of whether the retailer chooses to adopt a bundled or unbundled MSF.

It should be noted that while greater transparency would provide merchants with a better understanding of what they are paying, it is unlikely to resolve the wider issues discussed in Section 4 above.

4.5 Assessment against objectives

244. The following table summarises the issues discussed so far against the objectives outlined at the beginning of this Issues Paper, that:

- **Objective One:** There is innovation and development of payment options that are valued by consumers and businesses.
- **Objective Two:** Resources are allocated efficiently at a *system level*. In the context of retail payments, this means that the mix of transaction methods used represents the underlying preferences of consumers and merchants, taking into account the marginal benefits and costs of certain forms of payment to the system as a whole.
- **Objective Three:** The cost associated with payment systems is distributed fairly across consumers and merchants at an *individual level*.

Table 6: Assessment of outcomes against objectives

Market	Objective One: Innovation	Objective Two: Allocative efficiency at a *system level*	Objective Three: Fair distribution of costs to consumers and merchants at an *individual level*
Credit	**No significant concerns.** The New Zealand credit card market benefits from similar levels of innovation seen in overseas jurisdictions.	**Significant concerns.** The muted price signals for credit cards results in a greater overall cost to the New Zealand economy than if there were clear price signals.	**Significant concerns.** Firstly, there is a mismatch of the costs consumers face, and the benefits they receive. Secondly, a consequence of smaller businesses' weaker bargaining power is that they bear a greater burden of the costs than larger businesses.
Debit	**Some concern.** Innovation has been poor while "free" EFTPOS was dominant. The emergence of contactless scheme technology represents an advance but its entrenchment could pose barriers to new entrants.	**Growing concern, but future development unclear.** Around 85 per cent of debit transactions remain "free" to merchants. However, the emerging dominance of the interchange business model could result in inefficiencies in the future, as currently seen in the credit card sector.	**Growing concern, but future development unclear.** Contactless debit is cheaper for merchants than credit cards, meaning that any cross-subsidy is lower. However, if rewards were to become widespread, or interchange were to increase, then our concerns could increase.

23	Do you agree with our assessment of the two markets against our proposed objectives?

5. Possible next steps

245. This section outlines our preliminary thinking on next steps to address the issues identified in this Issues Paper. As noted in Section 4, we do not consider that market forces are likely to resolve these issues. Therefore, we think that some form of government intervention will be required if these issues are to be addressed.

246. The complexity of the retail payment system and the potential pace of change means that it will be important for the following to be taken into account when developing a way forward:

- the New Zealand context;
- the effectiveness and net benefits of each option;
- any consequential impacts on consumers and merchants, investment in innovation, and development of the broader retail payments sector; and
- the timeliness of any intervention.

247. Should further work be undertaken, it would involve close engagement with stakeholders, in order to ensure that any proposals make the best use of industry expertise and take into account any stakeholder concerns.

5.1 Immediate actions

248. We have identified two immediate, industry-led actions that could improve the transparency of the market as it is currently configured.

5.1.1 Acquirers could provide greater transparency about unbundled MSFs

249. The efficiency of the market could be improved if acquirers were to provide merchants with greater information about MSFs, allowing merchants to:

- Better negotiate with schemes and acquiring banks on the mix of payment options and the fees incurred, and gain a better understanding of how fees for particular payment options compares to the value they derive from them.
- More effectively consider how to deliver payment options to consumers, including through the use of surcharging and steering.

250. This could put some downward pressure on MSFs for those merchants who have the requisite bargaining power, and improve price signals to consumers. These are desirable market outcomes, regardless of any other intervention. However, the impact is likely to be limited given the other incentives placed on the parties by the interchange business model. We think that further intervention is likely to be required to address the wider policy issues.

24	Would greater transparency have any material benefit for merchants or any other parties in the system?

5.1.2 Schemes could publicly clarify their intentions in relation to charging for swiped and inserted debit payments

251. Given the uncertainty merchants face around whether swiped/inserted scheme debit transactions could one day attract interchange (see Box 5), we think that there would be benefit in schemes publicly clarifying their intentions about whether or not they intend to route transactions via scheme rails (and impose a fee on merchants).

25	Would there be any benefit in schemes publicly clarifying their intentions in relation to charging for swiped and inserted debit payments?

5.2 Further work to address the wider policy issues

252. While useful, we think that these immediate actions would be unlikely to resolve the wider policy issues discussed in detail in Section 4 above. We recommend a package of further work to address the issues that the interchange business model brings to the credit and debit card markets.

Box 8: Can the Commerce Commission address these issues?

The Commission noted in its evaluation of the 2009 settlement with schemes and banks that parties had been complying with the settlement agreements, and therefore that they were likely to be complying with the Commerce Act in respect of the issues that were considered as part of the settlement. The Commission noted that if there were any residual issues relating to retail payments remaining, these were likely to be driven by factors other than non-compliance with the Commerce Act, and therefore alternative regulatory intervention might be required.

The Commission has also considered the applicability of Part 4 of the Commerce Act, which deals with economic regulation of firms with a high degree of market power. Under Part 4, for economic regulation to be applied, there must be little or no competition in the relevant market, and little or no likelihood of a substantial increase in competition. The Commission considers that it is unclear whether these tests would be satisfied.

5.2.1 Assess the costs and benefits of applying interchange regulation

253. We consider that the nature and the scale of the inefficiencies in the credit card market warrants an assessment of the costs and benefits of applying interchange regulation in the credit market. This would include assessing the impacts of interchange regulation on consumers and merchants, investment in innovation and any other consequential effects. International experience indicates that this is likely to be the most effective mechanism for addressing these issues. Placing a cap on credit interchange rates would limit the ability for schemes and banks to use the interchange business model to alter incentives on other parties, where doing so would lead to inefficient economic outcomes.

254. While the impacts of interchange regulation need to be more formally assessed, broadly, it would serve to reduce the MSFs paid by merchants, and would likely reduce the generosity of rewards programmes offered by issuers. While placing a cap on interchange would not directly impact on the revenues of card schemes, it would likely impact on the volume of transactions made by cardholders, and could therefore indirectly affect scheme revenues.

255. Addressing these price distortions could at once improve the value for money that New Zealanders receive overall in payment services (with the potential to avoid inefficiency of $45 million per year) and reduce regressive wealth transfers to holders of reward-offering cards (currently around $59 million per year). Interchange regulation could support an increase in effective purchasing power for consumers, with the potential for positive flow-on effects across the domestic economy.

256. The debit market is in a state of transition and it is possible that the inefficiencies present in the credit market will not develop to the point of warranting interchange regulation. Nevertheless, the stakes are potentially higher for debit transactions, which have a larger market share than credit transactions. One option would be for interchange regulation to only be triggered if certain thresholds – such as a given market share of scheme debit products or a particular interchange rate – were reached.

257. Interchange regulation would require the establishment of formal regulatory responsibility for the economic outcomes of payment systems within an existing government agency. This would address the arguable current gap in the regulatory landscape, and complement the present roles of the Reserve Bank and the Commerce Commission in the payment systems space.

26	Do you think that the benefits of interchange regulation are likely to exceed the costs?
27	What unintended consequences could arise from interchange regulation?
28	Under what conditions, if any, should debit interchange rates be regulated?

5.2.2 Barriers to entry

258. We also think there is merit in undertaking a technical study of whether there are barriers to entry or expansion for new debit payment options, particularly disruptive options based on developing technologies. In addition to the economic barriers caused by the interchange business model used by the schemes, there could be additional barriers relating to:

- The institutions, rules and standards governing payments.
- Any technical constraints resulting from the way the physical and IT infrastructure is configured.

259. Minimal barriers to entry and expansion would support the viability of products that do not rely on the interchange business model (and therefore do not produce the associated inefficiencies).

29	Aside from the financial barrier imposed by the interchange business model, what barriers to entry for new debit payment products currently exist?
30	Are there good justifications for these barriers being in place?
31	Are there ways in which any unjustified barriers could be removed?

5.2.3 Investigate other options

260. In addition, we think there could be merit in investigating other options. These include:

- Whether the governance of payment systems can be improved.

- Lighter-touch regulation, such as an industry code of conduct (as in Canada).
- Changes that would be required to make EFTPOS a sustainable alternative to scheme debit products, including technological improvements.
- Whether the retail payment system, or a part of the system, should be treated like a utility.

32	Is there merit in exploring options in addition to interchange and barriers to entry?
33	Have we missed any options?

Recap of questions

Section 1

1	Are these objectives for retail payment systems appropriate?

Section 2

2	Are there any other emerging payment methods that we have missed? If so, what is their likely impact on the market?

Section 3

3	What explains the decline in the revolve ratio on credit cards?
4	Do you agree with our explanation of the rationale for interchange?
5	Have we accurately described the incentives on parties in relation to interchange?
6	Why are interchange rates falling for large merchants but increasing for small-medium merchants?
7	Is the resource cost data robust? Is the Australian data likely to over-state or under-state the costs of running New Zealand payment systems?

Section 4

8	Do you agree with the logic underpinning our assessment that there is inefficiency in the credit card market?
9	Do you agree with the logic underpinning our assessment that there are regressive cross-subsidies in the credit card market?
10	Do you agree that self-acquirers are unlikely to place downward pressure on interchange?
11	How much negotiating power do merchants have over the merchant service fees they face? Is this likely to change in the future?
12	Do you think that the issues in the credit card market are of a scale that warrants intervention? If not, do you think that the size of the issue is likely to grow over time?
13	Do you agree with our assessment of the incentives held by different parties in relation to debit card usage?
14	Do you agree that there is little incentive to invest in proprietary EFTPOS?
15	Do you agree that it is unlikely that schemes will start imposing interchange on

	swiped/inserted scheme debit transactions?
16	Do you agree that merchants facing a per-transaction charge for accepting debit payments is not an issue in itself?
17	Is the shift towards contactless debit cost-effective, taking into account the costs and benefits to all parties in the system?
18	Do you agree that the lack of price signals in the debit market is likely to lead to inefficient outcomes of a similar nature to those in the credit card market?
19	Do you agree that merchant service fees are likely to increase for contactless debit once acceptance reaches a certain threshold?
20	Do you agree with our assessment that the interchange business model imposes significant barriers to entry in the debit market?
21	How do you think the debit market is likely to evolve in respect of these 'unknowns'?
22	Do you consider the extent of the difference in the interchange relating to small and large merchants to be justified?
23	Do you agree with our assessment of the two markets against our proposed objectives?

Section 5

24	Would greater transparency have any material benefit for merchants or any other parties in the system?
25	Would there be any benefit in schemes publicly clarifying their intentions in relation to charging for swiped and inserted debit payments?
26	Do you think that the benefits of interchange regulation are likely to exceed the costs?
27	What unintended consequences could arise from interchange regulation?
28	Under what conditions, if any, should debit interchange rates be regulated?
29	Aside from the financial barrier imposed by the interchange business model, what barriers to entry for new debit payment products currently exist?
30	Are there good justifications for these barriers being in place?
31	Are there ways in which any unjustified barriers could be removed?
32	Is there merit in exploring options in addition to interchange and barriers to entry?
33	Have we missed any options?

Annex 1: International experiences

261. This section of the Issues Paper provides a broad overview of the approach to regulation taken in Australia, the US, the European Union/United Kingdom, and Canada.

262. Internationally, electronic payment usage is growing rapidly. As with New Zealand, the electronic payments landscape is dominated by Visa and MasterCard. Overseas governments have grappled with similar issues as identified in this Paper, and have taken a number of different approaches to try and address them. Countries with mature electronic payment systems have been increasing their regulatory oversight, and in some cases directly intervening in the economic outcomes of their system.

263. Information about merchant service fees in different jurisdictions is generally not published, so it is difficult to make comparisons. It is also difficult to make comparisons internationally, given that a sizeable (but rapidly declining) portion of New Zealand's debit transactions currently incur no charges, which is not generally the case overseas. Despite these limitations, Table 7 provides an indication of average merchant service fees in New Zealand, Australia and the UK, based on research by Retail New Zealand.

Table 7: Average merchant fees in New Zealand, Australia, and the UK (Retail New Zealand data)

	2012	2013	2014	2015
New Zealand – Proprietary EFTPOS			**0.00%**	**0.00%**
New Zealand – Contactless debit			**1.00%**	**1.00%**
New Zealand – Visa/Mastercard credit			**1.40%**	**1.70%**
UK – debit	**0.32%**	**0.32%**	**0.32%**	**0.36%**
UK – credit	**0.97%**	**1.04%**	**1.00%**	**0.89%**
Australia – Proprietary EFTPOS (AUD)	**$0.10**	**$0.10**	**$0.10**	**$0.09**
Australia – Visa/Mastercard credit/debit	**0.84%**	**0.83%**	**0.82%**	**0.78%**

A1.1. Australia

264. Australia has regulated interchange fees since 2003. The rationale for regulation was that card systems tended to have arrangements that detracted from the efficiency and competitiveness of Australia's payments system.[43]

265. The Payments System Board (which is part of the Reserve Bank of Australia) was established in 1998. The Board sets the Reserve Bank's payment system policy to:

- Control risk in the financial system.
- Promote the efficiency of the payments system.
- Promote competition in the market for payment services.

[43] Reserve Bank of Australia. (2015). *Review of Cards Payment Regulation: Issues Paper.* Retrieved from http://www.rba.gov.au/payments-and-infrastructure/review-of-card-payments-regulation/pdf/review-of-card-payments-regulation-issues-paper.pdf

266. The Board has the power to 'designate' payment systems and to set standards and access regimes for these systems (without further legislation). Currently the following payment systems are designated:

- Visa and MasterCard credit, debit and prepaid systems.
- The American Express companion card system (a companion card is a credit card that is linked to two different schemes e.g. one account with both Visa and American Express functionality),
- Australia's proprietary EFTPOS systems.

267. Current regulation includes:

- Setting weighted average interchange fees for credit and debit (currently 0.5 per cent for credit and 12 cents for debit).[44]
- Allowing merchants to surcharge (more recently, it has modified its regulations on surcharging to address instances of excessive surcharges in some industries).[45]
- Reducing barriers to entry.
- Removing the 'honour-all-products' rule which required merchants who accepted a scheme's credit cards to also accept their debit cards.

268. The Board estimates that merchant payment costs have been reduced by $15 billion relative to the amount merchants would have paid since 2004 if fees had remained at pre-reform levels.[46]

269. Over the course of its reviews, the Payments System Board reached a number of conclusions about the effect of regulation:

- Costs for merchants have reduced significantly.
- The decrease in costs has not resulted in a decline in the quality of services offered to consumers. Participants in the system have continued to innovate and Australia has one of the highest rates of adoption of contactless payments in the world.
- It is difficult to isolate the effect that regulating interchange has had on overall prices, given fluctuating input prices for merchants and overall general inflation. Despite this, the Board is of the view that the bulk of these savings for merchants have, or will be, passed through in savings to consumers. This judgement is consistent with standard economic analysis which suggests that, ultimately, changes in business costs are reflected in the prices that businesses charge.
- Advertised annual fees on credit cards increased somewhat following the reforms, but declined in real terms in subsequent years.

270. Australia's proprietary EFTPOS system has been the subject of significant investment in recent years. This includes the implementation of contactless functionality that is underway and online EFTPOS being developed. Its market share has fallen in recent years, reflecting the adoption of contactless functionality offered by other scheme

[44] The RBA recently announced that the debit benchmark would be lowered to 8 cents from 1 July 2017.
[45] Surcharging is more prevalent in Australia than New Zealand, despite the lower interchange fees and MSFs charged.
[46] Reserve Bank of Australia. (2016). *Review of Card Payments Regulation: Conclusions Paper.* Retrieved from http://www.rba.gov.au/payments-and-infrastructure/review-of-card-payments-regulation/pdf/review-of-card-payments-regulation-conclusions-paper-2016-05.pdf

cards. There has also been investment in the underlying infrastructure to support centralised switching of payments, rather than relying on a series of bilateral relationships between financial institutions.

A1.2. Canada

271. The Canadian credit market is dominated by Visa and MasterCard, with the interchange rate for most credit cards sitting between 1.4 and 2 per cent. Canada also has a domestic debit product, Interac, which offers online and contactless functionality (although acceptance is limited). Interac currently operates under an order issued by the Canadian Competition Tribunal which dictates that it must operate on a not-for-profit basis. [47] This means that Interac only charges fees that are sufficient to cover its costs.

272. In terms of the schemes, the Competition Bureau attempted to bring antitrust action against the schemes for engaging in price maintenance. This action was dismissed in 2013 by the Canadian Competition Tribunal. While the Tribunal found that Visa and MasterCard's conduct was influencing the price of credit card services upwards and having an adverse effect on competition, in its view, regulation of the industry would provide a more appropriate solution then any remedy that the Tribunal could provide.

273. Following the Competition Tribunal's ruling, Finance Canada developed a code of conduct for the card payments industry. The key elements of the Code include:

- **Increased transparency** – payment schemes and their participants are required to work with merchants to ensure that merchant-acquirer agreements and monthly statements include enough information and are easy to understand.
- Clarifying that **merchants may discount types of payment** (but merchants are still prohibited from explicit surcharging by schemes).
- **Premium credit and debit cards will only be given to consumers who apply for or consent to such cards**. Premium cards must only be given to 'premium' cardholders (i.e. those who spend, or have more assets than the average).
- **Rules around how fees are set and varied.** For example, merchants must be given 90 days' notice before any variance to interchange. Following notice of a variance, merchants may cancel their contract with the acquirer, without penalty.
- **Merchants are not required to accept new products.** If a scheme introduces a new product or service, the merchant will not be obliged to accept it. The merchant must explicitly express consent. This also applies to contactless cards or terminals. This provision has essentially halted the introduction of Visa debit in Canada.

274. Finance Canada monitors the implementation of the code and any voluntary commitments made. For example, in 2014 Visa and MasterCard agreed to hold interchange rates at 1.5 per cent for the next 5 years.

275. In the course of the work we have undertaken, schemes have pointed to the Canadian voluntary code of conduct as an example of a successful model that New Zealand should look to follow. The impact of the code of conduct has not been reviewed to date.

[47] This order expires in June 2018. See http://www.ct-tc.gc.ca/CMFiles/CT-2013-003_Order%20Varying%20and%20Restating%20the%20A_4_38_9-11-2013_4045.pdf

A1.3. United States

276. There has been a mixed approach to ensuring that payment systems in the United States produce good economic outcomes. Debit rates are regulated by the Federal Reserve, while the rules around credit have mostly evolved out of litigation.

277. There is a history of litigation in the United States against credit card companies. Key features of the resulting credit market include:

- Visa and MasterCard **no longer impose a contractual no-surcharge rule on retailers** (as a result of a 2013 settlement between Visa, MasterCard and retailers).[48] However, nine states, which account for 40 per cent of the population, still have a statutory no-surcharge prohibition.
- Visa and MasterCard agreed to **negotiate interchange fees in good faith** (2013 settlement).
- Honour-all-cards rules exist, however due to a settlement in 2003 with Wal-Mart, Sears and other retailers, **merchants who accept scheme debit do not have to accept scheme credit**.
- Contractual restrictions on no-minimum purchase rules are restricted, enabling **merchants to set a minimum credit card purchase** of up to $10.
- Merchants can **discount payment types, but not differentiate within payment types** (e.g. they can discount cash, but not Visa over MasterCard).

278. Debit card interchange rates were regulated in 2010 as part of a last-minute amendment to broader financial reform. The purpose of regulation was to lower merchants' cost of accepting payment and to pass the cost savings onto consumers in reduced prices.

279. The reforms require the Federal Reserve to set the debit interchange rate at a level that is reasonable and proportional to the cost incurred by the issuer. The current debit rate set by the Federal Reserve is 0.05 per cent of the transaction value, plus 21 cents per transaction. These rules only cover large banks with more than $10 billion in assets, and do not apply to credit card transactions. In comparison, unregulated credit interchange rates for Visa and MasterCard are between 1.5 and 3.25 per cent, plus 10 cents per transaction. The reforms also required that all debit cards be capable of being processed across two networks, with the choice between these two being determinable by the merchant.

280. A paper by a senior economist at Kansas Federal Reserve found that reforms have had some of their intended effects, including enhancing competition among card networks for merchants and reducing the burden on merchants of high interchange fees. It noted, however, that some merchants who processed very small-value transactions had actually seen increases in merchant service fees, and that overall impacts on consumer welfare and overall economic efficiency were, at that point, unclear.[49]

[48] The settlement contained many conditions which may have limited the feasibility of surcharging. In addition, this settlement has recently been rejected by the US Federal Court of Appeal.

[49] Hayashi, F. (2013). *The New Debit Card Regulations: Effects on Merchants, Consumers and Payment Systems Efficiency.*

281. Another review[50] of the reforms found that the regulations:

- Significantly reduced interchange income for affected banks.
- Resulted in increased deposit fees which offset 30 per cent of the lost interchange income.
- Had no discernible impact on bank operating expenses or staff numbers.

A1.4. European Union

282. The European Union introduced a number of payment systems regulatory measures in 2015. These were achieved through the revised Directive on Payment Services (PSD2), and through the Regulation on Multilateral Interchange Fees. The effect of this is that member states must:

- **Regulate interchange fees**.
- Require acquirers to **disclose to merchants the costs of accepting payment** associated with each transaction (i.e. unbundle).
- Designate a competent authority to **supervise interchange regulation** and give it the appropriate powers to enforce the regulation.
- **Support open access** by ensuring that consumers have the right to use third-party payments software to execute payments on their behalf. This means that third parties have the right to use a consumer's banks details to make 'direct entry' payments.

283. The interchange rates set by the European Union are based on a 'Merchant Indifference Test'. This is where the interchange fees are set at a rate which renders a merchant indifferent to whether it accepts payment via card or cash from a one-time customer. The current rates are:

- 0.2 per cent of the transaction for Visa and MasterCard consumer debit cards.
- 0.3 per cent of the transaction for Visa and MasterCard consumer credit cards.

284. In addition, surcharging for interchange-regulated cards has been banned. The rationale for this is that where interchange fees are capped at such a low level and the costs of accepting card transactions substantially reduced, surcharging is no longer justified.

285. The European Commission has taken a number of antitrust cases against schemes for cross-border interchange since the 1990s. For example, in separate cases the European Court of Justice confirmed that MasterCard and Visa's interchange fees for cross-border payments restricted competition in breach of the EU's competition rules.

286. As member states are still in the process of implementing the regulation into domestic law, it is not possible to reach any final conclusions on the impact of the regulation. However, following the announcement, a number of banks in the United Kingdom have significantly reduced the rewards paid to cardholders, citing the reduction in interchange.

287. The European Commission considered that one of the benefits of interchange regulation is that all consumers will face lower prices, as the cost savings are passed on in the form

[50] Kay, B., Manuszak, M., & Vojtech, C. (2014). *Bank Profitability and Debit Card Interchange Regulation: Bank Responses to the Durbin Amendment.* Retrieved from https://www.bostonfed.org/payments2014/papers/Cindy_M_Vojtech.pdf

of lower prices. The expectation is that the pass-through from merchants will be greater than from issuers.

Annex 2: The Commerce Commission's 2009 settlement

289. The Commission's settlement agreements resulted from its investigation into the setting of credit card MSFs and associated rules imposed by Visa and Mastercard. The Commission received numerous complaints from the retail sector regarding these fees and rules.

290. Prior to the settlement, interchange fees were set by agreement between each of the credit card schemes and card issuers. The Commission considered that this was anti-competitive, inflated merchants' costs, and led to higher prices for consumers. The Commission also challenged a number of other provisions of the agreements between card schemes and issuing banks, including:

- 'No surcharge' and 'no discrimination' rules, which prohibited surcharging of credit card transactions, and certain forms of discrimination such as cash discounts between card payments and other payments, and between cards from different schemes and/or card issuers. The Commission considered that these rules eliminated opportunities for merchants to create incentives for the card issuing banks to charge lower interchange fees. For example, by prohibiting surcharging, the rules shielded credit cardholders from the cost of their payment choice and prevented merchants from recovering the cost or steering cardholders to a preferred method of payment. The combined effect of these rules was that the credit card schemes and banks could collectively set high interchange rates without fear that consumers would switch to other payment options. This would flow through to higher prices for all consumers.
- 'Access Rules' which restricted who could act as an acquirer of Visa and MasterCard transactions. The Commission considered that these rules were anticompetitive as they hindered entry by specialist acquirers or self-acquirers (generally large merchants), which reduced competition between the four main card-issuing banks that acted as acquirers in New Zealand.

291. As a result of the Commission's investigation, the Commission entered settlement agreements with the banks and schemes, which included commitments to:

- Significantly reduce the average interchange fees charged on New Zealand credit card transactions, ensuring that these fees in New Zealand are driven downwards from the rates that were centrally set by the Visa and MasterCard schemes.
- Refrain from any standard contracting practices that prohibit merchants from surcharging Visa and MasterCard credit cards as a condition of receiving credit card acceptance services.
- Refrain from any standard contracting practices that prohibit merchants from encouraging customers to pay by other means.
- Offer merchants the option of unblended service fees; that is offering separate fees for Visa and MasterCard transactions, enabling merchants to see the costs of accepting each scheme's credit cards.

- Offer the option of fully unbundled service fees as between all types of Visa and MasterCard credit card transactions, revealing the exact amount of interchange fees applicable to each card transaction, assisting merchants to negotiate lower service fees and provide incentives to consumers to use their preferred payment methods.
- Change the access rules so that acquirers of credit card transactions did not also have to be card issuers or financial institutions.
- Allow merchants to negotiate directly with issuers over the interchange charged within a scheme's interchange cap.

292. The Commission's settlement also prevented schemes and acquirers from imposing 'honour-all-products' rules. This means that a merchant which accepts a scheme's debit cards does not also need to accept its credit cards. However, the settlement did not restrict schemes and acquirers from imposing 'honour-all-cards' rules. This means that schemes and acquirers are free to require merchants that accept one type of a scheme's credit card (e.g. Visa Standard) to also accept all other types of that scheme's credit cards (e.g. Visa Platinum).[51]

[51] Although a merchant could, in theory, set a very high surcharge for a particular form of credit card in order to have the same effect as non-acceptance.

Annex 3: List of stakeholders

293. We spoke to a range of stakeholders in preparing this Issues Paper. They included:

- ANZ,
- Westpac,
- BNZ,
- ASB,
- Kiwibank,
- TSB,
- MasterCard,
- Visa,
- American Express,
- Payments New Zealand,
- Paymark,
- Verifone New Zealand,
- Consumer New Zealand,
- New Zealand Bankers' Association,
- Retail New Zealand,
- Traiteur European Butchery Christchurch,
- Early Settler furniture,
- Foodstuffs New Zealand,
- Countdown,
- Mitre 10,
- Tim Duston, independent consultant,
- Merco,
- Buddle Findlay,
- Wigley and Company solicitors,
- Covec,
- Xero,
- Dominic White of Pebble Payments (independent reviewer),
- Mike Laing of LWT Advisers (independent reviewer), and
- Staff at the Reserve Bank of Australia.

Annex 4: Key figures used in this Issues Paper

294. The following table summarises many of the figures used in this Issues Paper, and explains at a high level what they refer to, and the assumptions used in their calculation. All the figures used in this Issues Paper are rough estimates for illustrative purposes only. Some of these are explicit charges, such as merchant service fees. Others are implicit overall resource costs to the system. These measure different things, and cannot be directly compared.

Table 8: Key figures used in this Issues Paper

Figure	What this describes	Data sources and assumptions
$76 billion	**The value of transactions made on payment cards across the economy** (not just the retail sector) in the 12 months to March 2016.	Stats NZ Electronic Card Transactions (ECT) data.
$461-589 million	The estimated range of **merchant service fees (MSFs) paid by merchants in 2015** on both debit and credit.	$461 million is the weighted average MSF across both debit and credit provided to us by a bank for the period September 2015 to April 2016, applied across the total value of credit card transactions in the year to March 2016 according to Stats NZ data (which also include contactless and card-not-present debit). $589 million uses Retail NZ survey data about MSFs for debit and credit. It uses switch data to estimate the number of debit transactions being misclassified as credit transactions by Stats NZ, and applies the estimated debit MSF to these transactions.
$36 million	The estimated **MSF paid by merchants in the 12 months to March 2016 on contactless debit.**	Uses switch data to estimate the number of debit transactions being misclassified as credit transactions by Stats NZ, and applies Retail NZ's estimate of the average debit MSF to these transactions. Conceptually forms part of the $461-$589 million total MSF. Does not include the cost of card-not-present debit payments (which are captured in the data as credit transactions).
$252 million	The estimated **MSF that would be paid by merchants on contactless debit if 60% of card-present debit transactions are made contactlessly.**	Uses the same figures as above for MSFs, retail sales, debit transactions as a proportion of all electronic transactions, or all electronic transactions as a proportion of total retail sales. It does not include the cost of card-not-present debit payments.
$950 million	**The annual resource cost of processing card payments in New Zealand.** This includes authorisation and transaction processing costs, fraud and bad debts, scheme fees,	RBA *Payment Costs* study, converted into NZ$, and using Statistics New Zealand data about the number of card transactions and their average size. Understates credit card resource costs because the average credit transaction is larger than the average overall card

Figure	What this describes	Data sources and assumptions
	transaction tender time, and other back-office costs. It does not include the value of rewards, merchant service fees, or profits.	transaction, but we use the resource cost for the average-sized overall card transaction. May overstate debit resource costs because the Australian EFTPOS network is potentially more costly than New Zealand's.
$137 million	**The annual reduction in resource cost that would be attained if all credit card transactions were instead proprietary EFTPOS transactions.**	Stats NZ ECT data about number of credit card transactions, multiplied by RBA's estimate of resource cost per average-sized transaction for credit cards, less the cost per average-sized transaction for proprietary EFTPOS.
$45 million	The annual **reduction in resource cost that would be attained if the people who only use credit cards for rewards instead used proprietary EFTPOS.**	The above, less 20% to account for international and business card transactions, which are unlikely to be made on the basis of rewards, multiplied by 0.4 in reflection of estimates that 40% of personal credit card use is made primarily for rewards.
$97 million	The annual **increase in resource cost if 60% of debit payments are made contactlessly**, relative to all of them being made used proprietary EFTPOS.	Stats NZ ECT data about number of debit card transactions, multiplied by RBA's estimate of resource cost per average-sized transaction for contactless debit cards, less the cost per average-sized transaction for proprietary EFTPOS. This increase in cost is potentially conservative, given that it may overstate the cost of the New Zealand proprietary EFTPOS system.
$187 million	The estimated annual **increase in the price of goods and services across the economy** as a result of the costs placed on merchants to fund credit card rewards.	Stats NZ data about credit card expenditure in the year to March 2016, discounted by 10% to account for transactions made by international cardholders. Based on conversations and data from banks, we assume that 75% of credit card spending attracts rewards, that the average value of rewards is 1% of expenditure, and that 20% of rewards are funded through annual fees.
$59 million	The estimated annual **cross-subsidy from low-income consumers to high income consumers** that occurs due to the higher price they pay to fund their credit card rewards.	Taking the above, we assume that only the highest-earning 40% of households earn 100% of rewards. From Stats NZ Household Economic Survey data, we estimate that that these households are responsible for 68% of retail expenditure. The resulting 32% of spending incurs higher prices, but receives no reward, hence the cross-subsidy.