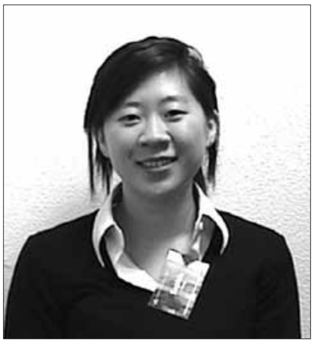
Keywords: Australian payments system, consumer payment behaviour, payment methods, payment reforms, surcharging of card transactions.

AUSTRALIAN CONSUMER PAYMENT BEHAVIOUR AND PREFERENCES

Based on a 2010 study of consumer payment patterns, this paper examines how payment methods, including cash, are currently being used in Australia and how that use has changed over time. It also provides qualitative evidence of consumers' preferences regarding different payment methods and highlights some potential areas for improvement in the payments system, as perceived by consumers.



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In November and December 2010, Roy Morgan Research undertook a study of consumer payment patterns on behalf of the Reserve Bank of Australia. This 2010 Consumer Payments Use Study was the second of its kind undertaken by the Reserve Bank. The first study was undertaken in 2007 as part of a review of the Reserve Bank's payments system reforms.[2] This second study was undertaken to complement the Payments System Board's Strategic Review of Innovation in the Payments System.

The 2010 study had several aims. The first was to identify how different payment methods, including cash, are currently being utilised in Australia and how this had changed over the three years since the first payments use study. The second was to gain a better understanding of the reasons for individuals' use of different payment methods, to shed light on the ways in which the Australian payments system could be made more responsive to the needs of its users. The third was to provide information on consumer responses to recent payment reforms, including surcharging of card transactions.

This article provides a summary of some of the key findings of the 2010 study.[3] It concludes that the broad patterns of payment behaviour observed in the 2007 study still hold, although they have evolved somewhat in the three years since the first study. The most significant change has been the decline in cash use, with debit cards appearing to have been the main substitute.

Description of the data

The 2010 Consumer Payments Use Study comprised two main components: the Roy Morgan Research Financial Transaction Diary® (the diary); and a questionnaire completed at the end of the diary period (the end-of-study questionnaire). For the diary component, individuals were asked to record, in a specially designed pocket-sized diary, the details of every purchase, bill payment and cash withdrawal made over a one-week period. For each payment, participants were asked to record: the day and date; the payment amount; the payment method used; the merchant category; the payment channel (in person, internet, phone or mail); and whether a surcharge was paid for a card payment.[4] In total, 1,240 valid responses were received, resulting in a sample of almost 19,500 payments for a total value of around $1.3 million.

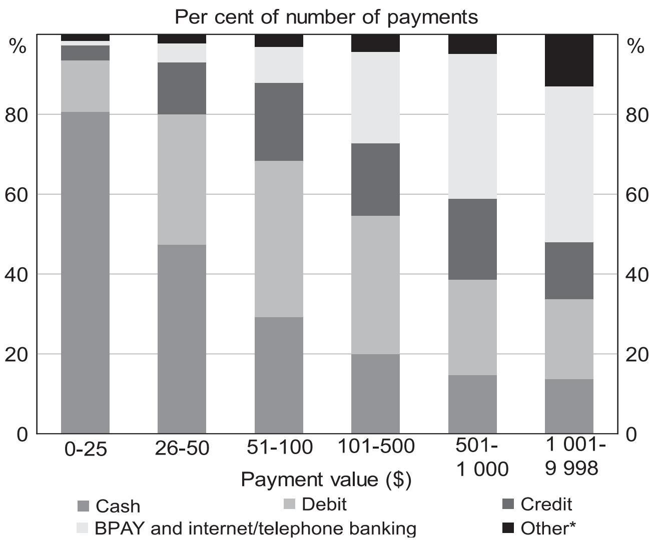
The end-of-study questionnaire was designed to provide further insight into consumers' payment behaviour and their preferences regarding making different types of payments. For example, it asked consumers their reasons for choosing particular payment methods, their reactions when faced with credit card surcharges and the factors that might increase their use of online payments. It also asked about payment behaviour that could not be easily captured in the payments diary, such as the use of newer payment methods.

The responses for the diary and end-of-study questionnaire were matched to demographic data for each respondent. The demographic information was obtained from Roy Morgan Research's Single Source database, and included information such as gender, age, personal income and postcode.

The current payments landscape

The patterns of payments observed in the 2010 study are broadly consistent with those observed in 2007. Overall, most payments made by consumers in Australia are for low values. The study results suggest that transactions of up to $50 account for around three-quarters of the number of payments, but only one-fifth of the value of payments. By contrast, only 0.1 per cent of transactions are for more than $5,000, but they account for more than one-fifth of the value of payments.

FIGURE 1: Share of payments



* 'Other' comprises cheques, Paymate, PayPal, POLi and other payment methods, including Cabcharge payments, money orders, petrol cards, prepaid cards and store cards.
Source: Roy Morgan Research.

Given this, it is not surprising that cash continues to be the most widely used payment method in Australia, accounting for 62 per cent of the number of all payments made by consumers (Table 1). However, while it is the dominant method used for low-value payments (under $40), it makes up less than one-quarter of the value of all consumer payments (Figure 1). Cards are the dominant payment method used for mid-sized transactions and are the second most frequently used payment method for all payments. BPAY, internet/telephone banking and cheques are important payment methods for higher-value transactions (particularly those above $500), although these payment methods collectively account for less than 10 per cent of the number of payments.

Median payment values are consistent with these payment patterns. Cash payments have the lowest median value (at around $12), reflecting the dominant role of cash for low-value transactions, while methods used to pay bills, such as BPAY and internet/telephone banking, have the highest median values (around $100 and $132, respectively). These median values are largely unchanged from the 2007 study.

TABLE 1: Payment methods, number and value (per cent)

Payment method	Share of number	Share of value[(a)]	
Cash	62	23	(29)
eftpos	13	12	(15)
MasterCard/Visa debit card	8	10	(12)
MasterCard/Visa credit card	8	12	(14)
BPAY	3	10	(10)
Internet/telephone banking	2	10	(12)
American Express/Diners Club card	1	1	(1)
Paymate, PayPal & POLi	1	1	(1)
Other[(b)]	1	16	(3)
Personal cheque	1	5	(3)

[(a)] Figures in brackets exclude transactions of $9,999 or above.
[(b)] 'Other' payment methods include Cabcharge payments, money orders, petrol cards, prepaid cards and store cards.
Source: Roy Morgan Research.

Payment patterns across merchant categories have also remained broadly unchanged from the 2007 study. Cash is the dominant method where average payment values are low and where quick tender times are preferred, such as at take-away stores, pubs and small food stores. Cheques are used infrequently and tend to be used when the average payment value is high, while BPAY stands out as a key method for paying household bills. Cards are used across a wide range of merchants, with debit card use particularly strong in the petrol, electrical/furniture, holiday travel, supermarket and health categories, while credit cards are used most heavily for holiday travel.

In terms of the channels through which consumers make their payments, it is perhaps not surprising that more than 90 per cent of everyday consumer payments are made in person. However, with many of these in-person payments being for low values, they make up only 67 per cent of the value of consumer payments. By contrast, internet and phone payments — the next most popular payment channels — together account for under one-tenth of the number of all payments, but one-third of the value of payments, given that payments via these channels are typically for higher values. Payments by mail account for a negligible share of both the number and value of payments.

To gain some understanding as to why consumers tend to choose the payment methods that they do, the end-of-study questionnaire asked about the factors that determine a consumer's choice of payment method when paying in person at the point of sale. Consumers were asked to mark all relevant factors and then to indicate which of these factors was the most important. A considerable proportion of consumers indicated that they simply use what they happen to be carrying with them. In terms of the characteristics of different payment methods, the speed of the transaction, a preference to use their own funds (i.e. their deposit rather than credit account), and the ease of managing finances were identified as being the most important factors in choosing which payment method to use (Figure 2). The importance of speed possibly explains why cash continues to be used for low-value transactions; however, it also suggests that there is the potential for cash displacement as transaction times for card payments decline. While rewards points and charges were identified by around 30 per cent of participants as factors affecting their payment decisions, relatively few identified either as the most important factor.

TABLE 2: Average payments by method, number (per person per week) [(a)]

	2007	2010
Cash	9.3	9.5
eftpos	1.5	2.1
MasterCard/Visa credit card	1.4	1.2
MasterCard/Visa debit card	0.5	1.3
American Express/Diners Club card	0.1	0.1
Personal cheque	0.2	0.1
BPAY	0.3	0.5
Total	13.3	14.8

(a) The average number of payments may be affected by survey fatigue, whereby fewer payments are recorded towards the end of the diary period, although the effect is likely to be small.
Source: Roy Morgan Research.

The evolution of payment patterns

Although the broad patterns of payment behaviour remained unchanged between 2007 and 2010, the use of different payment methods had evolved to some degree. The number of total payments per person increased, primarily driven by an increase in the use of debit cards (Table 2). However, the increase was not consistent across all payment methods. The average number of credit card and personal cheque payments decreased over the three years between studies.

Cash

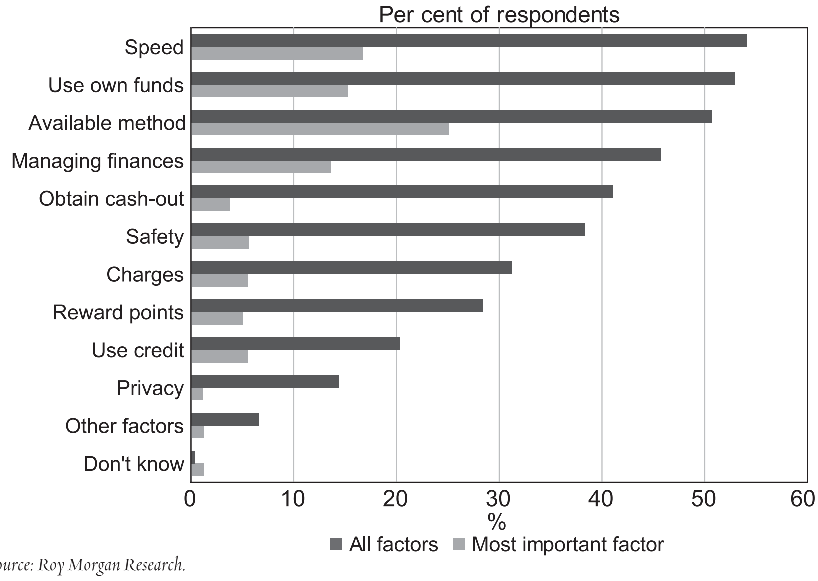
The relative use of cash declined between the 2007 and 2010 studies (Table 3).[5] Although the average use of cash actually increased slightly, the increase was less than for other payment methods. Therefore, the share of cash use in the total number of payments decreased from 70 per cent in 2007 to 64 per cent in 2010. Card payments were responsible for the bulk of this shift away from using cash for low-value payments: card payments accounted for around 24 per cent of payments under $50 in 2010, up from 19 per cent in 2007. To a lesser extent, there has also been some substitution to other electronic forms of payment, such as BPAY; the merchant category with the largest decline in cash use was household bills, where 'paperless' billing, which encourages electronic payment, has been promoted in recent years.

TABLE 3: Use of payment methods, share of number and value (per cent) [(a)]

	Number		Value	
	2007	2010	2007	2010
Cash	70	64	39	34
Card	27	32	45	51
Personal cheque	1	1	6	3
BPAY	2	3	10	12

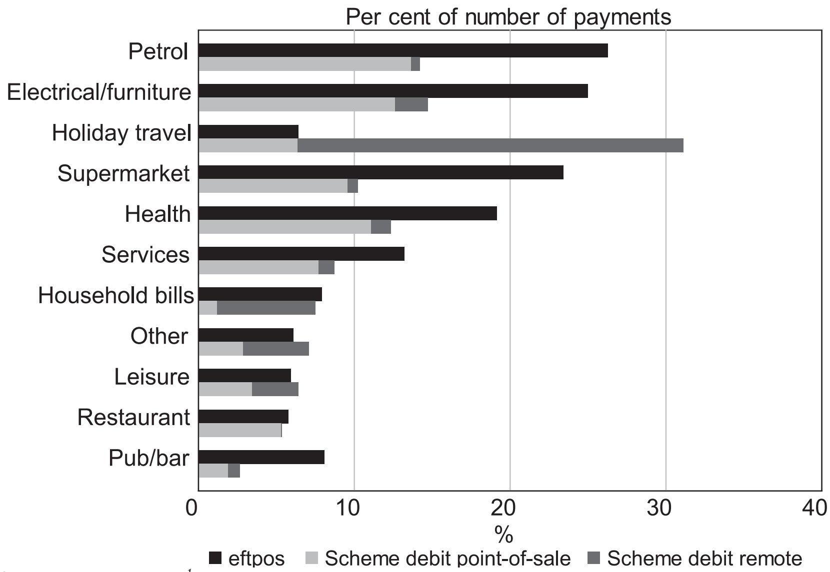
(a) Figures are based on payment methods included in both the 2007 and 2010 studies.
Source: Roy Morgan Research.

FIGURE 2: *Factors influencing choice of payment method at the point of sale*



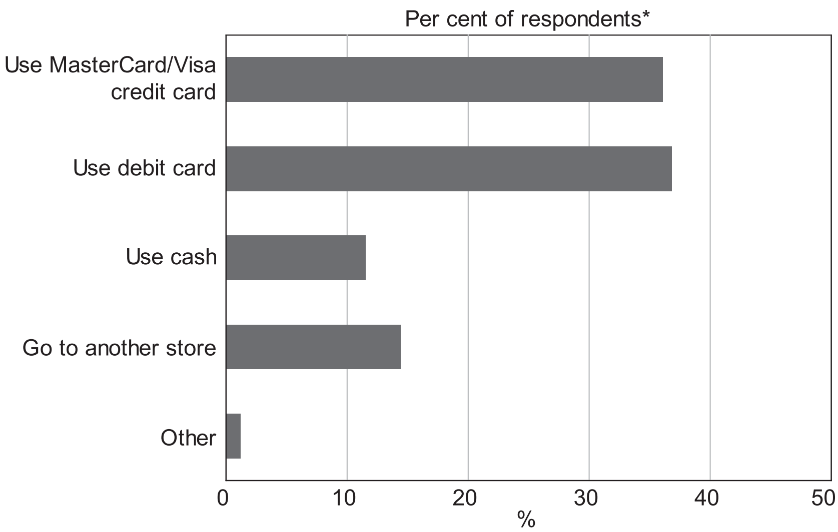
Source: Roy Morgan Research.

FIGURE 3: *Debit card payments by merchant category*



Source: Roy Morgan Research.

FIGURE 4: *Response to surcharging on MasterCard/Visa credit cards*



* *Respondents with a MasterCard/Visa credit card were asked for their response if faced with a surcharge of 1 per cent for using a MasterCard/Visa credit card to make a $100 transaction at a department store.*

Source: Roy Morgan Research.

Cards

The average number of card payments made by each respondent in a week increased from around 3.5 payments to 4.8 payments between 2007 and 2010. This was largely driven by strong growth in the use of debit cards.

Within debit cards, growth was particularly strong for payments on MasterCard/Visa debit cards. This likely reflects the wider issuance of these cards by the major banks in the period following the first study.[6] The 2010 study results suggest that while eftpos continues to account for a greater proportion of debit card payments overall, scheme debit is used more frequently at merchants where a high proportion of payments are made online — such as holiday travel and leisure — due to its ability to be used for remote payments (Figure 3).

By contrast, growth in the use of credit cards has been subdued over the past three years. One reason for this preference for debit cards may be the increased prevalence of surcharging on credit card transactions between the study periods. The Reserve Bank first introduced reforms to remove surcharging restrictions in 2003, leading to a steady increase in surcharging by merchants over time. This has resulted in a greater prevalence of surcharging merchants in 2010, compared with 2007. However, consumers appear to have become better at avoiding credit card surcharges, in part by using payment methods that do not attract surcharges (see below). Indeed, the proportion of payments on which consumers *actually* paid a surcharge remained virtually unchanged between the studies, at around 5 per cent.

The 2010 study provides some insight into consumers' responses when faced with a surcharge. The end-of-study questionnaire asked participants to indicate their typical behaviour when presented with a hypothetical situation of a 1 per cent surcharge for using a MasterCard or Visa credit card in a department store.[7] Only 36 per cent of consumers indicated that they would choose to continue using their MasterCard or Visa credit card. A little under half of consumers would pay with a debit card or cash — payment methods that typically do not incur a surcharge — while 14 per cent of consumers would choose to go to another store (Figure 4).[8,9]

Respondents who reported holding an American Express or Diners Club card were also presented with another hypothetical situation of a 2 per cent surcharge for using an American Express or Diners Club card, and a 1 per cent surcharge for using a MasterCard or Visa credit card.[10] This question was designed to examine consumer responses to 'differential' surcharging across card schemes. The majority of consumers indicated that they would switch to using a MasterCard or Visa credit card (43 per cent — broadly similar to the proportion that would continue to use their MasterCard or Visa credit card in the first scenario), while 11 per cent would proceed with an American Express or Diners Club card (Figure 5). This result reflects the high degree of

Consistent with long-term trends evident from other data sources, the diary data show a decline in cheque use.

substitutability between American Express/Diners Club credit cards and MasterCard/Visa credit cards for those consumers that hold both cards, as well as the sensitivity of consumers to the higher surcharges that American Express/Diners Club cards often attract. Of the remaining consumers, around 30 per cent would use a payment method that does not attract a surcharge, while around 10 per cent would go to another store.

Cheques

Consistent with long-term trends evident from other data sources, the diary data show a decline in cheque use.[11] This is reflected in the change in the proportion of study participants using cheques, down from 12 per cent in 2007 to 7 per cent in 2010 (based on the first week of the 2007 study).

Less than 40 per cent of participants indicated in the end-of-study questionnaire that they had made a payment by cheque in the year prior to the survey. The most important reason people gave for using a cheque was that they believed there was no alternative for the type of payment they were making (38 per cent, Figure 6). This was followed by respondents who said that they value the record of payments that cheques provide (25 per cent).

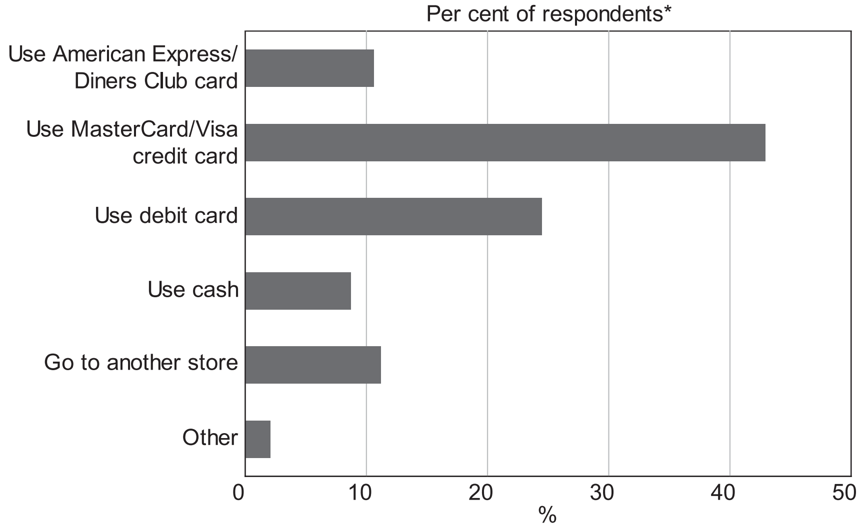
The use of online and newer payment methods

Online payments

The 2010 study explicitly captured the use of online payment methods for the first time. The study results show that, as most consumer payments are made in person, the share of payments made by internet/telephone banking and specialised online payment schemes (Paymate, PayPal and POLi) is quite small (Table 1). However, the adoption of online payments is actually quite high, with about 80 per cent of consumers (with access to the internet) having made a purchase online at some stage and almost 60 per cent having made online transfers to a family member or friend.[12] Just over 60 per cent of people with internet access pay most of their bills online.

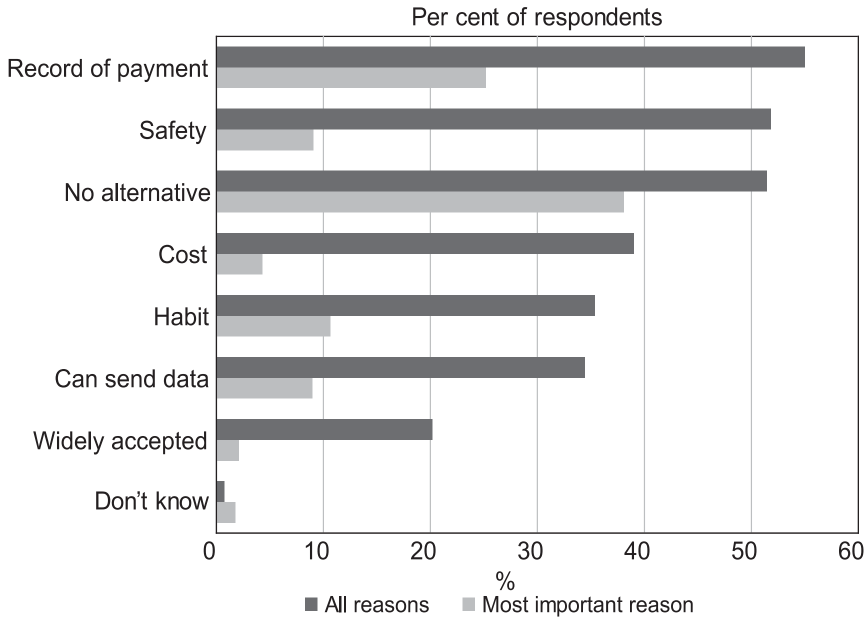
As part of the end-of-study questionnaire, participants were asked to indicate the various factors that would increase their use of online bill payments, purchases and transfers.[13] They were asked to identify all the factors that were important to them and then the single most important factor. These questions were aimed at providing a perspective on perceived gaps in the services that online payments offer.

FIGURE 5: Response to surcharging on American Express/Diners Club cards



* *Respondents with an American Express/Diners Club card were asked for their response if faced with a surcharge of 2 per cent for using an American Express/Diners Club card to make a $100 transaction at a department store, while MasterCard and Visa credit cards are surcharged at 1 per cent.*
Source: Roy Morgan Research.

FIGURE 6: Resasons for making a cheque payment



Source: Roy Morgan Research.

A substantial proportion of people indicated that they were perfectly satisfied with current online payment methods and did not believe there were factors that would lead them to increase their use of these methods. This was true of around 40 per cent of people for online bill payments and funds transfers to friends or family (Figure 7 and Figure 8). This may be a reflection of a degree of comfort with internet-banking-based payment options, such as BPAY for bill payments and 'pay anyone' arrangements for transfers. A smaller proportion (31 per cent) were perfectly satisfied with the way they can make online purchases, for which credit cards, scheme debit and PayPal are more typically used (Figure 9).

The risk of fraud was the biggest deterrent to making different types of payments online that was identified by consumers. This concern was higher for online purchases than for bill payments and transfers. Again, this possibly reflects the fact that consumers tend to feel most secure making payments online when they can be made through their financial institution's internet-banking site, although the degree of trust in the payee might also be a factor.[14]

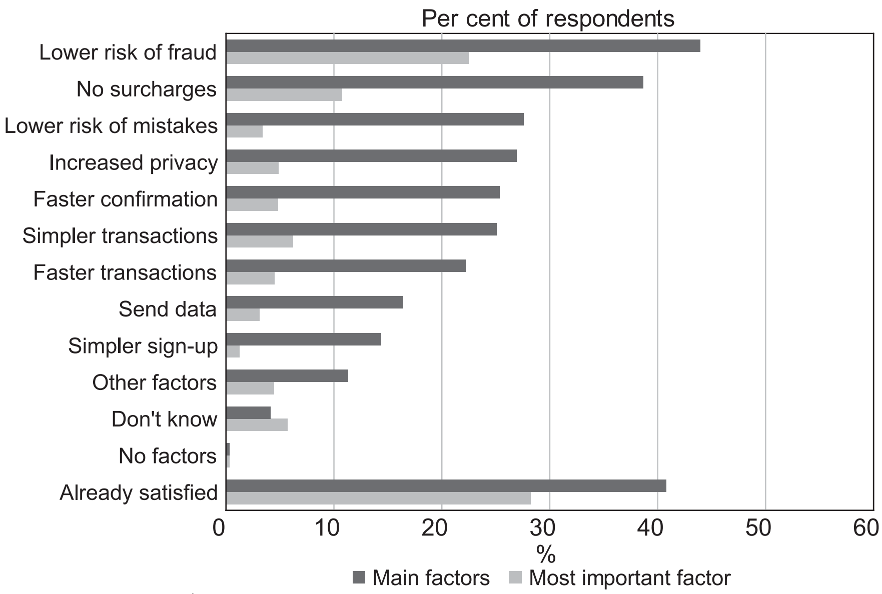
Newer payment methods

In addition to the established payment methods discussed above, the 2010 study focused on some newer payment methods. These relatively new payment methods include contactless payments and mobile payments.[15] The results suggest that adoption of both of these payment methods is currently quite low.

Only around 3 per cent of respondents recorded that they had made a contactless payment in the month prior to the survey, most likely reflecting limited availability of, and education about, contactless payments at the time the study was conducted. Although contactless functionality is largely targeted at cash replacement, the relatively high payment values recorded in the survey (with an average of over $20) suggest that they may primarily be replacing more standard debit and credit card transactions at the point of sale.

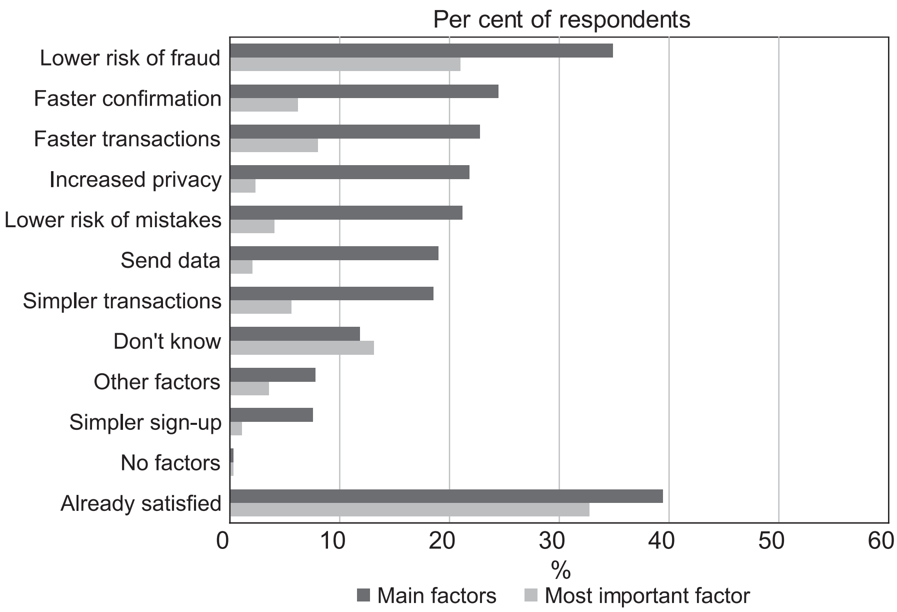
Also, despite the very high penetration of mobile phones in Australia (91 per cent of respondents), only around 10 per cent of people with a mobile phone had made a mobile payment. These payments were mainly for phone-related services and products, with about 60 per cent of users buying ring-tones, games or applications ('apps') for their phones (Figure 10). Most of the remaining use seems to be internet payments made via mobile phones, for example, personal transfers using internet banking (43 per cent of mobile payments users), bill payments (40 per cent) and online purchases (32 per cent).

FIGURE 7: What would improve online bill payments?



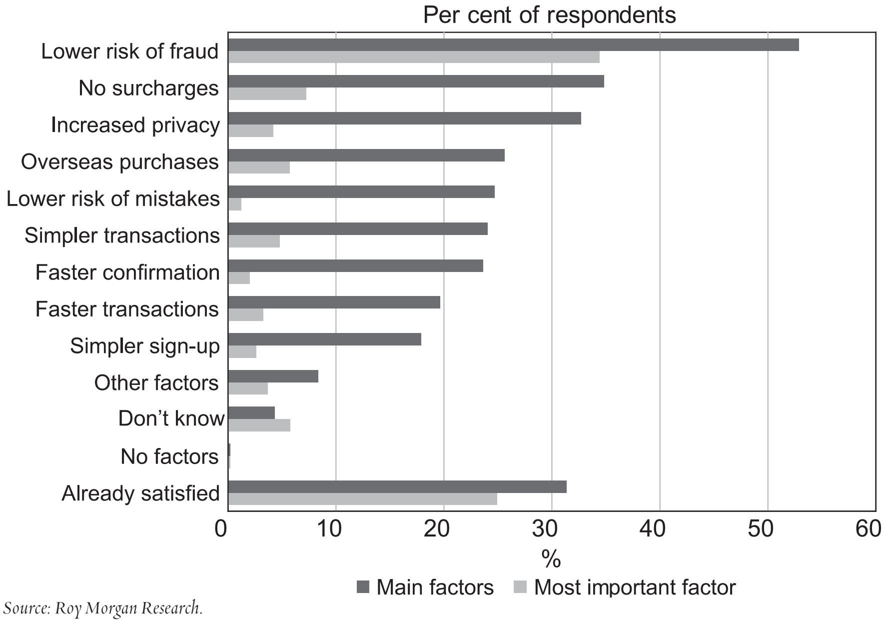
Source: Roy Morgan Research.

FIGURE 8: What would improve online transfers?



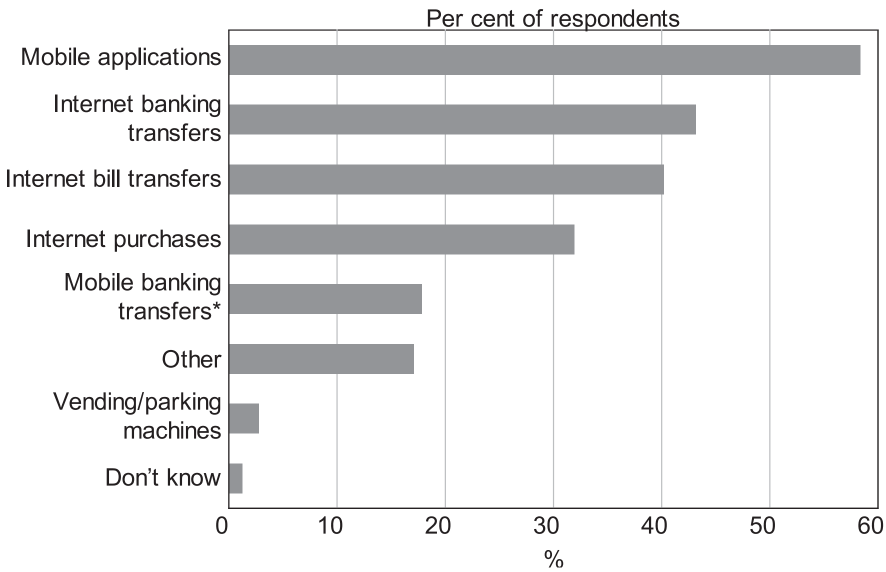
Source: Roy Morgan Research.

FIGURE 9: What would improve online purchases?



Source: Roy Morgan Research.

FIGURE 10: Payment types made by mobile phone



* *Mobile banking transfers using banks specialised mobile banking applications*
Source: Roy Morgan Research.

Conclusion

Overall, consumer payment patterns in 2010 were broadly consistent with those observed in 2007. Cash remains the most widely used payment instrument and the dominant instrument for low-value payments (under $40), but its use relative to cards is declining. The use of cards remains the dominant payment method for mid-value payments, while BPAY, cheques and internet/telephone banking are important payment methods for higher-value payments, particularly those greater than $500. Nonetheless, cheque use continues to decline.

The 2010 study results also highlight some potential areas for improvement in the payments system, at least as perceived by consumers, with the most notable being the security of online payments. Further, the results suggest that the use of payment methods that have only been brought to market in recent years — such as contactless and mobile payments — remains relatively low to date.

The authors thank the individuals who participated in this study.

Appendix A – The Payments Diary

TABLE A1: Fields in the 2010 payments diary

Payments[a]	Cash withdrawals
Date	Date
Day of week	Day of week
Payment amount (nearest dollar)	Withdrawal amount (nearest dollar)
Card surcharge paid (yes/no)	ATM operator fee paid (yes/no)
Payment method:	
1 – Cash	
2 – ATM/eftpos	
3 – Visa Debit/Debit MasterCard	
4 – Visa/MasterCard credit	**Withdrawal method:**
5 – American Express/Diners Club	1 – ATM
6 – Personal cheque	2 – eftpos cash-out
7 – BPAY	3 – Over-the-counter at a bank branch
8 – Internet/telephone-banking transfer (pay anyone)	4 – Other (friends, Medicare office)
9 – PayPal	
0 – Paymate	
X – POLi	
V – Other	
Payment channel:	
1 – In person	
2 – Phone	
3 – Internet	
4 – Mail	
Merchant category:	
A – Supermarket/bottle shop	
B – Small food store (butcher, deli, greengrocer)	
C – Electrical/furniture	
E – Other retailer (department store, book, newsagent, hardware)	
F – Take-away food/fast-food	
G – Cafe/restaurant	
H – Pub/bar	
K – Petrol/service station	
L – Transport (tolls, parking, public transport, taxi)	
M – Leisure/sports/entertainment	
N – Holiday travel (accommodation, flights, car hire)	
P – Household bills (rent, phone, Pay TV, school fees)	
R – Medical/health	
S – Services (plumber, hairdresser, baby sitter, accountant)	
Z – Other	

[a] Participants were asked not to record in the diary: payments made for any business purpose; direct debits from deposit accounts or credit cards; payments made by someone else from a joint account; transfers of funds between members of the household; or loan repayments.

Notes

1. The authors would like to thank Matthew Gibson and Tim West for their contributions to this study in its early stages. The views expressed in this paper are those of the authors and are not necessarily those of the Reserve Bank of Australia.
2. For the results of the first study, see Emery, West and Massey (2008).
3. For a more detailed report of the results, see Bagnall, Chong and Smith (2011).
4. Further details of the fields in the payments diary are provided in Appendix A.
5. For comparisons between the 2007 and 2010 studies, we exclude payment methods not included in both studies, as well as payment methods classified in the 'other' category, unless otherwise stated. This is aimed at achieving a like-for-like comparison, where we compare the same payment methods in both 2007 and 2010; the 'other' category is excluded because of uncertainty over the types of transactions recorded in that category.
6. The use of scheme debit cards is also likely to be overstated because of consumer confusion between scheme debit and credit cards, which look quite similar and typically require use of the 'credit' button at point-of-sale terminals.
7. Only individuals who owned a MasterCard or Visa credit card were required to respond to this question.
8. In a similar questionnaire on debit card surcharging in the Netherlands, only 5 per cent of consumers indicated they would go to a different store (Bolt, Jonker and Van Renselaar 2010). The application of surcharges is quite different in the Netherlands though, with consumers only being charged for low-value debit card transactions. Our results may also reflect not just consumers who would actually walk out of a store but also consumers who would avoid a particular store that they know surcharges.
9. The question specified that cash and debit cards are assumed not to include a surcharge.
10. Only 10 per cent of consumers in the 2010 study reported holding an American Express or Diners Club credit card.
11. For example, see Reserve Bank of Australia (2010) for further evidence.
12. Around 90 per cent of respondents indicated that they have access to the internet at work or home.
13. For online bill payments, if consumers indicated that they paid most of their bills online, they were asked 'What factors would most improve your experience of paying those bills online?' or if they indicated that they did not pay most of their bills online, 'What factors would make you pay more of your bills online?' For online purchases, consumers were asked 'What factors would make you more likely than currently to pay for goods or services online?' For online transfers, consumers were asked 'What factors would make you more likely than currently to transfer money over the internet to a friend or family member?'
14. BPAY payments can be made via a bank's internet-banking site, phone-banking service or mobile payments service. According to the diary data, around 75 per cent of BPAY payments are made via internet banking.
15. Contactless card payments require the consumer only to hold their card in close proximity to, or to touch the card against, the terminal and do not require a PIN or signature for the transaction.

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