

Epsilon Theory February 24, 2015

"Why Take a Chance?"

Vinny Forlano: He won't talk. Stone is a good kid. Stand-up guy,

just like his old man. That's the way I see it.

Vincent Borelli: I agree. He's solid. An effin' Marine.

Americo Capelli: He's okay. He always was. Remo, what do you

think?

Remo Gaggi: Look... why take a chance? At least, that's the

way I feel about it.

"Casino" (1995)

Ace Rothstein: Four reels, sevens across on three \$15,000

jackpots. Do you have any idea what the

odds are?

Don Ward: Shoot, it's gotta be in the millions, maybe

more.

Ace Rothstein: Three effin' jackpots in 20 minutes? Why

didn't you pull the machines? Why didn't

you call me?

Don Ward: Well, it happened so quick, 3 guys won; I

didn't have a chance ...

Ace Rothstein: [interrupts] You didn't see the scam? You

didn't see what was going on?

Don Ward: Well, there's no way to determine that ...

Ace Rothstein: Yes there is! An infallible way, they won!

"Casino" (1995)





There's only one question that matters in the Golden Age of the Central Banker: why isn't QE working? Why hasn't the largest monetary stimulus in the history of man – trillions of dollars of liquidity with trillions more euros and yen to come – sparked a self-sustaining recovery in the global economy?

If you're a true-believer in modern economic orthodoxy or a central bank apparatchik the answer is simple: something must be getting in the way of our elegant theories of Zero Interest Rate Policy

(ZIRP) and Large Scale Asset Purchases (LSAP), so if \$4 trillion isn't enough to break through to the Promised Land we better do \$4 trillion more.

If you see the world through the lens of behavioral economics, however, you come to a very different conclusion. Something IS blocking the effectiveness of QE, but that something is human nature. Behavioral economics suggests that a little QE can change human behavior at the margins, but no amount of QE is enough to change human nature at its core.

The High Priests of the IMF, the Fed, and the ECB are blind to this because all of modern economic theory – ALL of it – is based on a single bedrock assumption: humans are economic maximizers. If something is good, then more is better and "MOAR!" is best. And if that assumption holds true, then QE works. You will indeed force productive risk-taking in the real world economy (more loans to small businesses, more growth-oriented investments in people and equipment, etc.) by making it increasingly difficult for investors to play it safe in capital markets (negative 10-year Swiss bonds, anyone?). But if that assumption is flawed, then you get exactly what we're seeing: pervasive non-productive risk-taking in the real world economy (stock buy-backs, for example) and massive wealth transfers from savers to speculators in the capital markets.

Yes, we are maximizers of reward. But we are also minimizers of regret. That's not because we are irrational or stupid, but because most of us draw on our portfolios for real world needs. Our investment portfolios are a means to an end, not an end in themselves. We understand that a) periodic losses are inevitable in a risky investment portfolio, no matter how well it maximizes long-term gains, and b) if we're unlucky and suffer losses such that our portfolios decline below a certain level, then we are faced with real world risks and tough real world decisions that overshadow whatever investment logic the Fed would prefer us to have.

Regret minimization is not just for financial investors. It holds true for investors of all sorts, from a CEO deciding how to allocate cash flows to a general deciding how to allocate troops to a farmer deciding how to allocate land. For all of these decision makers, it doesn't matter how meager the reward of playing it safe might be if an unlucky roll of the investing dice would create existential risk. In the immortal words of "Casino" mob boss Remo Gaggi as he tacitly ordered a hit on a trusted lieutenant, "Look ... why take a chance?"

To be sure, some investors are paralyzed by the unreasonable fear of rolling snake-eyes 500 times in a row. Still others, as we saw with the Swiss National Bank debacle, have no idea of the risks they're taking when they intend to play it safe. Human behavior may be governed by concerns of risk and regret, but neither concept comes easily to us. All of us, no matter how comfortable we might be swimming in the ocean of randomness that surrounds us, occasionally channel our inner Don Ward, the hapless casino employee who thinks that it's possible that three separate slot machine jackpots could trigger within minutes of each other simply by chance.

Fortunately, a branch of game theory called "Minimax Regret" can help apply analytical rigor to both our human nature and our human failings. As the name implies, the goal of Minimax Regret is to minimize the maximum regret you might experience from a decision choice. Developed in 1951 by Leonard "Jimmie" Savage – a colleague of John von Neumann and Milton Friedman, and in general one of the most brilliant American mathematicians of the 20th century – the Minimax Regret criterion is widely used in fields as diverse as military strategy and climate science … any situation requiring a choice between extremely costly options and where the results of your decision will not become apparent for years. Are you listening, Mr. Draghi?

Unfortunately, I'm certain that neither Mr. Draghi nor the other High Priests of monetary policy are listening at all. We seem destined to learn the hard way ... once again ... that you can't change human nature by government fiat. But individual investors and allocators can listen and learn from these old good ideas, and that's how you survive the Golden Age of the Central Banker.

I wrote an introductory note about Minimax Regret strategies in October 2013 ("The Koan of Donald Rumsfeld"), and – seeing as how Central Bankers outside the US are doubling down on the QE bet – it's time for me to dust off this line of analysis. I think that Minimax Regret is the right micro toolbox to go along with the macro toolbox of political analysis (see "Finest Worksong" and "Now There's Something You Don't See Every Day, Chauncey" for recent notes on this thread), and together they create the Adaptive Investing framework that's at the heart of a practical Epsilon Theory perspective. I'll be putting some Minimax Regret resources on the website over the next few weeks, along with some brief email and Twitter distributions to guide the effort. If you're not already an email subscriber or Twitter follower, now would be a good time to sign up.

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