

Comments on Luigi Guiso and Tullio Japelli's
"Information acquisition and portfolio
performance"

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SUMMARY (I)

Models of rational investors (e.g. Peress 2004) predict a positive association between information acquisition and portfolio performance as measured by the Sharpe ratio.

In this paper, Guiso and Japelli test the theory using the UPS, a rich micro dataset collecting financial, sociodemographic and attitudinal information from a representative sample of current account holders of a large Italian bank.

- GJ find a negative correlation between the Sharpe ratio and their measure of information acquisition, "Time spent collecting information on how to invest one's savings".
- GJ interpret this finding as support for a model of rational but 'overconfident' investors who overstate the productivity of investments in information acquisition.
 - They show that this negative correlation is predicted in a simple extension of Peress' model if investors are sufficiently overconfident.
 - They provide robustness checks of the main empirical finding, including IV estimates, adjustments for sample selectivity and split sample results [by proxy for overconfidence]
 - additional indirect evidence of overconfidence [relationship between proxies for overconfidence and: frequency of trading, diversification of portfolio, willingness to delegate financial decisions].
- GJ study the patterns of information acquisition and find that it increases with wealth and risk tolerance and decreases with proxies of the cost of information.

SUMMARY (II) - The framework:

Investors choose how much information to acquire. If information acquired is nonzero, they observe a signal on the return on the risky asset and allocate wealth between the risky asset and a risk free asset.

An investor acquiring information x at cost $C(x)$ receives a signal of precision \sqrt{x} .

- The optimal amount of information acquired is characterized by

$$C(x) = \frac{1}{2} \tau(W) \phi'_x(x)$$

where $\tau(W)$ is absolute risk aversion as a function of wealth and $\phi'_x(x)$ is the Sharpe ratio.

- An overconfident investor facing the same cost function and acquiring information x perceives (incorrectly) precision \sqrt{Kx} for $K > 1$.
- The optimal amount of information acquired depends on the cost function, wealth, risk aversion and the overconfidence parameter.
- Peress proves that there is a positive (deterministic) association between information acquired and the Sharpe ratio.
- GJ show that this association becomes negative for sufficiently overconfident investors.

COMMENTS (I)

- very interesting data
- the empirical goal and the theoretical framework are well defined
- a lot of work and careful thinking is apparent, the evidence is not easily dismissed!

COMMENTS (II)

- x = "Time spent collecting information" ?
 - Suppose x is produced from inputs "investor's time", "investor's ability / task-specific human capital" and "financial services". "Time" is just one input and there may be substitution - aren't my investments in mutual funds an example of this?
- Heterogeneity in preferences - different 'tastes' for acquiring financial information?
- The theoretical framework provides guidance on the sources of heterogeneity in information acquisition [wealth, risk attitudes, costs, overconfidence] and a deterministic relationship between the Sharpe ratio and information.

However, it was not obvious to me that it suggests the sources of heterogeneity in the relationship between the Sharpe ratio and information. This makes it harder to follow the corrections for sample selection and the choice of instruments [retirement, perception of income risk]. Could retirement correlate with unobserved ability?

COMMENTS (III)

- Education does not seem a valid proxy for the cost of information acquisition.
- Proxies of overconfidence:
 - gender: overconfidence or preferences and specialization within the household?
 - self-reported 'knowledge of stocks' - adjust for "time" variable?
- Could you explore the implications of both models for portfolio choice [share of risky assets] and its relationship with information?