

Embargoed until 10:45am – 09 October 2009

## Electronic Card Transactions: September 2009

### Key facts

These statistics are based on electronic card transactions during September 2009. Figures are seasonally adjusted unless otherwise stated. See the technical notes for industry descriptors.

New time series data by industry group are now available in the tables of this release.

Changes in the value of transactions (compared with August 2009) were as follows:

- Total electronic card transactions were **up** (0.4 percent).
- The retail industries were **up** (0.7 percent).
- The core retail industries were **up** (0.4 percent).
- By industry group, the main contributors to the increase were automotive fuel retailing, consumables, and services.

The actual (not seasonally adjusted) value of transactions in the core retail series was up 3.2 percent from September 2008.

After adjusting for seasonal effects, the total value of electronic card transactions increased 0.4 percent in September 2009 compared with August 2009. The industries contributing the most to this increase were automotive fuel retailing, consumables, and services.

The value of transactions in the retail industries rose 0.7 percent in September 2009, with automotive fuel retailing (up 2.4 percent) the biggest contributor. Core retailing (which excludes the motor vehicle-related industries) saw a smaller increase of 0.4 percent, with contributions from the consumables and services industries (up 0.4 and 3.7 percent, respectively).

Trends for the value of transactions in the total, retail, and core retail series have all been increasing since January 2009. The trend in total transactions has been rising at an average monthly rate of 0.4 percent since then, while core retail has risen at an average of 0.3 percent. For the retail series, latest figures indicate the trend may have picked up in the last two months.

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## Related information

Latest seasonally adjusted movements in the Retail Trade Survey compared with ECT data, as first published:

- retail trade sales decreased 0.5 percent in July 2009
- retail ECT series increased 0.8 percent in July 2009
- core retail trade sales decreased 0.5 percent in July 2009
- core retail ECT series increased 1.1 percent in July 2009.

Latest movement in the Food Price Index:

- the Food Price Index fell 0.9 percent in August 2009.

Latest movement in the Consumers Price Index:

- the Consumers Price Index rose 0.6 percent in the June 2009 quarter.

Latest movement in credit card billings, as issued by the Reserve Bank of New Zealand:

- credit card billings increased 1.5 percent in August 2009 compared with August 2008.

Previous releases of Electronic Card Transactions data are available on the Statistics NZ website ([www.stats.govt.nz](http://www.stats.govt.nz)).

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### Next release ...

*Electronic Card Transactions: October 2009* will be released on 10 November 2009.

# 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 or 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 industries

- 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 industries

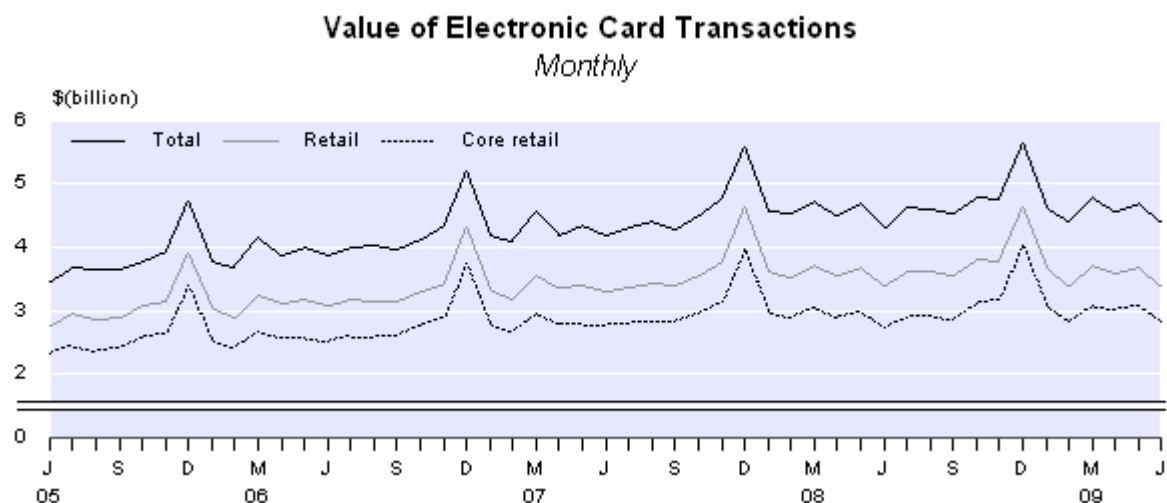
- A subset of retail electronic card transactions, excluding the motor vehicle-related industries (ANZSIC groups G531 motor vehicle retailing and G532 motor vehicle services), which, apart from automotive fuel retailing, generally have low rates of electronic transactions.

The following series are published for each of the aggregations:

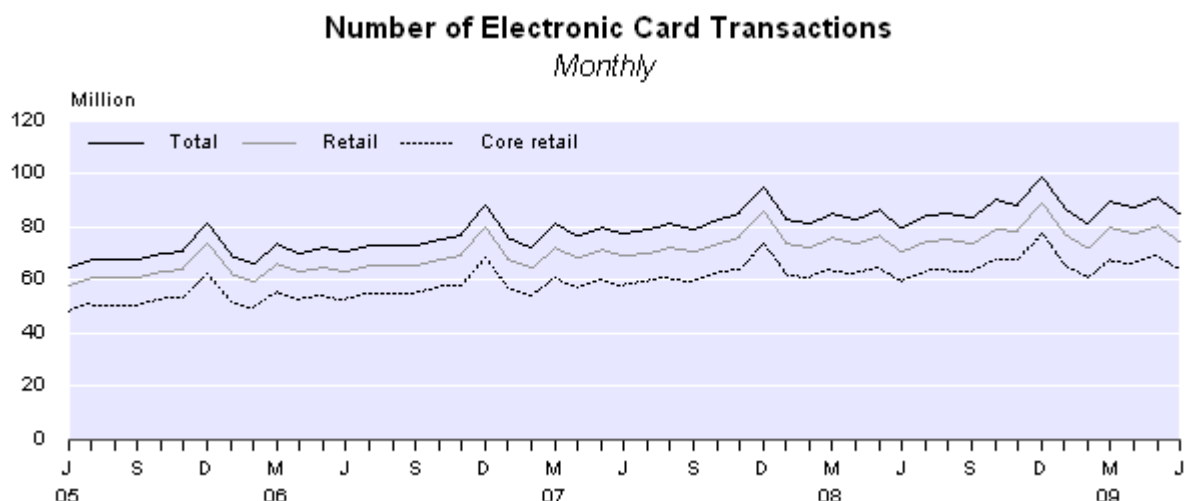
- values – actual (unadjusted), seasonally adjusted, and trend
- volumes – actual (unadjusted).

## 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

<b>Coverage Differences between the Electronic Card Transactions Series and the Retail Trade Survey</b>		
	<b>Cash sale</b>	<b>Credit sale</b>
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 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.

## Industry group descriptions

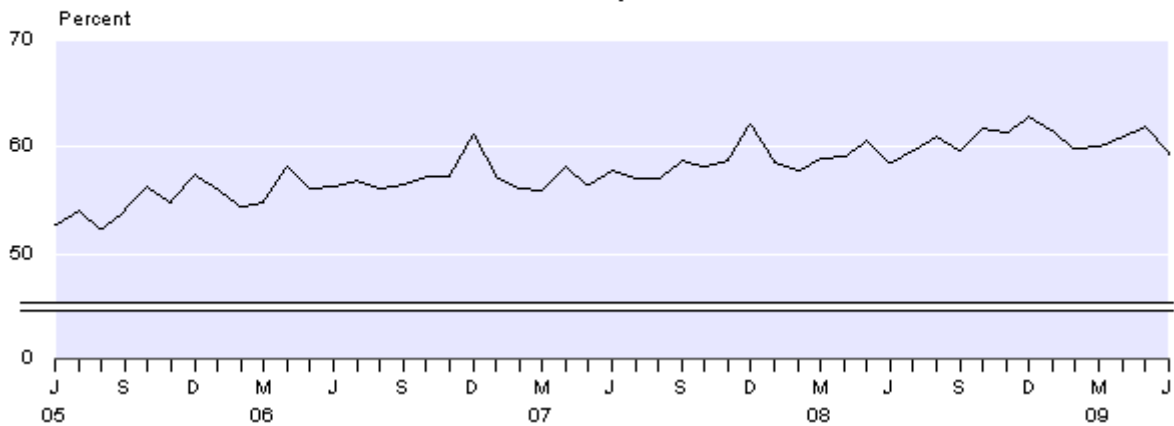
The eight aggregated industry groups commonly referred to in the ECT release text are described in the table below.

<b>Aggregated Industry Groups in ECT Releases</b>	
<b>Industry group</b>	<b>Descriptor</b>
Consumables	Includes food, liquor, and chemist retailing
Durables	Includes furniture, hardware, and appliance retailing
Hospitality	Accommodation, bars, cafes, and restaurants
Apparel	Clothing, soft-goods, and footwear retailing
Services	Personal and household services, including hire and repair
Motor vehicles	Retail, repair, and other services
Fuel	Automotive fuel retailing
Non-retail	Includes services such as travel and health, and wholesaling

## Electronic card transactions share of spending

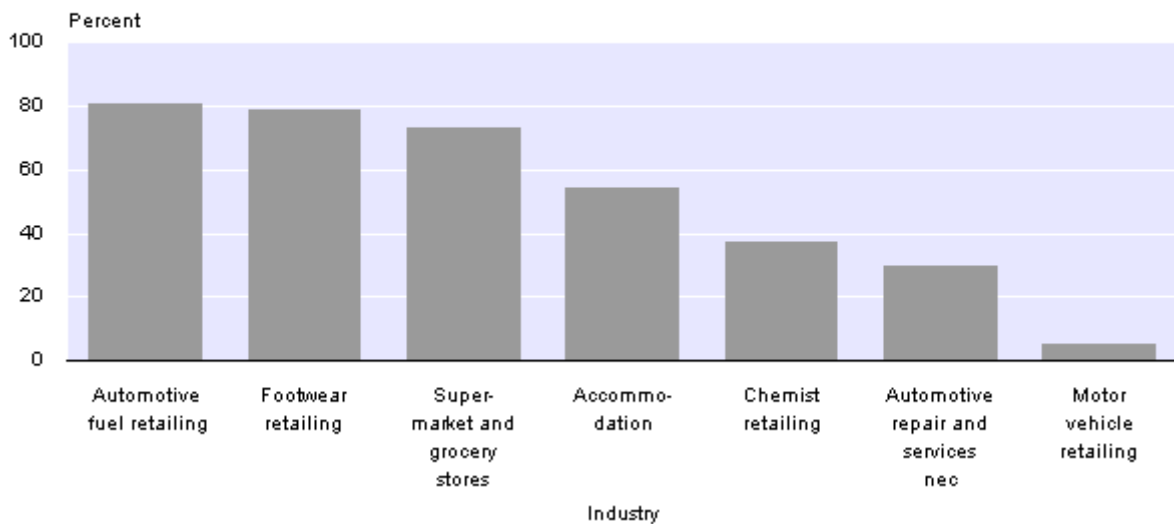
The share of electronic card transactions in the retail industries has been slowly increasing over time. The mean share of the retail spending (excluding GST) for the year ended June 2009 was estimated as 60.8 percent compared with 58.8 percent for the year ended June 2008.

**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 2009



**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 values
2. Electronic card transactions – retail industry values
3. Electronic card transactions – core retail industry values
4. Electronic card transactions – number of transactions
5. Electronic card transactions – means and proportions
6. Electronic card transactions by industry group – actual values
7. Electronic card transactions by industry group – seasonally adjusted values

## Series available online

The full time series for Electronic Card Transactions can be accessed free of charge from the online Infoshare database, available at [www.stats.govt.nz/infoshare](http://www.stats.govt.nz/infoshare).

To access, click on **Browse**, then choose:

Subject category: **Economic indicators**, then choose: **Electronic Card Transactions**.

The time series can be downloaded in Excel or comma delimited format.

More information about Infoshare can be found on our website at [www.stats.govt.nz/about-infoshare](http://www.stats.govt.nz/about-infoshare).