

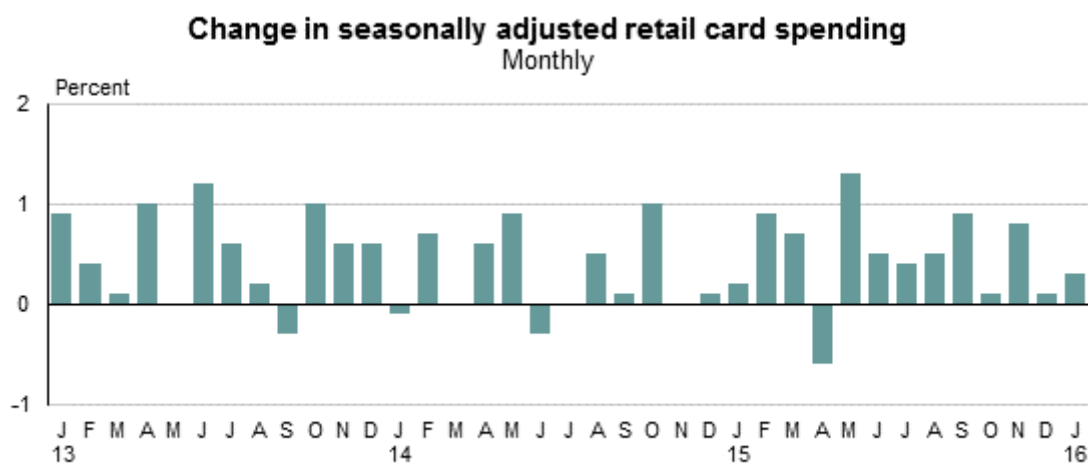
# Electronic Card Transactions: January 2016

Embargoed until 10:45am – 10 February 2016

## Key facts

Changes in the seasonally adjusted value of transactions for January 2016 (compared with December 2015) were:

- Total electronic card transactions rose 0.6 percent.
- Transactions in the retail industries rose 0.3 percent.
- Transactions in the core retail industries rose 0.6 percent.



Source: Statistics New Zealand

Liz MacPherson, Government Statistician  
ISSN 1178-0258  
10 February 2016

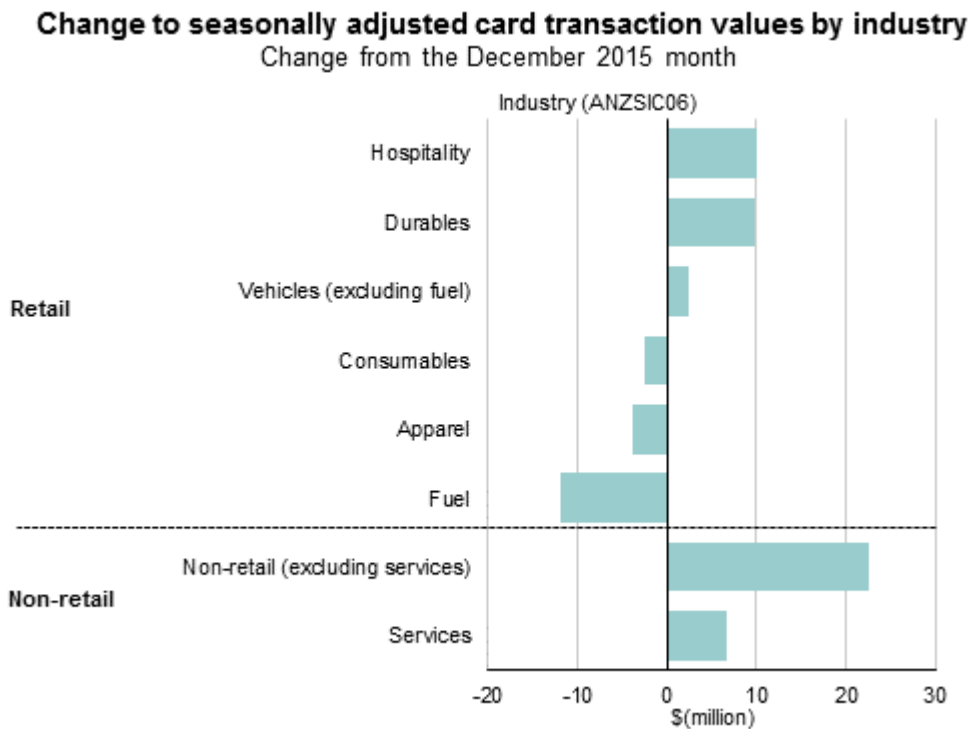
## Commentary

All figures are seasonally adjusted unless otherwise specified.

Values are only available at the national level, and are not adjusted for price changes.

The value of electronic card spending in the **retail** industries was up 0.3 percent in January 2016, following a 0.1 percent rise in December 2015.

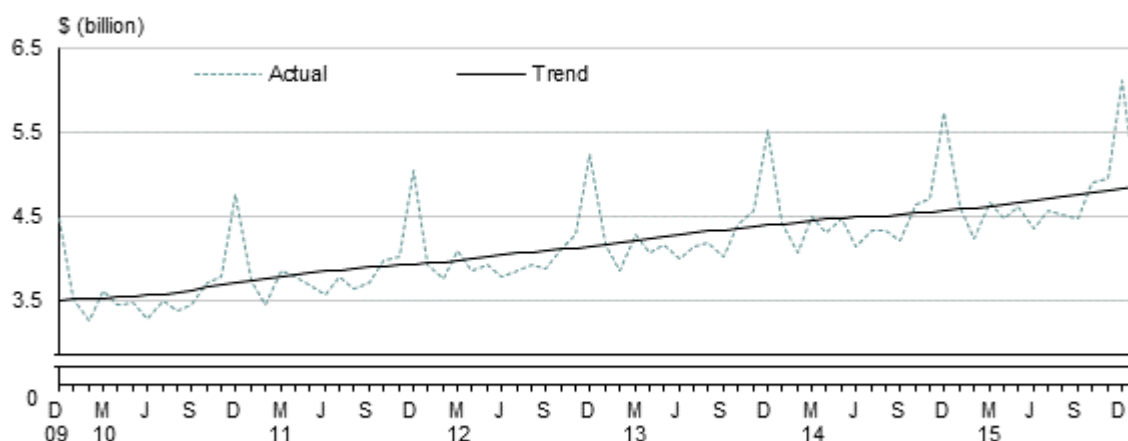
Three of the six retail industries had increases in January 2016. The largest increases were from the hospitality industry, up \$10 million (1.2 percent), and durables industry, up \$10 million (0.8 percent). The biggest fall was in fuel, down \$12 million (2.0 percent).



**Core retail** spending (which excludes the vehicle-related industries) rose 0.6 percent in January 2016, following no change in December 2015.

The total value of electronic card spending, including the two non-retail industries (services, and other non-retail), was up 0.6 percent in January. This follows a rise of 0.4 percent in December 2015.

## Value of electronic card retail transactions Monthly



Source: Statistics New Zealand

Trends for the total, retail, and core retail series have generally been rising since these series began in October 2002.

In actual terms, card-holders made 127 million transactions across all industries in January 2016, with an average value of \$51. The total amount spent across all transactions was \$6.4 billion.

**For more detailed data see the Excel tables in the 'Downloads' box.**

### Revisions to the published data

Statistics New Zealand was recently advised of some missing data for the October, November, and December 2015 months. This data was in the durables industry. As we have not been able to source this data from our suppliers, we have used standard statistical techniques to impute for the missing information, and revised our time series. We will continue to impute for this data until a data supplier can be confirmed.

For example, the data that we imputed for the December 2015 month represents approximately 4.0 percent of the durables total and 1.2 percent of total retail.

[See revisions](#) for more information.

# Definitions

## About Electronic Card Transactions

Electronic Card Transactions (ECT) is a monthly series that covers all debit, credit, and charge card transactions with New Zealand-based merchants. This information can be used as an indicator of the change in the level of consumption expenditure and economic activity in general.

Statistics NZ would like to acknowledge the cooperation of the private sector in providing the data for publication.

## More definitions

**ANZSIC:** Australian and New Zealand Standard Industrial Classification.

**Average number of transactions per person:** the total number of transactions divided by the sum of the average resident population and the average number of overseas visitors to New Zealand for the reference year.

**Average transaction value:** the total value of transactions divided by the total number of transactions.

**Average value of transactions per person:** the total value of transactions divided by the sum of the average resident population and the average number of overseas visitors to New Zealand for the reference year.

**Card-not-present transactions:** purchases made using a credit card, via telephone, mail order, Internet, or credit card direct debit where the card is not present for the transaction.

**Cash out:** cash taken out at a point-of-sale terminal, with or without a purchase.

**Core retail series:** includes consumables, durables, hospitality, and apparel industry groups. See [Data quality](#) for detailed industry descriptions.

**Debit card:** card used for debiting money directly from a bank account. Also commonly referred to as eftpos, cash, or ATM card.

**Debit transactions:** where the purchaser uses the cheque or savings buttons on the point-of-sale terminal.

**Eftpos:** electronic funds transfer at point of sale.

**Retail series:** includes the core retail series plus the motor vehicles and fuel industry groups. See [Data quality](#) for detailed industry descriptions.

**Share of spending by electronic card transactions:** proportion of total spending that debit and credit card spending makes up. This figure can be approximated by dividing the value of retail electronic card transactions (excluding GST) by total retail sales, as estimated from the Retail Trade Survey.

## **Related links**

### **Next release**

*Electronic Card Transactions: February 2016* will be released on 9 March 2016.

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### **Past releases**

[Electronic Card Transactions](#) has links to past releases.

## **Related information**

The latest movements in related series were as follows:

- The [food price index](#) fell 0.8 percent in December 2015, compared with November 2015.
- The [consumers price index](#) fell 0.5 percent in the December 2015 quarter, compared with the September 2015 quarter.
- [Credit card billings in New Zealand](#), as published by the Reserve Bank of New Zealand, were up 4.4 percent in December 2015, compared with December 2014.

## Data quality

This section contains information that does not change between releases.

- [Data source](#)
- [Industry group descriptions](#)
- [Interpreting the data](#)
- [Differences between the ECT series and the Retail Trade Survey](#)

### Data source

We produce statistics on electronic card transactions from aggregated administrative data generated in the process of administering New Zealand-based electronic transactions. The data are supplied in a highly aggregated form and include goods and services tax (GST).

### Industry group descriptions

The table below describes the eight aggregated industry groups commonly referred to in the Electronic Card Transactions (ECT) information release text.

<b>Aggregated industry groups in ECT releases</b>	
<b>Industry group</b>	<b>Descriptor</b>
Consumables	Includes food and liquor retailing
Durables	Includes furniture, hardware, and appliance retailing; pharmacy, cosmetic, and toiletry retailing
Hospitality	Includes accommodation, bars, cafes and restaurants, and takeaway retailing
Apparel	Includes clothing, soft-goods, and footwear retailing
Motor vehicles	Includes automotive parts and accessories; vehicle and tyre retailing
Fuel	Automotive fuel retailing
Services	Includes personal and household services, including hire and repair; automotive electrical and repair services
Non-retail (excluding services)	Includes travel and health, and wholesaling
<b>Note:</b> The core retail series comprises the consumables, durables, hospitality, and apparel industry groups. The retail series comprises the core retail series plus the motor vehicles and fuel industry groups.	

## **Interpreting the data**

### **Coverage**

The ECT series includes:

- all debit, credit, and charge card transactions with New Zealand-based merchants
- card-present transactions at the point of sale, whether authorised by PIN or signature
- card-not-present transactions (eg payments of invoices; mail order, telephone, and Internet sales via credit card; or direct debit from credit cards) where the card is not presented directly at a point-of-sale terminal
- GST.

The ECT series excludes:

- all credit card transactions with non-New Zealand-based merchants (eg via the Internet, telephone, or mail order)
- transactions by New Zealand card-holders while overseas
- cash, cheque, or hire purchase transactions
- automatic payments or direct debits from bank accounts
- Internet bank account payments
- withdrawals from ATMs.

Note:

- One of the respondent companies includes cash-out data, but the other excludes them.
- One of the respondent companies includes manual, voucher-based credit card transactions, but the other excludes them.

### **Published levels**

We publish data at three levels of aggregation. These are:

#### 1. Electronic card transactions – total

- Includes data for all industry classes; a census of all electronic transactions.

#### 2. Electronic card transactions – retail industries

- A subset of total electronic card transactions covering these ANZSIC06 industries: retail trade (ANZSIC division G) and accommodation and food services (ANZSIC division H).

#### 3. Electronic card transactions – core retail industries

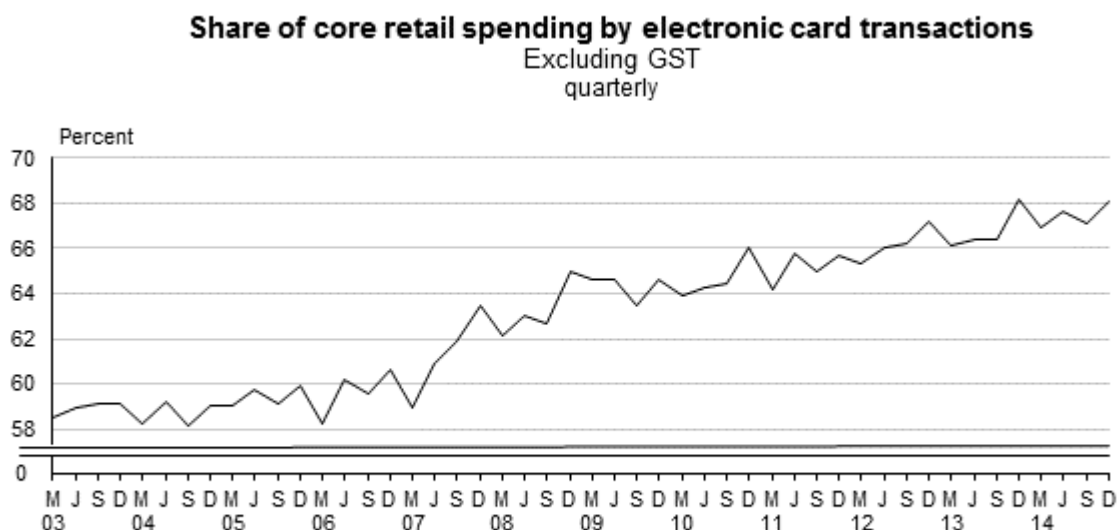
- A subset of retail electronic card transactions, excluding the motor vehicle-related industries (ANZSIC groups G1110 motor vehicles and parts retailing and G1120 fuel retailing). Motor vehicles and parts generally have low rates of electronic transactions.

We publish the following series for each aggregation:

- values – actual (unadjusted), seasonally adjusted, and trend
- volumes – actual (unadjusted).

### Electronic card transactions share of spending

The share of electronic card transactions in the core retail industries has generally been increasing slowly over time. We estimated the mean share of the core retail spending (excluding GST) in the December 2014 quarter at 68.1 percent, compared with 68.2 percent in December 2013, and 67.2 percent in December 2012.



Source: Statistics New Zealand

### Seasonally adjusted series

We use the X-13ARIMA-SEATS package to produce the seasonally adjusted estimates and trend estimates for the three series: total, retail, and core retail ECT. Seasonal adjustment aims to eliminate the impact of regular seasonal events (such as annual cycles in agricultural production, winter, or annual holidays) on time series. This makes the data for adjacent months more comparable. There is no specific adjustment made for leap years in these series.

We subject all seasonally adjusted figures to revision each month. This enables the seasonal component to be better estimated and removed from the series.

### Estimated trend

For any series, we can break the survey estimates down into three components: trend, seasonal, and irregular. We have removed the seasonal component from the seasonally adjusted series, and we have removed both the seasonal and the irregular components from the trend series. Trend estimates reveal the underlying direction of movement in a series, and are likely to indicate turning points more accurately than seasonally adjusted estimates.

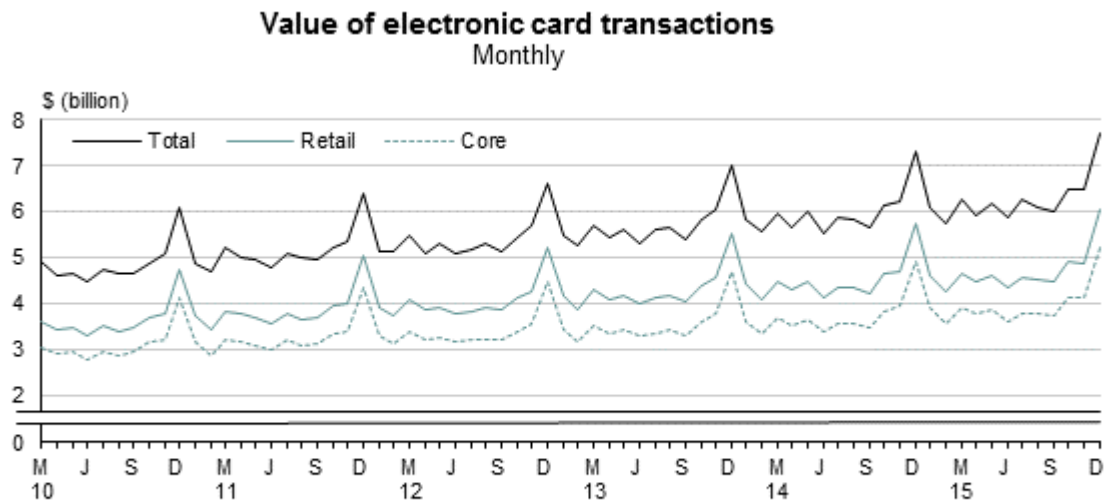


We calculate the trend series using the X-13ARIMA-SEATS seasonal adjustment package. They are based on an 11-, 13-, or 23-month moving average of the seasonally adjusted series, with an adjustment for outlying values.

Trend estimates towards the end of the series incorporate new data as they become available and can therefore change as more observations are added to the series. Revisions can be particularly large if an observation is treated as an outlier in one month, but is found to be part of the underlying trend as further observations are added to the series. Typically, only the estimates for the most recent month are subject to substantial revisions.

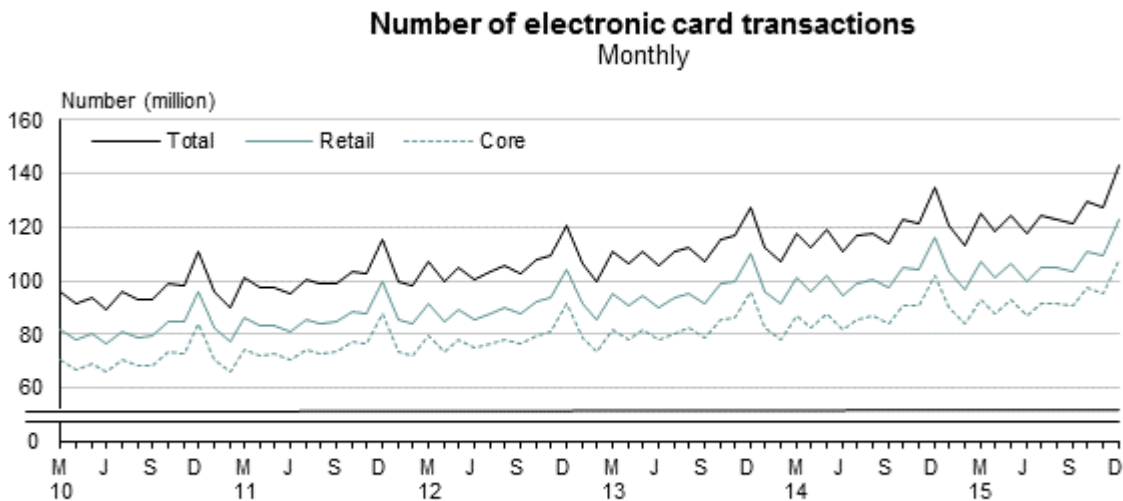
### Seasonal patterns

The three unadjusted series (for the value of total, retail, and core retail electronic card transactions) have similar seasonal patterns, peaking in December each year.



Source: Statistics New Zealand

The three ECT series for the number of total, retail, and core retail electronic card transactions have similar patterns to those for the transaction values, peaking each December.



Source: Statistics New Zealand

## Impact of electronic card transaction processing outages

Occasionally, processing outages prevent customers from being able to make transactions at the point of sale. Where these are significant in extent and duration, they can affect the published results for the ECT series. The last significant outage was in December 2005.

## Differences between the ECT series and the Retail Trade Survey

A significant proportion of spending using debit and credit cards takes place in the retail sector. The Retail Trade Survey (RTS) also collects sales information about the retail sector from a sample of retail establishments. Given the similarities in coverage of the two series, it is expected they may be comparable. However, users should be aware that there are a number of differences between the two series that affect comparison between them. We describe these differences below.

### Coverage

The RTS includes payments made by cash, cheque, and hire purchase, in addition to electronic card.

<b>Coverage differences between the Electronic Card Transaction series and the Retail Trade Survey</b>		
	<b>Cash sale</b>	<b>Credit sale</b>
Electronic Card Transaction series	Debit card	Credit card Charge card
Retail Trade Survey	Debit card Cash Cheque	Credit card Charge card Hire purchase

### GST

Electronic card transaction data collected include GST, whereas the RTS collects sales excluding GST. As GST is not separately identified in the data, any attempts to adjust the ECT series for GST are approximations only.

### Timing issues

Several timing differences exist between the ECT series and RTS.

- Electronic transactions occur instantly at the point of sale, whereas many retailers operate on an accrual accounting basis (recording a sale before any money has changed hands).
- Instalments on lay-bys may be paid electronically but are not recorded as a sale by the retailer until the goods are picked up.
- Gift vouchers may be purchased electronically but are not recorded as a sale until they are redeemed.

## **Classification issues**

We have developed ECT series that relate to the industry coverage of the RTS. We matched the industry codes supplied by the respondents to our classifications. There are instances where the classification allocations used by the respondents differ from ours. This results in some coverage differences at the industry and overall retail level, and potentially some overstatement of the ECT retail industry levels. We cannot fully assess the impact of this on ECT retail data levels, as source data are only supplied in aggregate form, but we estimate retail levels are overstated by less than 5 percent.

## **Changes in share of spending by electronic card transactions**

Retailers' uptake of electronic transaction technology and consumers' increasing card usage have led to a greater share of retail sales being made by electronic transactions. This results in the ECT series having a much steeper trend than the RTS. This increase in share is slowing over time, particularly in industries where the technology is approaching full coverage. However, it is still affecting the movements in electronic card transactions. Users should be aware that movements in electronic card transactions are overstated by this increasing share when comparing the ECT series with the RTS.

## **Differences observed in data series**

We have compared the ECT series with the RTS. The results indicate the following.

- Movements in the actual (unadjusted) values of electronic card transactions provide a good indication of the direction of the RTS actuals, as the two series usually move in the same direction.
- Movements in ECT actuals are frequently different in magnitude compared with movements in RTS actuals.
- The differences found in the actuals data flow through to comparisons of the ECT and RTS seasonally adjusted series, which can differ in the direction and size of the movement.
- These differences have generally been outside the acceptable tolerances indicated by users for the use of the ECT series as a predictor of movements in the RTS.

Given these differences, we do not recommend using the ECT series as an indicator or predictor of the RTS series.

## **More information**

Statistics in this release have been produced in accordance with the [Official Statistics System principles and protocols for producers of Tier 1 statistics](#) for quality. They conform to the Statistics NZ Methodological Standard for Reporting of Data Quality.

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## Revisions

### Revisions to previously published data

We revised data for the durables industry after recently being advised of some missing data. As we have not been able to source this data from our suppliers, we have used standard statistical techniques to impute for the missing information, and revised our time series. This also affects the aggregate values and volumes for total core retail, total retail, and the total series for October, November, and December 2015.

The revisions affected the following series:

Variable	Series ECTM	Month in 2015	Published	
			14 Jan 2016	10 Feb 2016
			\$(million)	
Durables	S1GA2	Oct	1,217	1,226
Total core retail	S19A2	Oct	4,131	4,140
Total retail	S19A1	Oct	4,898	4,908
Total	S19A9	Oct	6,477	6,487
Durables	S1GA2	Nov	1,230	1,273
Total core retail	S19A2	Nov	4,142	4,184
Total retail	S19A1	Nov	4,895	4,938
Total	S19A9	Nov	6,500	6,543
Durables	S1GA2	Dec	1,738	1,810
Total core retail	S19A2	Dec	5,228	5,300
Total retail	S19A1	Dec	6,037	6,109
Total	S19A9	Dec	7,729	7,801

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## Tables

See the following Excel tables in the 'Downloads' box on this page. If you have problems viewing the files, see [opening files and PDFs](#).

1. Electronic card transactions by industry – actual monthly values
2. Electronic card transactions by industry – seasonally adjusted monthly values
3. Electronic card transactions by industry – trend monthly values
4. Electronic card transactions – number of transactions
5. Electronic card transactions – averages and proportions

A machine-readable zipped CSV file is also available in the 'Downloads' box.

## Access more data on Infoshare

Infoshare allows you to organise data in the way that best meets your needs. You can view the resulting tables onscreen or download them.

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