Extracting Customer Demand: Credit Card Spending and Post-Earnings Returns

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Summary

- Customer spending within a fiscal quarter conveys important information about a firm’s future sales, earnings and returns
  - This information is incremental to accounting information, as well as to management guidance etc.
Summary

• Why?

  • Direct consumer spending is a more precise measure of consumer demand
    • Relative to, for example, product reviews or internet searches
    • Tough to game, and this is real purchases rather than intention to buy

  • Information contained in customer base composition helps in understanding persistence in demand
Summary

• What might direct purchase/spending data additionally convey over, eg. sales

  • Layering in distribution and inventory management
    • Pre-committed but not yet realized sales

• Who is buying?
  • Are they likely to buy again
Summary

• Authors exploit a very nice dataset
  • Contains a representative sample for more than 60,000 U.S. consumers from a large U.S. bank
  • They identify individual credit card spending in a large sample of 858 US public firms from multiple industries
  • Time series is short: an eight-month period from 1st March to 31st October of 2003.
Summary

• Authors show:
  • Aggregated credit card spending strongly correlates with a firm’s sales and net income for the same period
  • Yet it contains additional information: Positive relation between firm-level credit card spending surprise and post-announcement CAR
    • after controlling for earnings and sales surprises
    • Economically large effect
    • Stronger (only present in) retail-focused industries
  • More revenue from high-spending-capacity customers, or from a more diversified customer base is associated with more stable and persistent demand in the future
    • higher return predictability from its spending surprise
Summary

• Interesting paper with very novel results

• Clearly written

• Fantastic data

• Detailed empirical analysis

• Thought through many potential issues, many robustness checks
Thoughts

• **Measure:**

• Standardized Unexpected Spending:

\[ SUS_{iknq} = \frac{\text{Spending}_{iknq} - \text{Industry average spending}_{kq}}{\text{Industry average spending}_{kq} + 1} \]

• Largely varies in the cross-section

  • Is it capturing more retail focused firms even within the industry?
    • Firms where large part of sales come through credit card financed transactions
Thoughts

• Measure:

• Suggestion (taste-dependent):
  
  • Use time series changes in QSUE.
  
    • Since you have data for 2 quarters you will lose the time dimension, but cross-sectional results still interesting, and you have a very short time series anyway

    • More in line with your earnings and sales surprise measures
Thoughts

• Pitch/ Motivation:

• Currently seem a bit focused on market efficiency angle

  • “Investors and analysts could exert effort to discover and utilize such information (either on actual spending or on customer composition), which could be helpful in investment decision making.”

• But since this information is proprietary, these results are at best about strong-form efficiency
Thoughts

• **Pitch/ Motivation:**

  • Authors know this, and show that similar predictability patterns apply to non-retail firms using COMPUSTAT segment data

  • In spirit, results are similar:
    • Results stronger for firms
      • with a lower proportion of sales from large customers
      • whose major customers are government agencies rather than other corporations

  • So, the stock market does seem to be less efficient about understanding demand persistence
Thoughts

• Pitch/ Motivation:

  • This is independently interesting, but a different paper

  • Investors can be blamed for ignoring the segment disclosure (when the disclosure come? Is this tradable?), but not for ignoring the credit spending information, which is private
Thoughts

• Alternative Pitch:
  • Level 1:
    • This spending information can however be used by someone who has it:
      • Bank-affiliated mutual funds in their prop trading divisions
        • These funds should long stocks whose card spending is unexpectedly strong this quarter, or those stocks that have a diversified customer base etc.
      • Bank itself: Does the bank use this information to price loans?
        • More favorable rates to lenders on whom the bank’s cardholders are spending more
    • If this is distribution (Kellogg cornflakes brands sold through Walmart) then downstream data can be used by managers
Thoughts

• Alternative Pitch:

• Perhaps more interesting:

• Think about searching for information:

Then:  

Now:
Thoughts

• Alternative Pitch:

• Perhaps more interesting:

Result:

We use data to make ads relevant

We try to show you useful ads by using data collected from your devices, including your searches and location, websites and apps you have used, videos and ads you have seen, and personal information you have given us, such as your age range, gender, and topics of interest.

If you are signed in and depending on your Ads Settings, this data informs the ads you see across your devices. So if you visit a travel website on your computer at work, you might see ads about airfares to Paris on your phone later that night.

Advertisers pay only for ads that people
Thoughts

• Alternative Pitch:

• Perhaps more interesting:

Banks then:
Thoughts

• Alternative Pitch:

• Perhaps more interesting:

Banks now:
Thoughts

• Alternative Pitch:

• Banks as INFORMATION intermediaries

• Banks know a lot more about what customers are doing now than they did a couple of decades back

• How valuable is the information they have?
  • That is where this paper comes in:

• You show the information is topical and value relevant, and not necessarily contained in other things the firm/general public know about
Thoughts

• Alternative Pitch:

• Banks as INFORMATION intermediaries

• In a firm-level customer demand setting, you guys are the first to show that bank credit-card issuers know something about demand that is economically significant

• You also show them how to use that information
  • And exactly why it might be valuable
  • E.g., customer concentration & demand persistence results
Thoughts

• Alternative Pitch:

• So should they also derive value for the data they have?

• Privacy concerns:
  • Yes, but not super stringent for aggregated information
  • Would you mind your bank sharing aggregate data about how much people spent using their credit cards this month at this hotel for rooms, versus for room service?

• A lot of Google’s valuation depends on the information they have, not just because they can search better than bing.
  • Maybe so should your banks’?
Thoughts

• Alternative Pitch:

• So should they also derive value for the data they have?

  • Privacy concerns: regulatory philosophy

  • Hard to see how this would harm people

  • Might benefit market efficiency
  • Firm managers making policy decisions
Conclusion

• Interesting paper on an important topic where more work is needed

Thank you!