

AUSTRALIAN PAYMENTS FRAUD 2017

Jan-Dec 2016 Data



Australian
Payments Network

Connect Inspire Thrive



ABOUT THIS PUBLICATION

Australian Payments Network (formerly Australian Payments Clearing Association) is the self regulatory body for Australia's payments industry. We have more than 130 members and participants, including Australia's leading financial institutions, major retailers, payments system operators – such as major card schemes – and other payments service providers.

Australian Payments Network has published payments fraud statistics reported by Australia's financial institutions and major card schemes since 2006.¹

This publication of the aggregated data helps inform consumers and businesses about payments fraud issues, and assists financial institutions in monitoring fraud trends and developing targeted mitigation strategies.

¹ Some figures have been revised since earlier publication.
Full details are available on www.auspaynet.com.au



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GLOSSARY

TYPES OF FRAUD

Card-not-present (CNP) fraud: occurs when valid card details are stolen and then used to make purchases or other payments without the card, mainly online or by phone.

Card present fraud: occurs when a card is used fraudulently at ATMs or point-of-sale devices.

Counterfeit / skimming: details are skimmed from a card's magnetic stripe, usually at an ATM or point-of-sale terminal, and used to create a fake card.

Lost / stolen: transactions made on a card that has been reported lost or stolen.

Never received: transactions made on a card that was stolen before it was received by the owner.

Fraudulent application: transactions made on a card where the account was established using someone else's identity or other false information.

Other: covers fraudulent transactions that cannot be categorised under any of the common fraud types above. For example, identity or account takeover.

TYPES OF CARDS

Scheme credit, debit and charge cards: operated by international card schemes – Mastercard, Visa, American Express, and Diners.

Proprietary debit cards: operated by eftpos Payments Australia Limited as well as cards used to make transactions at Australian ATMs.

KEY TERMS

Fraud rates: the most common measure used to monitor movements in fraud and the effectiveness of prevention initiatives. The measure calculates the amount of fraud as a proportion of the total transactions made. This allows comparisons between different time periods and across jurisdictions.

Payment Card Industry Data Security Standard: PCI DSS is a security standard mandated by the international card schemes to ensure sensitive card data is held securely.



The world of payments has changed significantly in recent years, and the pace of change is accelerating. Rapid innovation in payments technology and services has created a more digital and connected environment.

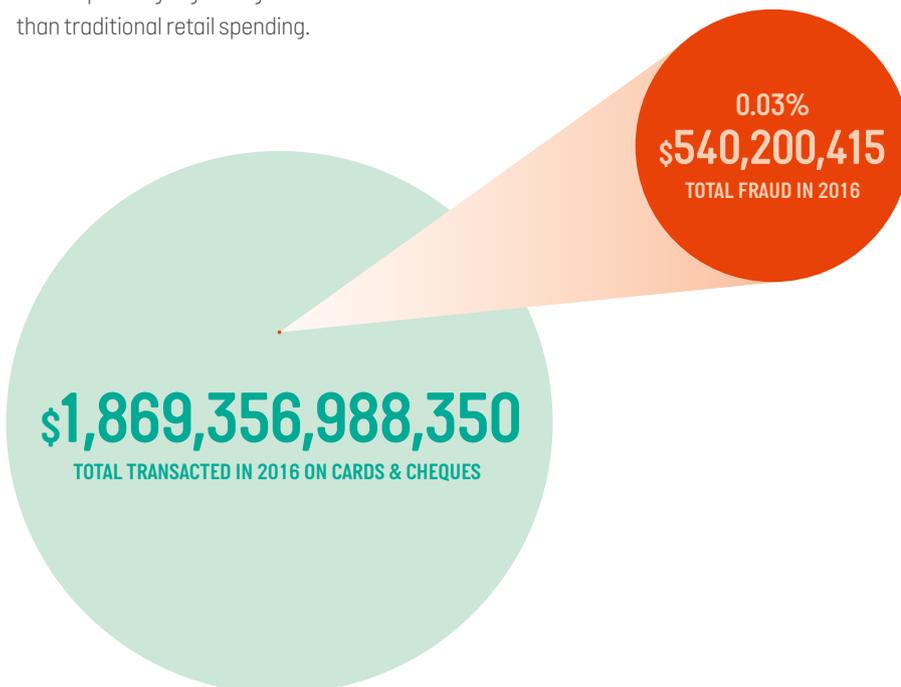
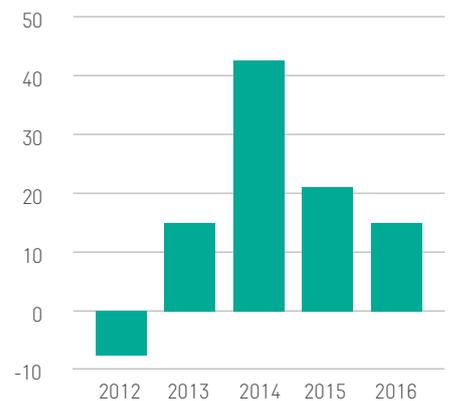
In line with global trends, cash and cheque use is dropping as consumers continue to choose digital payments. Australians are embracing the convenience of 'contactless' cards, online shopping continues to grow and mobile payments are gaining traction.

The steady rise in online shopping effectively illustrates the changing payments landscape. Globally, online sales continue to account for a growing portion of total retail. By 2020, forecasts estimate that online shopping will have doubled since 2015 and will account for 14.6% of all retail sales. This trend is clearly reflected in the Australian market, where online spending is growing five times faster than traditional retail spending.

In line with global trends, the shift towards online shopping has also seen a rise in online payment fraud. Card-not-present fraud accounted for 78% of all fraud on Australian cards in 2016.

Notwithstanding this rise in online fraud, action taken by industry to combat fraud is taking effect in Australia. This is reflected in the growth rate of CNP fraud, which has decreased over the last two years.

GROWTH IN VALUE OF CNP FRAUD YEAR-ON-YEAR CHANGE % PERCENT



In 2016, Australians transacted \$1,869,357 million using cards and cheques;² of this overall total, fraud accounted for under 0.03% [\$540 million].

² This value was 2.5% less than in 2015 [\$1.92 trillion], reflecting the decrease in cheque usage, down 6% to \$1.16 trillion



SNAPSHOT

Australians continue to embrace the convenience of cards, making more than 8.1 billion transactions in 2016, up 10.4% on 2015. The total value of card transactions increased 4% to \$714.5 billion.

As we spend more than ever on our cards, the rate of fraud is also increasing.

- The overall amount of fraud on Australian cards increased from \$461 million to \$534 million.
- The rate of card fraud increased to 74.7 cents per \$1,000, up from 66.9 cents in 2015. This represents 0.074% of the total transacted on cards.

The rate of fraud on all Australian cards and cheques increased from 24.5 cents per \$1,000 in 2015 to 28.9 cents per \$1,000 in 2016.

FRAUD ON AUSTRALIAN CARDS

As chip technology continues to provide strong protection against counterfeit cards, fraud is increasingly migrating online.

Card-not-present (CNP) fraud increased to \$417.6 million, up from \$363 million in 2015.

- **Domestically**, CNP fraud increased 28% to \$ 175.6 million, up from \$136.8 million in 2015.
- **Overseas**, CNP fraud increased 7% to \$242.1 million, up from \$226.3 million in 2015.

Counterfeit/Skimming Fraud on Australian cards remains at low levels by international standards, but did increase domestically in 2016, primarily due to criminals using 'ghost terminals'. These terminals look like real card readers but are not connected to the payments network.

Countries that have not upgraded to more secure chip technology continue to be a target for card fraud.

- **Overseas**, counterfeit / skimming fraud increased 19% to \$33.4 million, up from \$28.1 million in 2015.
- **Domestically**, counterfeit / skimming fraud increased 13% in 2016 to \$25.8 million, up from \$22.9 million in 2015.

OVERSEAS PAYMENT CARDS USED IN AUSTRALIA

The trends seen on Australian cards are also evident on overseas issued cards used in Australia.

- CNP fraud increased 15% to \$54.9 million, up from \$47.9 million in 2015.
- Counterfeit / skimming fraud increased 10% to \$8.8 million, up from \$8.0 million in 2015. The longer term trend shows that chip technology has been effective in reducing counterfeit / skimming, which was at 9.3 million in 2014.

CHEQUES USED IN AUSTRALIA

The decline in cheque use continues to accelerate, plunging 20% in 2016 and 56% over the last five years. Cheque fraud decreased from \$8.4 million in 2015 to \$6.4 million, with the rate of fraud remaining under 1 cent per \$1,000.



ISSUES & CHALLENGES

The overall amount of fraud on Australian cards increased from \$461 million to \$534 million; this represents 0.074% of the total value of card transactions in 2016.

The rate of card fraud increased from 66.9 cents to 74.7 cents per \$1,000.

The rise in total card fraud is driven by CNP fraud, which accounted for 78% of all fraud on Australian cards, having increased to \$417.6 million in 2016.

In line with global trends, CNP fraud is increasing due to:

- fraud migrating online as chip technology provides strong protection for face-to-face fraud
- large scale data breaches, which capture sensitive card data
- identity theft, which often includes the theft of sensitive card data

Fraudsters continue to use a variety of techniques. These include malware and phishing attacks to capture sensitive card data or cardholder passwords, and masking tools to try and bypass the risk-based rules used in fraud analytics products.

The Australian payments industry has a strong focus on combatting CNP fraud. During 2016, the Australian Payments Network commissioned significant research on online card fraud to better target preventative measures. This research focused on the impact of CNP fraud on consumers, learnings from other countries on CNP fraud prevention, and how the online payments landscape, CNP fraud and fraud prevention are changing.

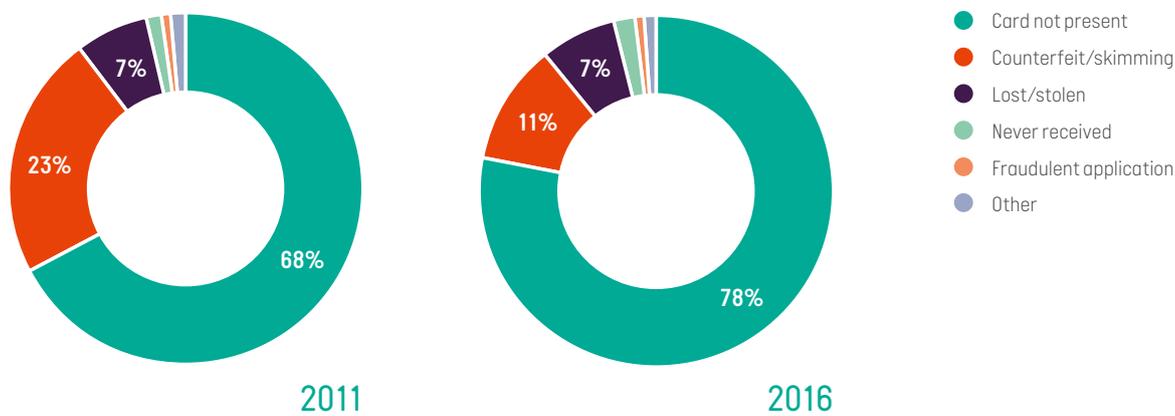
As a result of this research, industry is:

- educating small and medium size businesses about online fraud prevention
- focusing on prevention strategies that include risk-based customer authentication
- promoting a comprehensive set of fraud prevention tools

The research indicates that emerging technologies, which are easy for customers to use, help reduce online card fraud, and highlights that:

- biometrics, geo location and social media analytics are providing new ways of authenticating customers online
- the growth of mobile wallets and sophisticated shopping carts suggest that by 2020, only one-fifth of transactions will involve the input of card details in browser.

TYPE OF FRAUD





PREVENTATIVE MEASURES

The payments industry's major focus is on combatting CNP fraud.

This year, Australian Payments Network released new guidelines for issuers and acquirers for fraud detection, customer authentication, and data security. The guidelines outline best practice for:

- maximising the use of available transaction data to help prevent fraud
- fraud detection and customer authentication methods
- enhancing the security of card data
- using tokenisation
- cardholder and merchant education

Alongside this, Australian Payments Network's education program will generate greater awareness of CNP fraud and prevention measures. This program will encourage merchants to work with their existing providers – acquiring bank, payments gateway provider, and/or website developer – to implement solutions that can:

- detect and stop fraudulent payments in real-time
- authenticate the cardholder
- reduce opportunities for sensitive card data to be stolen

This is in addition to the existing measures that help mitigate card fraud. These include:

- tokenisation, which replaces sensitive card information with a token that is of no value to criminals
- compliance by merchants and third party providers with the Payment Card Industry Data Security Standard (PCI DSS) to strengthen data security
- dedicated analytics tools to stop fraud in real-time
- extending strong authentication techniques used for online banking, such as one time passwords, to the CNP space

Preventing payments fraud – including CNP fraud – continues to require coordinated focus at every level, from financial institutions and card schemes through to merchants and consumers. The following sections provide further information on card fraud trends and how consumers and businesses can protect themselves.

Australian consumers are protected from personal loss caused by fraud and will be refunded by their financial institution as long as they have taken due care with their confidential data.

INDUSTRY PREVENTION MEASURES



Industry best practice guidelines



Merchant awareness campaign



3 or 4 digit verification code



Online authentication tools



Fraud detection tools



PCI data security standards



Tokenisation



SECTION 1 FRAUD RATES

Fraud rates are the most common measure used to monitor movements in fraud and the effectiveness of prevention initiatives.

The measure calculates the amount of fraud as a proportion of the total transactions made. This allows comparisons between different time periods and across jurisdictions.

In 2016, the rate of fraud on all Australian cards and cheques increased to 28.9 cents per \$1,000.



KEY FRAUD TRENDS

The rate of fraud on Australian cards and cheques increased from 24.5 cents per \$1,000 in 2015 to 28.9 cents per \$1,000 in 2016, an increase of 18.1%.

CARDS

The rate of fraud on Australian cards increased from 66.9 cents to 74.7 cents per \$1,000.

As a comparison, in 2016 the UK's card fraud rate was 83 pence per £1000.³ In the US during 2015, which is the latest data available, card fraud was \$1.18 per \$1,000.⁴

FRAUD RATES CENTS PER \$1,000

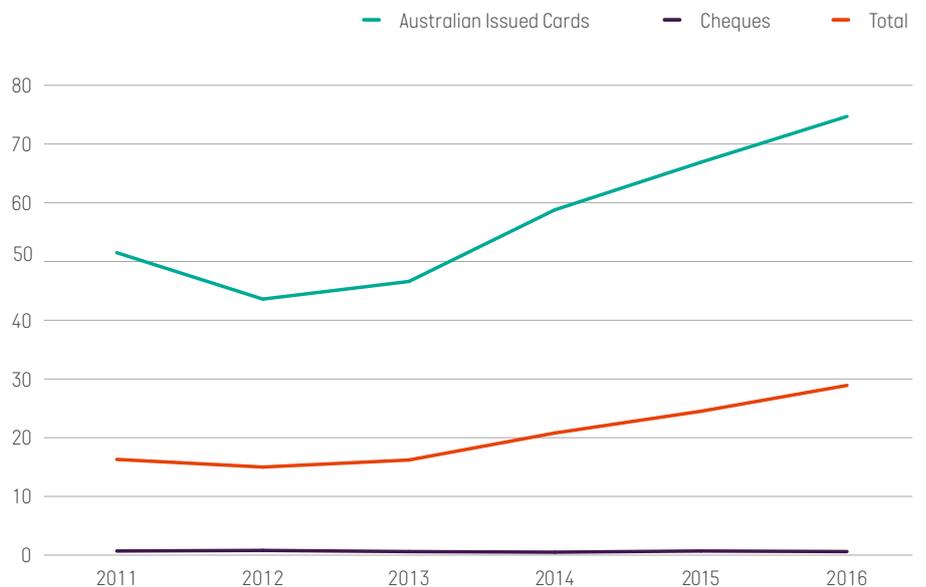
	Cards	Cheques	Total
2011	51.5	0.7	16.3
2012	43.6	0.8	15.0
2013	46.6	0.6	16.2
2014	58.8	0.5	20.8
2015	66.9	0.7	24.5
2016	74.7	0.6	28.9

Source Australian Payments Network and the Reserve Bank of Australia

CHEQUES

The rate of fraud on Australian cheques was 0.6 cents per \$1,000 transacted in 2016. Fraud has remained under 1 cent per \$1,000 transacted since 2011.

AUSTRALIAN CARDS AND CHEQUES – FRAUD RATES CENTS PER \$1,000



³ Financial Fraud Action UK – 2016 report

⁴ The Nilson Report – October 2016



SECTION 2

AUSTRALIAN CARD FRAUD

Payment cards continue to be the most common payment method used by Australian consumers, accounting for 66.7% of non-cash payments in Australia.⁵

Card fraud data in this section is presented by:

- **All Australian cards:** used both domestically and overseas.
- **Scheme credit, debit and charge cards:** operated by international card schemes – MasterCard, Visa, American Express, and Diners.
- **Proprietary debit cards:** includes cards operated by eftpos Payments Australia Limited as well as the majority of transactions made at Australian ATMs.

Financial institutions report card fraud data as gross actual losses.

**Fraud is migrating online.
Domestically, card-not-present
fraud increased 28% in 2016
to \$175.6 million.**

⁵ RBA – How Australians Pay: New Survey Evidence – Mar 2017



OVERVIEW

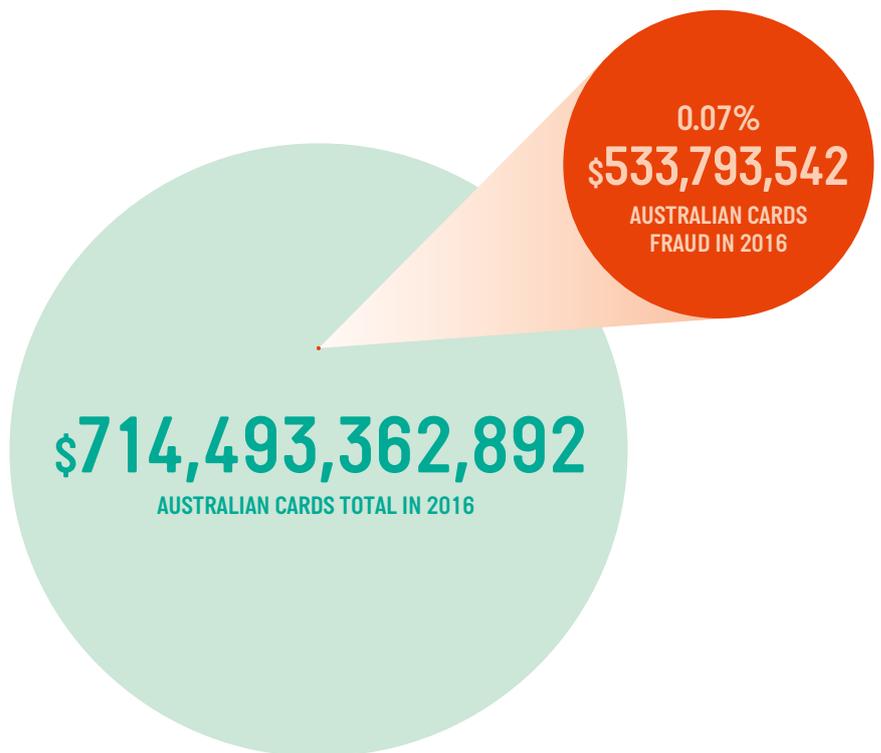
ALL AUSTRALIAN CARDS

In 2016, fraud accounted for 0.074% of the total value transacted on Australian cards.

Australians made 8.1 billion card transactions totalling \$714.5 billion in 2016. Fraud accounted for 0.07% (\$534 million) of this total.

The rate of fraud increased to 74.7 cents per \$1,000, up from 66.9 cents per \$1,000 in 2015.

The average value of fraudulent transactions decreased from \$210 in 2015 to \$188 in 2016.



ALL AUSTRALIAN CARDS – FRAUD RATES AND TOTALS

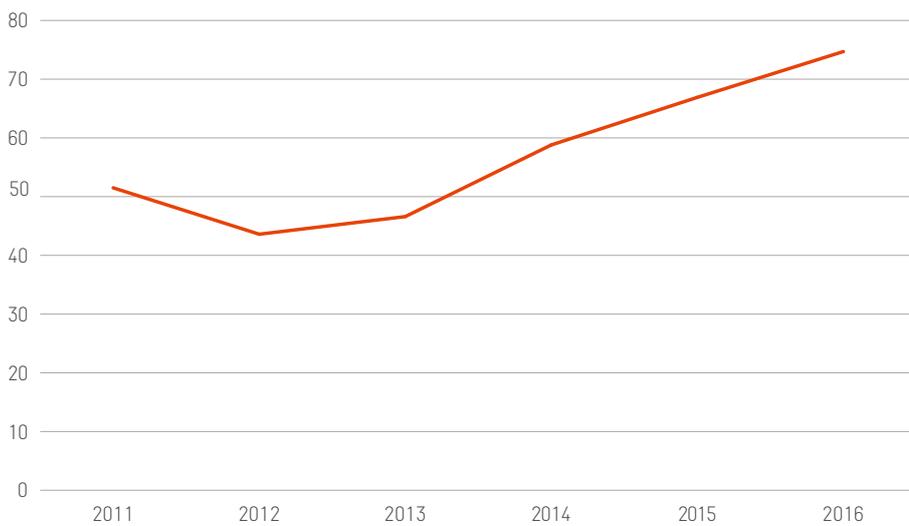
	2011	2012	2013	2014	2015	2016
Value (\$ millions)						
All card transactions	\$568,754	\$598,823	\$624,952	\$657,206	\$688,701	\$714,494
Fraudulent transactions	\$293	\$261	\$291	\$386	\$461	\$534
Fraud rate (cents per \$1,000)	51.5	43.6	46.6	58.8	66.9	74.7
Number						
All card transactions	5,142m	5,644m	6,141m	6,670m	7,292m	8,051m
Fraudulent transactions	1,150,942	1,243,106	1,415,487	1,733,821	2,191,082	2,839,746
Fraud rate (as % of total no. of card transactions)	0.022%	0.022%	0.023%	0.026%	0.030%	0.035%
Average value of fraudulent transactions	\$254	\$210	\$206	\$223	\$210	\$188

Source: Australian Payments Network and the Reserve Bank of Australia

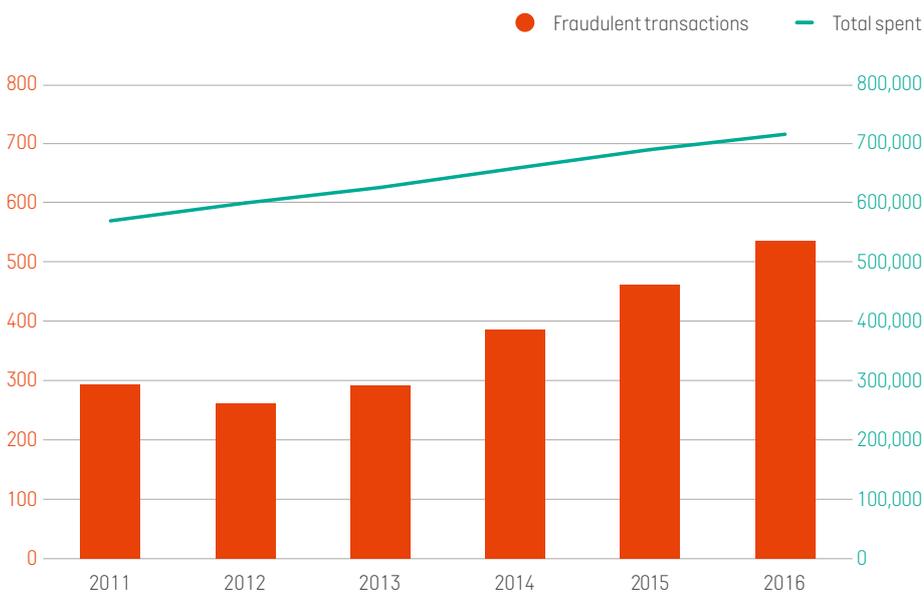


OVERVIEW ALL AUSTRALIAN CARDS

ALL AUSTRALIAN CARDS – FRAUD RATE CENTS PER \$1,000



ALL AUSTRALIAN CARDS – TOTAL FRAUD AND TOTAL SPENT \$ MILLION





TYPES OF FRAUD OCCURRING ON AUSTRALIAN CARDS

The continued growth in online retail⁶ makes it increasingly attractive to fraudsters.

CARD FRAUD TRENDS

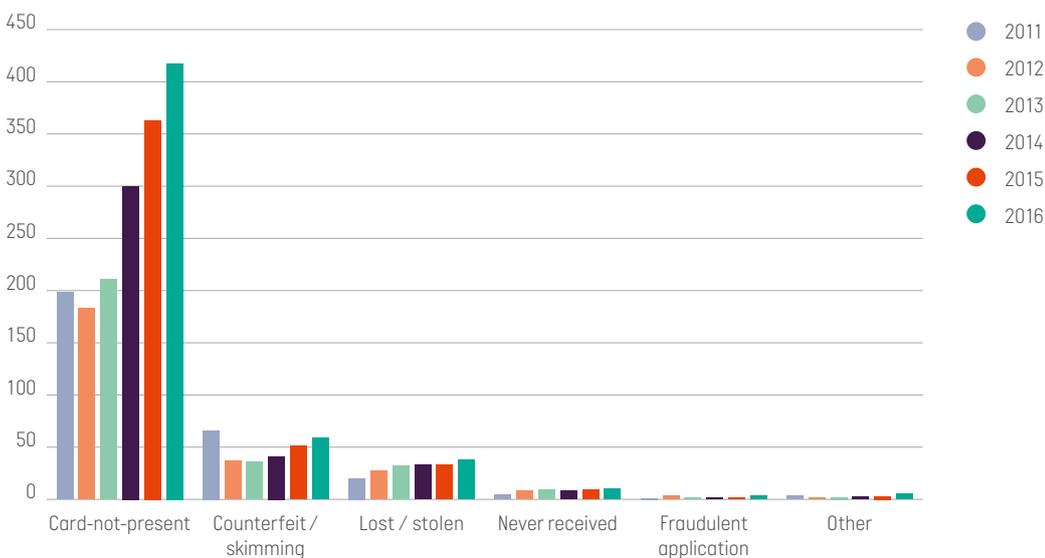
CNP fraud is the most prevalent type of fraud on Australian cards. Industry measures such as the widespread adoption of chip technology are making it harder for criminals to operate in the face to face environment, causing them to move online.

In 2016, CNP fraud accounted for 78% of the fraud on Australian cards and counterfeit / skimming accounted for 11%. This compares to 68% and 23% respectively in 2011.

Lost and stolen card fraud accounted for 7% of the overall amount of card fraud in 2016, unchanged from 2011.

More details on card fraud trends and preventative measures are provided on **pages 15 to 20**.

ALL AUSTRALIAN CARDS – FRAUD BY TYPE \$ MILLION



Source Australian Payments Network

6 Australian online retail spend – 10.4% growth Year on Year – Dec 2016 – NAB Online Retail Sales [Page 4]



TYPES OF FRAUD OCCURRING ON AUSTRALIAN CARDS

ALL AUSTRALIAN CARDS – FRAUD BY TYPE

Fraud value [\$m]	2011	2012	2013	2014	2015	2016
Card-not-present	\$198.1	\$183.1	\$210.4	\$300.0	\$363.1	\$417.6
Counterfeit / skimming	\$66.0	\$37.2	\$36.1	\$41.3	\$51.0	\$59.2
Lost / stolen	\$20.2	\$27.1	\$32.3	\$33.1	\$33.3	\$37.6
Never received	\$4.1	\$8.5	\$9.1	\$8.6	\$9.1	\$10.3
Fraudulent application	\$1.1	\$3.5	\$1.5	\$1.2	\$1.3	\$3.6
Other	\$3.4	\$1.8	\$2.0	\$2.3	\$3.1	\$5.5
Total	\$292.8	\$261.1	\$291.4	\$386.5	\$460.9	\$533.8

Percentage of total card fraud						
Card-not-present	68%	70%	72%	78%	79%	78%
Counterfeit / skimming	23%	14%	12%	11%	11%	11%
Lost / stolen	7%	10%	11%	9%	7%	7%
Never received	1%	3%	3%	2%	2%	2%
Fraudulent application	0%	1%	1%	0%	0%	1%
Other	1%	1%	1%	1%	1%	1%
Total	100%	100%	100%	100%	100%	100%

Source Australian Payments Network



TYPES OF FRAUD OCCURRING ON AUSTRALIAN CARDS

SCHEME CREDIT, DEBIT AND CHARGE CARDS

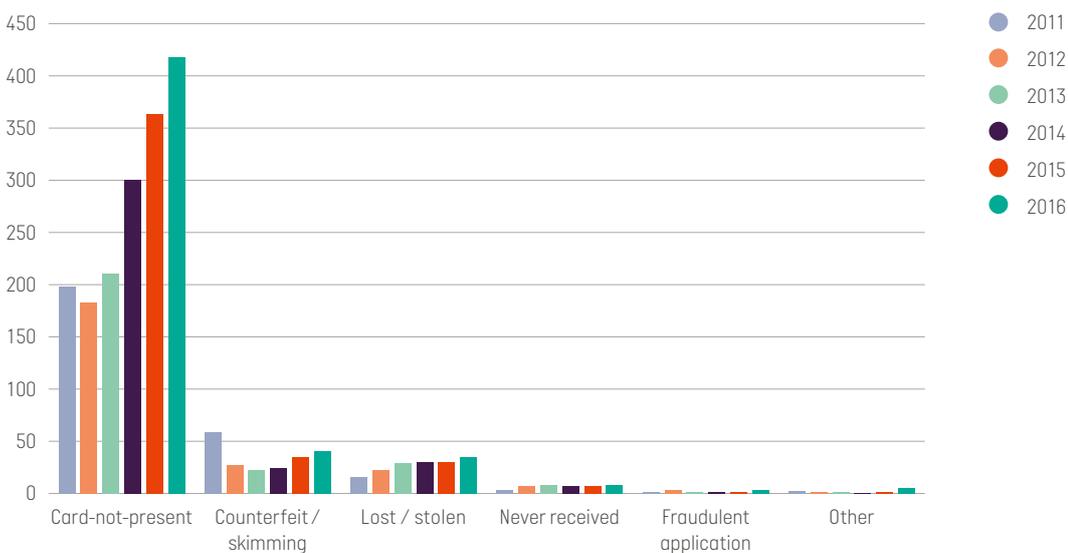
Australian Payments Network’s data for scheme credit, debit, and charge cards covers fraudulent transactions occurring on cards issued by the international card schemes (Visa, MasterCard, Amex and Diners) and carried over their respective networks.

The data includes all fraud occurring:

- Over the internet, telephone, or by mail order (card-not-present (CNP)).
- Where the ‘credit’ option is chosen at the point-of-sale device.
- On all Australian cards used overseas (including at ATMs).

In 2016, the total value of fraud on scheme credit, debit, and charge cards increased 16.5% to \$510.1 million; 76% of this increase is attributed to CNP fraud. Domestically, counterfeit / skimming fraud on these cards increased by 12.8% to \$7.3 million, and overseas, by 18.6% to \$33.4 million.

SCHEME CREDIT, DEBIT AND CHARGE CARDS FRAUD BY TYPE \$MILLION





TYPES OF FRAUD OCCURRING ON AUSTRALIAN CARDS

SCHEME CREDIT, DEBIT AND CHARGE CARDS – FRAUD BY TYPE

Fraud (\$m)	2011	2012	2013	2014	2015	2016
Fraud perpetrated in Australia						
Card-not-present	\$73.7	\$72.8	\$85.9	\$99.1	\$136.8	\$175.6
Counterfeit / skimming	\$16.5	\$13.1	\$9.7	\$8.4	\$6.4	\$7.3
Lost / stolen	\$8.8	\$14.5	\$18.5	\$16.7	\$17.0	\$21.4
Never received	\$3.0	\$6.8	\$7.3	\$6.7	\$6.9	\$7.6
Fraudulent application	\$1.0	\$3.4	\$1.4	\$1.0	\$0.8	\$2.3
Other	\$2.0	\$0.7	\$0.8	\$0.6	\$0.9	\$2.6
Total	\$104.8	\$111.2	\$123.7	\$132.5	\$168.8	\$216.6
Fraud perpetrated overseas						
Card-not-present	\$124.4	\$110.3	\$124.5	\$200.9	\$226.3	\$242.1
Counterfeit / skimming	\$42.2	\$14.6	\$12.8	\$15.9	\$28.1	\$33.4
Lost / stolen	\$7.0	\$8.3	\$11.1	\$13.3	\$12.8	\$13.9
Never received	\$0.2	\$0.4	\$0.5	\$0.5	\$0.6	\$0.6
Fraudulent application	\$0.1	\$0.1	\$0.1	\$0.2	\$0.5	\$1.3
Other	\$0.3	\$0.4	\$0.4	\$0.3	\$0.8	\$2.2
Total	\$174.3	\$134.2	\$149.3	\$231.0	\$269.2	\$293.5
Total of all Australian issued cards	\$279.1	\$245.4	\$273.0	\$363.5	\$438.0	\$510.1

Source Australian Payments Network



TYPES OF FRAUD OCCURRING ON AUSTRALIAN CARDS

PROPRIETARY DEBIT CARDS

Proprietary debit cards data include:

- All fraud occurring on debit cards operated by eftpos Payments Australia.
- Most fraud occurring at ATMs in Australia (regardless of whether the card used is a proprietary debit card, a scheme credit card, scheme debit card, or a charge card).

In 2016 the total amount of fraud on proprietary debit cards increased by \$0.8 million to \$23.7 million. Counterfeit / skimming increased by \$2.1 million and lost and stolen fraud decreased by \$1.2 million.

The rise in skimming is attributed to the increase in the number of 'ghost terminals'. A ghost terminal is a fake point of sale (POS) terminal that is not connected to the payments network and is used to skim data from magnetic stripe cards.

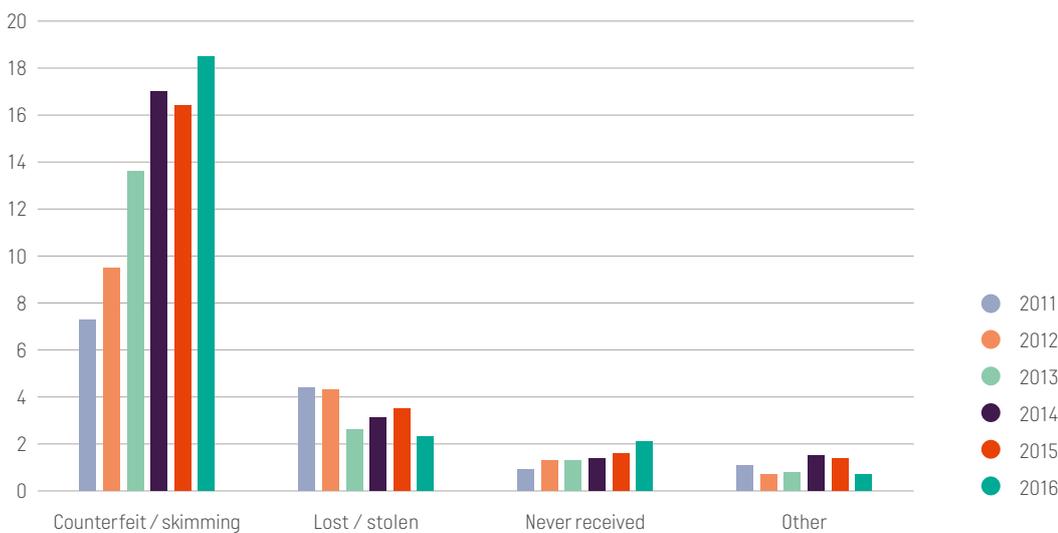
Close cooperation between financial institutions and law enforcement – including through Australian Payments Network’s Fraud in Banking Forum – is assisting in identifying and tackling this type of card fraud.

PROPRIETARY DEBIT CARDS – FRAUD BY TYPE \$ MILLION

Fraud	2011	2012	2013	2014	2015	2016
Counterfeit / skimming	\$7.3	\$9.5	\$13.6	\$17.0	\$16.4	\$18.5
Lost / stolen	\$4.4	\$4.3	\$2.6	\$3.1	\$3.5	\$2.3
Never received	\$0.9	\$1.3	\$1.3	\$1.4	\$1.6	\$2.1
Other	\$1.1	\$0.7	\$0.8	\$1.5	\$1.4	\$0.7
Total	\$13.7	\$15.8	\$18.4	\$22.9	\$22.9	\$23.7

Source Australian Payments Network

PROPRIETARY DEBIT CARDS – FRAUD BY TYPE \$ MILLION





The following pages provide more details on the three key contributors to Australian payment card fraud: CNP, counterfeit / skimming, and lost and stolen card fraud.

TRENDS AND PREVENTATIVE MEASURES

CNP fraud occurs when valid card details are stolen and then used to make fraudulent payments over the internet, telephone, or by mail order.

CARD-NOT-PRESENT FRAUD

The key drivers that cause the global growth in CNP fraud continue to be:

- Chip and PIN deployments migrating fraud from in-person to online.
- Large scale data-breaches, which capture cards from international jurisdictions.⁷
- Identity theft, where CNP fraud is one of the resulting crimes.

MERCHANT AWARENESS



Get smart about card fraud online



PCI Security Standards Council's resources for merchants



Fraud Prevention

The payments industry is addressing CNP fraud through the introduction of new technology and education programs.

The programs build on the existing **Get Smart About Card Fraud** Online training for small to medium- sized merchants available on the Australian Payments Network website.

This highlights simple measures merchants can build into their day-to-day practices to help protect themselves and their customers from online card fraud.

These initiatives build on a range of industry measures to combat CNP fraud. These include:

- Tokenisation, which replaces sensitive card information with a token that is of no value to criminals.
- Compliance by merchants and third party providers with the Payment Card Data Security Standard [PCI DSS] to strengthen data security.
- Dedicated analytics tools to stop fraud in real-time.
- Extending the strong authentication techniques used for online banking, like one time passwords, to the CNP space.

In addition, in October 2016 EMVCo released version 2 of their 3DS specification for strong customer authentication.⁸ This latest version supports new payment channels such as in-app payments and mobile wallets, as well as traditional browser-based e-commerce transactions. This new version is expected to be available in Australia during 2018.

Cross industry collaboration plays an important role in fraud mitigation. Through the Australian Financial Crimes Exchange launched in November 2016, government, businesses, law enforcement and industry groups, share information in real-time to fight cybercrime. Members are able to alert each other of suspicious transactions and potential threats, and act quickly to protect their customers.⁹

7 Financial Fraud Action UK – 2016 Report – Mar 2017

8 EMV 3-D Secure – General Questions – Oct 2016

9 Australian Financial Crimes Exchange



TRENDS AND PREVENTATIVE MEASURES

CNP Fraud Trends

CNP fraud on Australian issued cards increased both in Australia and overseas:

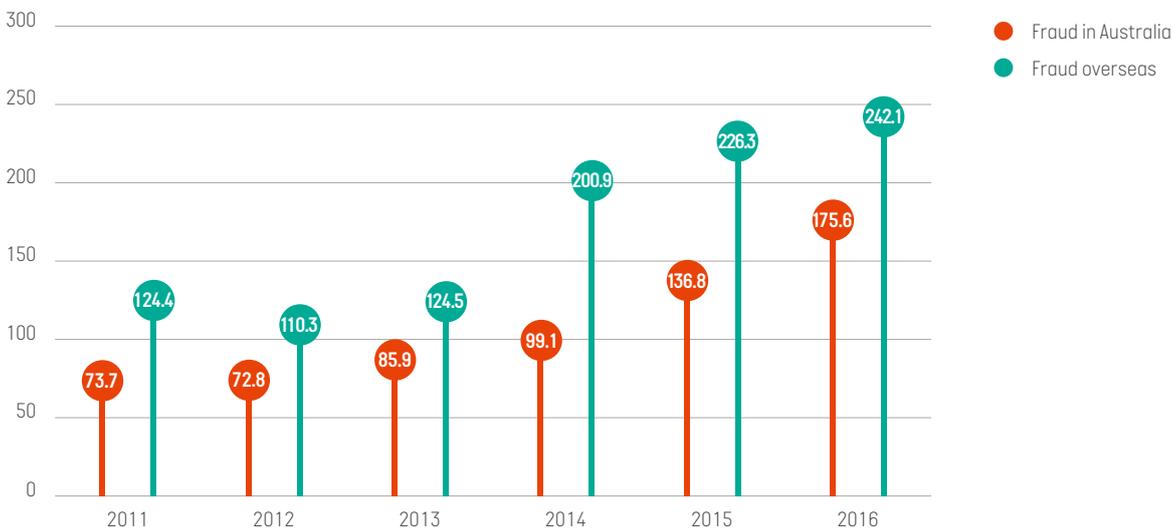
- Domestically, fraud has risen from \$136.8 million in 2015 to \$175.6 million in 2016 – an increase of 28.4%.
- Overseas, fraud has risen from \$226.3 million in 2015 to \$242.1 million in 2016 – an increase of 7.0%.

Globally, a key driver for fraud migration from in-person to online has been the deployment of chip technology. In the year to June 2016, chip transactions accounted for 42.4% of global in-person transactions and in Asia Pacific, which includes Australia, this was 57.9%.

Large scale data breaches also contribute to the rise in CNP fraud. This is because card details are among the data stolen.

Organisations will soon be obliged to report serious data breaches to the Australian Information Commissioner, following a new bill passed by Parliament in February 2017. Under the mandatory reporting scheme, organisations must also notify their customers so they can take remedial steps such as changing passwords or cancelling cards.¹⁰

ALL AUSTRALIAN CARDS CNP – FRAUD* \$ MILLIONS



*As CNP transactions are currently only supported by scheme credit, debit and charge cards, there is no further breakdown applicable.

¹⁰ Mandatory Data Breach Notification – www.oaic.gov.au



TRENDS AND PREVENTATIVE MEASURES

COUNTERFEIT / SKIMMING FRAUD

Counterfeit / skimming fraud occurs when details from a card's magnetic stripe are skimmed at an ATM, point-of-sale terminal, or through a standalone skimming device, and used to create a counterfeit card.

Criminals use the counterfeit card to purchase goods for resale or, if the PIN has also been captured, to withdraw cash from an ATM.

Fraud Prevention

Australia's migration to chip and PIN is providing strong protection against counterfeit / skimming fraud. Because of the technology involved, chip cards are far less vulnerable to counterfeit fraud than magnetic stripe cards.

Industry awareness initiatives on how merchants can protect against skimming fraud include **Safeguard Against Skimming** training videos and a set of **guidelines** providing practical measures for merchants to keep their point-of-sale terminals safe. These are available on the Australian Payments Network website.

Cardholders can help protect themselves against counterfeit/skimming attacks by:

- Keeping their card in sight when making payments.
- Always using their hand to cover their PIN entry at point-of-sale terminals and ATMs.

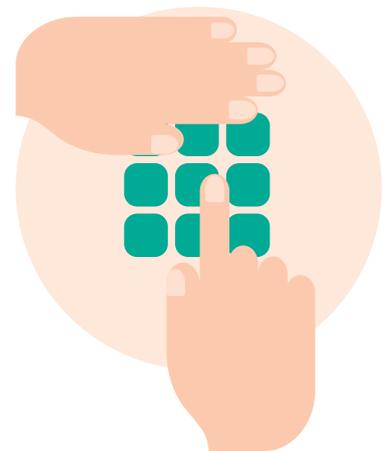
The consumer awareness initiative **Protect Your PIN** provides more information.

Other industry measures to further reduce card skimming include:

- Chip reading at ATMs and security features to protect against fraud.
- Chip technology on proprietary debit cards.
- Contactless cards and terminals.

Importantly, the industry's close cooperation with law enforcement is assisting in tackling card skimming.

CONSUMER AWARENESS PROTECT YOUR PIN



MERCHANT AWARENESS



Safeguard against skimming 



Merchant Guidelines 

INDUSTRY PREVENTION MEASURES



Chip technology



Mandatory PIN



TRENDS AND PREVENTATIVE MEASURES

Counterfeit / Skimming Fraud Trends

In 2016, counterfeit / skimming fraud on Australian-issued cards increased both domestically and overseas:

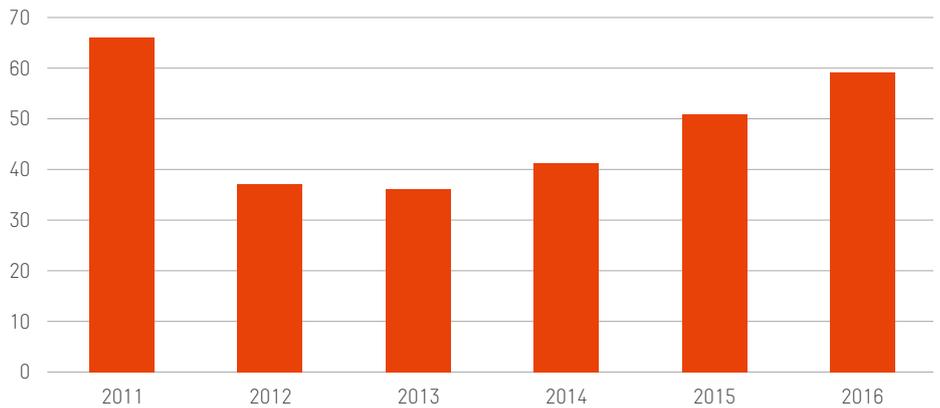
- In Australia, fraud increased 12.8% to \$25.8 million.
- Overseas, fraud increased by 18.6% to \$33.4 million.

Any fraudulent withdrawals made at ATMs in Australia using counterfeit cards are reflected in the proprietary debit card fraud figures. These show an increase of 12.6% in 2016 to \$18.5 million.

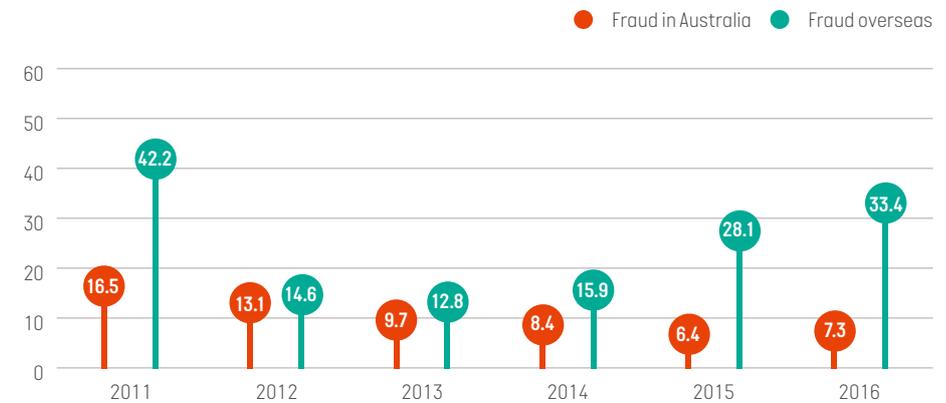
The spike in domestic counterfeit / skimming fraud is likely due to fraudsters use of 'ghost terminals'.

However, chip technology, as well as close cooperation between financial institutions and law enforcement, act to keep counterfeit / skimming fraud low relative to other types of fraud.

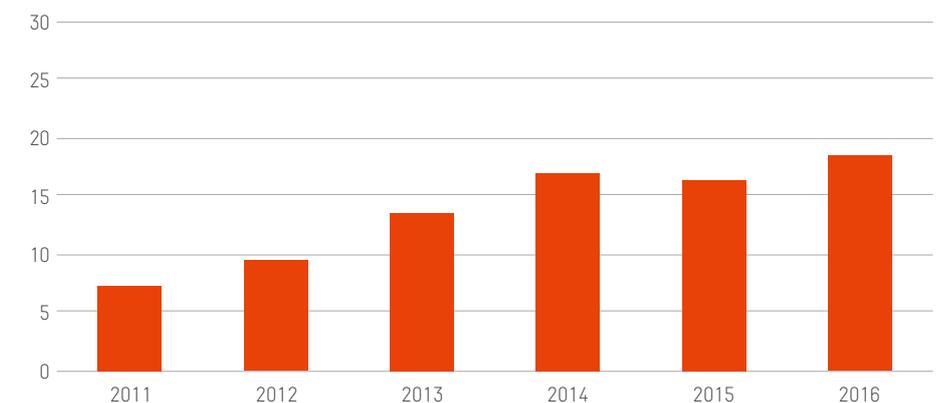
ALL AUSTRALIAN CARDS – COUNTERFEIT / SKIMMING FRAUD \$ MILLION



SCHEME CREDIT, DEBIT AND CHARGE CARDS COUNTERFEIT / SKIMMING FRAUD \$ MILLION



PROPRIETARY DEBIT CARDS – COUNTERFEIT / SKIMMING FRAUD \$ MILLION





TRENDS AND PREVENTATIVE MEASURES

LOST AND STOLEN FRAUD

Lost and stolen fraud refers to unauthorised transactions on cards that have been reported as lost or stolen by the cardholder. Unless the PIN has also been captured, criminals may use these cards – or duplicates of these cards – at point-of-sale by forging the signature where accepted, or for purchases where neither a PIN nor signature is required.

Fraud prevention

Industry initiatives to tackle this type of fraud include:

- PIN verification for cash withdrawals at ATMs and point-of-sale terminals.
- Limits on the amount allowed for contactless purchases and mandatory PIN verification for point-of-sale transactions above those limits.
- Online verification of transactions to stop payments on cards that have been reported lost or stolen.
- Fraud detection systems to track customer card activity and identify unusual spending patterns.
- Card activation processes to ensure the recipient of a new card is the account holder.

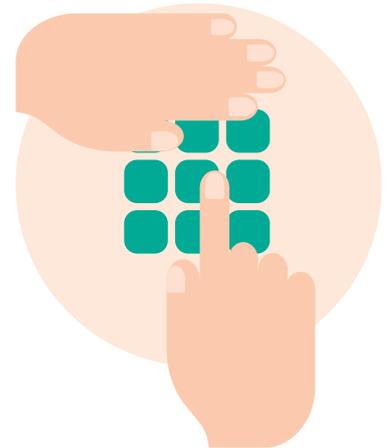
Cardholders can protect themselves from this type of fraud by being vigilant and keeping their card and PIN safe.

To protect against mail theft, cardholders should:

- install a lockable mailbox
- clear mail daily
- have mail held at the post office or collected by a friend during extended periods of absence

If a card is lost or stolen, it should be reported to the issuing financial institution immediately.

CONSUMER AWARENESS PROTECT YOUR PIN



INDUSTRY PREVENTION MEASURES



Online verification



PIN verification



Fraud detection tools



Mandatory PIN



TRENDS AND PREVENTATIVE MEASURES

Lost and Stolen Fraud Trends

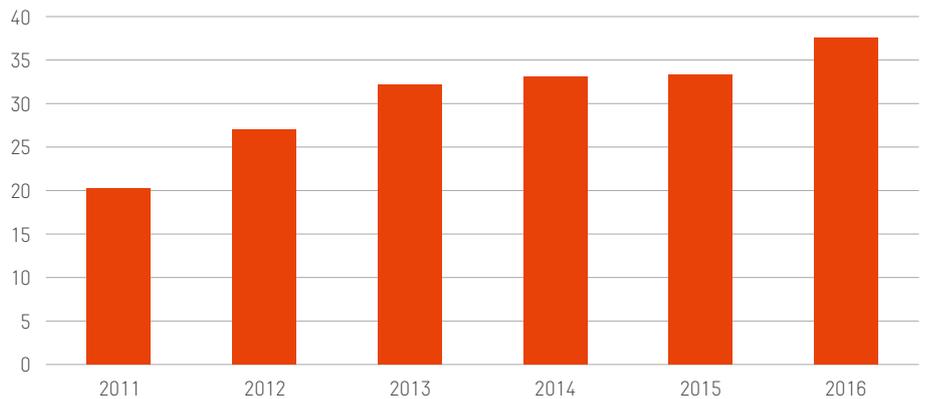
In 2016, lost / stolen fraud on Australian issued cards increased 13.0% to \$37.6 million, with 56.8% of this fraud occurring in Australia.

Domestically, lost / stolen fraud increased from \$17 million to \$21.4 million. A major contributor to this rise was the well reported spike in mail theft in 2016 involving credit cards and other identity documentation.¹¹

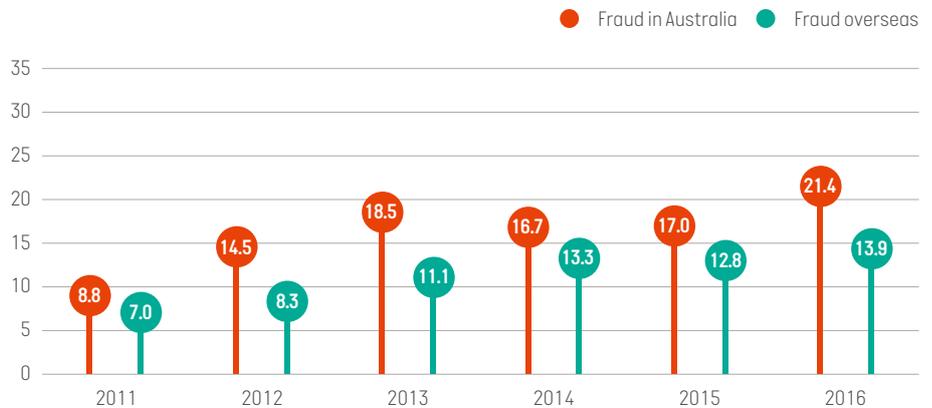
The use of PIN at point of sale, and close cooperation between financial institutions and law enforcement, act to keep lost / stolen fraud low relative to other types of fraud.

This is illustrated in the graph, All Australian cards – Fraud by type, on **page 10**.

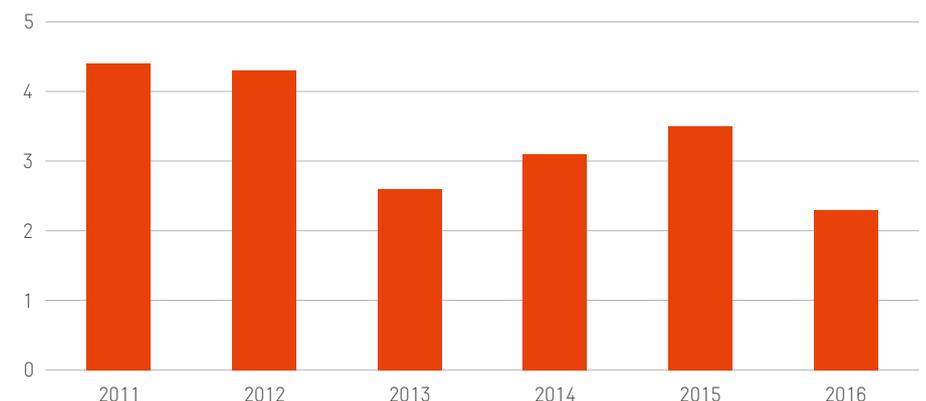
ALL AUSTRALIAN CARDS – LOST / STOLEN FRAUD \$ MILLION



SCHEME CREDIT, DEBIT AND CHARGE CARDS LOST / STOLEN FRAUD \$ MILLION



PROPRIETARY DEBIT CARDS – LOST / STOLEN FRAUD \$ MILLION



11 ABC News; news.com.au



SECTION 3

OVERSEAS PAYMENT CARDS IN AUSTRALIA

Australian merchants play a significant role in identifying and preventing fraud on overseas-issued cards.

Security features on these cards vary by the country of origin. When international visitors use their cards at Australian ATMs or point-of-sale terminals, the transactions are processed by the international card schemes.

Fraud on overseas issued cards increased to \$67.6 million in 2016, up from \$59.6 million in 2015.



OVERVIEW

OVERSEAS PAYMENT CARDS IN AUSTRALIA

Fraudulent transactions in Australia on cards issued overseas increased 13.5% from \$59.6 million in 2015 to \$67.6 million.

CNP fraud increased by 14.8% to \$54.5 million and accounted for 81% of fraud on overseas issued cards.

Counterfeit / skimming fraud increased by 10.0% to \$8.8 million in 2016 but has decreased 48.5% since 2011. Lost / stolen fraud decreased by 4.8% in 2016 to \$2.8 million.

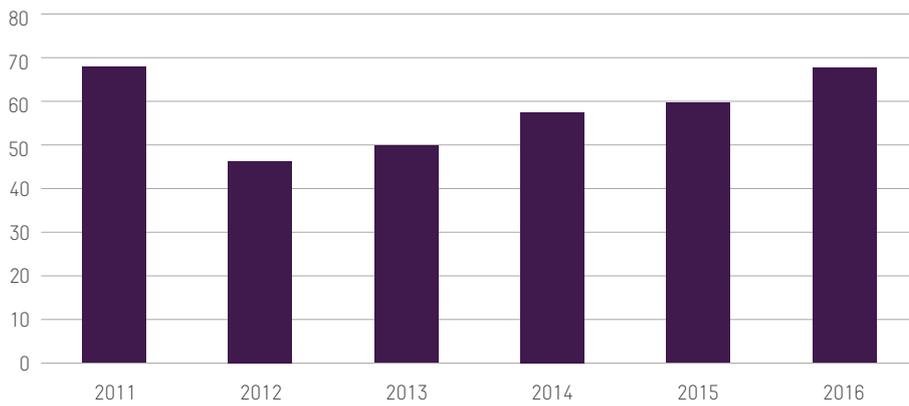
OVERSEAS CARDS IN AUSTRALIA – FRAUD TOTAL \$ MILLION

Fraud value	2011	2012	2013	2014	2015	2016
Card-not-present	\$43.3	\$29.6	\$33.6	\$44.8	\$47.9	\$54.9
Counterfeit / skimming	\$17.1	\$11.9	\$11.1	\$9.3	\$8.0	\$8.8
Lost / stolen	\$6.6	\$3.9	\$4.4	\$2.8	\$3.0	\$2.8
Never received	\$0.1	\$0.1	\$0.0	\$0.0	\$0.1	\$0.1
Fraudulent application	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1
Other	\$0.6	\$0.5	\$0.5	\$0.5	\$0.6	\$0.9
Total	\$67.8	\$46.2	\$49.7	\$57.4	\$59.6	\$67.6

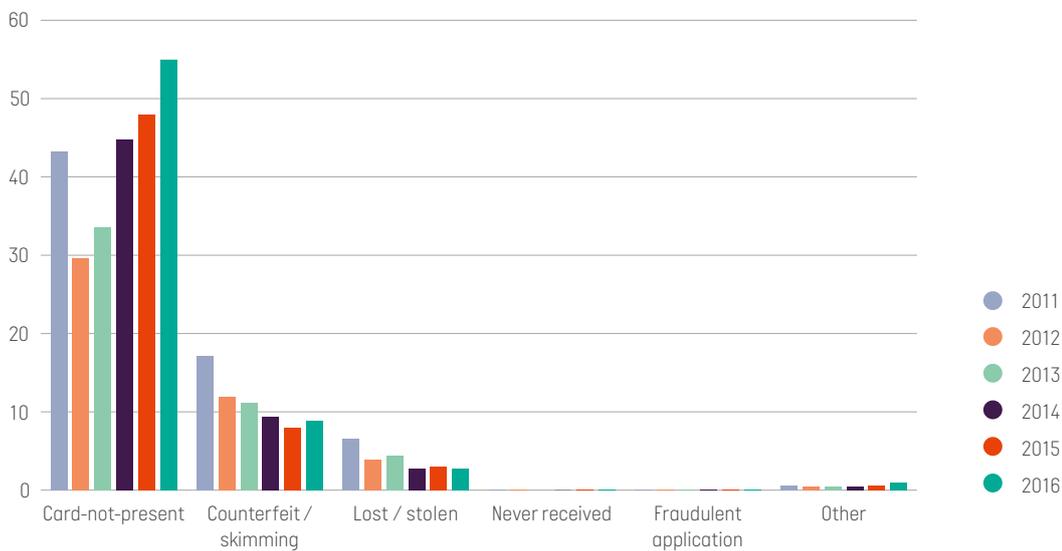


OVERVIEW OVERSEAS PAYMENT CARDS IN AUSTRALIA

OVERSEAS CARDS IN AUSTRALIA – FRAUD TOTAL \$ MILLION



OVERSEAS CARDS IN AUSTRALIA – FRAUD TYPE \$ MILLION



Source Australian Payments Network



SECTION 4

CHEQUES

As the digital economy grows, cheque use continues to decline, plunging 20% in 2016.¹²

Cheques represent just 1.2% of all non-cash payments made in Australia.¹³

Cheque values, historically resilient to change, declined by 6.0% in 2016. The rate of fraud remained under 1 cent per \$1,000.

¹² Australian Payments Network Milestones Report – The Digital Economy – May 2017

¹³ RBA – Payments Systems Board – Retail Payments Trends – 2016



OVERVIEW CHEQUES

Cheque data include Australian personal cheques, financial institution cheques, and drafts in Australian dollars.

The cheque fraud data cover fraud occurring on Australian cheques in Australia and overseas. The figures represent the losses written off by financial institutions during a given year, although the fraud may have occurred sometime before.

In 2016, the total rate of cheque fraud decreased to 0.6 cents per \$1,000 transacted, down from 0.7 cents in 2015 and remained under 1 cent per \$1,000 transacted.

The total amount of cheque fraud decreased from \$8.4 million to \$6.4 million in 2016.

Cheque fraud has been at a consistent low level since 2011.

CHEQUES – FRAUD RATES AND TOTALS

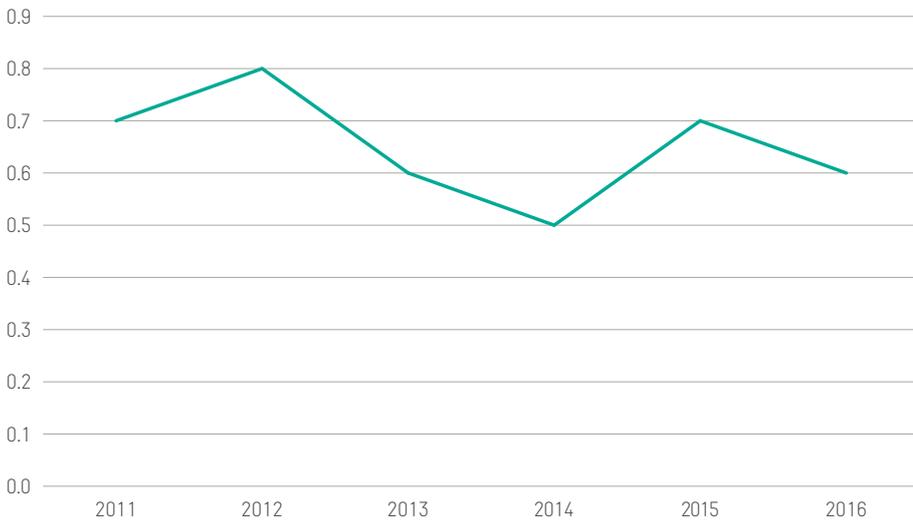
	2011	2012	2013	2014	2015	2016
Value (\$ millions)						
Cheque transactions	\$1,279,834	\$1,206,919	\$1,220,284	\$1,228,512	\$1,228,424	\$1,154,864
Fraudulent transactions	\$8.8	\$9.7	\$7.1	\$6.5	\$8.4	\$6.4
Fraud rate (cents per \$1,000):	0.7	0.8	0.6	0.5	0.7	0.6
Number						
Cheque transactions	256m	224m	194m	167m	140m	112m
Fraudulent transactions	883	608	947	1,029	1,160	904
Fraud rate (as % total no. of transactions)	0.0003%	0.0003%	0.0005%	0.0006%	0.0008%	0.0008%
Average value of fraudulent transactions	\$9,978	\$15,993	\$7,541	\$6,294	\$7,232	\$7,087

Source Australian Payments Network and the Reserve Bank of Australia

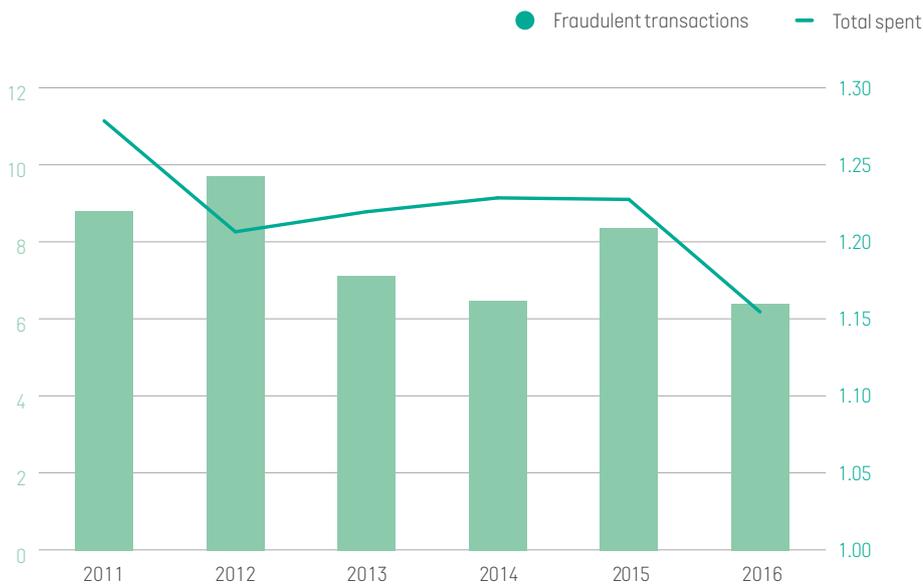


OVERVIEW CHEQUES

CHEQUES – FRAUD RATE CENTS PER \$1,000



CHEQUES – TOTAL FRAUD AND TOTAL SPENT \$ MILLION





TYPES OF FRAUD OCCURRING ON CHEQUES

ON-US FRAUD

On-us cheque fraud covers fraud that has been detected and reported by the financial institution that the cheque is drawn on.

Types of on-us frauds include:

- **Breach of mandate** – payment is made without the correct authority; for example, the cheque may require two signatures, but there is only one.
- **Fraudulently altered** – payee and/or dollar amount details are altered to be different than originally written.
- **Stolen blank cheque / book** – original blank cheques are stolen and passed off as if they were written by the account holder.
- **Originated counterfeit** – a counterfeit cheque is produced using the paper of the original cheque.
- **Non-originated counterfeit** – a counterfeit cheque is produced on new paper using techniques such as laser printing and desktop publishing.
- **Valueless** – cheques are deposited into an account knowing full well that they are worthless and will be dishonoured.

DEPOSIT FRAUD

Deposit fraud refers to fraud that has been detected and reported by a financial institution other than the cheque drawee. This type of fraud is less common than on-us fraud.

TRENDS AND PREVENTATIVE MEASURES

Over the years, cheque fraud has declined substantially and it remains low.

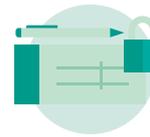
Protection measures include:

- Using fraud detection systems that monitor cheque transactions for suspicious and unusual activity.
- Issuing customer cheques with inbuilt security features that make counterfeiting and altering cheques more difficult.

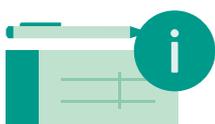
FRAUD PREVENTION



System to monitor cheque transactions



Inbuilt cheque security features



For further explanation of the types of cheque fraud visit auspaynet.com.au



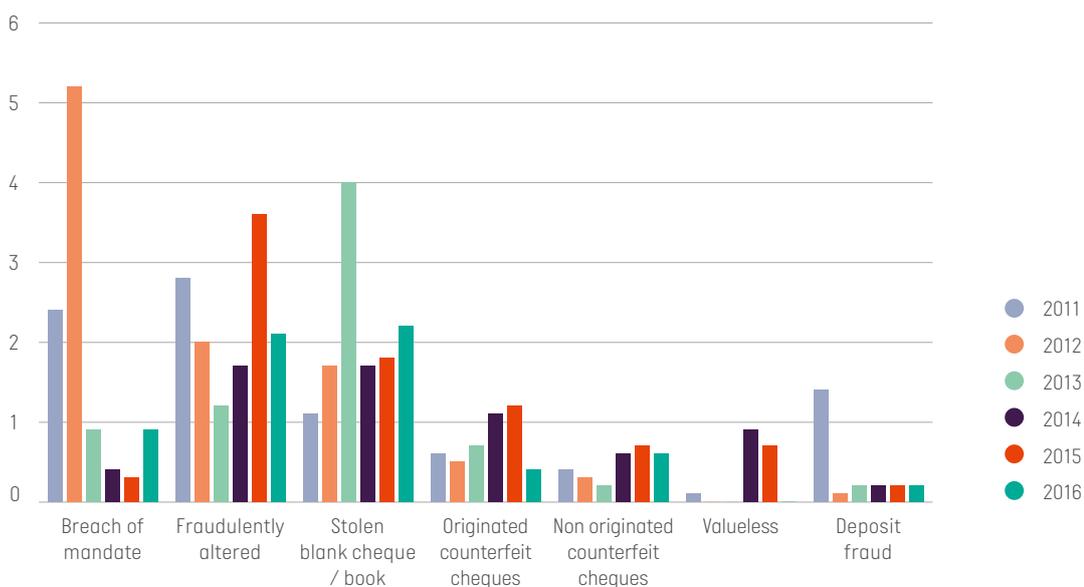
TYPES OF FRAUD OCCURRING ON CHEQUES

CHEQUES – TYPE OF FRAUD \$ MILLION

Fraud	2011	2012	2013	2014	2015	2016
On us fraud						
Breach of mandate	\$2.4	\$5.2	\$0.9	\$0.4	\$0.3	\$0.9
Fraudulently altered	\$2.8	\$2.0	\$1.2	\$1.7	\$3.6	\$2.1
Stolen blank cheque / book	\$1.1	\$1.7	\$4.0	\$1.7	\$1.8	\$2.2
Originated counterfeit cheques	\$0.6	\$0.5	\$0.7	\$1.1	\$1.2	\$0.4
Non originated counterfeit cheques	\$0.4	\$0.3	\$0.2	\$0.6	\$0.7	\$0.6
Valueless	\$0.1	\$0.0	\$0.0	\$0.9	\$0.7	\$0.0
On-us total	\$7.4	\$9.6	\$7.0	\$6.3	\$8.2	\$6.2
Deposit Fraud	\$1.4	\$0.1	\$0.2	\$0.2	\$0.2	\$0.2
Total all cheques fraud	\$8.8	\$9.7	\$7.1	\$6.5	\$8.4	\$6.4

Source Australian Payments Network

CHEQUES – FRAUD BY TYPE \$ MILLION





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