

Embargoed until 10:45am – 20 October 2008

Electronic Card Transactions: September 2008

Highlights

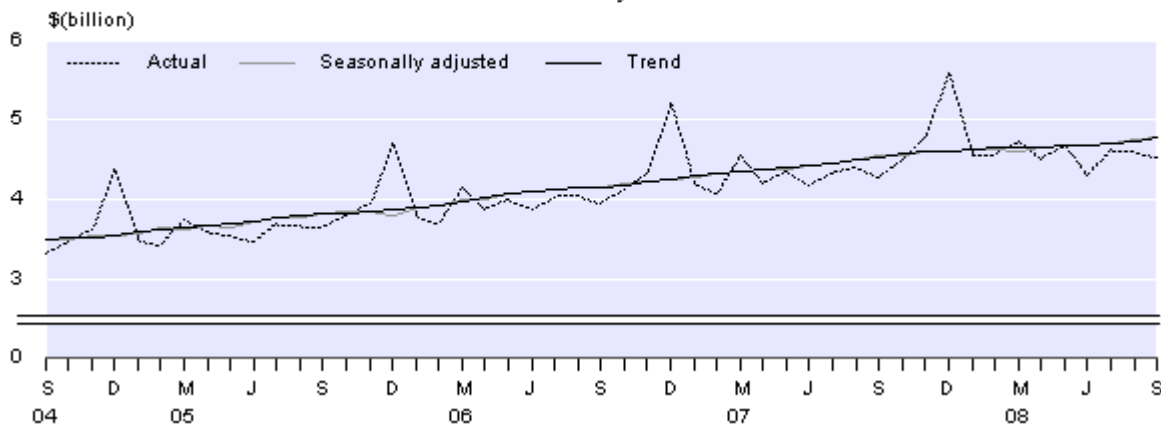
Compared with August 2008 (on a seasonally adjusted basis):

- The value of the total Electronic Card Transaction (ECT) series was 0.8 percent higher.
- The value of the retail ECT series was almost unchanged.
- The value of the core retail ECT series was 0.4 percent lower.

Trends:

- The retail ECT trend series flattened between January and April but has been increasing since then.
- The core retail ECT trend series flattened from late 2007 to mid 2008 but has been increasing since then.
- For all three series the rate of annual trend increase has been slowing since October 2007.

Value of Total Electronic Card Transactions
Monthly



Geoff Bascand
Government Statistician

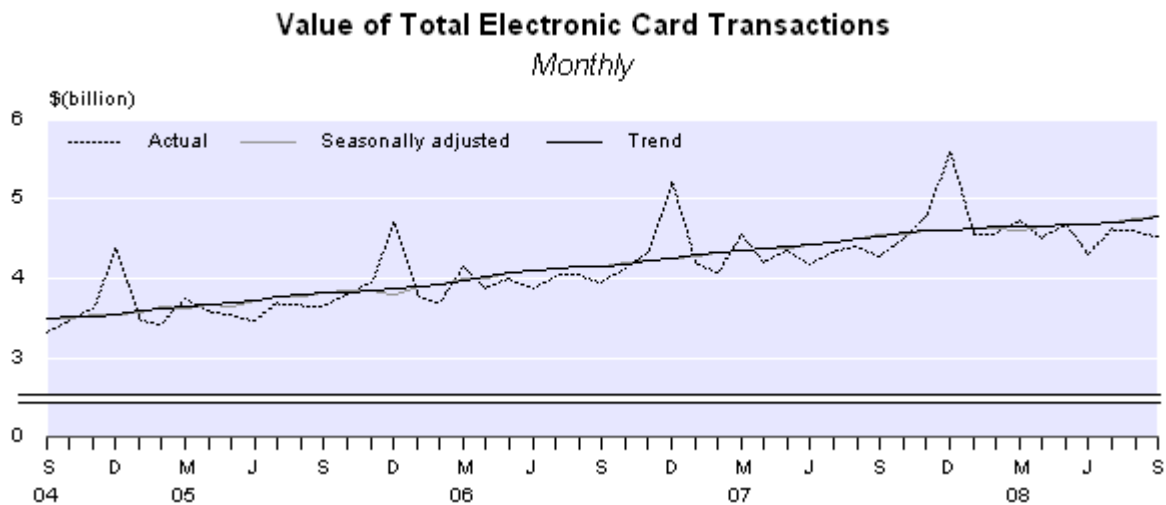
20 October 2008
ISSN 1178-0258

See also [Electronic Card Transactions: September 2008 – Media release](#).

Commentary

Electronic card transactions at a glance

- There were 84 million electronic card transactions with New Zealand-based merchants in September 2008, with a value of \$4.5 billion. This compares with 79 million transactions in September 2007, with a value of \$4.3 billion.
- There were 1.0 billion electronic transactions in the year ended September 2008, with a value of \$55.9 billion. This compares with 943 million transactions with a value of \$52.2 billion in the September 2007 year.
- The mean transaction value for September 2008 was \$54, which was the same as recorded in September 2007 and August 2008. The high for the year ended September 2008 was \$59 in December 2007.
- For the year ended September 2008, debit transactions made up 53 percent of all electronic transactions by value (credit was 47 percent). The ratio of debit to credit transactions has remained relatively stable since the beginning of the series in October 2002, with the credit ratio increasing 2 percentage points over that time.
- For the year ended September 2008, 79 percent of electronic transaction spending took place in the retail industries.



Total electronic card transactions

After adjusting for seasonal effects, the total ECT value series was 0.8 percent higher in September 2008 compared with August 2008, which followed on from a 0.9 percent increase in August. The non-retail industries and fuel retailing were the main contributors to this increase, which was partly offset by decreases in apparel retailing and durables.

In September 2008 the total ECT trend series was 5.2 percent higher than in September 2007. This annual trend increase rate has been slowing since January 2007, and has been reducing each month since October 2007. The trend reflects not only changes in consumer spending and prices, but also changes in merchants' and customers' use of payment methods.

Electronic card transactions – retail industries

After adjusting for seasonal effects, the retail ECT value series in September 2008 was unchanged from August 2008. Increases, mainly in the fuel retailing and the consumables industries, were offset by decreases in the apparel and durables retailing industries.

The trend in the retail ECT series flattened between January and April 2008 but has increased from then.

Electronic card transactions – core retail industries

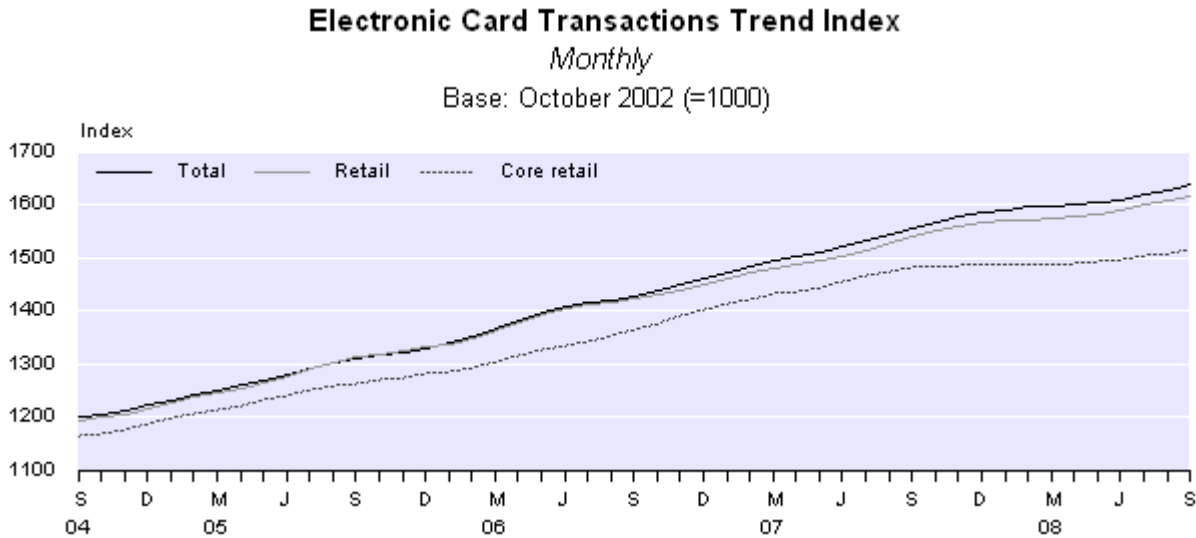
After adjusting for seasonal effects, the core retail ECT value series decreased 0.4 percent in September 2008, following increases of 1.6 percent in August and 1.7 percent in July. The September decrease was largely driven by the apparel retailing and durables industries. These decreases were partly offset by an increase in consumables.

The trend in the core retail ECT series flattened between October 2007 and May 2008, but has been increasing since then, up 1.6 percent since May. An apparent change in the direction of the trend should be treated with caution, as time series analysis suggests more data is required for the direction of the trend to be confirmed.

For all three ECT series, the rate of the annual trend increase has been slowing since October 2007.

Comparing the three series

The impact of rises in fuel prices, which peaked in July 2008, on the retail ECT trend can be seen in the following graph. The trend for the core retail series started to level off after about September 2007 before returning to a stronger increase in the three months to September 2008, whereas for the retail series the flattening of the trend began later and was shorter, strengthening again from April 2008.



The main difference between the two ECT retail series is that the automotive fuel retailing industry is not included in the core retail series. Automotive fuel retailing makes up approximately 80 percent of the value of the difference between the two series. Fluctuations in fuel prices have been a key factor influencing the trend of the retail series in recent months.

Comparison statistics

Comparisons with the Retail Trade Survey

For August 2008 compared with July 2008, the seasonally adjusted figures, as first published, were as follows:

- total retail sales increased 0.4 percent.
- core retail trade sales increased 0.8 percent.
- retail ECT series increased 1.1 percent.
- core retail ECT series increased 1.7 percent.

Other statistics

- For August 2008 compared with August 2007, actual credit card billings in New Zealand (including spending using New Zealand and overseas-issued cards), as issued by the Reserve Bank of New Zealand, decreased 3.9 percent.
- For August 2008 compared with July 2008, the Food Price Index rose 2.7 percent.

For technical enquiries, contact:
Henry Minish or Christine Sadler
Christchurch 03 964 8700
Email: info@stats.govt.nz

Next release ...

Electronic Card Transactions: October 2008 will be released on 21 November 2008.

Technical notes

Background

The Electronic Card Transaction (ECT) series is an experimental monthly series, which covers all debit and credit card spending 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 on electronic card transactions are produced 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 are inclusive of goods and services tax (GST).

Statistics New Zealand would like to acknowledge the cooperation of the private sector in providing the data for publication, supporting the delivery of new statistics without significant additional burden on businesses in New Zealand.

Coverage

Inclusions:

- 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 (for example payments of invoices, mail order, telephone and Internet sales via credit card, direct debit from credit cards) where the card is not presented directly at a point-of-sale terminal
- GST.

Exclusions:

- all credit card transactions with non-New Zealand-based merchants, for example via the Internet, telephone, 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.

Notes:

- Cash out is included in the data from one of the respondent companies, but excluded by the other.
- Manual, voucher-based credit card transactions are included by one of the respondents, but excluded by the other.

Published levels

Data are published 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 industry

- A subset of total electronic card transactions covering the following ANZSIC industries: retail trade (ANZSIC division G), accommodation, cafes and restaurants (ANZSIC division H) and personal services (ANZSIC subdivision 95 of division Q).

3. Electronic card transactions – core retail industry

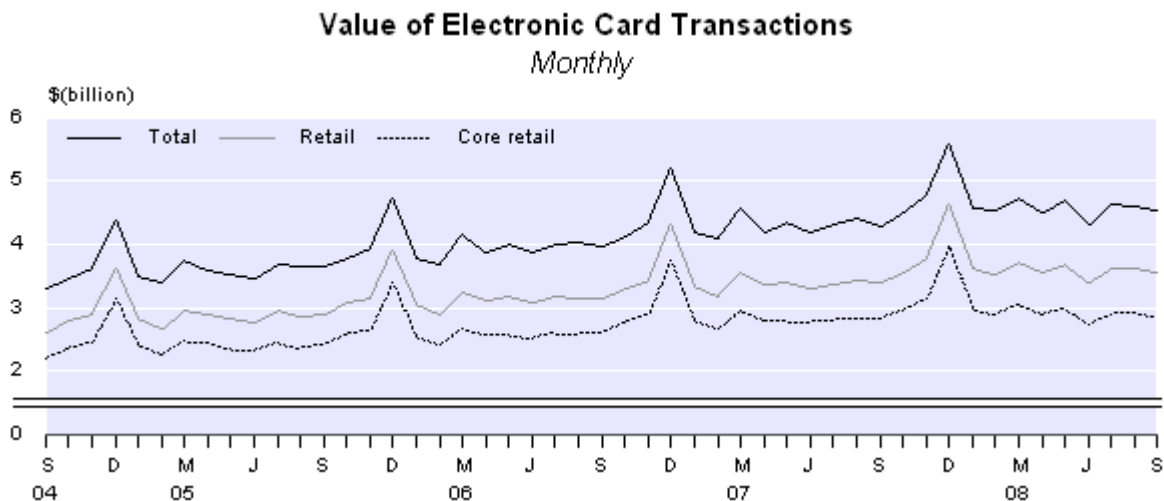
- A subset of retail electronic card transactions, excluding the motor vehicle-related industries (ANZSIC groups G531 motor vehicle retailing and G532 motor vehicle services), which, apart from automotive fuel retailing, generally have low rates of electronic transactions.

The following series are published for each of the aggregations:

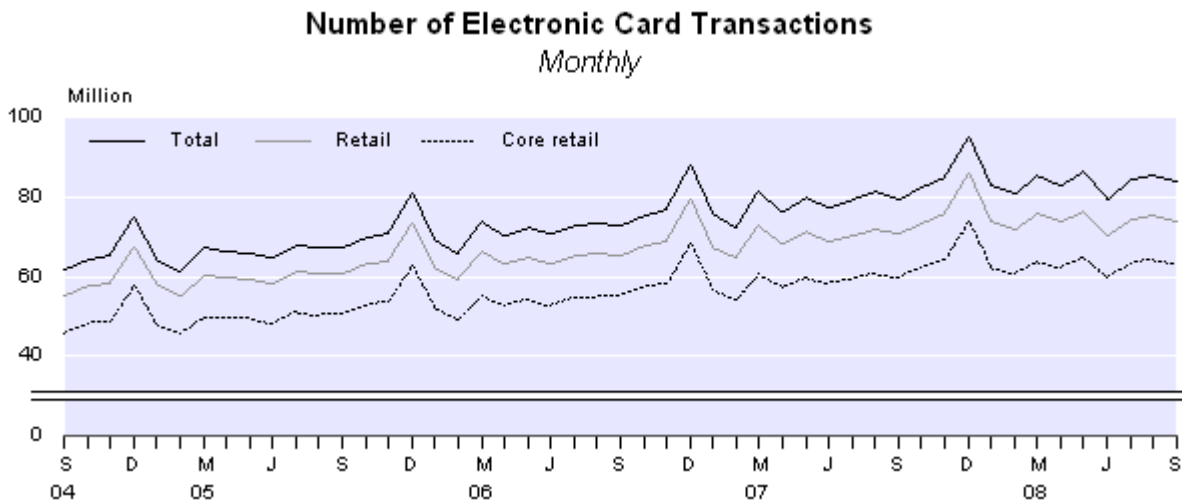
- values – actual (unadjusted), seasonally adjusted and trend
- volumes – actual (unadjusted).

Seasonal patterns

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



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.



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 occurred in December 2005. The impact of this is particularly visible in the seasonally adjusted decreases in the ECT series for 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 monthly sample of retail establishments. Given the similarities in coverage of the two series, it is expected that they may be compared with each other. However, users should be aware that there are a number of differences between the two series that affect comparison between them. These differences are described below.

Coverage

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

| Coverage Differences between the Electronic Card Transactions Series and the Retail Trade Survey | | |
|--------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------|
| | Cash sale | Credit sale |
| Electronic Card Transactions | 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

- 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

Statistics NZ has developed ECT series that relate to the industry coverage of the RTS. This has been done by matching the industry codes supplied by the respondents to classifications used by Statistics NZ. There are instances where the classification allocations used by the respondents differ from those used by Statistics NZ. This results in some coverage differences at the industry and overall retail level, and potentially some overstatement of the ECT retail industry levels. The impact of this on ECT retail data levels cannot be fully assessed, as source data are only supplied in aggregate form, but retail levels are estimated to be overstated by less than 5 percent.

Changes in share of spending by electronic card transactions

Over the past few years, the uptake of electronic transaction technology among retailers and increasing card usage by consumers have led to an increasing share of retail sales by electronic transactions, resulting 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 availability of the technology is approaching full coverage. However, it is still impacting on 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

Statistics NZ has performed an analysis of the ECT series compared with the RTS. The results indicate the following:

- Month-on-month 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.
- Monthly 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 the comparisons of the ECT and RTS seasonally adjusted series, which can differ in the direction and size of monthly 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, Statistics NZ does not recommend using the ECT series as an indicator or predictor of the RTS series.

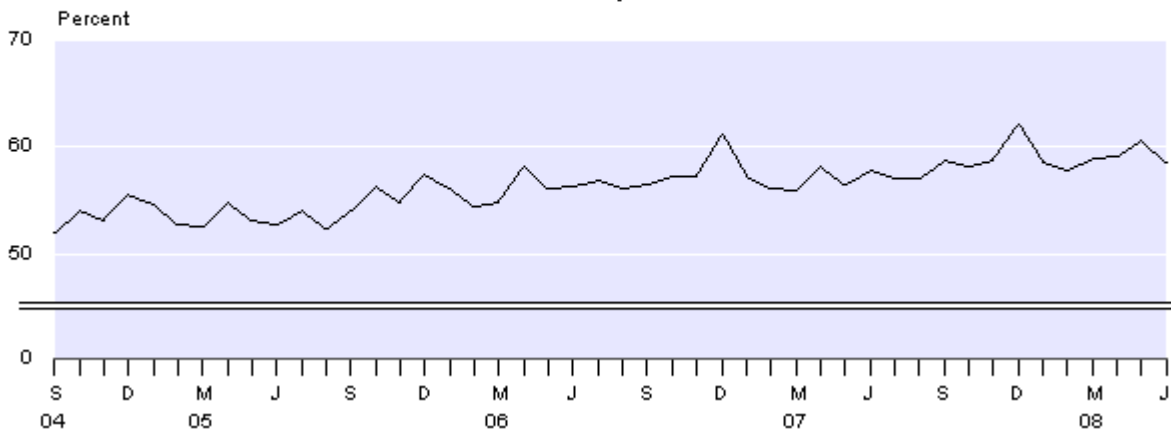
Electronic card transactions share of spending

The share of electronic card transactions in the retail industries has been slowly increasing over time. The mean share of the retail spending for the year ended June 2008 was estimated as 58.8 percent compared with 57.2 percent for the year ended June 2007.

Share of Retail Spending by Electronic Card Transactions

Excluding GST

Monthly

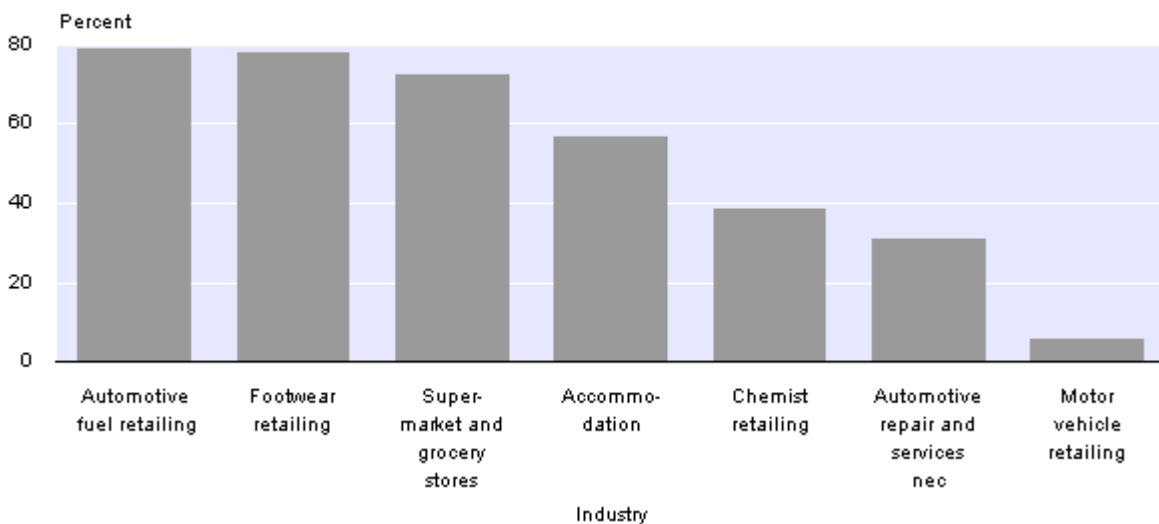


The electronic card transactions share of retail spending varies significantly between individual retail industries. For example, the share is higher than average in industries such as automotive fuel retailing, footwear retailing, supermarket and grocery stores, clothing and softgoods, and department stores. It is much lower than average in industries such as automotive repair and motor vehicle retailing.

Mean Share of Retail Spending by Electronic Card Transactions

For selected industries, excluding GST

Year ended June 2008



Privacy, security and confidentiality

Privacy, security and confidentiality are critical to people and businesses, and the Statistics Act 1975 protects the information provided. No information is released from these data that would allow the identification of any individual or merchant.

Definitions

ANZSIC

Australian and New Zealand Standard Industrial Classification.

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.

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.

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.

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.

Share of spending by electronic card transactions

The share of spending by electronic card transactions is the 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 RTS.

Seasonally adjusted series

The X-12-ARIMA package has been used 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.

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

Estimated trend

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

The trend series are calculated using the X-12-ARIMA 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 will be subject to substantial revisions.

More information

For more information, follow the [link](#) from the technical notes of this release on the Statistics NZ website.

Copyright

Information obtained from Statistics NZ may be freely used, reproduced, or quoted unless otherwise specified. In all cases Statistics NZ must be acknowledged as the source.

Liability

While care has been used in processing, analysing and extracting information, Statistics NZ gives no warranty that the information supplied is free from error. Statistics NZ shall not be liable for any loss suffered through the use, directly or indirectly, of any information, product or service.

Timing

Timed statistical releases are delivered using postal and electronic services provided by third parties. Delivery of these releases may be delayed by circumstances outside the control of Statistics NZ. Statistics NZ accepts no responsibility for any such delays.

Tables

The following tables are printed with this Hot Off The Press release and can be downloaded from the Statistics New Zealand website in Excel format. If you do not have access to Excel, you may use the [Excel file viewer](#) to view, print and export the contents of the file.

1. Electronic card transactions – total value
2. Electronic card transactions – retail industry values
3. Electronic card transactions – core retail industry values
4. Electronic card transactions – volumes

Supplementary tables

Supplementary tables can also be downloaded from the Statistics New Zealand website in Excel format. Series in the supplementary tables contain data from the beginning of the four ECT series.