

In Victory or Defeat:
Consumption Responses to Wealth Shocks

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Summary

Using a representative sample of digital payment data from China, the authors investigate how entertainment-related and other types of consumption change after experiencing large positive and negative stock market shocks.

Main Findings:

- There is a *U*-shaped relationship between individual investors' monthly entertainment-related consumption and stock market returns in the previous month.
- The authors also provide further evidence for this finding in a lab experiment.

I Like This Paper!

- Important big picture question which is translated nicely into a manageable empirical exercise.
- Focus on negative stock market shocks is unique.
- The findings could have important implications for measuring real effects of monetary policy.
- Thorough but not super long!

Individual-level Consumption Data Baseline Regression

$$\text{Log}(\text{ent_csm})_{i,t+1} = \alpha + \beta_1 \cdot \text{market return}^2_t + \beta_2 \cdot \text{market return}_t + \text{controls}_{t+1} + \varepsilon_{i,t+1} \quad (1)$$

Market Return is stock market performance in the previous month.

- It is not clear to me how the authors control for city-month joint fixed effects. Fixing city-month, you cannot vary market returns.

Individual-level Consumption Data

Positive and Negative Returns

$$\text{Log}(\text{ent_csmp})_{i,t+1} = \alpha + \beta_1 \cdot \text{market return}^+_{i,t} + \beta_2 \cdot \text{market return}^-_{i,t} + \text{controls}_{i,t+1} + \varepsilon_{i,t+1} \quad (2)$$

In all regressions negative returns have a larger positive effect on consumption than positive returns. This needs an explanation.

(In some of them, they are significantly larger...)

Individual-level Consumption Data Bin Regression

$$\begin{aligned} \text{Log}(\text{ent_csmpt})_{i,t+1} = & \beta_1 \cdot \text{BIN1}_t + \beta_2 \cdot \text{BIN2}_t + \beta_3 \cdot \text{BIN3}_t + \beta_4 \cdot \text{BIN4}_t + \beta_5 \cdot \text{BIN5}_t + \beta_6 \cdot \text{BIN6}_t \\ & + \beta_7 \cdot \text{BIN7}_t + \beta_8 \cdot \text{BIN8}_t + \text{controls}_{t+1} + \varepsilon_{i,t+1} \quad (3) \end{aligned}$$

where BIN1_t to BIN8_t are indicators of eight market return bins: $\text{BIN1}_t \in (-\infty, -0.08)$;

$\text{BIN2}_t \in [-0.08, -0.04)$; $\text{BIN3}_t \in [-0.04, -0.02)$; $\text{BIN4}_t \in [-0.02, 0)$; $\text{BIN5}_t \in [0,$

$0.02)$; $\text{BIN6}_t \in [0.02, 0.04)$; $\text{BIN7}_t \in [0.04, 0.08)$; $\text{BIN8}_t \in [0.08, \infty)$.

- The choice of bins needs to be justified.
- BIN1 contains one sample month. BIN2 contains five sample months. The left tail is being identified based on one treatment month.
- How come all coefficients are positive? And they are not statistically different from each other.
- Is it claimed that regardless of the size of wealth shock, consumption goes up?

Categories of Entertainment Consumption

- Entertainment-related consumption are divided into nine categories: accessories, cosmetics, sports, household appliances, car-related, recreation services, travel, dining, and living services.
- A claim made and tested is that, among these nine subcategories, “the *U*-shaped pattern will be particularly prominent in the categories of *accessories and cosmetics*, which are items with small to moderate costs that still allow for hedonic consumption to take place.”
 - **Why not dining?**

Robustness Check: Income Effect

- There is this valid concern that the influence of stock market fluctuations on entertainment-related consumption might operate through an income effect. (Although this should not be a concern for negative wealth shocks.)
- To address this, the authors re-run the analyses using an alternative sample that includes business income data of Taobao entrepreneurs.
- They add business income as a control.
- This is a classic case of adding “bad controls”. Business income could very well be affected by stock market fluctuations, and it’s not kosher to add a clearly endogenous variable as a control.
- Admittedly, many people do that! However, results without having income as control should be shown as well. After all, this is a new sample.
- (Note that positive returns have no effects on consumption in this setting, that I find curious.)

Measuring Wealth Shocks at The Individual Level

For obvious reasons, the authors are concerned about measuring returns at the market level and assigning it to everyone.

They use an alternative sample that contains randomly selected individuals who not only use Alipay for their consumption payments but also make mutual fund investments through Ant Group's investment platform.

The data enable them to capture individuals' stock market wealth shocks more precisely based on their monthly mutual fund investment returns.

(This is where city-month fixed effects make sense!)

- A problem here is endogeneity of portfolio composition that cannot be addressed without somehow measuring exogenous changes.
- That would make it difficult to distinguish between positive and negative shocks.

Lab Experiment

- The authors find that participants in the gain-or-loss condition allocated nearly 20% less time to unpleasant activities than those in the neutral condition.
- One possibility here is that, unlike the neutral group, they have already done some “work” and dislike working more.
- It is difficult to say a lot about the finding that the size of absolute return reveals a significant effect. After all, the size of the return is very much correlated with risk-aversion.

Miscellaneous

- Contemporaneous regressions.
- Reverse causation regression still generates positive effects. Why?
- Say a bit more about if the measured consumption is a good representative of total consumption.