"PREFERENCES WITH FRAMES: A NEW UTILITY SPECIFICATION THAT ALLOWS FOR THE FRAMING OF RISKS" (Authors: N. Barberis, M. Huang)

The point of this note is to explain the ideas in the above research paper without using any mathematics or technical jargon (the original paper contains both). The intended reader is someone who is interested in economics and finance but who is not an academic researcher. I welcome your comments on the ideas below, whether you agree with them or not; and also on the write-up itself -- for example, please let me know if it is confusing, so that I can rework it.[1]

I'll start with a short summary, and then give the longer version.

SHORT SUMMARY

A decision-making error that is potentially important in financial markets is narrow framing. This occurs when people evaluate a new risk in isolation, separately from other pre-existing risks. We present a mathematical model of investor behavior that incorporates narrow framing. We use it to figure out the kinds of portfolios that an investor who frames narrowly might hold; and to figure out how stock prices would behave if many investors in the economy engaged in narrow framing.

LONGER SUMMARY

Suppose that you are wondering whether you should take on a new risk of some kind – whether you should buy a specific stock, say. The *rational* way to make this decision is this: you imagine combining the new risk with all of the other risks you are *already* facing – the risk of any other stocks or financial assets that you are already holding, the risk of a drop in your salary, the risk of a drop in the value of your home, and so on – and then ask yourself whether the combination is an improvement on what you had before. However, in experiments that economists and psychologists have conducted, people often fail to follow this rational prescription: instead of evaluating a new risk in combination with other pre-existing risks, they often seem to evaluate the new risk *in isolation*, separately from other risks they are already facing. This departure from rational behavior is known as "narrow framing".

Ming Huang and I think that narrow framing is potentially important for understanding household investment decisions. For example, when thinking about whether to invest in the stock market, people may think about the stock market *in isolation*, rather than in combination with other risks they are already facing. And when thinking about whether to invest in a specific stock, people may again think about the stock *in isolation*, rather than in combination with other stocks they are already holding.

Why does this matter? Why do we care whether people are engaging in narrow framing? The reason is that, if people *are* framing their investment decisions narrowly, this may

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lead them into trouble. In particular, it may lead them to hold portfolios that are *insufficiently diversified.* The intuition is simple. Diversification is something that you notice only when you think about risks *in combination* with one another; if you think about a risk in isolation, you won't see the benefits of diversification. For example, if, whenever you are thinking about buying a stock, you evaluate the stock in isolation, you will end up holding too few stocks, i.e. you will be undiversified.

While narrow framing may well play a role in financial markets, economists do not have at their disposal a mathematical framework for studying it. In this paper, Huang and I fill this gap. We present a mathematical model of investing behavior that allows for the possibility that investors engage in narrow framing, i.e. for the possibility that they think about risky assets in isolation. The model can be used to figure out what kinds of portfolios these investors would choose; and to figure out how stock prices would behave if many stock market investors engaged in narrow framing.

You might wonder – why is it useful to have *mathematical* model of narrow framing? The reason it is useful is because it gives researchers a rigorous framework for figuring out the *predictions* of narrow framing, i.e. as I mentioned above, for figuring out what kinds of portfolios investors would hold if they framed narrowly, and how stock prices would behave in the presence of narrow framing. By *testing* these predictions, we can then figure out whether narrow framing really does play a role in financial markets or not.