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# The Greenspan Uncertainty Principle

August 12, 2005  
By John Mauldin

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This week we revisit our old friend, the Yield Curve. We look at what it may or may not be telling us, how the Conference Board has changed how they look at the yield curve as part of their leading economic indicators, and muse upon what Greenspan is really doing. There's a lot of very important and interesting ground to cover, not the least of which is my concern about Fed policy.

But first, let me invite you to [meet me in New Orleans](#) at the New Orleans Investment Conference October 30-November 3. This is the grand-daddy of all investment conferences, and they always have a great line-up of speakers. This year Steve Forbes, Ann Coulter, Jim Rogers, Marc Faber, Dennis Gartman and for fun P. J. O'Rourke will be there, along with your humble analyst, as well as scores of great speakers. There is a great deal of emphasis upon gold and natural resources, as well as other types of investments.

My friends and business associates from Altegris Investments will be there as well, and we will be meeting with clients and prospective clients. If you are an accredited investor and would like to meet us there to look at your investment portfolios, I suggest you contact me and let's start setting appointments as meeting times will go fast. You can click on this link to register for the conference and I will also give you more details at the end of the letter.

<https://www.jeffersoncompanies.com/registration/confreg.php?acode=JM>

Let's start with a review of the yield curve. Basically, it is the difference between short term and long term rates. When short term rates rise above long term rates, the curve is said to go "negative" or "inverted." This is important, because as Professor Campbell Harvey (at the Fuqua School of Business at Duke) first pointed out in his doctoral dissertation at the University of Chicago, the yield curve is the best predictor of an impending recession.

(As an aside, for you research buffs, his web site has a very easy to use dictionary for every conceivable financial term, with lots of links. <http://www.duke.edu/~charvey/>, plus lots of other really good material.)

Typically, when the yield curve goes negative for about 90 days or more, the country goes into recession within 12 months. Thus, with the yield curve getting flatter and flatter, people like me start to pay closer attention. Because, while it should seem obvious, a necessary pre-condition for a negative or inverted yield curve is a flattening yield curve.

The difference between the two year and the ten year is today only 21 basis point. The ten year is at 4.24% as I write. But we normally measure the yield curve from the 90 day, which is basically the Fed fund rate, which is now 3.5%. For the yield curve to go negative either long rates would have to drop or short term rates would have to rise, or a combination of both.

In one sense the yield curve is already much flatter. As I will point out below, the Fed has made it clear they intend to keep raising rates. If they raise at the next three meeting, the curve will be quite flat. The market is pricing in such Fed moves, so essentially the market is anticipating a much flatter yield curve. The question of the day is whether the Fed will deliberately force an inverted yield curve.

I am often asked if a negative yield curve is an indicator of or a cause of the recession, and the answer is a little of both. This is complicated, so let me see if I can explain it simply. (By doing so I know I am at great risk of oversimplification, and thus not being precise, but that has never bothered me before.)

Why would someone be willing to pay less for long term money than what they could get simply by investing in a money market? Because they have a belief that short term rates are going to go down and probably drag long term rates down as well. They "buy" the long term rates thinking that they may not get another chance to get the long term rates at the current level for quite some time. In essence, they are timing the bond market and making a prediction about the future direction of interest rates.

Why would they think short term and long term rates are going to drop? Because they think the economy is going to slow down or go into recession. If the economy goes into recession, they believe the Fed will react by lowering short term rates, and long term rates normally drop because of the recession. That goes double in a world where deflation is a dominant theme.

Of course, when short term rates rise above long term rates, this is not good for banks. They have to "pay" for money by giving interest and charging more for their loans. When short term money goes above long term money, it puts a squeeze on their profits. They also tend to lend less money and become more conservative, which puts a crimp on business in general.

There are some very smart people who believe the yield curve is no longer a potential indicator of recession, including apparently Sir Alan Greenspan.

Let me quote at length from an article entitled "An Obituary to the Yield Curve as a Leading Indicator" by those clever analysts from GaveKal. (Please note that the word *adequation* is primarily a term used in French and means: The act of equalizing; act or result of making adequate; an equivalent. In their context it more or less means correlation.)

### **An Obituary to the Yield Curve?**

"In the recent revision of the US leading indicator, the yield curve was dropped. For those of us who have enjoyed getting beaten up by markets for more than a few years, this is akin to an intellectual revolution: for years, the yield curve was the sacred cow of the forecasting community. So why did it work? And why doesn't it work any longer?

"The yield curve's track record was so good that along with everybody else, we used it in our forecasting efforts. But we never liked it very much, simply because we did not agree with the economic reason (or the lack of) which was generally given to explain this unblemished record. In a sense, while everybody agreed that the yield curve worked (i.e.: when short rates were below long rates, the economy was due to grow), nobody really explained why.

But here was the logic: over the long term, there was (from 1945 to 1995) a rough *adequation* between three variables

- the growth rate of nominal GDP
- the growth rate of corporate profits
- long interest rates

"This *adequation* meant that the long rate gave a rough estimate of the standardized growth rate of corporate profits. And as we never tire of writing, corporate profits are what the entrepreneurs (the fellows taking risks) get. Meanwhile, the rentiers (the fellows taking no risks) get the returns provided by short rates. So when short rates move close to, or above, long rates, the rentiers start to make more money than entrepreneurs. An economic system in which this is happening moves rather rapidly "ex growth". This is why, when the yield curve would invert, within a year, a recession was on.

"...But then why has this relationship broken down in recent years to the point where the yield curve gets dropped from the US leading indicators? Why is Mr. Greenspan happy to dismiss the message of the bond market? To explain this, we return to one of our recurrent and favorite themes: the under-appreciated macro-impact of the 'platform company' business model.

"Indeed, with the 'platform company' business model, we find that:

- "Corporate profit growth in the US over the past decade has been much stronger than GDP growth and is

likely to remain so. How is this possible? Could the fact that corporate profit growth in China has been much weaker than the GDP growth have something to do with it? Very possibly...after all, when you sell stuff to Wal-Mart, only Wal-Mart is allowed to make real money on the trade!

- "Most companies are now structurally in a positive cash flow mode (if, like Ikea, Dell, H&M...) you focus solely on design and sales, how much capital do you really need?"
- "Commercial banks which used to provide up to 90% of the financing needed by the economy are now providing around 35%. This helps remove cyclicalities and interest rate sensitivity."

"The 'platform company' revolution means that, in all of our models, we have to replace long rates by the structural growth rate of the economy. This makes our job, and the central bankers' jobs, a little more challenging."

Well, maybe.

It is generally not a good idea to disagree with those who are clearly smarter than you are, but nonetheless I think giving the yield curve an obituary is a little like Mark Twain's statement that "The reports of my death have been greatly exaggerated." While GaveKal makes some very good points, I would disagree on a few points.

The "platform company" model is one that I have dealt with in concept in this letter over the last year or so. In essence, who do you want to own, the company that makes the Ipods for Apple in China (or wherever) which has margins and return on capital in the low single digits, or Apple which sells the Ipods with margins of 40%?

This is causing part of the problem with the trade deficit, and is one reason why it is becoming more of a structural problem than ever, and another reason why it will last longer and get bigger than almost anyone now thinks. But that is a topic for another letter.

GaveKal is correct that commercial banks only provide about 35% of capital. But other lenders still have cost of capital. There is no free lunch. Hedge funds must find the capital somewhere, and an inverted yield curve makes borrowing and leverage a very difficult game. Leasing companies must go into the capital markets to compete. I think an inverted yield curve will still be a harbinger of decreased availability of capital.

Plus, let's not get into an Alice in Wonderland mode, where the Queen of Hearts snaps "Verdict first and trial later!" The yield curve has been very good for a long time as an indicator, for whatever reason. Let's see if it fails first before we bury it. It goes against my grain to take a "this time it's different" approach. It hardly ever is.

And, to be fair, the Conference Board, which produces the index of Leading Economic Indicators (LEI) did not in fact unceremoniously dump the yield curve. They simply changed how they use it. Before, as I understand the papers on their web site, their model saw a flattening yield curve as a negative indicator. Now they only use it as an indicator when it goes negative.

They argue that the movement of the yield curve is not particularly useful at other times other than when it is negative. It is only when it goes negative that we should really pay attention. You can go the paper and see the "before and after" LEI and see that it does seem to in fact work better only using the yield curve when it is negative. You can also see that the LEI is now turning down on page 6 of the report. ([http://www.conference-board.org/economics/bci/NewYieldLEI\\_2005.pdf](http://www.conference-board.org/economics/bci/NewYieldLEI_2005.pdf))

Now, why is this so important? Because the Fed is almost certainly going to raise rates at least 2 and probably 3 or more times. We will have a 4% fed funds rates by the end of the year. Some are now writing of a 5% rate before the cycle is over.

I wrote at the beginning of the rate raising process that the Fed would raise rates longer and higher than anyone expected. That is their clear pattern. They keep raising rates until things start going soft, and then start cutting. But by then it has been and will be too late. It takes about 6-9 months before any policy change (like cutting or raising rates) really has an effect upon the economy.

Personally, I think the Fed should at least pause for a session or two and see how things are going. But they are not going to do so. Greenspan clearly enunciated the principle that central banks should always pursue policies that will avoid the large risks, even at the risk of smaller problems. What you want to avoid, he argues, is the really severe downturn. Great speech. Every Fed governor needs to read it 2 or 3 times between now and the next meeting.

In theory, Greenspan and the Fed are focused on inflation. But their last release indicated that rising inflation is not a big risk. Indeed, if you look at what is called "pipeline" inflation or the potential inflation coming down the pipe, one might reasonably conclude that inflation is not a major issue.

Further, oil prices are rising and it is finally starting to have a small effect on the economy. We are watching a significant rise in the inventory of homes for sale in some of the nation's hottest markets. The Wall Street Journal, in a cover story today, says in the headline that this suggests the housing market could be cooling. In San Diego they have more than doubled. And in many other areas are up 25-40% or more.

"Economists and real-estate analysts say they won't be able to determine whether the market as a whole is slowing until September or October at the earliest, and note that housing conditions vary among communities." (WSJ)

The problem is serious, though. Rising home prices have resulted in a great deal more borrowing. We have seen home values rise by \$6.5 trillion and debt rise by \$4 trillion since the beginning of the decade. On average, consumers have significantly less equity in their homes than they did 5 or 10 years ago, even with the run-up in home prices.

So why is the Fed clearly signaling they are going to raise rates at least another two times and probably much higher? I think the Fed is no longer targeting inflation. From their speeches and from the minutes of the meetings, I think they are clearly targeting asset prices and specifically housing. They are worried about a bubble. "It is not a bubble yet," says Greenspan, "just a little froth here and there."

The guide is the central bank of Australia, where they did in fact have a housing bubble. They raised rates until the housing boom stopped, and somehow kept housing prices from falling. The Australian housing market has been flat for 18 months. I think the Fed would like to see the same thing happen here.

Yet, there is a problem. There is Greenspan's conundrum. If he raises rates to 4.25%, the yield curve could invert quite quickly if long term rates do not rise alongside the short term rates. So far, they really haven't to any significant degree.

Now, it is possible, as Campbell Harvey pointed out in a conversation today, that it is only now that rate increases are really having an affect on long rates. The first 8 increases merely got us back to where we should have been. For the record, he still believes that the yield curve is a useful indicator.

Let's make no mistake about it. Greenspan is using his personal judgment here. In fact, he has clearly told us that personal judgment is, in the end, what central banking is about. Let's go to a speech he made at Jackson Hole, Wyoming in August of 2003. This will go on for a few pages, but it is critical for you if you want to understand why Fed policy is what it is.

### **The Greenspan Uncertainty Principle**

The speech is entitled "**Monetary Policy Under Uncertainty**" and starts with the very important sentence:

"Uncertainty is not just an important feature of the monetary policy landscape; it is the defining characteristic of that landscape."

It then goes on to tell us just how uncertain monetary policy is:

"Despite the extensive efforts to capture and quantify these key macroeconomic relationships, our knowledge about many of the important linkages is far from complete and **in all likelihood will always remain so. Every model, no matter how detailed or how well designed conceptually and empirically, is a vastly simplified representation of the world that we experience with all its intricacies on a day-to-day basis.** Consequently, even with large advances in computational capabilities and greater comprehension of economic linkages, **our knowledge base is barely able to keep pace with the ever-increasing complexity of our global economy.**"

He emphatically points out that models only give us at best a reference point for policy. They cannot be prescriptive with any real degree of certainty. Nor does he offer any hope that such models can be developed in the future. Economic models are far from perfect and "in all likelihood will always remain so."

"Look, guys," he tells us (my paraphrasing), "stop looking at three different trends, running them out ad infinitum and then drawing a conclusion about the wisdom or stupidity of our decisions. The factors affecting your trends are so complex that any number of significant events could change the relationships between your trends and the desired policy."

Not only are past relationships not always linear, but past relationships may change over time. This is the old principle of "past performance is not indicative of future results." Just because things worked in the past does not mean they will in the future, as the world is changing rapidly. A simple example of this is all the analysts who told investors to buy stocks in January 2001 when the Fed started cutting interest rates because the "models" showed that stocks always went up after the Fed started cutting rates. Now, we know that such a linear relationship is not always true.

## Real World Central Banking

"What then are the implications of this largely irreducible uncertainty for the conduct of monetary policy? ...In implementing a risk-management approach to policy, we must confront the fact that only a limited number of risks can be quantified with any confidence. And even these risks are generally quantifiable only if we accept the assumption that the future will replicate the past. **Other risks are essentially unquantifiable..... because we may not fully appreciate even the full range of possibilities, let alone each possibility's likelihood. As a result, risk management often involves significant judgment on the part of policymakers, as we evaluate the risks of different events and the probability that our actions will alter those risks.**"

## Greenspan says, "Trust Me"

Now let me give you a few more of my first thoughts on the speech as it relates to our situation today. Let me start with a story from Dennis Gartman. He was once playing with a four man group for a state golf team championship. They were in the hunt for the outright championship, and on the 17th hole, one of the team members (interestingly his last name was Duffer), missed a 7 foot putt by a half an inch. Hearing the groans of his teammates, he turned around and said quietly, "Gentleman, that is the best I could do at the time."

First, Greenspan is saying that human beings run the Fed, and they have to make judgments. The best way to do that is to try and avoid the big risks. In essence, the Fed is like a giant economic insurance company, trying to avoid the big risks which could wreck the economy (like deflation, in their view) and thus willing to take smaller risks (like inflation, again in their view).

He tells his critics who look at static models that they are being too simplistic, and with some justification in most cases, I might add. That is not to say I would agree with a certain policy, but in this Greenspan is right: you cannot focus on just a few trends and extrapolate to a correct policy.

Second, he acknowledges what everyone knew: the world is vastly complex and cannot be understood in any one way. Further, every action will have unintended consequences, and the best you can strive for is not trying to "fix" the economy, but assessing risk and trying to avoid the worst case scenarios based on that risk assessment.

Finally, Greenspan is saying, "Trust Me." Not explicitly, but implicitly it is all over this document. As he answers critics about specific actions (like 1998 monetary easing), he confidently asserts, "Gentleman, that is the best I could do at the time."

For better or worse, that is where we are. I think Greenspan is worried about letting the housing froth turn into a full fledged bubble. (Which is a real worry, let's be sure to point out.) We are in a world where we have to trust him, whether we like it or not. He is going to base his decisions on what he sees as the risks. Maybe we get lucky and we have an outcome like Australia. No recession, a flat housing market and no bursting of what was a bubble. But it seems to me the Fed is going to keep at it. They are going to raise rates more than we think unless the yield curve actually inverts in the middle of the process.

This is an experiment in slowly letting the air out of what Greenspan calls froth. (As Paul McCulley points out, Greenspan can't physically say the word bubble.) This is something we will obviously be watching with close interest.

## Stanford, New Orleans, Toronto, Houston and Europe

I will be going to Stanford, Toronto and Houston in September, and will be going to New Orleans in late October. I will also be in Europe for most of the first two weeks of October.

As I mentioned above, I will be speaking and attending the New Orleans Investment Conference October 31-November 3. Jon Sundt (president) and Dick Pfister from Altegris Investments (as well as my daughter and right-hand Tiffani) will be there to meet clients and potential clients. Basically, we help clients develop portfolios of hedge funds, commodity funds and other alternative investments. If you would like to know more about what we do, you can go to [www.accreditedinvestor.ws](http://www.accreditedinvestor.ws) and sign up for my free letter on hedge funds that is just for accredited investors (essentially net worth of \$1,000,000 or more). If you want to be able to go into specifics about your portfolio with me and Jon or Dick in New Orleans, you must sign up soon and start a conversation with a representative from Altegris at least 30 days prior to the conference. We will not go into specifics with anyone with whom we have not had a substantive relationship for at least 30 days. Those are the rules and we follow them.

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As much travel as I will be doing in September and October, it is good that I am going to be home for the next four weeks. I have a lot of catch up to do. But Palo Alto and Stanford will be a pleasant diversion as I will be going to the 2005 Accelerating Change conference, which promises to be an interesting look into the future. You can learn more by going to [www.accelerating.org](http://www.accelerating.org). I spoke at the conference last year and learned so much I am going to actually pay and go back again.

It is a lazy August Friday, and I am actually finishing with daylight to spare. It has been relatively cool in Texas, which is odd for August. But this will probably change. I hope you are enjoying your summer.

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