

# Credit Card Data

Credit card data may help forecast earnings growth in the US more quickly than traditional methods.

## Economic Rationale

Gaining insights into company operations and better positioning portfolios towards companies that will surprise the market is a potentially powerful way of generating outperformance.

Given that the share of payments made with credit cards has increased dramatically in recent years, particularly in the US, credit card transaction data can be an effective tool in forecasting performance for companies selling directly to consumers before the market has fully realized and reacted.

## Data Source

We leverage data on US credit card sales that encompasses multiple dimensions of consumer spending behavior. The data allows us to account for seasonality, which may allow one to gain deeper insights into true sales growth.

In addition to gross sales, the data also contains the total number of transactions and average ticket size.

**Potential Informational Advantage:** credit card data is provided monthly with a six day lag, while corporate earnings announcements occur quarterly with a two and a half week lag.

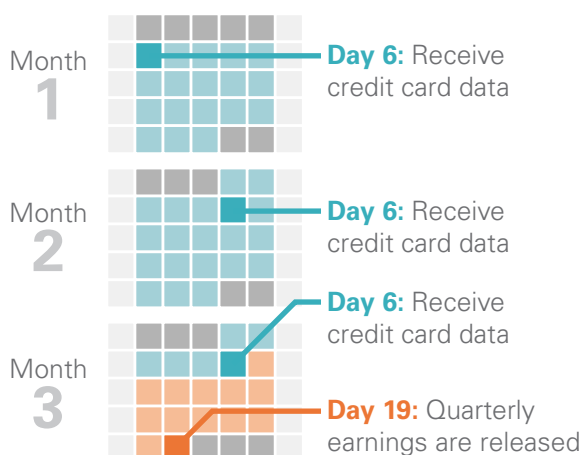
## Investment Insights

By observing changes in the average transaction size, it is possible to glean whether sales growth is driven by an increase in volume or a widening of margins.

Research has shown that the growth of the average transaction size may foreshadow improvements in profitability.

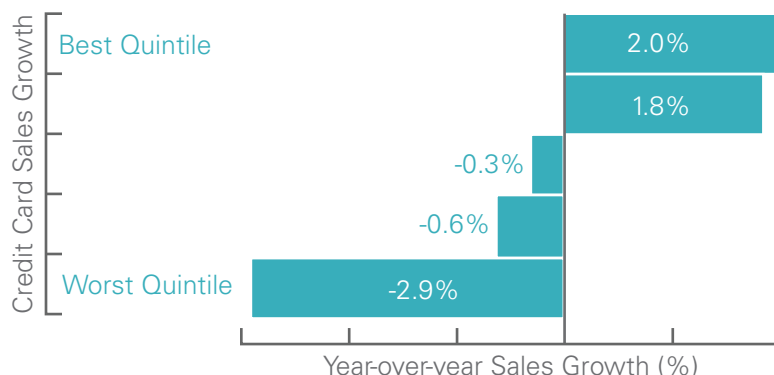
Furthermore, this data may help predict sales growth for up to a year in the future due to persistence in the growth of ticket size.

## Informational Advantage



Source: GSAM. For illustrative purposes only. The graphic illustrates potential informational advantage of receiving monthly credit card data with a six day lag, while corporate earnings are typically released quarterly with a two and a half week lag.

## Companies with greater credit card sales growth tend to have stronger YoY sales growth in the following year



Source: GSAM. For illustrative purposes only. The chart shows the year-over-year (YoY) sales growth for each quintile of the YoY growth in average credit card ticket size. YoY Sales Growth is calculated as the yearly sales growth above or below average yearly sales growth from March 31, 2008 to December 30, 2017. There were 113 companies in the universe as of December 30, 2017.

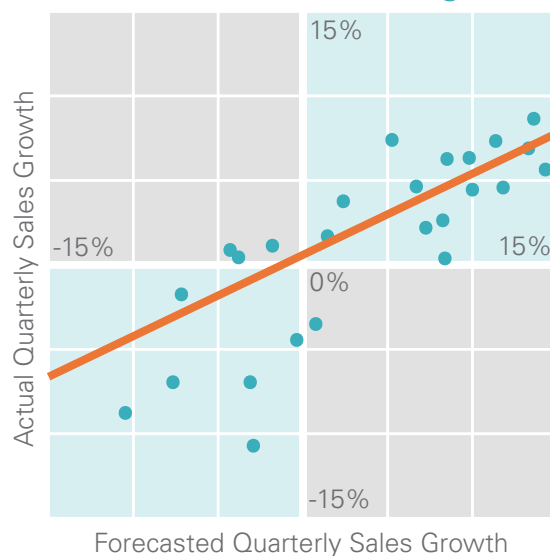
GSAM receives high level credit card data in the aggregate to examine economic trends, GSAM does not obtain specific transactions or data including Personally Identifiable Identification. This material is provided for educational purposes only and should not be construed as investment advice or an offer or solicitation to buy or sell securities. Although certain information has been obtained from public sources believed to be reliable, without independent verification, we do not guarantee its accuracy, completeness or fairness.

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## Case Study: Hardware Stores

- We have found that the credit card data signal may be effective when applied to **consumer sectors** and industries where credit card networks are used more often to complete transactions because it provides greater coverage over the total number of transactions within those sectors.
- For example, **home improvement stores** largely cater to consumers and small businesses, which often pay with cards.
- Credit card **data arrives monthly**, providing incremental insights into sub-industry profitability between quarterly earnings reports.
- Because the forecasted quarterly sales growth is positively correlated with actual quarterly sales growth, we believe we can gain an **informational edge** and potentially better price securities more quickly than the broader market.

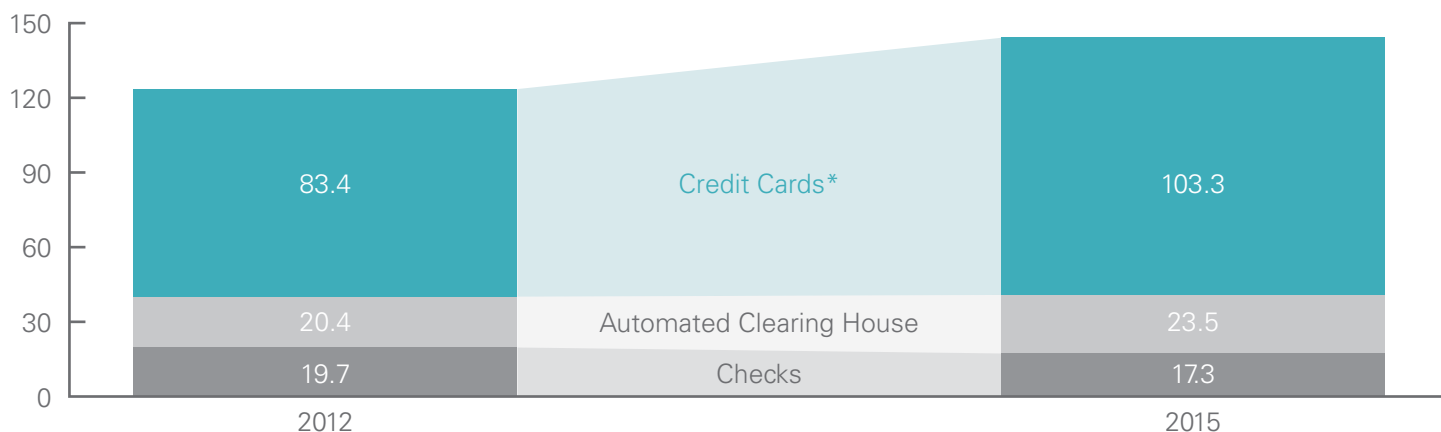
## Credit card forecasts are positively related to actual revenue growth



Source: GSAM. As of 1/31/2017. For illustrative purposes only. Represents Quarterly Year over year sales forecasts and results of the Home Improvement Retailer sub-industry from 1.31.08–1.31.17. The upward sloping line represents the positive correlation between forecasted quarterly sales growth and actual quarterly sales growth. Past correlations are not indicative of future correlations, which may vary.

## Credit card transactions have grown by 24% between 2012–2015

Number of US non-cash transactions in billions



As of December 2016. Source: The Federal Reserve. \*Represents credit card and debit card transactions.

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