

# **Switching Costs in Banking: The Regulatory Response**

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## **Abstract**

Switching costs are a recognised issue in banking markets around the world, but in many countries regulators give them limited attention. A recent study undertaken confirmed that switching costs exist in the New Zealand banking market. The study found that the categories that are perceived by consumers to be the most important are the hassle of switching, the possible disruption to service and the need to learn new systems at the new bank. The greatest deterrence to switching was found to be from the loss of accrued benefits, the relationship with bank staff and the financial costs incurred. From the knowledge gained about the relative importance and effect of the different categories of switching costs, recommendations are generated for regulators with respect to the issue of switching costs in the banking market. In particular, regulators need to better acknowledge the existence of switching costs in banking, and more effectively consider their impact in assessing proposed mergers. Furthermore, there is a need for regulators to be more proactive in overcoming the actual hassle of switching.

JEL Classifications: D12, D14, D40, G21, G28

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## **Background**

Switching costs are an issue in the banking market in New Zealand, as they are in banking markets in other countries. Switching costs is the term used for the variety of factors that may discourage customers from changing banks, which includes non-financial factors, such as finding a new provider and losing the customer's relationship with the existing provider's staff, as well as the actual financial costs of switching. Switching costs are important due to their impact on market operation, with allocative inefficiency, monopolistic profits and barriers to entry included among the issues identified as resulting from the existence of switching costs. These problems result from the effects of switching costs on customer behaviour, as customers become locked-in to a particular service provider and therefore reluctant to change to an alternative provider.

A University of Auckland survey undertaken in 2005 found 20% of customers were likely or very likely to switch banks, but one of the authors of the survey report noted such intentions were not usually acted upon due to switching costs (Steeman, 2005). More recent data from Roy Morgan research indicated that 6.1% of New Zealanders aged 14 years and older had an intention to switch (Rogers, 2008). Studies in other countries have found comparable levels of bank customers who wanted to switch their bank. Fujitsu Australia found 80% of respondents in a study of 26,000 customers showed a willingness to change their financial services provider (Rogers, 2007), and a recent survey in the US found 10% of respondents "were very dissatisfied and said they would switch their financial institution if it were easier to do so" ("Customers prefer their local branch", 2004, p. 7).

This reported desire to switch does not, however, translate into comparable rates of switching, and low rates of switching are the norm in the New Zealand market. About 4.4% of the total New Zealand population change their financial institution each year, according to Carlisle and De Freitas (2004), based on data from Roy Morgan. More recent data, for the six months to December 2007 also from Roy Morgan, showed a 7.8% rate of switching over the previous twelve months for those aged 14 years and older.

In markets where switching costs exist, researchers have found monopolistic profits can be generated in a market (for example, see Shapiro & Varian, 1999; Ongena & Smith, 1997). Support for these findings exists in the Cruickshank Report's<sup>1</sup> finding that the evidence

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<sup>1</sup> The Cruickshank Report was the result of an independent review instigated by the UK government in 1998. The review examined competition, innovation and efficiency in the UK banking markets.

pointed strongly “to the conclusion that UK banking services to small business and personal customers” were overpriced (Cruickshank, 2000, p. 24). High levels of profit have been reported for the New Zealand banks (Tripe, 2004, 2007), and monopolistic competition was found in the New Zealand banking market by Smith and Tripe (2001), giving rise to the question of the extent to which this can be attributed to the existence of switching costs.

From a less academic perspective, Cornell (2008) suggested switching costs are a “serious impediment to competition” (p. 16) because switching banks is very difficult. He made reference to direct debits, automatic payments, and the form filling involved in switching. While Cornell was talking about the Australian banking market, similar comments can be made about the New Zealand banking market. The BNZ claimed, in 2006, that other banks were using fees they described as poorly known to prevent customers switching. They made particular reference to customers with loans, and suggested fees of \$200-\$400 were charged by some banks to customers repaying housing loans. Such fees, when added to the other costs incurred, meant a substantial interest saving was needed to offset the financial cost of switching (Stock, 2006a).

The banks have recognised there is a general perception that switching banks is not easy, although they argue that switching banks is easier now than it used to be. Accordingly, banks have endeavoured to reassure customers, or more importantly potential customers, that switching bank does not have to be difficult. For example, in April 2004 BankDirect launched an “innovative refinancing service” (BankDirect, 2004) and claimed that as a result the “barriers to moving your home loan to BankDirect have just disappeared” (BankDirect). The associated advertising, included an offer to move a customer’s home loan for them using BankDirect’s new SWITCH refinancing service as part of a general home loan refinancing offer on the bank’s website (BankDirect). However, it is of interest to note that while BankDirect’s SWITCH service claimed to eliminate the hassles of switching, it incurred a fee, which is itself a switching cost. In another example, Kerin (2006) cites NAB’s offer, several years ago, of a financial benefit for switching customers of up to \$1050 by waiving the application fee and contributing to the cost of switching in what it called “a switching cost offer”.

Banks have attempted to make switching as easy as possible for customers. For example, The National Bank’s website has a page titled “Switching to The National Bank”, which included the claim in 2005 that the bank had “made the process as simple and as easy as possible”

(National Bank of New Zealand [NBNZ], 2005), although in 2008 this had become “making it really easy to switch to us” (NBNZ, 2008). In 2006, the BNZ launched, with some fanfare, a new process it claimed would make switching to it easier. The process required participants to sign a limited power of attorney allowing a specialist team to do everything necessary to move the participant’s banking relationship to the BNZ (Stock, 2006b). It should, however, be noted that taking care of all aspects of the switch, including closing the old bank accounts and transferring automatic payments and so forth, is something banks have ‘always’ been willing to do. The difference is that in the last five years or so, they have started to actively promote it as an ‘extra’ part of their service.

An important point to remember is that banks, like firms in other markets where switching costs exist, are somewhat ambivalent in their attitude towards the ‘problem’ of switching costs. They do want lower switching costs so customers can easily switch *to* them, but at the same time they benefit from switching costs discouraging customers from switching away *from* them.

This ambivalence by the banks towards switching costs and the possible implications of switching costs on competition mean that switching costs are also an important issue for regulators. This was illustrated in mid-2003 when the ANZ Banking Group New Zealand Limited (ANZ) sought to acquire The National Bank of New Zealand. At that stage The National Bank was the largest registered bank in New Zealand while ANZ was the fourth largest, and both had been operating in New Zealand since the middle of the 19<sup>th</sup> century. As part of the acquisition process, ANZ had to seek clearance from the Commerce Commission under the Commerce Act 1986.

In their application for clearance, ANZ described the New Zealand banking and finance industry as “highly competitive and dynamic” citing “the large number of existing competitors” as part of the evidence for that claim (ANZ, 2003, p. 8). ANZ went on to claim that “existing competitors alone will ensure prices and quality of service remain competitive” and that “switching costs (such as application fees and charges) in each of the relevant markets are low” (p. 9). The various market sectors were discussed in ANZ’s application, with repeated claims of low switching costs for each sector, and emphasis placed on financial costs associated with switching providers, illustrated in paragraph 147 with a list of possible switching costs in the mortgage market that included legal costs, application fees and break fees for early termination. There was limited reference to non-financial switching costs

accompanied by claims that these were not sufficient to allow ANZ any advantage. For example in paragraph 167 the application refers to the inconvenience cost of switching and says “in ANZ’s view, these costs are not so large as to allow ANZ (post acquisition) to impose a small but significant non-transitory increase in price without invoking a reaction from both its customers and other providers” (ANZ, 2003, p. 57).

The Commerce Commission largely accepted ANZ’s claims with respect to switching costs. While their decision acknowledged that “there are switching costs in changing banks” (Commerce Commission, 2003, p. 5), the Commission believed there was unlikely to be a substantial reduction in competition. The transaction accounts market was the only market identified as likely to suffer a reduction in competition with a reduction in choice and quality of service, but it was “not considered to be substantial because of competition provided from the three other main competitors” (p.7).

However, as explained earlier switching costs are much more than simply financial costs and research shows that switching costs have a significant impact on competition levels. This raises questions about how well the issue of switching costs was addressed in this merger, as well as in previous mergers in the banking industry in recent years<sup>2</sup>.

Despite the widespread agreement that switching costs restrict the rate of switching by bank customers, and thereby impact on the level of competition in the banking market, there has been limited action by regulators in New Zealand or in other countries. Furthermore, where issues related to switching costs have arisen, such as ANZ’s acquisition of The National Bank, regulators have shown limited appreciation of the full implications of switching costs, and their importance to bank customers. However, a growing focus on competition has meant that the issue is now being given some consideration. For example, the Cruickshank Report examined the level of competition in the UK banking market and identified switching costs as one of the issues in the personal banking market (Cruickshank, 2000). It went on to recommend a regulatory response. Since the 2007 federal election in Australia, the issue of switching costs received substantial political attention, and in early 2008, the Australian treasurer indicated banks would be required to provide information on regular payments, such as direct debits and automatic payments, to ease the switching process (Kavanagh, 2008).<sup>3</sup>

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<sup>2</sup> Since 1992 there have been twelve mergers in the New Zealand banking industry.

<sup>3</sup> This regime has subsequently been implemented, but it is doubtful that it could be described as a success. For example, see Anonymous (2009).

This paper reports recent research findings that enhance the understanding of the effect and importance of switching costs in the New Zealand banking market. It then considers some possible regulatory responses to the issue of switching costs in the banking markets. The next section of the paper reports prior research related to switching costs and regulatory responses. This is followed by a description of the data and methodology. The subsequent section presents the results and recommendations, and the final section concluded.

### **Prior Research**

Switching costs are defined by Burnham, Frels, and Mahajan (2003) as “the onetime costs that customers associate with the process of switching from one provider to another” (p. 110). This definition makes it clear that switching costs can vary but are only incurred once, at the time of switching supplier. Two important points noted by Burnham et al. are that switching costs “need not be incurred immediately upon switching” (p. 110), and nor are they limited to objective or economic costs. This latter point is particularly important, because the use of the word ‘costs’ immediately creates a perception of a financial amount. An alternative view is offered by Jones, Mothersbaugh, and Beatty (2002) who suggested “switching costs can be thought of as barriers that hold customers in service relationships” (p. 441).

The importance of switching costs lies in their impact on the way markets operate. Klemperer (1987) found that “switching costs cause an allocative inefficiency” (p. 390). The underlying reason for the effect of switching costs is that the existence of switching costs means that competition between firms shifts from considering the needs of one consumer in one period to considering those needs over time, or multiple periods (Farrell & Klemperer, 2006).

Evidence exists that switching costs can generate monopolistic profits for participating firms. As a general principle Shapiro and Varian (1999) suggested that where competitors have similar costs and quality the profits that can be earned are equal to the total switching costs<sup>4</sup>. Ongena and Smith (1997) suggested, in a discussion of the provision of loan facilities, that potential exists for a bank to extract monopoly rents from their customer due to the proprietary information the bank can observe. However, Anderson and Kaplan (1995) noted that the extent of firms’ monopoly power will depend upon how consumers react to the switching costs that apply.

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<sup>4</sup> Total switching costs = customer switching costs + supplier switching costs

A recurrent theme in the Cruickshank Report is the barriers to switching, which are important because new entrants to a market will only encourage more effective competition if customers are willing and able to switch to a better deal (Cruickshank, 2000). The model of perfect competition used by economists assumes away switching costs for consumers but Kerin (2006) noted that switching costs are pervasive in the real world and suggested companies can gain by managing them carefully and innovatively.

Overall, research shows that switching costs tend to lock-in customers, allowing monopolistic profits to be earned. Furthermore, the weight of evidence comes down on the side of the argument that competition in market with switching costs is reduced, although the impact is not certain.

Switching costs are argued to be greater for services than goods (Gremier & Brown, 1996, in de Ruyter & Wetzels, 1998), suggesting they have more importance in a service-based market such as banking. The existence and influence of switching costs in banking, specifically in the UK, is supported by the Cruickshank report, which commented that “barriers to switching accounts are perceived to be high” (Cruickshank, 2000, p. ix). According to the report it was unusual for consumers to switch between lenders unless they were moving property. In the SME market, the report found that switching tended to result from the departure of the customer’s existing lending manager or having a credit application refused.

Kim, Kliger and Vale (2001) also supported the existence and influence of switching costs in banking, in a study using data from the Norwegian banking market. They found that “switching costs in the market for bank loans are quite substantial and constitute a significant portion of the value of a marginal customer to the average firm” (p. 30). Specifically they found that 16% of the value of an additional customer can be “attributed to the lock-in phenomenon generated by switching costs”, while on average “locked in customers contribute 23% to banks’ value” (p. 29).

Strahan and Weston (1998) noted that “relationships enable banks to collect private information on the creditworthiness of small firms”, and this is important as there is likely to be limited public information available on such firms (p. 824). Kim, Kliger, and Vale (2003) blame information asymmetry for the prevalence of switching costs in the banking sector. Cruickshank (2000) supported this view and argued that the information imbalance between market participants is a characteristic of the banking sector. Sharpe (1990) also supported this

view, suggesting high quality firms can become informationally captured and therefore reluctant to switch.

### *Switching costs and regulation*

Regulation can be seen as an appropriate means of dealing with switching costs, particularly as the firms' mixed attitudes towards switching costs means limited incentive exists for a market solution to be found. Krafft and Salies (2008) found evidence of switching costs in the French broadband market and concluded that these had implications for regulation policy.

Carlsson and Löfgren (2004) suggested that if switching costs are affected by firm behaviour to a large extent they could be reduced by appropriate regulations. Their study of the Swedish domestic air travel market provides some support for the regulation in that market that reduced switching costs. While regulation may help resolve a problem in a market it can also contribute to the difficulties. For example, it has been suggested that competitive forces in the UK SME banking market actually reduced as a result of the government's requirement that the big banks provide free services or current account interest to their SME customers (Staff, 2005).

One solution to overcome the perceived difficulties for consumers in the New Zealand banking market, proposed by Clement (2006), is for the banks to offer money back guarantees as UK banks do. The example used was that of the HSBC in the UK who provide an undertaking that customers will receive their debit card and cheque books within a guaranteed five working days and the associated PIN within seven working days, otherwise the customer will receive £10 per failure. However, this is unlikely to deal with the real concerns of customers that relate to their direct credits and automatic payments and so forth, and money cannot necessarily compensate for the inconvenience of such failures.

In response to the Cruickshank Report, steps were taken in the UK in order to make switching easier for customers. This included improvements made by banks "to the logistics of the switching process" and increasing "consumer awareness of the potential benefits of changing bank" (Gondat-Larralde & Nier, 2006, p. 5). Their study did support the initiatives, although they acknowledged it was too early yet "to assess the impact of these initiatives empirically" (p. 48). The perception that there are likely to be difficulties when switching banks is countered to some extent by the knowledge that the Banking Ombudsman "has never received any complaints from customers who have switched banks" according to Clement (2006, p.

21). She also noted that few problems arising in the switching process had come to the attention of the Consumers' Institute.

Berger and Hannan (1998) suggested that if concentration substantially reduces efficiency, the effects might be considered as part of the merger approval process. "Merger policy in retail banking often relies on arguments stating the degree of potential competition in the market" (Kiser, 2002, p. 349), with potential competition explained as being the likely entry of a firm if prices rose or quality reduced. Kiser noted that the success of a new entrant firm relies heavily on the ability to attract new customers, and that it follows that "customer switching is extremely important for the viability of new entrants" (p. 349). Discussing government policy issues, Shapiro and Varian (1999) noted that the lock-in that "results from ... switching confers a huge competitive advantage on firms that know how to take advantage of it", and suggested this leads to concerns about the nature of competition (p. 299). Recent work on switching costs has presented regulatory and competition policy as being complementary rather than substitutes (Krafft and Salies, 2008).

Carlsson and Löfgren (2006) argued that switching costs may be lowered with appropriate regulations, if firm behaviour has a substantial effect on switching costs; however, they also noted a need to better understand the factors that affect switching costs. Taking the opposite view, Haucap (2003) noted that switching costs exist in a wide range of markets, and that "there is generally lively competition in these markets" (p. 7) and he therefore suggested it is unclear why the existence of switching costs should necessarily justify regulatory intervention. Looking at market regulation from an economic perspective means that it should only be used in pursuit of an efficiency objective according to Haucap, and he goes on to argue that to "achieve long-run market efficiency the regulatory framework should on the one hand be designed to protect consumers from firms' potential market power (or its abuse by the operators) but on the other hand it should also protect firms from expropriation through the Government" (p. 9). Nevertheless, it has been acknowledged that there is generally no incentive for the incumbent supplier to assist a customer to leave (for example, Corfield, 2007), and in that case a regulatory response may be needed.

One category one of switching costs that consumers can face in seeking to change supplier is search costs, being the time and effort required to find out about other financial institutions and then to evaluate them to determine the most suitable option for the switcher's needs. From a regulatory perspective there would appear to be some value in legislative disclosure

requirements to make information easier to find, and reduce search costs. However, Shapiro and Varian (1999) believed that the cost of finding, evaluating and learning to use a new brand will change markedly, with the world wide web and other IT advances lowering these search costs. A study of the US credit card market by Berlin and Mester (2004) also counselled against regulatory intervention as it found that “available economic models of consumer search provide little evidence that legislative remedies like standardized disclosure rules will increase competitive forces” (p. 195).

An opposing view is taken by the Cruickshank Report which suggests search costs remain significant (Cruickshank, 2000). Furthermore, the report argues that “the internet potentially makes price discrimination easier, so making it easier to exploit inert customers” (p. 6). While this may appear counter-intuitive, it can be explained by the fact that the internet allows unprecedented loss of privacy leading to an ability by a firm to better assess a customer’s willingness to pay, and therefore opportunities for price discrimination (Odlyzko, 2004). This latter point is supported by Wilson and Waddams Price (2005) who suggested that consumers can actually be harmed by an increase in choice. While the internet can help reduce switching costs in terms of search, it can create switching costs by enabling the business associated with the site to collect information about the user to be used in future transactions. For example, on Amazon.com users’ purchasing behaviour is remembered in order to make other purchase suggestions, while Google offers personalised searches, where a user’s search history and their profile information influences their search results.

Wilde and Schwartz (1979) explored the effect of reducing search costs on competitive equilibria, in order to contribute to the then current debate regarding state intervention in consumer markets. They found that “the state should reduce the costs of consumers of *comparing* purchase alternatives” because “the likelihood of competitive equilibria obtaining varies directly with the number of consumers who visit more than one firm and with the number of firms such “comparison shoppers” visit” (p. 551). Many general propositions about competitive models are invalidated by search costs according to Pratt, Wise and Zeckhauser (1979). In particular, they observed large differences in price for which one possible explanation is positive search costs, which they suggested has an implication for attitudes towards issues such as government regulation. Among the recommendations in the Cruickshank Report was that the Financial Services Authority [FSA] should publish comparative tables to enable customers to more easily compare the products and services

offered by different banks. It also included a recommendation that service standards be introduced for switching current account supplier for both personal and SME customers.

According to Bakos (1997) customers who have access to electronic marketplaces, and who therefore face lower search costs, become more demanding and less willing to make compromises with respect to their ideal product. He suggested such buyers are better off by enjoying lower prices and allocational efficiencies, and by having lower total search costs. However, he also found that sellers have no incentive as a group to introduce an electronic marketplace, while buyers face possible free-rider problems that would inhibit their investment in electronic marketplaces. It is possible to argue that an independent third party, such as a regulator, is the most appropriate choice to establish such a marketplace.

The telecommunications market is another market where switching costs are perceived to be an important issue, and it can be used as an example of possible regulatory changes. In the mobile telecommunications market, it is expected that Mobile Number Portability [MNP] will reduce switching costs for the consumer, making entry easier for new entrants and strengthening competition between existing operators (Haucap, 2003; Shi, Chiang, & Rhee, 2006). For example, MNP was implemented in the EU in 2003 and “means that customers are given the right to keep their mobile telephone number when switching between several providers” (Buehler, Dewenter & Haucap, 2005, p. 1). However, MNP offers few if any benefits for the operators and incurs substantial costs both in terms of infrastructure and porting of numbers. As a result operators have sought to delay the implementation of MNP and have chosen the least expensive technologies that are also less efficient and used long-term contracts to lock-in customers, thereby reducing the effectiveness of MNP (Garcia-Murillo, 2007). Xavier and Ypsilanti (2008) reported that the take-up of MNP in the UK was below expectations, but noted that a recent report had identified barriers to use of MNP that regulators and operators need to fix. Nevertheless, Xavier and Ypsilanti suggested consumers were benefiting from the existence of MNP due to incentives offered by operators to retain customers and discourage switching.

The issue of efficiency with MNP, however, was less clear. After reviewing competition in mobile telecommunications markets and the justification for regulatory intervention in these markets, Haucap (2003) warned that “regulatory intervention can often cause more damage than solve problems” (p. 18). Shi et al. (2006) used empirical evidence from Hong Kong to explore the effect of introducing MNP. Contrary to regulators’ expectations, they found that

the larger providers gained market share and the smaller providers lost market share, which they explained with reference to network effects. Where MNP is introduced and only has the effect of eliminating switching costs, Buehler and Haucap (2004) suggested that “the conventional wisdom holds that introducing MNP unambiguously benefits mobile customers” (p. 225). However, where MNP does more than just eliminate switching costs they describe its effect as ambiguous. Buehler et al. (2005) identified five different types of benefits from introducing MNP, which affect different subgroups of the market, including those who would switch without MNP. Their study found that there were differences in the extent and nature of the use of MNP across the EU, which was attributed in part to differences in speed of porting and in the associated charges. The Cruickshank Report did give consideration to the appropriateness of introducing some form of account portability in the UK banking market but noted that “such an approach would be very interventionist” (Cruickshank, 2000, p. 135), and felt that it should be used only if other options were not successful.

As discussed, research has found that switching costs impact on the way markets operate, including banking markets, promoting monopolistic profits and reduced competition. As a result there are potential implications for regulators, particularly in respect of competition. The issue of providing information to reduce search costs is one of the key areas where regulatory intervention is perceived to have some role.

### **Research Methodology and Data**

The primary source of data on switching costs was a survey undertaken of the New Zealand public. A written survey was posted to 2983 people whose names were drawn from the New Zealand electoral roll. A total of 955 completed and valid questionnaires were returned for an overall response rate of 33.5%, after adjusting for undelivered surveys and ineligible recipients. The survey comprised 70 questions, covering banking relationships, switching behaviour, switching cost perceptions and demographic characteristics. In the section on switching costs, respondents were asked to indicate the extent of their agreement or disagreement with 36 different statements using a 7-point Likert scale. Sets of 3-5 of these statements were used to provide a summative measure of each of nine switching cost categories. The categories used were: Learning costs, Search costs, Monetary loss, Benefit loss, Personal relationship, Brand relationship, Hassle, Uncertainty, and Service disruption. Table 1 below outlines some of the key characteristics of respondents.

**Table 1: Key characteristics of survey respondents**

<b>Characteristic</b>	<b>Category</b>	<b>No</b>	<b>Proportion</b>	<b>New Zealand<sup>5</sup></b>
Gender	Female	527	57.0%	51.2%
	Male	397	43.0%	48.8%
Age	<20 <sup>6</sup>	11	1.2%	9.7%
	20-29	85	9.3%	16.5%
	30-39	158	17.3%	18.6%
	40-49	206	22.6%	19.6%
	50-59	177	19.4%	15.7%
	60-69	168	18.4%	10.6%
	70+	108	11.8%	9.4%
Education	No qualification	159	17.2%	22.4%
	Secondary school	303	32.9%	n.c. <sup>7</sup>
	Vocational	222	24.1%	n.c.
	Bachelor degree	152	16.5%	10.0%
	Higher degree	86	9.3%	4.2%

Prior to the survey being undertaken a series of three focus groups were held with four or five individuals in each group. The three groups comprised a group of younger people, a group of primary school parents, and a group of older, better educated university staff. The key characteristics of the three groups are shown in Table 2 below. Five key questions were used by the moderator to lead the discussion to cover the key issues around participants perceptions of switching costs and experience of switching.

**Table 2: Key characteristics of focus group participants.**

	<b>Group 1 (Young)</b>	<b>Group 2 (School)</b>	<b>Group 3 (Massey)</b>
<b>Number in group</b>	4	4	5
<b>Age range</b>	23-28	21-37	33-55
<b>Number of financial institutions per person</b>	1 or 2	1-3	2-3
<b>Total number of different financial institutions represented</b>	5	6	6
<b>Qualification level</b>	Secondary –	All secondary	Trade –

<sup>5</sup> New Zealand figures are from the 2006 census data available from Statistics New Zealand ([www.statistics.govt.nz](http://www.statistics.govt.nz)).

<sup>6</sup> The comparison with the New Zealand population is not direct as the <20 age group for New Zealand is for 15-19 years, while it is 18-19 for the sample.

<sup>7</sup> n.c. = directly comparable data for New Zealand not available.

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A third form of data collection was a series of interviews with bank staff. The interviewees were representatives of the then eight principal bank brands operating in the New Zealand retail banking market: ANZ, ASB Bank, BNZ, Kiwibank, The National Bank, Superbank, TSB Bank and Westpac. The roles of the interviewees differed between banks, and included CEOs, staff in strategic planning roles, and staff in product management roles. A key difference between the interviewees was their understanding of the issue of switching costs with those at higher management levels having a broader understanding.<sup>8</sup> The interviews were semi-structured in design, with five prepared questions used as the foundation of the interview.

The information collected from the interviews and the focus groups were used in the design of the documentation for the mail survey.

## **Results**

The possibility of switching was one that most participants in all three groups had thought about. While most participants had experience of switching banks, the younger group (Group 1) were generally more relaxed about it, and had switched so more frequently. This group had noted the existence of the hassles of switching, but seemed to simply accept the hassles as part of the process. However, all three groups agreed that the most important switching cost was the time and effort involved.

The bank staff interviewed generally agreed that switching costs are an issue in the market, with the main issues related to uncertainty around the process including concerns about things going wrong and hassle of switching, incorporating the time and effort involved. There was also agreement that it is difficult to get customers to switch banks, although the banks have attempted to persuade customers that switching is not difficult. One of the questions asked of the bank staff related to whether banks proactively use switching costs to retain customers, and this drew mixed responses. One interviewee felt this question represented a very cynical view, and was almost offensive. However, other interviewees suggested banks certainly do this. Views between these two extremes were also expressed suggesting it was a by-product of the banks' normal operations rather than a deliberate strategy.

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<sup>8</sup> In response to requests from some interviewees it was agreed that all responses would be kept in confidence and reported without attribution.

### *The existence and effect of switching costs*

Figure 1 shows the mean response for each switching cost category, as well as the overall mean switching cost. As the response options ranged from 1, Strongly Agree, to 7, Strongly Disagree, a smaller mean represents a perception that the switching cost is greater. The means for the individual switching cost categories ranged from a low of 3.3 for *Hassle* to a high of 4.1 for *Monetary Loss*. Only for *Monetary Loss* was the mean above the neutral midpoint of the range, and having the largest means indicates this category is the least important for respondents. It is somewhat surprising that the switching cost category that represents the direct financial cost of switching appears to be the least important. It was less surprising to find the lowest mean was for *Hassle*, indicating this was the most important of the switching cost categories for the respondents. A number of survey respondents commented on the *Hassle* of switching, such as the following:

*“It would be a huge drama to get all APs, Direct Debits + credits, credit card and mortgage switched over so I guess we won’t.”<sup>9</sup>*

*“The hassle is the biggest obstacle, the time involved and having to set up new payments.”*

*“I shudder to contemplate the prospect of changing our bank and going through all that hassle again.”*

The other categories whose mean fell below the overall mean were *Learning* and *Service Disruption*, and respondents also commented on these categories:

*“I want to change banks with lower fees but I don’t really have the time to do that & learn a new system.”*

*“It took her at least 6 months to get missed insurance payments etc sorted after the switch.”* (Reporting on a friend’s experience of changing banks).

*“The change of bank took approx. 3 months before all payments were converted & running smooth. There were missed payments & penalties – some my fault, some the bank & some the company dealt with.”*

A *t* test<sup>10</sup> was used to determine whether the mean for each category was significantly different from the neutral value of 4. The *t* test confirmed that the means of seven of the

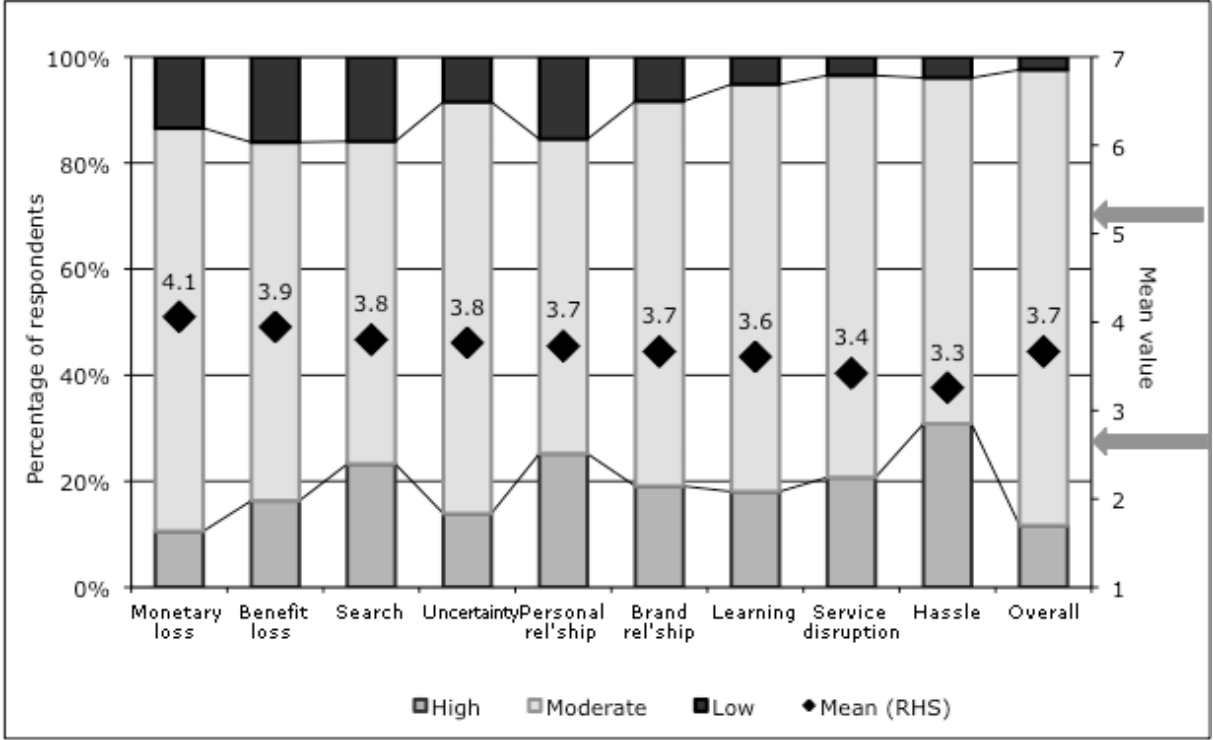
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<sup>9</sup> Minor spelling mistakes in the respondents’ written comments have been corrected.

<sup>10</sup> A *t* test assumes a normal distribution, although it is fairly robust to departures from this assumption, and the Kolmogorov-Smirnov statistic was used to assess whether this assumption was appropriate in this case, and confirmed the assumption of normality allowing the *t* test to be used.

switching cost categories, as well as for overall switching costs, were significantly different to the neutral value.

**Figure 1: Perception of switching costs**



The proportion of respondents who were rated as having a perception that a category of switching costs or switching costs overall is high, moderate or low is also shown in Figure 1. The respondent was judged to perceive a category of (or overall) switching costs as high where the mean rating was less than 2.75. Where the mean was greater than 5.25, respondents were considered to have a perception that switching costs are low. A mean value between 2.75 and 5.25 inclusive was considered to indicate a perception that switching costs are moderate. The cut-off values used are arbitrary, but were selected to be at a level such that the respondent appeared to have a reasonably strong view if included in the high or low groups. It is clear from the graph that the perceptions for different categories of switching costs varied, but for all categories the proportion of those who consider a cost to be high was not great and generally smaller proportions considered them to be low. At least 59.3% of respondents had a moderate rating for each of the categories.

One respondent usefully summed up the mix of switching costs in the comment that

“There are a lot of emotions going on when changing banks: 1. You wonder if you’re making the right choice; 2. You want to remain loyal after 38 years; 3. It’s a hassle changing direct debits; 4. It takes more time to do than you realise; 5. You want to keep your good banking reputation; 6. There’s always the fear of the unknown”.

Two survey questions sought to measure the respondent’s likelihood of future switching. The variable *Switching Likelihood* was measured as the mean of the two questions.<sup>11</sup> Two other questions were used to assess the respondent’s desire to switch. The variable *Switching Desire* was measured as the mean of these two questions.<sup>12</sup> The Spearman’s correlation coefficient for *Switching Likelihood* and *Switching Desire* was 0.54 and significant at the 1% level. This indicates a strong positive correlation between the two variables. However, because the correlation is not stronger it appears there is some factor that means respondents who would like to switch won’t actually do so, and switching costs are likely to have that effect.<sup>13</sup>

As discussed above, the respondents were broken into three groups, comprising those who considered switching costs were high, moderate and low. As Table 3 shows, the correlation between *Switching Likelihood* and *Switching Desire* is positive for all three groups. However, it is clearly less where perceived switching costs are high, and the highest correlation was found where switching costs were perceived to be low. This supports the view that switching costs explain some of the difference between desire to switch and the likelihood of doing so.

**Table 3: Correlation between desire to switch and likelihood of switching for different levels of overall switching costs**

Switching costs are perceived to be		
High (n=110)	Moderate (n=802)	Low (n=23)
rs=0.37***	rs=0.56***	rs=0.59***

\*\*\*= significant at the 1% level

We can then move on to consider the effect of the individual categories of switching costs. The results appear in Table 4, and the final column indicates whether the correlation between

<sup>11</sup> One question used a 7-point Likert scale, while the other had a 5-point response scale. The responses for the latter question were adjusted to give equivalent values in a range of 1-7 and these adjusted values were used in the calculation for *Switching Likelihood*.

<sup>12</sup> The two questions had opposite scales, so one question was inversely recoded and the recoded responses were used in the calculation of *Switching Desire*.

<sup>13</sup> These variables are discussed more fully in Matthews, Moore and Wright (2008).

*Switching Likelihood* and *Switching Desire* increased as the perception of the switching cost category fell as expected.<sup>14</sup>

For seven switching cost categories the results are clear, with a positive correlation between the two variables that increases from the High group to the Low group. In the case of *Learning Costs* the correlation was greater for both the Moderate and Low groups compared to the High group, but the correlation was smaller for the Low group than the Moderate group. For *Uncertainty*, the correlation was smallest for the Low group, although it was higher for the Moderate group compared to the High group.

**Table 4: Correlation between desire to switch and likelihood of switching for different levels of each switching cost category**

Switching cost category	Switching cost is perceived to be			Correlation increases
	High	Moderate	Low	
Learning	rs=0.49*** (n=163)	rs=0.58*** (n=694)	rs=0.55*** (n=46)	No
Search	rs=0.53*** (n=213)	rs=0.55*** (n=553)	rs=0.57*** (n=144)	Yes
Hassle	rs=0.50*** (n=280)	rs=0.57*** (n=587)	rs=0.60*** (n=36)	Yes
Service Disruption	rs=0.51*** (n=188)	rs=0.55*** (n=685)	rs=0.58*** (n=32)	Yes
Uncertainty	rs=0.50*** (n=126)	rs=0.57*** (n=698)	rs=0.46*** (n=77)	No
Benefit Loss	rs=0.41*** (n=148)	rs=0.50*** (n=608)	rs=0.70*** (n=145)	Yes
Monetary Loss	rs=0.39*** (n=96)	rs=0.57*** (n=685)	rs=0.60*** (n=121)	Yes
Brand Relationship	rs=0.43*** (n=170)	rs=0.50*** (n=654)	rs=0.52*** (n=76)	Yes
Personal Relationship	rs=0.30*** (n=227)	rs=0.53*** (n=534)	rs=0.58*** (n=141)	Yes

\*\*\*= significant at the 1% level

Although the relative differences in the level of correlation were not analysed, it is of interest to note that the greatest range between high and low was found for *Benefit Loss* (0.29), *Personal Relationship* (0.28), and *Monetary Loss* (0.21). These three categories of switching costs therefore appear to have a greater impact on deterring people from switching when they would like to do so. Some respondents commented on one of these categories, being the importance of the personal relationship to them:

<sup>14</sup> No account was taken of the magnitude of the increase in the correlation.

*“I hate [Bank A] but our mortgage consultant is lovely. If she left, we probably would too.”<sup>15</sup>*

*“I do not have a personal relationship with the workers at [Bank B, Branch C] so I feel it would be easy to switch banks at present.”*

*“Our relationship with our personal banker is too good to lose.”*

The smallest differences where the relationship held were found for *Search* (0.04) and *Service Disruption* (0.07). This suggests these two categories have a more limited impact on deterring people from switching if they wish to do so.

Previous studies have raised concerns about the effect of switching costs on competition in banking. The overall consensus is that switching costs are substantial in banking, with the informational aspect of the banking relationship being key to the creation of switching costs. Therefore, there should be regulatory concerns about switching costs in terms of the effect on the market, particularly in terms of competition and concentration. The existence and influence of switching costs in the UK banking market was supported by the Cruickshank report (Cruickshank, 2000). Further support was provided by a subsequent study in that market, which concluded that the dynamics of the market were “consistent with the presence of switching costs” (Gondat-Larralde and Nier, 2004, p. 158.)

Issues related to switching costs in the New Zealand banking market were considered by the Commerce Commission in its decision on the application by the ANZ to acquire The National Bank, as discussed in the opening section of the paper. The Commerce Commission essentially discounted the effect of switching costs, accepting ANZ’s arguments that they had limited impact on competition. However, the application by ANZ almost exclusively discussed switching costs in financial terms. For example, in paragraph 147 it referred to the legal costs, application fees and break fees (for early termination of fixed rate loans) that would be likely to be incurred to change mortgage providers. There was some reference to the issue of the inconvenience of switching, such as the comment in paragraph 167 in relation to transaction accounts that “in addition to the direct tangible fees set out above, there is an inconvenience cost associated with switching providers” (ANZ, 2003, p. 57).

The results from this study, as reported above, have confirmed that there are a range of non-financial costs, such as the loss of personal relationships, that are more difficult to measure,

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<sup>15</sup> The names of specific banks provided by the respondents have been removed, as that detail is not generally relevant.

but are at least as important as the financial costs for New Zealand banking customers. Furthermore, this study has shown that most of these costs do discourage bank customers from acting on their desire to switch to another bank. Therefore it is reasonable to argue that switching costs are limiting competition, and should be investigated by the appropriate authority. More specifically, this leads to the first recommendation:

**Recommendation 1:** *Regulatory authorities need to acknowledge the existence of switching costs, both financial and non-financial, in the banking market. The full range of switching costs and their effects should be taken into account in any consideration of competition issues in financial services.*

Previous research has suggested the effects of switching can be considered by regulators as part of the merger approval process (Berger & Hannan, 1998). The results from this study have shown that switching costs do restrict the level of switching done by bank customers, and some customers who would like to change banks do not do so because of the associated switching costs. In the event of a merger this means that some customers of the acquired bank who are unhappy about the new ownership will nevertheless not switch to another bank because they are “locked-in” to their existing banking relationship by switching costs. The study has also provided evidence to counter ANZ’s claim in paragraph 134 that “faced with an increase in price by ANZ (post acquisition) or a decrease in quality of service in any of the relevant markets, an existing participant could expand its market share so as to constrain ANZ” (ANZ, 2003, p. 51). Whereas such activity by ANZ may have generated a desire for its customers to switch to a competitor institution, switching costs may have meant that they did not do so. As an example, one respondent noted that her bank’s ownership had changed three times (over a period of more than 10 years) and each time she “lost points and schemes” and the conditions of her mortgage changed. The second recommendation relates specifically to mergers and acquisitions, as follows:

**Recommendation 2:** *In future decisions on mergers and acquisitions in the New Zealand banking market, the impact of switching costs in deterring customers from switching banks should be acknowledged and taken into account.*

### ***Internet access and search costs***

A commonly proposed regulatory response to switching costs is the provision of information to enable bank customers to make comparisons between the offerings of different financial

institutions. This deals with one particular category of switching costs, that of search costs. The internet is an increasingly common way for people to gather information, but as previously discussed prior research is mixed as to whether the internet will reduce or increase search costs. Different levels of access to the internet exist in the population. As Table 5 shows, over 80% of the respondents reported having some form of access to the internet, and nearly 70% had access to the internet at home.

**Table 5: Primary form of internet access**

I don't have access to the internet	17.4%
I usually access the internet at home	47.6%
I usually access the internet at work	8.4%
I access the internet at home and work about the same amount	19.5%
I access the internet somewhere else	2.8%

The hypothesis tested in respect of search costs and the internet was that perceived *Search* costs would not vary with internet access. Testing with ANOVA found that the p-value was 0.20, indicating that there was no variance and therefore supporting the hypothesis.<sup>16</sup>

Shapiro and Varian (1999) argued that the internet would lower search costs, but this is not supported by the findings in this study that perceptions of search costs were not related to internet access. Nevertheless, this study found that search costs are perceived to be less important than most other types of switching costs, and they were also found to have limited effect on attitudes and behaviours compared to other switching cost categories. It has been argued that regulators could have a role in reducing search costs, with one option being to legislate disclosure requirements that make it easier to find and compare information on alternative providers. One of the Cruickshank (2000) recommendations was the publication of comparative tables by the regulator. This would be a relatively simple option to implement.

However, with the internet likely to be the source of any comparative information today, and given the finding that internet access does not affect perceptions of switching costs, the benefits of regulated disclosure appear limited. In addition a number of private organisations already provide comparative information. In New Zealand, Consumer NZ ([www.consumer.org.nz](http://www.consumer.org.nz)) is a good example of a private organisation providing comparative

<sup>16</sup> The result was checked by retesting with the responses grouped in different ways; firstly, the responses were recoded to simply having or not having internet access,; and secondly, by combining the three responses related to access at work and home as one group but leaving the others separate. In both cases the original finding was supported, although the p-value changed.

information. Good returns ([www.goodreturns.co.nz](http://www.goodreturns.co.nz)) and Interest.co.nz ([www.interest.co.nz](http://www.interest.co.nz)) also provide comparative information for New Zealand bank customers, but focussed on loan and deposit interest rates. Australia currently has three privately run websites dedicated to helping consumers compare financial products: mozo ([www.mozo.com.au](http://www.mozo.com.au)); RateCity ([www.ratecity.com.au](http://www.ratecity.com.au)); and, infochoice ([www.infochoice.com.au](http://www.infochoice.com.au)).

Respondents' views on the issue were mixed, with one respondent asking whether there is "an internet site that one could view all the banks with what they offer in one summary", while another took the view that "Having information available for the public in the form of brochures, leaflets or readily available to download from their website is great". These conflicting views and the findings related to search costs give rise to the third recommendation:

**Recommendation 3:** *Regulators should not seek to legislate comparative disclosure requirements in respect of bank providers and services, leaving this for the market to address.*

### ***Bank account number portability***

Anecdotal evidence from the focus groups conducted as part of this study, as well as the findings of the relative importance of *Hassle* and the perceived difficulties of switching confirm the time and effort involved, and the process of switching are issues for bank customers. Primarily this is about the stage of the switching process that relates to the need to open a new account, which will have a different account number necessitating redirection of any existing direct credits such as salary payments, and reloading on the new account of existing payment authorities, such as those for power, telephone and rates. While a New Zealand Bankers' Association protocol on switching exists, there was a view expressed by the bank staff interviewed that it is not particularly effective. It was suggested that one of the issues with the protocol, which has been in place for many years and relates to the provision of information by the old bank to the new bank to facilitate the switch, is that it is voluntary and lacks enforceability.

Similar issues in the telecommunications industry have been overcome with the introduction of Mobile Number Portability (MNP). Bank account number portability would eliminate most of the hassle of switching, by removing the need to re-establish direct credits and

payment authorities. A customer would be able to retain their existing bank account number, but it would now be associated with a different bank.<sup>17</sup>

The introduction of bank account number portability in New Zealand was discussed by market participants in the 1990s and at a technical level portability is possible, although complex (S. Miller, personal communication, 3<sup>rd</sup> November, 2008). However, participants in the market are unlikely to push the development of number portability because it is a “two-edged sword” – while they would like to make it easier for customers to switch to them, they do not want to make it any easier for customers to switch away from them. In addition, there would be substantial costs to establish number portability, as well as ongoing operational and maintenance costs for the system. Reaching agreement on how these costs might be apportioned would be difficult. This is evidenced by the telecommunications market, where the implementation of MNP has been delayed by operators due to the perceived costs and perceived lack of benefits (Garcia-Murillo, 2007). However, bank account number portability is something a regulator could require to be implemented, including specifying how the associated costs would be apportioned, as outlined in the final recommendation:

**Recommendation 4:** *Regulators should investigate the implementation of number portability, including an assessment of establishment and operational costs.*

## **Summary and Conclusion**

The study shows that there are switching costs in the New Zealand banking market, and the effect of them is to discourage bank customers from switching banks when they want to. While banks want to encourage customers to switch to them, they don't want to make it easier for them to switch from them. To date there has been no real effort by regulators to investigate the effect of these switching costs on the extent of competition, although other research has indicated that switching costs reduce competition. Furthermore, when the issue of switching costs arose in the acquisition of The National Bank by the ANZ, both the bank and the regulator largely discounted it as being unlikely to be significant. As a result, it is recommended that banking regulators should pay more attention to the issue of switching

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<sup>17</sup> Bank account number portability was effectively introduced for transfers between branches of the same bank about 20 years ago. Prior to that the process of moving to another branch of the same bank was almost the same as that of moving to another bank, involving a similar level of hassle. However, bank account number portability within a bank is a much different process to that required between banks.

costs, particularly in mergers and acquisitions. On the other hand, the issue of providing information to enable bank customers to consider alternatives when switching can appropriately be left to the market to resolve.

One of the categories of switching costs that is more widely recognised is *Hassle*, being the time and effort involved in switching, which was acknowledged by the bank staff and the focus groups as well as the survey respondents. This is where the regulator could be more proactive and investigate the option of number portability to largely eliminate the time and effort involved in switching banks.

Switching costs in banking markets are increasingly being recognised as an issue by regulatory authorities. There are opportunities for these authorities to consider means of reducing switching costs and thereby enable greater levels of switching. However, there is a need to ensure that any action taken is of value.

## References

- Anderson, D., & Kaplan, T. (1995). Consumer behaviour with switching costs. *University of Minnesota Working Papers*, 1-30.
- Anonymous. (2009, 24 June). Simpler switching a hassle. *The Sheet*, Retrieved 27 June, 2009, from [http://www.thesheet.com/n106\\_news\\_print.php?selkey=8460](http://www.thesheet.com/n106_news_print.php?selkey=8460).
- ANZ. (2003). *Application by ANZ Banking Group New Zealand Limited for clearance of a proposed business acquisition*.
- Bakos, J. Y. (1997). Reducing buyer search costs: Implications for electronic marketplaces. *Management Science*, 43(12), 1676-1692.
- BankDirect. (2004). *BankDirect - SWITCH service*. Retrieved 29 April, 2004, from <http://www.bankdirect.co.nz/homeloans/refinancing.asp>
- Berger, A. N., & Hannan, T. H. (1998). The efficiency cost of market power in the banking industry: A test of the "quiet life" and related hypotheses. *The Review of Economics and Statistics*, 80(3), 454-465.
- Berlin, M., & Mester, L. (2004). Credit card rates and consumer search. *Review of Financial Economics*, 13, 179-198.
- Buehler, S., Dewenter, R., & Haucap, J. (2005). *Mobile number portability in Europe* [Electronic Version]. Retrieved 15 October 2005 from <http://ssrn.com/abstract=765224>.
- Buehler, S., & Haucap, J. (2004). Mobile number portability. *Journal of Industry, Competition and Trade*, 4(3), 223-238.
- Burnham, T. A., Frels, J. K., & Mahajan, V. (2003). Consumer switching costs: A typology, antecedents, and consequences. *Journal of the Academy of Marketing Science*, 31(2), 109-126.
- Carlisle, H., & De Freitas, F. (2004). *NZ Consumer Banking*. Sydney: Merrill Lynch.
- Carlsson, F., & Löfgren, Å. (2004). *Airline choice, switching costs and frequent flyer programs* [Electronic Version], 1-14. Retrieved 9 June 2004 from <http://www.handles.gu.se/spc/archive/00003341/01/gunwpe0123.pdf>.
- Carlsson, F., & Löfgren, Å. (2006). Airline choice, switching costs and frequent flyer programmes. *Applied Economics*, 38, 1469 - 1475.
- Clement, D. (2006, January/February). Banks: the hidden costs. *Consumer*, 455, 20-23.
- Commerce Commission. (2003). *Decision No 507*.
- Corfield, A. (2007). *Bankwest submission to APCA consultation paper on account switching* [Electronic Version], 3. Retrieved 11 February, 2008 from [http://www.apca.com.au/Public/apca01\\_live.nsf/WebPageDisplay/SUB\\_AccountSwitching?OpenDocument](http://www.apca.com.au/Public/apca01_live.nsf/WebPageDisplay/SUB_AccountSwitching?OpenDocument).

- Cornell, A. (2008, 12-13 January). Are the bad banks back? *The Weekend Australian Financial Review*, pp. 15-16.
- Cruickshank, D. (2000). *Competition in UK Banking. A report to the Chancellor of the Exchequer*. United Kingdom: HM Treasury on behalf of the Controller of Her Majesty's Stationery Office.
- Customers prefer their local branch. (2004). *Australian Banking & Finance*, 13(18), 7.
- de Ruyter, K., & Wetzels, M. (1998). On the relationship between perceived service quality, service loyalty and switching costs. *International Journal of Service Industry Management*, 9(5), 436-453.
- Farrell, J., & Klemperer, P. (2006, May). *Coordination and lock-in: Competition with switching costs and network effects*. Retrieved 19 January, 2007, from <http://www.pauklemperer.org>
- Garcia-Murillo, M. A. (2007). Number portability in Central America. *Info*, 9(4), 25.
- Gondat-Larralde, C., & Nier, E. (2004). The economics of retail banking - an empirical analysis of the UK market for personal current accounts. *Bank of England Quarterly Bulletin*, 44(2), 153-159.
- Gondat-Larralde, C., & Nier, E. (2006). *Switching costs in the market for personal current accounts: some evidence for the United Kingdom* (pp. 56). United Kingdom: Bank of England.
- Haucap, J. (2003, March). The economics of mobile telephone regulation. *University FAF Working Paper No. 4* Retrieved 11 March, 2005, from <http://ssrn.com/abstract=458241>.
- Jones, M. A., Mothersbaugh, D. L., & Beatty, S. E. (2002). Why customers stay: measuring the underlying dimensions of services switching costs and managing their differential strategic outcomes. *Journal of Business Research*, 55, 441-450.
- Kavanagh, J. (2008, 11 February). Switching in vogue. *The Sheet*. Retrieved 11 February, 2008, from [http://www.thesheet.com/news\\_print.php?selkey=6169](http://www.thesheet.com/news_print.php?selkey=6169).
- Kerin, P. (2006, 12 January). Taking care of business. *BRW*, 12/01/06, 24.
- Kim, M., Klinger, D., & Vale, B. (2001). Estimating switching costs and oligopolistic behaviour. *Wharton Working Papers, Working papers(01-13)*, 1-48.
- Kim, M., Klinger, D., & Vale, B. (2003). Estimating switching costs: the case of banking. *Journal of Financial Intermediation*, 12, 25-56.
- Kiser, E. (2002). Predicting household switching behaviour and switching costs at depository institutions. *Review of Industrial Organisation*, 20, 349-365.
- Klemperer, P. (1987). Markets with switching costs. *The Quarterly Journal of Economics*, 102(2), 375-394.

- Krafft, J., & Salies, E. (2008). The diffusion of ADSL and costs of switching Internet providers in the broadband industry: Evidence from the French case. *Research Policy*, 37, 706-719.
- Matthews, C.D., Moore, C.I. and Wright, M. (2008). *Why not switch? Switching costs and switching likelihood*. 13<sup>th</sup> Finsia and Melbourne Centre for Financial Studies Banking and Finance Conference. Melbourne, Australia. 29-30 September 2008.
- National Bank of New Zealand. (2005). *Switching to The National Bank*. Retrieved 12 November, 2005, from <http://www.nbnz.co.nz/personal/product/index/switching.htm>
- National Bank of New Zealand. (2008). *Switching to The National Bank*. Retrieved 20 February, 2008, from <http://www.nbnz.co.nz/personal/product/index/switching.aspx>
- Odlyzko, A. (2004). Privacy, economics, and price discrimination on the internet. In L. J. Camp & S. Lewis (Eds.), *Economics of Information Security* (pp. 187-211). Boston: Kluwer Academic Publishers.
- Ongena, S., & Smith, D. C. (1997). Empirical evidence on the duration of bank relationships. *WUSTL Working paper archive, Finance 9703002*.
- Pratt, J. W., Wise, D. A., & Zeckhauser, R. (1979). Price differences in almost competitive markets. *The Quarterly Journal of Economics*, 189-211.
- Rogers, I. (2007, 29 August). Forget the wow factor, banks told. *The Sheet*. Retrieved 30 August, 2007, from [http://www.thesheet.com/news\\_print.php?selkey=2470](http://www.thesheet.com/news_print.php?selkey=2470)
- Rogers, I. (2008, 12 February). Not much demand for switching accounts. *The Sheet*. Retrieved 12 February, 2008, from [http://www.thesheet.com/news\\_print.php?selkey=6173](http://www.thesheet.com/news_print.php?selkey=6173)
- Shapiro, C., & Varian, H. R. (1999). *Information rules: A strategic guide to the network economy*. Boston, Massachusetts: Harvard Business School Press.
- Sharpe, S. A. (1990). Asymmetric information, bank lending, and implicit contracts: A stylized model of customer relationships. *The Journal of Finance*, XLV(4), 1069-1087.
- Sheeran, G. (2003, 19 October). A change for good? Don't bank on it. *Sunday Star-Times*, pp. D5-D6.
- Shi, M., Chiang, J., & Rhee, G.-D. (2006). Price competition with reduced consumer switching costs: the case of "Wireless Number Portability" in the cellular phone industry. *Management Science*, 52(1), 27-38.
- Smith, R., & Tripe, D. W. L. (2001). *Competition and contestability in New Zealand's banking system*. Paper presented at the 14th Australasian Finance and Banking Conference, Sydney, Australia.
- Staff. (2005, December 14). Another day, another probe. *The Economist*. Retrieved 9 January, 2006, from on-line edition

- Steeman, M. (2005, 14 November). Kiwibank, TSB lead in satisfaction. *The Dominion Post*, p. C1.
- Stock, R. (2006a, 24th September). Banks hold borrowers hostage - BNZ. *Sunday Star-Times*, p. D5.
- Stock, R. (2006b, 16 April). Switching to us is easier, says BNZ. *Sunday Star-Times*, p. D5.
- Strahan, P. E., & Weston, J. P. (1998). Small business lending and the changing structure of the banking industry. *Journal of Banking & Finance*, 22, 821-845.**
- Tripe, D. W. L. (2004). *New Zealand banks in the September quarter 2003* [Electronic Version]. Retrieved 27 December 2004 from [www.centre-banking-studies.massey.ac.nz/research\\_outputs/September2003.pdf](http://www.centre-banking-studies.massey.ac.nz/research_outputs/September2003.pdf).
- Tripe, D. W. L. (2007). *New Zealand banks in the June quarter 2007* [Electronic Version]. Retrieved 1 February 2008 from [http://centre-banking-studies.massey.ac.nz/index.php?id=562&output\\_id=10256](http://centre-banking-studies.massey.ac.nz/index.php?id=562&output_id=10256).
- Wilde, L. L., & Schwartz, A. (1979). Equilibrium comparison shopping. *Review of Economic Studies*, 46(144), 543-553.
- Wilson, C. M., & Waddams Price, C. (2005). Irrationality in consumers' switching decisions: When more firms may mean less benefit. *CCP Working Paper 05-4*. Retrieved 11 November, 2005, from <http://ssrn.com/abstract=787584>
- Xavier, P., & Ypsilanti, D. (2008). Switching costs and consumer behaviour: implications for telecommunications regulation. *Info*, 10(4), 13-29.