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Electronic Card Transactions: August 2008

Highlights

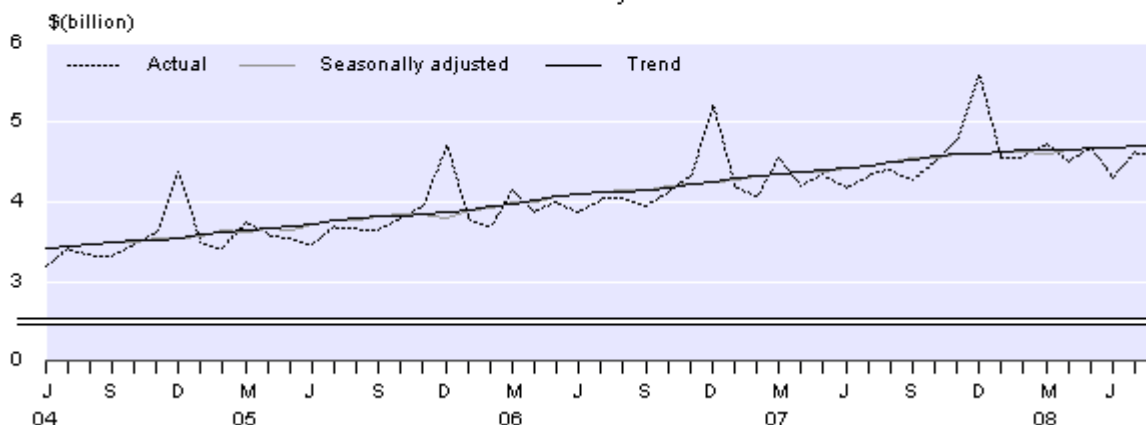
For August 2008 compared with July 2008 (on a seasonally adjusted basis):

- The value of the total Electronic Card Transaction (ECT) series was 0.8 percent higher.
- The value of the retail ECT series was 1.1 percent higher.
- The value of the core retail ECT series was 1.7 percent higher.
- Consumables were the main contributor to the increases in all three series.

Other highlights include:

- The trend value of the total ECT series was 5.1 percent higher in August 2008 than in August 2007; this was the slowest annual increase since the series started.
- The 85 million electronic card transactions with New Zealand-based merchants in August 2008 totalled \$4.6 billion.

Value of Total Electronic Card Transactions
Monthly



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

Commentary

Electronic card transactions at a glance

- There were 85 million electronic card transactions with New Zealand-based merchants in August 2008, with a value of \$4.6 billion. This compares with 81 million transactions in August 2007, with a value of \$4.4 billion.
- There were 1.0 billion electronic transactions in the year ended August 2008, with a value of \$55.7 billion. This compares with 937 million transactions with a value of \$51.9 billion in the August 2007 year.
- The mean transaction value for August 2008 was \$54, which was the same as recorded in August 2007. This follows on from the \$55 recorded for July 2008 and the annual high of \$59 for December 2007.
- For the year ended August 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.

Total electronic card transactions

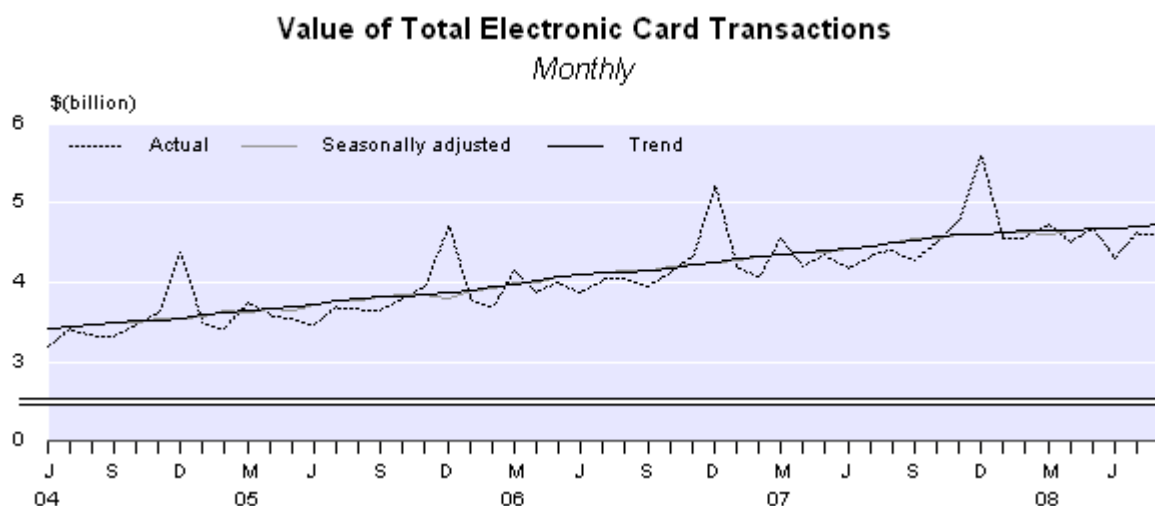
Value

The total value of electronic card transactions with New Zealand-based merchants was \$4.6 billion in August 2008. This was 4.6 percent higher than the \$4.4 billion recorded for August 2007.

After adjusting for seasonal effects, the total ECT series was 0.8 percent higher in August 2008 compared with July 2008, which followed on from a 0.7 percent increase in July. The consumables and non-retail industries were the main contributors to this increase, which was partly offset by a decrease in the fuel retailing industry.

In August 2008 the total ECT trend series was 5.1 percent higher than in August 2007. This annual increase was the smallest since the series began in October 2002. The trend reflects not only changes in consumer spending and prices, but also changes in merchants' and customers' use of payment methods.

In the graph below, the seasonally adjusted and trend series almost match, which indicates a very regular seasonal pattern.



Number of transactions

There were 85 million electronic card transactions with New Zealand-based merchants in August 2008. This was 4.9 percent higher than in August 2007, when there were 81 million transactions.

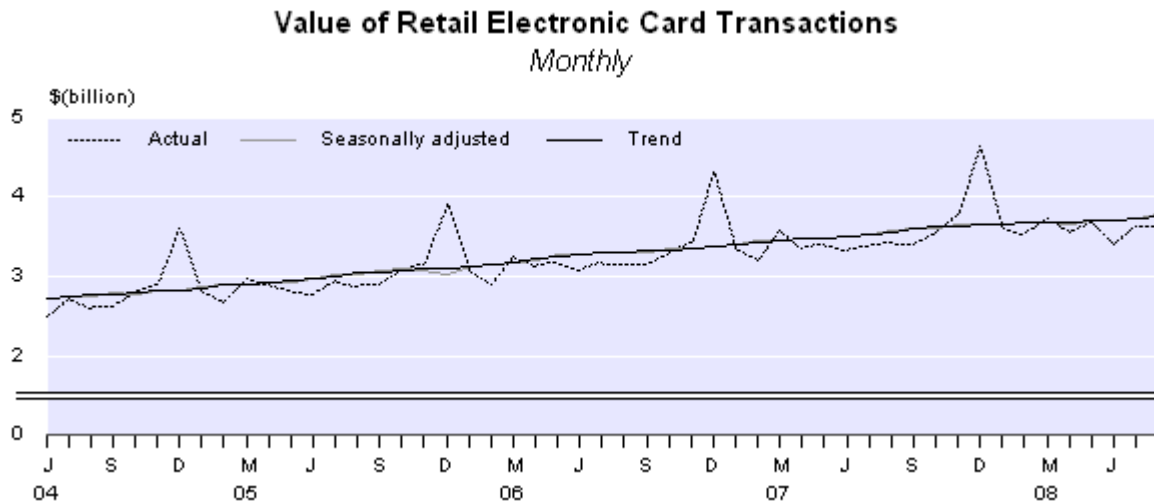
Electronic card transactions – retail industries

The retail ECT series is a subset of the total ECT series, and measures transactions in the retail sector.

Value

After adjusting for seasonal effects, the retail ECT series was 1.1 percent higher in August 2008 than in July 2008. The increase was largely driven by the consumables industry. However, this was partly offset by a decrease in the fuel retailing industry.

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



Number of transactions

There were 76 million electronic card transactions in the retail industries in August 2008. This was 4.8 percent higher than in August 2007, when there were 72 million transactions.

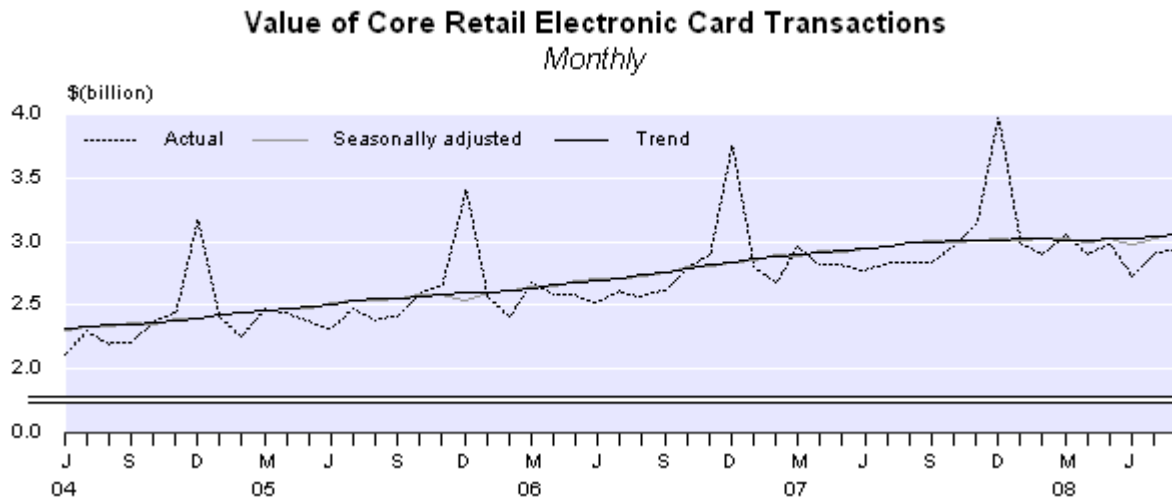
Electronic card transactions – core retail industries

The core retail ECT series is a subset of the retail ECT series. The core retail industries exclude the motor vehicle-related industries, which, apart from automotive fuel retailing, generally have low rates of electronic transactions.

Value

After adjusting for seasonal effects, the core retail ECT series increased 1.7 percent in August 2008 following a 1.7 percent increase in July and a 1.7 percent decrease in June. This month's increase was largely driven by the consumables industry. Other increases were in durables, hospitality and apparel.

The trend in the core retail ECT series flattened between October 2007 and May 2008, but has been increasing since then, up 1.4 percent since May.



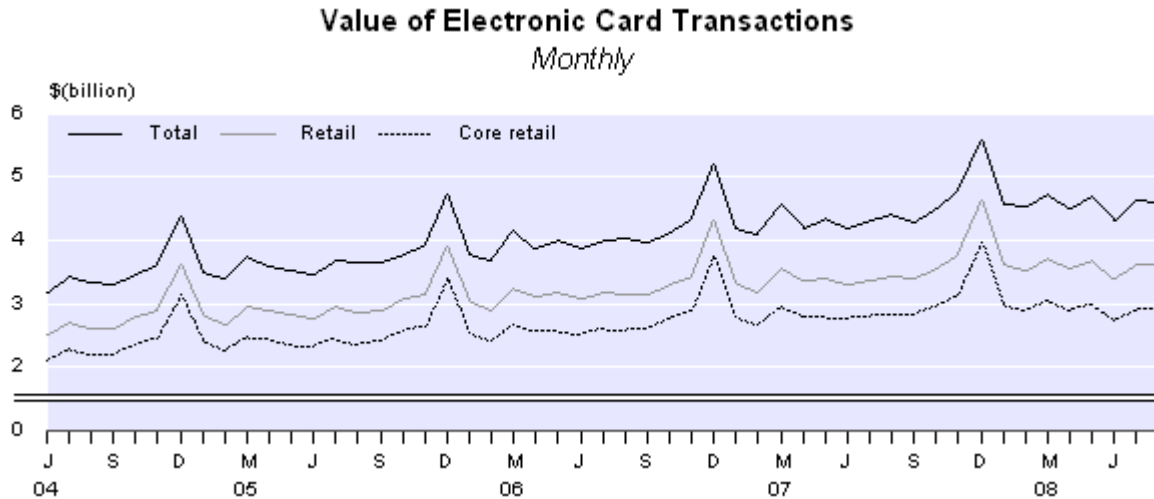
Number of transactions

There were 64 million electronic card transactions in the core retail industries in August 2008. This was 5.6 percent higher than in August 2007, when there were 61 million transactions.

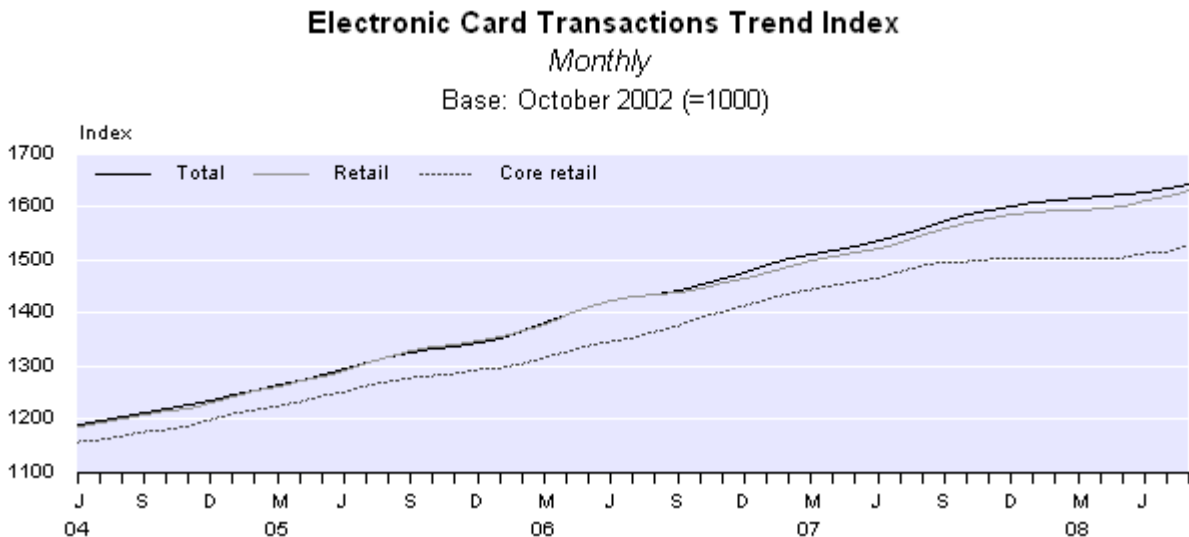
Comparing the three series

Values

The three unadjusted series (for total, retail and core retail electronic card transactions) have similar seasonal patterns, peaking in December each year. For the year ended August 2008, 79 percent of electronic transaction spending took place in the retail industries.



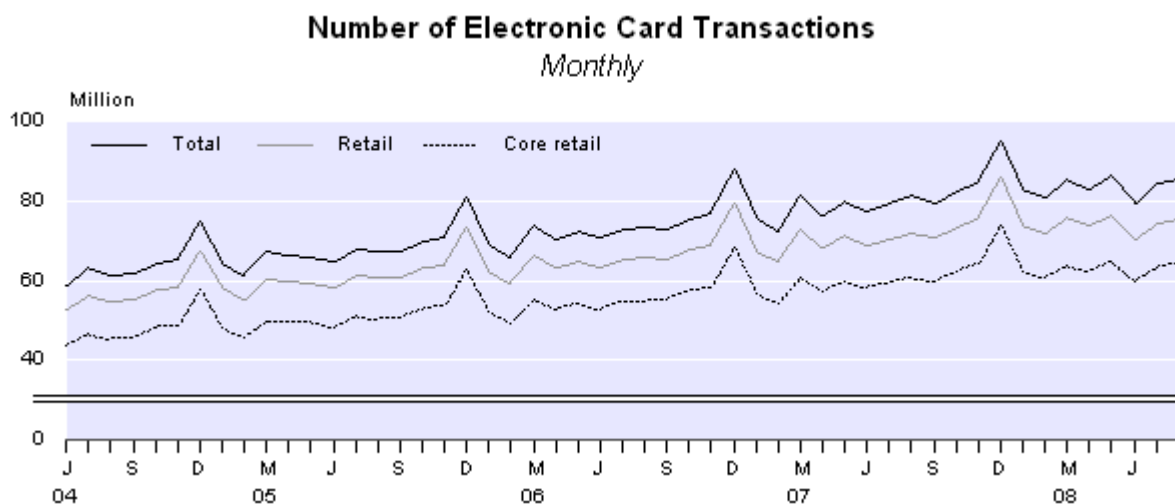
The impact of rises in fuel prices on the retail ECT trend can also be seen in the following graph. The trend for the core retail series started to level off after about September 2007 before returning to a stronger increase, whereas for the retail series the flattening of the trend was smaller, strengthening again from April.



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.

Number of transactions

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



Comparison statistics

Comparisons with the Retail Trade Survey (RTS)

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

- total retail sales decreased 0.8 percent.
- core retail trade sales decreased 0.2 percent.
- retail ECT series increased 0.8 percent.
- core retail ECT series increased 1.2 percent.

Other statistics

- For July 2008 compared with July 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, increased 4.9 percent.
- For August 2008 compared with July 2008, the Food Price Index rose 2.7 percent.

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Next release ...

Electronic Card Transactions: September 2008 will be released on 20 October 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).

The following series are published for each of the aggregations:

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

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 five 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.

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.

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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.