

Discussion of

Time-Varying Risk Aversion

by
Guiso, Sapienza, Zingales

UCLA Conference, Sep 2011

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Sep 2011

Caveats

- ▶ I am not an expert on the subject.
- ▶ The paper was clear and interesting, so I will skip the usual summary.
- ▶ I liked the paper a lot, ...
but it is a discussant's job to point out the negatives and suggest improvements. Keep this in mind.

Stable Preferences

First-order importance to financial economic modeling:

are preferences stable?

- ▶ Our models attribute observations to (a) to belief and (b) circumstance changes.
- ▶ This may be all wrong, which would explain some big puzzles in asset pricing.
- ▶ Remarkably few papers have tested stability of preferences.
⇒ why I liked this paper a lot.

The Big Question

- ▶ Do unstable preferences introduce noise...
- ▶ ...or do they have a systematic dynamic?
 - ▶ Do they (not) aggregate away?
 - ▶ Do past realizations influence investors?

- ▶ GSZ documents solidly that risk-aversion increased between 2007 and 2009.
- ▶ \$10,000 dollar gamble certainty equivalent dropped from \$4,000 to \$1,500 during the crisis.
- ▶ I wish I could see 2005 and 2011, too.

- ▶ Paper is not alone. 5-min google search: Claudia Sahm, FRB. 1992-2002 sample. Risk changes with age and macroeconomic conditions. Stable differences in individuals are 73% of the variation.

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Changes Around Market Drops

- ▶ I looked at the response of financial economists to the 2000 crash.
- ▶ I found a reduction of about 200-300 basis points. (60 became more bullish, 150 became more bearish).
- ▶ I interpreted changes among financial economists after the 2000 crash to belief variation. I made no attempt to measure non-stock related risk aversion. Maybe they became more risk-averse, too??

“The Equity Premium Consensus Revisited” (SSRN)

Academic Evidence

- ▶ So what did these three respondents say?

Academic Evidence

- ▶ Or this one?



Sorry, I can't tell.

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- ▶ Or this one?



Sorry, I can't tell.

Meta Questions Beyond Scope

- ▶ Would investors be better off (in the long run) with stable preferences? Or is it de gustibus non disputandum?
- ▶ Is there “preference-variability quasi-arbitrage”? How do markets create surplus?
- ▶ Is there a social role for (government) mechanisms to dampen preference changes?

Data Set

Not only competent, but lucky.

- ▶ June to Sep 2007—Dow was around 13,000. Spring 2009, Dow was around 8,000.
- ▶ I wish we could see this also in June 2004 (10,000) and in mid-2011 (12,000)...or now?
- ▶ How much did these guys invest in US stocks?
- ▶ Uhhmm—what is the Italian stock market index?
- ▶ Great data on a set of individuals—but also specific.

Akin to quasi-experimental study, being much more believable than non QE but also specific to context. Not clear how generalizable. small sample.

Data Set Selection Bias

- ▶ Great job in showing that the reinterviewed sample looks similar to the non-reinterviewed sample on ex-ante characteristics.
 - ▶ Can they exclude that those who became more risk-seeking wanted to keep this quiet? Yes, they do have the portfolio reallocations!!! Awesome!
 - ▶ **BUT** why does the paper not look at whether the two groups (respondents and non-respondents) changed their investment differently? Levels only.

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Measures of Risk Aversion

- ▶ Has questions about gambles, unrelated to the stock market, to extract risk aversion. very nice.
- ▶ The **qualitative** measure (about financial investments) is semi-ambiguous—besides its too discretized nature, it may still be rather closely linked in respondents' minds to financial risk.
- ▶ The **quantitative** measure (certainty-equivalent door #1) is much more clearly separate.
- ▶ Internal Consistency:
 - ▶ Nice cleaning of answers.
 - ▶ Should we use qual measure as IV for quant measure?
 - ▶ WTH are certainty equivalents above €5,000??
Risk-seekers? These are about 1/6 of the sample!

Action and Inference

- ▶ Presumably, together,
 - ▶ risk aversion,
 - ▶ perception of market opportunities,
 - ▶ attention and activity

should explain portfolio allocations.

Anything else?

What about the time-series of portfolio reallocations (changes)?

How did these people trade as the market went down?

- ▶ If I did a rational study, what would I have concluded from their trading activity?

Variables

- ▶ Risky Asset Share Change: What does it mean to have less money in the risky assets? If risky assets decline in value, risky assets become less mechanically. Is your risky asset share change above and beyond the mechanic change?

For example, in T6, is the difference in log net wealth mechanically correlated in Panel B?

- ▶ Risky Assets in Portfolio: Is this a minimum scale (fixed cost) effect? (About 8% divested risky assets.)
- ▶ Habit: Interesting imputation. Will it convince John?
- ▶ Trust: WTH is “trust in the stock market”???

(Similar problems with too lax naming of trust: I may trust my family more if I trust my neighbors less. I may trust my neighbors more when I trust the government less. Do I have more or less trust?)

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Wealth

Wealth is/should be the most important variable.

- ▶ The paper implies that shocks in 2007-9 (wealth, financial markets, real markets, economic crises) increased risk aversion.
- ▶ Theory offers magnitude predictions. GSZ shows wealth changes have too little XS explanatory power (no xs alignment).

“Too sensitive” or “not sensitive enough”?

Could something neutralize influence of wealth changes in the x-sect?

- ▶ Did those experiencing more of a drop in the market become more risk averse?

(I know theory says that overall wealth matters, but maybe “financial gambling wealth” is special.)

Tests

- ▶ Amateurish. All of the tests are based on OLS under normality assumptions. Many dependent variables are not conditionally normal.
 - ▶ Can we bootstrap the standard errors? esp bad in, say, Table 2.
 - ▶ The OLS Specifications in T9 are terrible. You are modeling a transition dynamic. (If you want to learn how to do this simply, look, e.g., at my paper on herding in Welch, JFE 2000.)

This is not difficult—just get it right.

Tests

- ▶ Statistical significance may not be great with 300 observations. Was the power too low, so this was to be expected? Or can we conclude that the economic role of insignificant variables is unlikely to be great?
- ▶ What are the roles of the multivariate controls? Can we do this bivariate, perhaps adjusting for the most important factor(s)?

BIG DEAL: WEALTH should be first-order. What is the magnitude of the average effects predicted by theory and in the data?

Experiment — Enter *Real Science*

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- ▶ ...
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Thanks for sparing us.

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- ▶ It is hard to see how the amygdala of our Italian investors was changed for years, based on evidence from a short-term lab experiment. I don't think they watched scary movies for years.
- ▶ You should give more credit to earlier work here.
 - ▶ Kuhn and Knutson how different states are influenced by context—emotions, anxiety, past choices, etc.
 - ▶ Mauricio Delgado (psychological science, 2009) shows how hand in cold water and stress modulates financial risk aversion.
 - ▶ Others: Slovic 1964, 1972a/b. Eckel-Grossman. Weber 2002. Measured risk aversion is highly malleable in lab experiments. (Less risk-taking in financial domain.) Could often be risk perception, rather than risk changes or inconsistencies.

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- ▶ The big puzzle was raised by Shiller in 1981 “Do Stock Prices Move Too Much” in the AER, not by Gene Fama in 1984.
- ▶ You need a good spelling program and have someone to do a final read.
- ▶ Clever-Knightian uncertainty attributed to those who did not provide distribution.
- ▶ “Since the risk premium is proportional to the investor risk aversion, these estimates imply that the average risk aversion has increased by a factor of 2 and that of the median investor by a factor of 3.5!” — is this utility function specific? do you believe this is a good measure?
- ▶ how did older people change their aversion, relative to younger people?
- ▶ interesting that wealth is important in x-section, but not in ts.
- ▶ I don't much care for change in risky assets ownership as an explanatory variable. if I have less money, I may obviously not be able to keep risky assets if there are any fixed costs.
- ▶ collection of marginally interesting variable, which don't seem to do much.
- ▶ needs a summary table of interpretation. (I would delete much of the qualitative variable.)
- ▶ what is the role of multivariate control? can we do this bivariate, perhaps adjusting for the most important factor?
- ▶ Is Figure 2 ridiculous or what?
- ▶ Figure 3—what about censoring on the other end?
- ▶ Table 3—add 1 - fraction, for people with decrease in risk aversion.
- ▶ in latex, a hyphen is not a minus.
- ▶ in T5, what's a trust advisor?
- ▶ would you like to run T6 all in differences? ;-). change in risky asset ownership on change in gender?

Conclusion

- ▶ There should be an interesting link to sentiment, too.

Measures of aggregate sentiment changes in the literature are really bad. Use consumer confidence instead. (I tried to publish this, but referees did not seem to like it.)

- ▶ We need more papers hammering the **systemic** influence of preference changes. Effects that do not aggregate away.

This is important to writing models that explain financial markets better.

- ▶ IMHO, this will be a great paper when fixed up.