

Regional consumer card spending trends QMI

Quality and methodology information for regional consumer card spending data 2019 to 2023 derived from aggregated and anonymised Visa card spending data.

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1 . Output information

- National Statistic: no
- Data collection: administrative data from a third party
- Frequency: recurring, to be confirmed
- How compiled: based on third party data
- Geographic coverage: UK

2 . About this Quality and Methodology Information report

This Quality and Methodology Information report contains information on the quality characteristics of the data (including the European Statistical System's five dimensions of quality) as well as the methods used to create it.

The information in this report will help you to:

- understand the strengths and limitations of the data
- learn about existing uses and users of the data
- understand the methods used to create the data
- help you to decide suitable uses for the data
- reduce the risk of misusing data

3 . Important points

- Card spending transaction information in the report is collected by Visa; the data are aggregated and anonymised by Visa before being provided to the Office for National Statistics (ONS).
- Aggregation and suppression are used to ensure data shared with the ONS are a view of broad trends and do not identify or reflect individual spending habits.
- The ONS has entered into an agreement with Visa to receive data; this experimental data source offers new opportunities to understand UK consumer spending because of its extensive coverage and novel breakdowns.
- UK consumers and merchants may use a choice of payment methods and providers make and receive payments; while the metrics used in this paper are chosen to show some recent trends with some card payments, the information presented is independent of dynamics in the wider payments ecosystem, including on other card schemes.
- The trends are affected by the overall use of cards in comparison with other payment methods, and choice of card schemes, of which Visa is one, (readers should be mindful of this when interpreting the information, and the impact on the overall UK picture); the metrics used and the limitations of these are discussed in [Section 5: Methods](#).

4 . Quality summary

Overview

We have developed these statistics to give an indication of card spending habits in the UK based primarily on aggregated and anonymised UK (debit and credit) card data provided by Visa.

This Quality and Methodology Information (QMI) report sets out the methodology used to derive the statistics shown, and outlines strengths and limitations that users should consider when interpreting the statistics shown.

Strengths and limitations

Strengths

Visa card spending data are timely, providing close to real-time insights into UK consumer spending behaviour. Monthly data are provided to the ONS, with data being refreshed every quarter. Granular spending data are provided at a postal area level subject to appropriate dominance and disclosure suppression, providing a unique dataset with high geographical granularity.

The availability of data over several years (2019 to 2023) provides a sizeable timeframe to observe spending patterns over time. This allows us to see changes to underlying spending patterns during national lockdowns because of the coronavirus (COVID-19) pandemic, and during more recent periods of increased cost of living.

Limitations

Users should note that these data are not seasonally adjusted. This means monthly patterns in spending have not been accounted for, such as the impact of paydays, number of days in a month, and bank holidays. Changes in the resulting indices may therefore be because of seasonal effects, so users should interpret these with caution.

These indices are presented on a nominal basis and are not adjusted for price increases over time. As inflation is not accounted for, a natural uplift is to be expected across indices, so users should interpret trends with caution. Users should note that rates of inflation are likely uneven across merchant sectors.

Within the UK financial transaction ecosystem there has been a shift away from cash as a payment medium in favour of card spending, as [detailed by the Bank of England, using UK Finance data](#). This results in indices being uplifted over time in areas where consumers replace typically low value cash transactions with low value card transactions instead. Users should interpret long-term trends with this in mind.

The UK card scheme market conditions are not static over time. Over time banks may choose to change the card scheme through which they operate their credit and debit cards. Additionally, new banks or financial institutions may change the market picture. While the metrics used are chosen to show consumer trends independent of influences because of the financial transaction ecosystem, users should consider the impact of changing market conditions.

Glossary

Online and face-to-face transactions

Transactions are classified as taking place online if it was carried out through the internet, even if the customer went to a physical location to buy a good or service. For example, if a customer in a restaurant or pub ordered and paid for their transaction through a company's smartphone app, this would be recorded as taking place online rather than face-to-face. Users should note this when interpreting indices on face-to-face versus online transactions by value and sectoral weight.

Debit and credit card transactions

These cards facilitate the transfer of money for goods and services rendered without the usage of cash. These transactions occur both in-person through contactless and chip and pin, and online through mail order or ecommerce. All card data that the Office for National Statistics (ONS) receive are anonymised and aggregated to protect against disclosure of individuals' consumer data.

Financial payment system

Debit and credit cards are provided by card issuers that enables consumers to make payment transactions. Card issuers are financial institutions responsible for providing a customer with a card. Card schemes, of which Visa is one, are payment networks that provide a range of services. For consumer payments, card schemes provide secure connectivity for merchants to transact with cardholders, either face-to-face or online, and ensure those merchants safely receive their funds from the cardholder's bank.

Rural urban classification

In England and Wales, the [Rural Urban Classification](#) is used to distinguish rural and urban areas. The rural urban classification identifies 10 categories of settlement. In Scotland, the [Scottish Government Urban Rural Classification](#) is used to distinguish rural and urban areas. The Scottish classification is different to the classification used in England and Wales; it identifies eight categories of settlement.

Neither classification is available for postal areas. Therefore, the National Statistics Postcode Lookup is used to calculate an indicative measure of relatively how urban a postal area is. Specifically, this is based on the proportion of a postal area's constituent postcodes that belong to a settlement with at least 10,000 people. In the case of England and Wales, this applies to all postcodes which are defined as urban. In the case of Scotland, this applies to postcodes which belong to a "large urban area" or "other urban area" classification.

Merchant location

Merchant location is gathered from the merchants register. The merchant acquirer (bank or financial institution that processes card payments for a merchant) is responsible for providing the card network with the correct location of each merchant outlet, as set out in the [Visa standards manual \(PDF, 14.74MB\)](#). For in-store transactions with a fixed location, the merchant location will be where the transaction took place. For merchants that do not have a fixed location, the location can either be where the transaction took place or the merchant's principal place of business. We have not included analysis of where spending took place for online transactions because of the difficulties in defining this consistently. In some cases, the merchant location is not disclosed to Visa.

Merchant category

A merchant category code (MCC) is a four-digit number assigned to describe a merchant's primary business based on annual sales volume measured in local currency. Where a merchant is engaged in more than one type of business, the merchant can either use the MCC which reflects the highest annual sales volume or use different MCCs for different lines of business. In addition, some MCCs identify a specific merchant or type of transaction. In the dataset provided by Visa card spending, data is aggregated where a specific MCC would disclose an individual businesses activity. A merchant category group (MCG) is assigned to define an industry using a set of MCCs.

Geography

This publication uses [Postal geographies](#). Data are presented aggregated by postal area. Postal areas are the first one or two letters at the start of a postcode. There are 121 postal areas in the UK, and one for each of the Crown Dependencies, which are the Isle of Man, the Bailiwick of Guernsey, and the Bailiwick of Jersey. Data is aggregated at postal area level by Visa before being provided to the ONS.

Regions

Postal areas do not align with the 12 International Territorial Level 1 (ITL) statistical areas in the UK, which are Scotland, Wales, Northern Ireland and the nine regions of England. Therefore, to calculate regional trends, data is aggregated to regions based on the proportion of a postal area's constituent postcodes that belong to each region. In most cases, a postal area belongs entirely to one region.

5 . Methods

How we collect the data and our main data sources

Card spending transaction information in the report is collected by Visa. The data is aggregated and anonymised by Visa before being provided to the Office for National Statistics (ONS). Aggregation and suppression are used to ensure data shared with the ONS is a view of broad trends and do not identify or reflect individual spending habits.

How we analyse and interpret the data

In our Regional consumer card spending trends article, a variety of metrics are used to show spending trends. The metrics used are shown here, alongside the caveats in their interpretation.

The number of cardholders in the dataset reflects the number of cardholders who transacted with a Visa card in the month. The number of cardholders transacting may change over time for a variety of reasons. We adjust the spend values based on cardholder numbers in 2019 in consideration of the spending trends, regardless of the number of Visa cardholders in the set.

$$\text{Adjusted spend}_{\text{month}} = \frac{\text{Number of cardholders}_{\text{Jan 2019}}}{\text{Number of cardholders}_{\text{month}}} \times \text{Spend}_{\text{month}}$$

However, there are a few issues to consider when viewing the adjusted numbers. For instance, the number of people transacting with credit or debit cards may increase or decrease at a different rate to the number of people transacting with Visa cards. This can affect how closely the spending patterns reflect overall consumer behaviour. Likewise, adjustments for the number of cardholders are made based on the total number of cardholders in the UK. Changes in the number of cardholders may be different across the UK because of regional differences in the banks consumers choose to use.

Where a merchant location has not been disclosed, a further adjustment is made to apportion spend from unknown postal areas into known regions.

Indexed spend is used to show relative growth to make it easier to compare growth in different subsections of the data despite different magnitudes.

Indexed card spending data (average 2019 equals 100) is calculated as follows:

$$\text{Index adjusted spend}_{\text{month}} = \frac{\text{Adjusted spend}_{\text{month}}}{\text{Average adjusted spend in 2019}} \times 100$$

Average number of transactions is used to show the change in the number of transactions in different sectors.

Average number of transactions is calculated as:

$$\text{Average number of transactions}_{\text{month}} = \frac{\text{Number of transactions}_{\text{month}}}{\text{Number of cardholders}_{\text{month}}}$$

Average transaction value is used in some graphs to show the change in the value of transactions in different sectors. This is independent of the changes in the number of Visa cardholders or change in usage of cards.

Average transaction value is calculated as:

$$\text{Average transaction value}_{\text{month}} = \frac{\text{Total spend}_{\text{month}}}{\text{Number of transactions}_{\text{month}}}$$

Average transaction value should be considered alongside the volume of transactions to get a full picture of spending habits.

Average spend per cardholder is also used to show how cardholder habits have changed over time. This is independent of the number of cardholders represented in the dataset. Average spend per cardholder is calculated as:

$$\text{Average spend per cardholder}_{\text{month}} = \frac{\text{Total spend}_{\text{month}}}{\text{Number of cardholders}_{\text{month}}}$$

6 . Cite this methodology

Office for National Statistics (ONS), released 6 October 2023, ONS website, [Regional consumer card spending trends Quality and Methodology Information](#)