



Comments on:  
“Electronic Transactions as High-Frequency  
Indicators of Economic Activity”

By

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# The authors seek the answer to the question:

- I. Are debit card transactions useful for macroeconomic analysis?
  - Are transactions correlated with consensus forecast errors?
  - Can transactions help forecast revisions in published data?
  - Are well-known shocks visible in the transaction data?



# The variables investigated are:

I. Real GDP growth

II. Real consumption growth

III. Growth in non-durable consumption

I – II: Data revisions and consensus errors

III: Data revisions



# The descriptive statistics reveal some interesting points

- I. Though not statistically significant (few observations):
  - I. On average, first releases of GDP and non-durables (Q/Q) are closer to “true” data than second and third release.
  - II. On average consensus GDP forecasts are closer to “true” value than to the three first publications.



# OLS regressions are applied

$$\varepsilon_t = \beta_0 + \sum_{i=0}^1 \beta_{1i} D_{t-i} + \sum_{j=1}^3 \beta_{2j} \Delta R_{t-j} + \sum_{h=1}^3 \beta_{3h} \varepsilon_{t-h} + u_t$$

$\varepsilon_t$ : Measurement / consensus forecast error

$$\varepsilon_t = N_{k,t} - N_{l,t} \quad \text{or} \quad \varepsilon_t = N_{k,t} - C_t$$

$D_t$ : Transformed debit card values (Nominal ?)

$R_t$ : Real short-term interest rate



# Some doubts / questions

I. Why compare with the first data published?

Why not  $\mathcal{E}_t = N_{k,t} - N_{k-1,t}$ ?

II. Why not make a model for forecasting  $N_{k,t}$  directly and evaluate if it can “beat” (a) the first data released and (b) the consensus forecast?

III. Would it make sense to make a probit model – the probability that the first data published is to low / high?



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