Epsilon Theory

Mailbag! Midsummer 2017 Edition

July 28, 2017

Back by popular demand, it's the *Epsilon Theory* Mailbag! Today's edition covers notes from the past two months including "Tell My Horse", "Post-Fed Follow-Up", "Notes From the Field", "The Goldfinch in Winter", "Gradually and Then Suddenly", and a podcast or two.

Keep those cards and letters coming …

I have been in Cash for the last 4 years and feel like a Wet Monkey. Expecting a 50% Market reset that simply does not happen...

I feel that The Fed has been buying stocks via ETFs since 2013, notice the slope of SPY since 2013, with a "Buy the dip" program ....

Do you think that is possible, or just the Brain Worm talking?
– James

Sorry, James, but that's a Brain Worm talking. The Fed doesn't need to buy stocks directly, not like the Bank of Japan, anyway. And not like the Swiss central bank. No, the Fed has deputized each and every one of us to act on its behalf, which is really the way you want to set these things up. You want to establish a meme of Central Bank Omnipotence … err, excuse me, I meant to say "expanded forward guidance" as part of "communication policy", so that you don't need to get your hands dirty directly. You want to control the meme. You want to control the Brain Worm. THAT'S the power of the Common Knowledge Game.

And now two letters for the time capsule. If one of my daughters ever asks me what investing was like in the Hollow Market, I'll show her these.

I just read through your piece (and then I read it again) ["**Tell My Horse**"]. It was a sobering start to the day as it pretty succinctly captured and reflected back to me my broken spirit. I used to love this business. I used to believe in its methodology and the integrity of its analytics. Now, like a priest having had a crisis of faith, I can no longer stand in the pulpit and preach the gospel. I don't [know] what to believe. I don't know what the message is anymore. The "markets as political utility" meme strikes me as correct, but one can't represent that to clients much less prospects. I have slowly made "accommodations" for this environment: including a quant sleeve, including more overseas exposure, including structured ETFs. All the while, I have held to my deflationary thesis and stayed long bonds and overweighted to alternative selections. Performance has been middling but sufficient. But, there is zero joy to it. The sole satisfaction comes from still believing that I am doing the "right" thing by my clients, even though the market rarely affirms my conviction. I do surround myself with like-minded (but open minded) folks, and while there is a risk of isolating oneself in an echo chamber, the constant cacophony of mainstream narratives is more than enough to provide balance with the "bull" thesis. My real fear is that we're so far down the rabbit

hole that we'll never again see the light of day. I don't think this business will ever be the same again (and I don't really even know what I mean by that). Perhaps this business was never what I thought it to be! The sole goal at this point seems to be survival. I do think there will be a massive come-uppance at some point. But if so, I know there will be little satisfaction in having been "right". Thus, it's just one day at a time as I try to take some comfort in the wisdom of the ages that "this too shall pass".
– Bill

So I cannot thank you enough for expressing what is at the pit of my stomach. Both in the underlying distrust of the bull market, and in the Hollow Market analogy. You see our business is in fact losing its soul.

I met with a board member of the CFA Institute who lives in our area. After beating me up on fees for a half hour, he then asked about our recent GIPS compliance project. Did we find it helpful? Was it a benefit in managing accounts?

So being well trained after years of attempting to control reactions and impulses, with varying degrees of success, I was actually able to restrain myself from both dipping his head in his soup, or erupting into a cascading use of the f bomb in its many derivative forms. But I was tactful and I pray professionally pointed in my response. That compliance with GIPS costs a full analyst position, or PM position. That as fees decrease, and costs escalate we are squeezed. That as we are squeezed we cannot do more with less, so we either have to employ less CFAs or pay them substantially less, making the skill set less valuable. Did I find it helpful? No, I found it eroding my abilities to deliver the very product he wants with no pricing power.

What I did not say, but thought about substantially on my drive home, is that the other far-reaching consequence is that the institutionalization of money management has made career risk more and more an issue, as analysts and PMs become benchmark huggers, and allocators in varying percentages. That compliance standards which now prevent personal investment destroy the skill set of the "investors" that are professional PMs. That in fact the destruction of Alpha and investing skills has been the professionalization of the industry.

So I sit here invested, raising cash, feeling stupid, wondering about my personal investing skill, as I cannot figure out where to place funds with strong conviction. It's a strange new world we work in, Ben. I feel disoriented in this Hollow Market, not trusting the upswing in the markets. Too afraid to sell out, but too afraid to implement cash into it either….. maybe I will buy some passive product…..wait, but what about excellence?
– John

***But what about excellence?* That's the cry that goes echoing through the canyons of Midtown Manhattan, fading more and more into the distance each and every day.**

Lately I've been thinking about the old adage: "a broken clock is right twice a day".

It is universally accepted (sans Yellen) that a correction will occur at some point in the future. The debate isn't so much around the existence of economic cycles but around distance (time) until the back end of the current cycle arrives. I would place us (the broad Epsilon family) among the minority who believe that the inevitable correction will occur sooner rather than later. I would also admit that we (I) have been a believer of sooner rather than later for some time now. The question I keep asking myself is that if the correction does come over the nearer term. Will we (I) be vindicated, or will we (I) have been patient enough for that broken clock to be telling the current time?

I don't have a good answer… at least not one that is satisfying.
– Paul

You and me both, brother.

I wonder what you think of the following- We know that the feds QE and the govts build up of massive debt fragilizes (to use a N.N. Taleb word- another genius) the economy. However, I wonder if you think there is a chance that these ridiculous policies will get bailed out if they just reduce GDP by some percentage points, say from 5pct to 2pct annually for some amount of years. This would cost us trillions of dollars in never realized growth over the long run, but it could all be blamed away on other factors of course. In a similar way to how a Ponzi scheme can dig itself out of a hole with a really lucky grand slam investment (Pharma boy Shkreli did it until he mouthed off on twtr).

In this case there may not be a financial asset crash and instead we just blow up at a WAY later date when swaths of countries can no longer pay their debts.

Do you see this as plausible? Or is it inevitable that assets eventually tank and the economy gets into real trouble again?
– David

Absolutely plausible, although I'd bet on joint U.S.-Japan-Europe debt monetization as the weapon of mass jubilee if it comes to that (google "trillion dollar coin" and try not to gag). There's <u>nothing</u> inevitable about <u>any</u> of this, including an asset price crash.

I think this is more "sky is falling" stuff and "getting out" out stocks and bonds and establishing a "short bias" has been proffered by many over the past years. Those that have acted on that advice are much poorer today. Not because they were less prudent but because after they took action to get out of stocks and bonds no one told them what to go in to...the price friction of getting out of stocks and bonds and then back in (forget the timing aspect) is very expensive. The loss of income is catastrophic if not timed properly. You appear to know exactly when to get out. Not sure how...

We all know that recoveries don't die of old age but are always due to a Fed that is over tightening money supply. With $4T in excess reserves on the books of the major central banks, having a market accident, given how well capitalized now the US banks are, seems like a remote possibility. This Minsky moment that you're holding up to us is either not happening, or at the very least, not happening any time soon.
– Steve

You could well be right, and I'll be the first to admit that my risk antennae have been quivering violently at seven of the last two market corrections. But that's my job and my nature — to have risk antennae that suffer Type 1 errors (false positives) to avoid Type 2 errors (false negatives). I think that's better than the alternative, certainly for wealth preservation, although it makes me totally unsuited for any job on the sell-side, ever.

I've gotta call 'em like I see 'em, though (which includes noting a couple of narrative-driven investable rallies, so I'm not exclusively a Cassandra), and what IS demonstrably different today as opposed to five years ago or three years ago or even one year ago is that the Fed has turned their barge around to engage in a <u>program</u> of rate hikes and balance sheet reductions. The ECB is in the process of turning their barge in the same direction. To paraphrase Churchill, this is not the beginning of the end of QE and negative rates and all of the other exercises in Magical Thinking we have endured over the past eight years, but it IS the end of the beginning. It IS an inflection point. It IS a change in the second derivative of monetary policy accommodation, a reduction in the acceleration of policy even if we're not yet at a reduction in the level of accommodation.

Because if I've learned one thing as a student of markets and human behavior over the years, it's this: <u>markets, no matter how big and no matter how small, happen on the margins.</u> Inflection points not only matter, they are everything to the Game of Markets. Some of my very first *Epsilon Theory* notes were about this ["2 Fast 2 Furious"], and I think they're worth reviewing again today.

Geez – when are you guys going to get off this "the Fed rules the world mantra?" Do you really think in the board meetings during the AMZN - WFM negotiations that anyone really got up and said, "maybe we should wait and see what the Fed might do?" Outside of the financial industry how many board meetings do you think have The Fed on the agenda?? I have asked many CEOs and funny I get the same answer --- none! I've asked the ex-CFO of WMT – same answer – never! I asked him did the Fed ever come up in any strategic decisions, any mergers or acquisitions – same answer – NEVER! I've asked the CEO of Simon, retail – one would think might be influenced by rates – same answer – NEVER came up. Wake up and smell the roses – businessmen run the world – not central bankers.
– David

I once asked my boss, the founder of a very successful investment firm, what his most important lesson learned had been. "Remember this, Ben," he said. "It's not about the money. It's. About. The. Money."

So I ask you, David, who makes the money? I mean, who *literally makes The Money*? And sets the price of The Money. And buys trillions upon trillions of dollars of stuff with The Money year after year after year. And has implanted a meme in everyone's brain (except yours, apparently) that even if they're not literally making money and buying stuff today … well, they might tomorrow. Or might not.

Do you think I enjoy delivering this message? Because I don't. It makes me sick that global stocks added more than a TRILLION dollars' worth of value over the past few weeks because Janet Yellen said something that was perceived as dovish. It makes me sick because global stocks will LOSE more than a trillion dollars' worth of value if she turns around next week and says something that is perceived as hawkish. It's a joke. It's a perversion of what a small-l liberal market *should* be. But that doesn't make it any less real.

"Businessmen run the world" … I wish that were true. But if wishes were horses, beggars would ride. Don't be a beggar.

Where I continue to struggle, is why in the world a man like President Trump, who I believe cares about winning and self-promotion, more than the long-term success of our country, is going to appoint a Fed chair that will continue raising rates in 2018, when he knows that higher interest rates are anathema to higher stock and real estate prices, at least in the short-run?

What I have been telling my clients is that I have a hard time believing President Trump will elect someone who will make it harder for him to "appear" successful. You and I both know that our country needs higher "normal" rates as well as a much better taxation system (a national sales tax and get rid of the deductions for borrowing money) to truly stabilize and revitalize our economy in the long-run. But, you won't get to better long-term policies without short-term pain . . . and we seem to be (as a country) in the pain-minimization mode at present.

Do you <u>believe</u> that President Trump will appoint a Federal Reserve Chair that will focus on the long-term health of the "real" economy, or just another Alan Greenspan groupie, who cares more about the level of the S&P than GDP?
– Joel

I think that Trump wants to have his cake and eat it, too, meaning that he needs both higher short-term rates AND a steepening yield curve (i.e., higher long-term rates) to support a reflation narrative for the 2018 and 2020 campaigns, and he thinks that a reflation narrative will keep the S&P chugging along (in particular, supportive of financials as part of a rotation away from growth and into value). That would be the narrative accompanying, say, Gary Cohn taking the FOMC reins — that the Fed is raising short-term rates and shrinking the balance sheet *for the right reasons*, thus steepening the yield curve. And you know that the Street would absolutely eat this narrative up, even though everyone also knows it's

just another Big Lie. Wait, did I just say that out loud? Scratch that. What I meant to say is that I, for one, welcome our new Goldman Sachs overlords!

A lot of forces want to see Trump fail. Are the current Fed and Chair carrying that same agenda? Seems like they could be a lot more powerful than the politicians and the press' infatuation with Russia, Russia, Russia. Is there a bigger motive at work here when the Fed aggressively raises rates? "Politics Always Trumps Economics"? how about "Fed Always Trumps House/Senate Investigations?

Are there examples in the past when a Fed/Chair was working to hurt the economy to make the President look bad?
– James

Back in 1960, Richard Nixon blamed his loss to JFK in large part on the Fed's tight monetary policy, claiming that William McChesney Martin — a Truman appointee — had deliberately sabotaged the economy to damage his incumbent candidacy (Nixon ran as Eisenhower's VP in 1960). So when Nixon won the presidency in 1968, he got rid of Martin as soon as he could and appointed Arthur Burns, who was basically Nixon's lapdog. Nixon famously told Burns to keep interest rates low leading into the 1972 re-election campaign, and when Burns resisted, Nixon planted negative stories about him in the press until he finally gave in. So yes, politics have always been a big part of Fed policy, and I think the Yellen Fed would be perfectly happy to hang a recession around the Donald's neck, so long as it didn't damage their post-Fed earning potential … err, I mean, their credibility and gravitas as prudent bankers.

Of course, what's new today and is the biggest difference-in-degree-but-not-in-kind between Trump and Nixon is that Trump plants negative stories about everyone, including the Justice Department, which is just about the most depressing thing I can write. I've said it before ["Virtue Signaling, or … Why Clinton is in Trouble"] and I'll say it again: *Trump breaks us, not because of his policy specifics, but because he transforms every game we play as a country — from our domestic social games to our international security games — from a Coordination Game to a Competition Game.*

I travel a LOT, speaking with investor groups all over the country, of every political persuasion. Plus I have dual citizenship, having grown up in Red America and now living in Blue America, so I speak both Good Ole Boy and Team Elite fluently and without an accent. My observation from this perch is that we are utterly divided as a country, that the polarization is getting worse, and that political entrepreneurs (including the one in the White House and a whole host of smaller players on the Democratic side) are doing what political entrepreneurs always do — they're embracing and accelerating this sea change in our social behaviors and institutions, and they're using Fiat News to do it.

Welcome to Westworld.

Your conclusion is very clear, but I'm confused by the path you get there. You suggest that Yellen's response function has flipped since the Trump election (implying that she is being politically partisan?), and yet you also seem to suggest that she is being consistent with the long term real job of a central banker, which is to maintain the power of capital and so prioritizing the suppression of wage inflation. Is it just co-incidental that the job market is becoming "unstable" after Trump's election, or has that been there, ignored, for a while, and Yellen is picking it up now as an excuse to damage Trump?
– Guy

Lots of letters about the Fed wanting to damage Trump. I really don't think there's an animus here as much as there's an intense desire to declare institutional victory and cement a legacy. If that legacy means a headache for the Donald … well, so be it, but that's not the primary motivation. This has been brewing for a while. I wrote a note about this last September, called "Essence of Decision."

Yesterday I was listening to Neil Howe's presentation at the Mauldin Strategic Investment Conference last month, during which he suggested that a recession/downturn is exactly what Trump needs to make progress on his agenda. That is, because the economy is doing so well and stocks continue to rise, no one in DC or NY has any incentive to compromise. However, should things start to go into reverse - and Fed tightening has been the trigger for almost every recession – that's when he can really get stuff done. Thus, in the current bizarro world we live in, malice toward Trump by the Fed could actually end up helping him.
– David

Too clever by half. I once had an analyst tell me that he wished that a stock we owned would go down so that we could buy more. Ummm … no. Neither life in markets nor life in politics works that way. Buying more may be the right reaction to an unlucky beat, but show me a PM who wants to lose today in order to win more bigly tomorrow, and I'll show you a PM who's not long for this world. Ditto for presidents.

Would I say there will never, ever be another financial crisis? You know *probably* that would be going too far, but I do think we're much safer and I hope that it will not be in our lifetimes and I don't believe it will be.
– Janet

I dunno, Janet, that's a statement that might not age well, the sort of thing that ends up as a rueful tagline on an otherwise distinguished career. Just ask Chuck Prince about dancing until the music stops. George W. about "Mission Accomplished". Statements like this are rewardless risk. You know, kinda like negative interest rate bonds.

Good to hear Devin's thoughts [podcast with Devin Anderson, "**Does It Fly, Really?**"], and that I wasn't the only one who enjoyed McCullough's take on Orville and Wilbur's empirical method. Kill Devil Hills is sacred ground. When you talk about American Makers …. I've flown and kitesurfed that area frequently, keeping aware that I'm standing on the shoulders of giants.

On another note – people who misuse history – especially Thucydides – should have to read May's *Thinking in Time* with their eyes wired open.

http://www.politico.com/magazine/story/2017/06/21/why-the-white-house-is-reading-greek-history-215287
– Brendan

Two great books: David McCullough's *The Wright Brothers* (2015) and Richard Neustadt and Ernest May's *Thinking in Time* (1986). Thucydides wrote a great book, too. I've taught a course on it. But Brendan is right. The Peloponnesian War was 2,500 years ago. The U.S. ain't Athens and China ain't Sparta (much less the other way around, which would be a lot more accurate to the power dynamics that Thucydides actually described). So give it a rest, all you war hawks on both the left and the right. Just stop it with the "lessons from history" that you cherry pick. Want a lesson from Thucydides about war and conflict? Go read about the Syracuse campaign and then get back to me.

I was particularly struck by the below claim in your note ["**Tell My Horse**"]. I tried unsuccessfully to find a source on google, so I was wondering if you could help by pointing me in the direction of the data that supports this? "ETFs and index products — of which there are now more such aggregated securities listed on U.S. markets than the company stocks which comprise them!"
– *Matthew*

Here's a link to the Bloomberg.com article that sourced the more-indices-than-stocks quote. I believe that the *Economist* also wrote a similar piece recently.

My background is science; I am/was a forestor. The late great Stephen Jay Gould was also a master of telling one story by telling the tale of another more common event. I read everything he wrote.

So you talk about diversification being the 'bird' for all seasons. Not as flashy as the Goldfinch ["**The Goldfinch in Winter**"], but more reliable. I'd like to offer a viewpoint from an ecologists POV about your field and birds.

I would offer that portfolio diversification is more like your field and surrounding forests than the occasional flock of birds that visit. Because you make the effort to knock back the growth in that field you get new plants and new plant growth, *which attract flocks of birds*. Even to the extent of keeping them around through the year. From an ecologists POV this is called 'robustness'; an environment that has a greater number of species co-existing has a greater chance of maintaining a greater number of species through *a greater variation of conditions*.

So, you keep clearing out that field occasionally and clean out the underbrush near the edge of the forest (the interface between forest & field is where the greatest local biological diversity will occur) and you will continue to be rewarded with occasional delights of all god's creatures. I dare say you might be visited by the Fox or even the Owl in winter.

There really is a parable for investors here.
– *Kimpton*

And where there's a parable, there's an *Epsilon Theory* note not too far behind! Did you know that there's been a widescale commercial effort in Russia to domesticate the fox through genetic modification? Sometimes these notes just write themselves.

In my client reviews, I like to leave them with something thoughtful or philosophical, and many of those nuggets start in Epsilon.

One original one I wanted to share, which has likely been thought of in a different way. "it is not often that both US stocks and bonds are at all time highs at the same time - those are the things we are thinking about while managing your money".

Have you done any research about what that means for diversification?
– *Vince*

Your recent posting regarding the Fed's decision to unwind its massive securities portfolio contained the following comment:

"Or just ride your 60/40 vanilla stock/bond allocation through the cycle, which is the whole point of the 60/40 thing (even, though, of course, you're really running a 95/5 portfolio from a risk perspective)."

Is it possible to provide a brief explanation of what you meant by "95/5 portfolio from a risk perspective?" I'm a small investor, admittedly currently following a Vanguard-inspired "vanilla" strategy.
– *Jim*

Nothing wrong with vanilla, Jim, and to Vince's question, yes, the Salient Brain Trust has done a tremendous amount of work on what all this means for diversification. A couple of points before I suggest further reading.

1) **Allocations like 60/40 are talking about the *dollar* amounts you have invested in different asset classes, in this case 60% of your dollars allocated to stocks and 40% of your dollars allocated to bonds. But a dollar invested in stocks has a different amount of *risk* associated with it than a dollar invested in bonds; i.e., the historical volatility of the stock market is a lot higher than the historical volatility of the bond market. So from a risk "budget" perspective as opposed to a dollar budget, a 60/40 stocks-to-bonds portfolio is really more like a 95/5 stocks-to-bonds portfolio.**
2) **Even if stocks and bonds are positively correlated, as they have been on the way up over the past eight years and as they may be on the way down (if there's ever a down), a diversified portfolio should still own plenty of bonds. Period.**
3) **When we're thinking about diversification, it's useful to consider dimensions beyond just stocks vs. bonds. That includes the risk/volatility dimension. That includes the asset class dimension (commodities, real assets, corporate credit as distinct from government bonds, etc.) That includes the geography dimension. That includes the classic Fama/French dimensions. That includes behavioral dimensions such as momentum. Markets radiate information on many different wavelengths, not all of which are naturally visible to the human eye, but all of which are important to take into account in a well-balanced portfolio.**

For further reading, particularly on the risk-budgeting approach, I'd point you to "The Free Lunch Effect: The Value of Decoupling Diversification and Risk" and any number of whitepapers on the Salient website. I'd also recommend the AQR Library as a source of smart and useful thinking on this topic.

After reading all of these, I continue to have one question: how does one set expectations for returns? Assuming a solidly built (nothing is perfect), diversified portfolio and 10(?) years, what is the curve of return with the horizontal axis being vol tolerance...
– *Matt*

And one more recommendation. Rusty Guinn's latest *Epsilon Theory* notes, "Whom Fortune Favors" and "Whom Fortune Favors, Continued" answer this question from Matt. Not-to-be-missed reading for anyone who deals with portfolio construction for a living.

While your logic seems counterintuitive at first, on second thought, I get that there could be a zone where rates are still low enough that raising them is inflationary not deflationary as the world is not so black and white as the investing masses assume (i.e. too much brain damage to think in greyscale). Do you have the data to support the thesis (either in our market or a similar market ... am guessing we won't have a lot of statistical significance)?
– *Felix*

We've got eight years of data on the original premise of QE — that more central bank printing of money and buying of financial assets would lead to greater amounts of money getting into the real economy to spur more real economic activity — and the inescapable conclusion is that it doesn't happen. Money goes into bank reserves but it doesn't get out, in a classic example of a roach motel … err, I mean a liquidity trap. That fact, which was clear to all by 2012, led to a bit of a schism in the High Church of Monetary Policy, with one Pope saying that QE 1 was a good idea, but that subsequent printing and buying sprees were a wash at best, and we should stop doing more of this. That Pope's name, believe

it or not, is Ben Bernanke, which is why the U.S. denomination of the High Church is way ahead of the other denominations in unwinding their QE experiment.

Unfortunately but unsurprisingly, the other Popes weren't convinced when Bernanke started saying that QE doesn't really work that well in the real economy, particularly when they saw how well it could work to prop up financial asset prices and deliver political stability. As a result, the other Popes have generally been of the mind that the answer wasn't to do something else, but to do MOAR! than the U.S. Church ever thought possible. Hence we got negative rates and efforts to outlaw cash and direct central bank buying of equities and all the other madness of the past three years in Europe and Japan. But MOAR! didn't work in those real economies, either, although it sure did cripple the banks, which is why Pope Draghi is now coming around to Pope Bernanke's view.

On the reverse argument — that as central banks now start to tighten monetary policy through both traditional interest rate hikes and nontraditional balance sheet contraction, inflation and loan growth will actually start to pick up — we have zero historical evidence that this will be the case because we've never been in this situation before.

What we do have, however, is both a supply and a demand argument for why this will happen. On the supply side, central banks pay commercial banks interest on the reserves they hold. As the Fed raises rates, they pay the banks more interest, which — given the massive reserves in the system — is a non-trivial boost to the capital position of the banks on a present value basis. Boosting the capital ratios of the banks should make them more willing to take risk and put money out. Couple that with a steeper yield curve (see my earlier response regarding the forthcoming Gary Cohn narrative) to generate higher net interest margins on these loans, and you should see the velocity of money really pick up as banks reduce lending standards and push, push, push on getting those loans out the door.

The demand argument isn't talked about as much, because it's not under the direct control of the regulatory mandarins of the Fed and the ECB. Central banks control all the levers on the supply side. To repeat, they *literally make The Money*. And they control its distribution. But they don't control who asks for a loan or what that loan is used for. They don't make the demand. They can influence the demand by making the price of The Money cheaper (lower interest rates), but even there they only have direct control over the price of short-term money.

My opinion is that when the price of money gets exceptionally low AND you've got a massive buyer of financial assets waiting in the wings, it tilts the risk and reward of debt-taking away from making stuff and towards investing in stuff, towards what's commonly called "financialization." I think we see this tilt everywhere in the modern economy, particularly in the largest corporations with essentially unlimited access to capital. Why take the chance of building a new factory or launching a new growth initiative when you can generate a highly predictable and substantial earnings growth rate or return on equity through a buyback or dividend program? If you don't have unlimited access to capital — and most small businesses don't — then you're limited to the avoidance of making stuff without the ability to embrace financialization. So you just stall. It's not terrible. You're getting by. But you're just getting by.

So what diminishes the demand for "financialization" loans and increases the demand for "productive" loans? I promise you that it's not cutting the price of money by another 50 basis points. On the contrary, the price of money has to go UP and the reward of markets DOWN before the risk-reward calculus of debt-taking shifts back to making stuff in the real economy.

Whew! That was a long-winded explication. Here are some letters that say it more pithily than me …

That's just crazy enough to be totally dead on.

Your idea will also accelerate the velocity of money in the great American bingo parlor of life.
– John

The current Fed policy effectively injects liquidity into the financial system through raising the IOER rate -- printing money to make interest payments on reserves banks hold on deposit at the Fed. This compares to the traditional monetary where the Fed drains reserves from the financial system to drive the Fed Funds rate higher. We are years off to getting back to traditional monetary policy. Maybe not in our lifetime.

No wonder markets are going bonkers. We believe this is why the Fed has quickened its pace to start shrinking their balance sheet. Rather than being forced to overshoot interest rates, which could adversely affect the economy, the Fed will start draining reserves through balance sheet reduction hoping to introduce some risk aversion and sense back into the giddy global markets.
– *Gary*

You are describing [“**Gradually and Then Suddenly**”] a self-reinforcing positive feedback loop whch can be described mathematically as a geometric or exponential function, until it reaches a maximum.

Has the "barge" already left the dock, or will it have done so only upon the fact of FED balance sheet run-off commencing? The jawboning this week was only a damper, contemporaneous as it was with weak data. Last month's Draghi comments whch lifted the global sovereign yield curves, I believe, was the barge tooting its horn as it departed its mooring at the dock.

Buy DUST and hold it through the FED's asset sales.

Interesting, apparently crazy, and probably dangerous times, indeed. Good speculation and investing. Thanks for your writing.
– *Robert*

So you are talking about the unintended consequences of policy-driven interest rates. Hmm. John Locke talked to the parliament about the exact same thing in 1691 (sic!). Then one and a half century later came Bastiat with "That which is seen, and that which is not seen" addressing similar concept. I'd guess Adam Smith's "invisible hand" is related to (positive) unintended consequences as well.

That's some of the biggest names of libertarianism :)

Today's short letter was so empowering and enlightening, I almost didn't miss your beekeeper stories or movie quotes.
– *Johan*

The counter argument would be that each country that has tried QE, has seen their economies slip back into recession when they finally took the QE punch bowl away.

This has been true in the past in the US, Europe, Japan, and China (sort of) - so could we have a recession AND inflation?
– *West Coast Investor*

You mean stagflation? I kinda doubt it, because it generates an unstable political equilibrium, but it’s absolutely possible. Market gives this less than zero odds, of course, which is … interesting, from a macro trading perspective.

That said, it’s smaller businesses, those without access to the financialization goodies of the modern monetary policy system, that are already suffering from a form of stagflation-lite. And on that note …

I suspect another, and perhaps more direct, answer to your question is that while we do not have wage inflation, we have compensation inflation (compensation = wages + benefits). For example (and this may be the key driver) medical costs continue to rise much faster than overall inflation and someone is paying that. To put numbers to my example: if a company is spending $4k a year on benefits on a $40k a year employee and the cost of those benefits goes up 10% then there is 1% compensation inflation. Add that to 2.5% wage inflation and you have 3.5% compensation inflation.

I have not seen anyone write about this and that may be due to the fact that there is a scarcity of good data on the subject. I am aware of this only because I have been a small company CEO.
– David

By the way and for what it's worth, wages in the construction industry are already off to the races. We are paying our professionals/ semi-professionals and experienced people probably 30% more than 2-3 years ago. At a meeting yesterday with one of the large Gen Contractors, they told me young guys are heading straight into field jobs out of the construction management schools (Auburn, Clemson, Ga Tech, etc) where they can make a lot more than they could coming in to an office as a trainee. This ship has turned fast in our business. I guess the difference is that we (as non-public entrepreneurs) ARE investing significantly. Just a data point thought you might want to hear.
– Alan

You don't have to wonder, we are at 4.3% unemployment and were not seeing acceleration yet, so clearly NAIRU has been structurally lower this cycle. The other thing that is clear we will get there and it is not years away, but more likely months.

If you look at states where unemployment is lower, like NH and ME, you have wages moving up in the 4-5% Y/Y range currently so we know the concept is sound. After all we are talking about the most basic principle of economics here - supply and demand.

Companies we talk to are baffled by the government numbers, they see it and are worried about maintaining margins (raising prices). There is a fair amount of anchoring and it is important to keep in mind that each crisis occurs because people are worried about the last crisis. In this case fighting the psychology of deflation.

So yes, NAIRU is lower, but it is also likely to be a coiled spring. That realization, along with a positive correlation between stocks and bonds, will sow the seeds of the next collapse.
– Alan

In exactly the same way that almost every financial advisor I speak with feels "stuck", so does almost every small to medium business owner I speak with. There's a trickle-down wealth effect from their personal accounts, which is all well and good, but they're not feeling the love from the last eight years of QE in their businesses because they can't access the financialization wonder drug of public markets. At best they get it second hand if they can find an LBO buyer. But the LBO buyers are all mega shops today, so juiced up on the financialization steroid themselves that they don't have time to mess around with the small to medium guys.

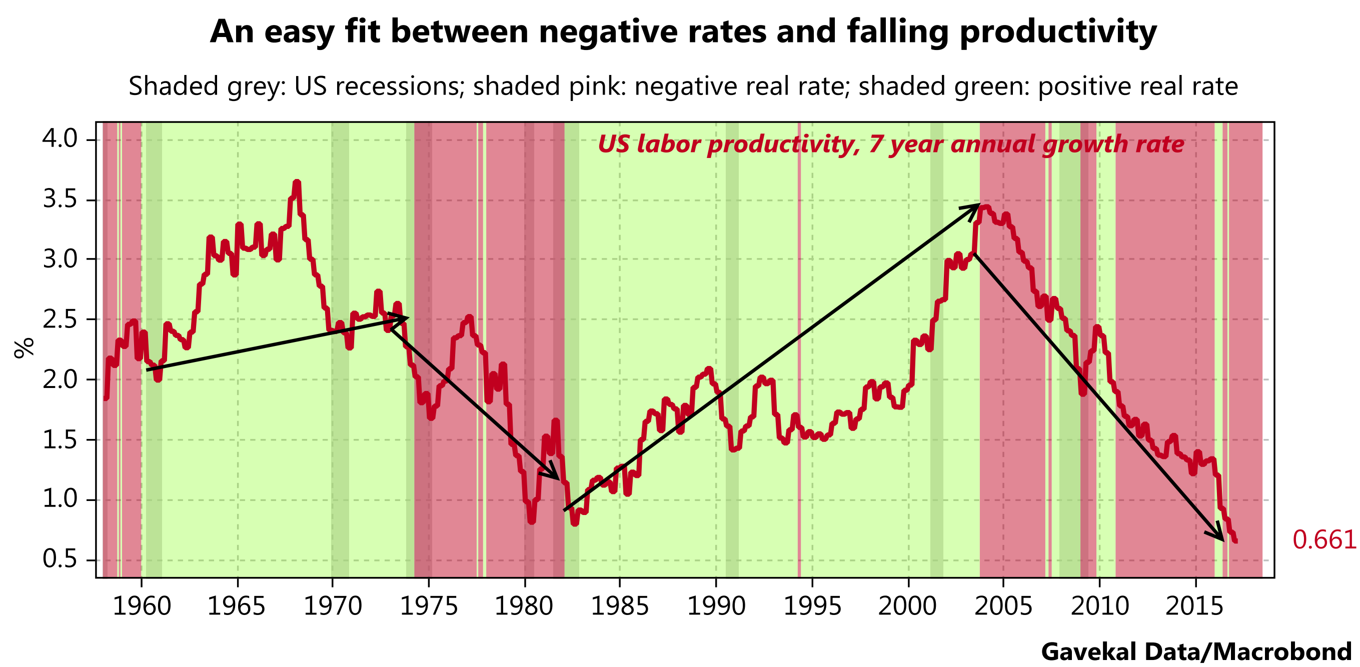
It's just another manifestation of the central truth of life in 2017, on every level of aggregation and scale — if you're in the Club, life is good. If you're not, life is very very anxious.

Ben, I just read the piece that you sent out yesterday ["**Gradually and Then Suddenly**"] and I have a question for you regarding productivity. Other authors that I have read have put forth the theory that productivity growth is low because we are measuring productivity in a manner that doesn't fit the new economy. In other words, measuring widgets produced per hour is not the accurate measure of productivity in the digital economy. They admitted that we don't know yet how to measure productivity in the digital economy but that we would be well served to think about it.

I would very much like to hear your thoughts about their theory.
– *Ann*

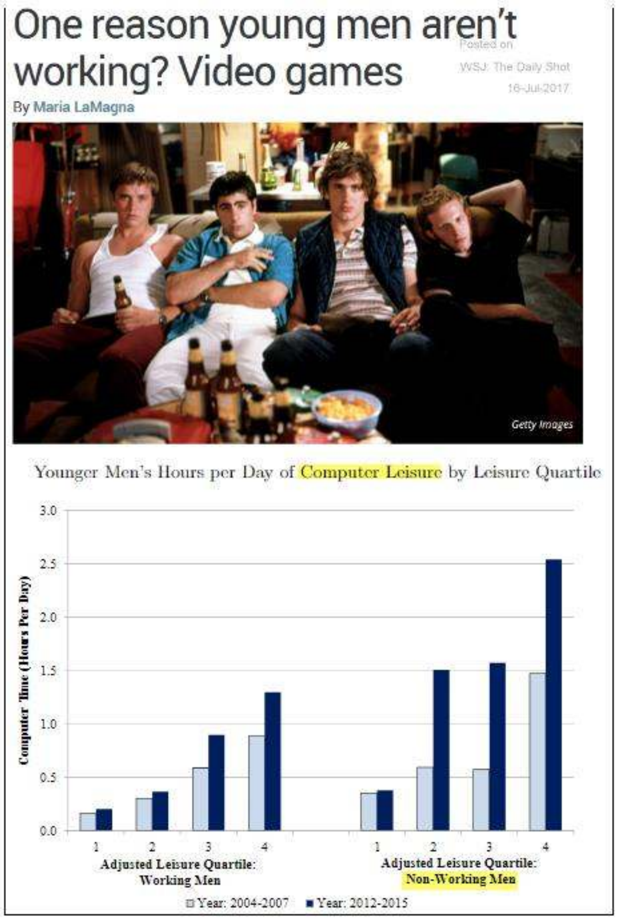
I got a lot of good letters on the Great Productivity Debate, too many to address directly in what is already an overly long Mailbag. I've reposted a handful below, because they do a good job of covering the waterfront. The topic deserves a full-fledged *Epsilon Theory* note of its own, so that's what I'll do next week in a new Note From the Field. I've already got the title picked out: "Horsepower."

Political hamstringing of entrepreneurs, yes. Focus on stock price not business, yes. But a simpler causation is that cheap money and open borders help suppress real wages (and, via govt spending and consumer credit, both, make up for them) and THEREFORE mean less need to substitute with invested capital, in turning keeping marginal gain to labour low-added and so reacting back on itself.
– *Sean*



– *Justin*

Can you address the role of globalization on your theory of inflation going up with monetary tightening? I believe the world is awash in industrial capacity brought on mostly by Chinese overbuilding in numerous industries. I know the Chinese can't subsidize forever, but right now they seem to be cranking out product they have no idea where it will go. Solar panels is a great example. Look what happened to the price of solar panels since January? They are selling with a negative gross margin! Every other competitor is going out of business. I think the same may be true for steel and other industrial commodities. Why invest in more capacity when you can't compete with a Mercantilist.
– *John*



My theory Ben is social networking is what's keeping Prod Growth from happening. People are spending way too much time on FB and the like snapping selfies in front of fountains, inputting jokes and nonsense and not working!.. They're not even driving their cars properly but stuck with their darn face in front of a nonsense networking device…my 0.02
– Steve

I can point to one other potential reason we aren't seeing inflation and lower productivity - at least in engineering and construction. There are a whole lot of boomers retiring and taking with them both their experience and higher pay. The new folks are coming on at much lower pay but are also much less productive. The good news, if I'm right, is that we will start to see increasing productivity as these folks are assimilated into the work place. Assuming of course we don't have a downturn first.
– Brian

Perhaps one of the reasons productivity gains are so low is that the latest wave of the "New Economy" are companies like Uber, Door Dash and EZ Home. They provide personal services which are pretty low productivity and even with the .com overlay, there are limits to what one worker can do. For example, Uber drivers can only carry a few people around at one time, and probably only generate $60,000/yr in gross revenue working full time. The corporate organization leverages this into a high productivity and growth story on their level, but it is built on a large low productivity business. I'm sure they all have plans (fantasies?) of someday replacing all their field workers with robots, in which case productivity might soar, but that is a ways down the road.

I live in Menlo Park, Ca and the local economy (and perhaps productivity) is growing at a fast pace because companies like Uber are headquartered here. I suspect that other parts of the country are growing much more slowly or not at all because they have the low productivity economic activity that supports Uber and the like but don't benefit from the corporate leverage.
– Keith

Thanks for your stimulating articles! I never took econ but was a bad math major. To me econ theory seems to rest on two axiomatic relationships: supply and demand, unemployment and wages. In the 1980's, we bought well-made solid wood shiny brown furniture for thousands of dollars apiece. There has been no physical depreciation, and yet those pieces today go for hundreds of dollars. Similarly for oriental rugs, sterling silver, china, etc. Only those pieces deemed worthy by the ultra-rich seem to 'hold' their value. Meanwhile, the overall 'quality' is going down (this means regular replacement of shovels, software, hardware, and phones). That combined with atrocious service (except for the ultra-rich) and

regular discovery that what one just bought is actually a 'second' inevitably leads to consumer demand malaise, except for consumables. It is no wonder then that the children of the boomers aren't buying material possessions, except for baby stuff. Famous economists call this area 'aggregate demand', and when they have to consider NIRP to stimulate aggregate demand, you know the goose is cooked. Spending on consumables, vacations, and experiences would increase; savings would decrease, and so on. The above four axiomatic econ words just do not mean much in today's fast food, landfill economy. They are glittering generalizations of an economy that once was. I don't know what the replacement terminology should be, but I know it's out there **somewhere.**
– John

You have missed the boat on unemployment and wage inflation. As long as more people enter the work force and have the proper skills then wages do not have to increase. There are other factors but job automation and people entering the work force seem to be the current keys.
– Jam

How is the productivity improvement of the rise of Uber or Google search or online shopping on Amazon captured by the gov't? They are not.

There are hundreds of examples like this. They don't improve some form of production, they change how we run our personal lives by vastly improving our non working efficiency. Some technology, like smart phones, have revolutionized our personal lives and have a bleed over effect in productivity but that is minor in comparison to the non working efficiency. Since people use their smart phones at work for personal reasons you might even conclude they reduce efficiency.
– Art

I've never thought to link the fact that the current low growth in productivity seems to rule out the concept that technological advancements aren't the driving force behind low wage growth.

In saying that, can you not see a case whereby technology is driving people out of once productive jobs (manufacturing etc) and into poorly productive and lower paying jobs (retail, hospitality, etc) where they work a similar amount of hours? In this case we still have the same amount of production (with machines/new tech doing the bulk of the work) AND the same amount of hours worked, but with the % of hours worked in poorly productive sectors now representing a much greater % of the overall total?

In other words, both the numerator and denominator stay the same, thus it appears productivity has slowed to stall speed, but the real story is the change in distribution as to who benefits from productivity advances AND what is happening to those displaced by technology, i.e you move from working 8hrs/day on a factory line contributing $100k/pa to GDP, to driving for a cab/Uber 8hrs/day and contributing $40k/pa?

This also explains the growth in inequality, with those who own the technology/plant benefiting from the increased productivity of their business, while "labour" suffers with stagnating/declining wages. Seems to all fit in with the secular stagnation and growth in under employment themes too.
– Sam

Good letters all. To be continued next week.

I also got a lot of good letters pointing out that "it's the debt, stupid". In other words, that it's going to be deflation and economic weakness just as far as the eye can see. Here are a few …

The biggest question I have about this analysis comes from the fact that all these companies that have been buying back stock this entire decade are now up to their eyeballs in debt, and (depending on how this debt is structured) rising rates are going to crush earnings and free cash flow sooner or later. This will lead to crushing the broad market and the wealth effect it has created. Inflation offers a way out, but will inflation pick up fast enough to outrun the monster of corporate debt service?
– *Ian*

Isn't the Fed (or shouldn't they be) more concerned with the demographically-induced effects on consumption than they are with potential inflation? Haven't we seen this movie before, with the biggest demographic disaster in the formerly second largest economy sucking wind for 20 years + of ZIRP? Then again, maybe Japan only had to start raising rates ca 1995 to reach escape velocity, according to your logic herein.

Isn't the real issue the shifting of consumption and production away from the developed world to the emerging economies? Millions every day joining the global economy, urbanizing, getting credit cards and bank accounts? Isn't the more apt analogy the one to 20th century Europe as America thrived? In previous notes, you have discussed the possible effects of nationalist/populist leaders, both here and abroad. The real question I'm curious about: would a trade/immigration war be inflationary or deflationary?
– *John*

Ben, on most things we see eye to eye. However, on this one I'll take the under. I don't think wage inflation is or is going to be a problem at all. The 4.3% UE rate is an utter fiction. Low paying service jobs are the only ones driving any labor "growth", and the largest segment of the population securing these jobs is people over 55 years of age. Further, I think that any Fed "tightening" will be whitewashed by other global CBs continuing to prime the pump to the tune of > $2.5TR per year. There can be no credit contraction without GDP cratering and equities falling off a cliff, and equities can't be allowed to fall off a cliff as then the faux "recovery" narrative will be exposed and untold amounts of debt will be subject to default. Fed and all CBs are stuck. More of the same coming.
– *Bill*

Thanks for sending this. It is obviously appealing intuitively, because it is so counter-intuitive. It makes sense, within its own parameters. The question is will this scenario play out, and I fear that no-one knows, because no-one has ever been in this position before.

He doesn't seem interested in the problem of the quantity of debt -- public corporate and household – that are now burdening economies. But for many people, including myself, that is the primary issue.

See this **http://www.zerohedge.com/news/2017-07-13/shocking-reason-why-us-just-spent-record-429-billion-june** as an example of what happens when you start to treat the debt as unpayable and stop pretending that it's fine. In this case, the US is moving it from private to public debt, because the larger deficit also has to be funded. You can't make debt disappear without huge balance-sheet consequences (aka bankruptcy).

What if the reason why corporates are not investing is because there is no final demand out there to satisfy? That the current final demand is debt-driven and not real. That demand is in secular decline, for demographic reasons (ie Harry Dent approach).

Bottom line: I don't think he is drilling deep enough to get to the bottom of the mysteries he is discussing.
– *P.*

I'm actually very sympathetic to this view, that the massive debt of the world hangs like a millstone around our collective neck, preventing any sustained resurgence in growth, and you can find plenty of *Epsilon Theory* notes expressing that. But my views have "evolved", to steal a line from our new White House Communications Director. I think that in the land of the blind, the one-eyed man is king. I think that 2.5% to 3% real economic growth is absolutely attainable here in the U.S., massive debt or no massive debt, and that will *feel* like 4-5% growth back in the day. <u>I think that there's enough entrepreneurialism and desire still left in the American tank that changing the debt-taking risk/reward calculus from investing in stuff (financialization, if you can get it) to making stuff can absolutely drive 2.5 – 3% real growth in this country</u>. Will changing the risk/reward calculus be painless for markets and the real economy? No. Is it worth it? Yes.

And now for a big Mailbag finish …

On the side, I write financial poems. Here's my latest on our fabled Fed:

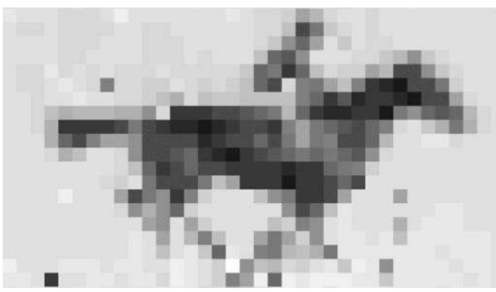
Chaperoning the Dance
Arrive at the Spring Fling, not a soul on the dance floor.
For you and other teachers, watching over's a chore.
You encourage some kids. None budge and desperation ensues.
Eventually, spike the punch and pray for the effects of the booze.
For some of the kids, all it takes is a couple of sips.
They are the brave few who start shaking their hips.
Slowly but surely, others get the urge to join in.
Satisfied by your work, success brings on your grin.
Unthinkable just a few hours ago, some ruckus is brewing.
To your horror, most students are now tobacco chewing.
We've much surpassed the time to encourage more fun.
You try and sneak away the punch bowl to curb this run.
Despite prospect for future hangovers, the students protest.
Your actions make you the villain, the one to detest.
Controlling the party is a thankless task.
Be careful with the power. Ration that flask!
– *Tim*

Actually not half bad.

It may be that you lived in an alternate universe in which Fess Parker had a different role ["**Notes From the Field**"], but when I wore my coonskin cap, I sang about Davy Crocket, not Daniel Boone.
– *Kit*

Fess Parker played both Daniel Boone AND Davy Crockett in the respective TV shows! The *Daniel Boone* show ran for five or six years while *Davy Crockett* only aired a few times as a special series on *The Wonderful World of Disney*. Yep, that was my Sunday night ritual — *Mutual of Omaha's Wild Kingdom*, followed by whatever was showing on *The Wonderful World of Disney.* Simpler times, for good and for ill.

And then there's this: scientists have embedded 5 frames of the "Horse in Motion" into the DNA of bacteria. And people think memes are far-fetched.



Gif and image written into the DNA of bacteria - BBC News

www.bbc.com

Images and a short film are inserted into bacteria DNA and recovered with 90% accuracy.

Complex times, for good and for ill.

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