

Ounavarra Overview is now *Ounavarra Review*.

- It just sounds better.
- It really is a review, covering current issues in investment management and financial economics by reporting on the best thinking of academics, consultants, managers, journalists, and other observers of markets and the human condition.

Happy reading.

A Visitor from Mars

If a visitor from Mars were to guess the real goals of central bankers around the world, based on their actions rather than on their words, what would he—or she or “it”—conclude? Three gifted thinkers—Victor Canto (Arthur Laffer’s longtime associate), Robert Doede of United Capital, and Stephen Sexauer of Allianz Global Investors—suggest the following answer:¹

“The central banks’ objective is to deflate nominal debt outstanding, subject to:

1. Inflation $< x$
2. Expected inflation $< y$
3. Nominal GDP growth $> g$
4. 10 year government bond interest rates $< g$
5. Unemployment $< z$.”

To me, this set of goals seems like the only plausible explanation for endless quantitative easing, expansion of central bank balance sheets, and a zero interest rate policy extending indefinitely into the future. U.S. federal debt has reached 104% of gross domestic product (GDP) ($\text{}$),² a level at which debt service represents a substantial share of tax revenues even at today’s low interest rates. Moreover, because of entitlement spending and constrained ability to increase taxes, the debt-to-GDP ratio is on a path that almost inevitably proceeds upward for at least a decade, and possibly much longer, unless growth really surprises on the upside, which I would not count on, given the tremendous amount of growth that would be required to bend the debt-to-GDP curve downward.

¹ Private communication with the author, April 7, 2013.

² Total Treasury bond market capitalization divided by GDP. This ratio thus includes debt not held by the public (most of the rest is held by the Fed and the Social Security Trust Fund).

Thus, it is natural that the government might try to pay this debt mountain back with cheaper dollars, attempting to avoid a sovereign debt crisis. This is roughly what happened in the 1970s with the Great Inflation, when annual inflation rates briefly touched 13% and the overall price level doubled in a decade. Burned by the memory of wealth destruction in both the stock and bond markets during the Great Inflation period, investors should be concerned that this will happen again. But if they are, they don't currently show it because inflation expectations are revealed in interest rates.

Note that the trio of Canto, Doede, and Sexauer expects debasement of the debt to occur subject to an inflation constraint, which means that they do not foresee a repeat of the Great Inflation. The inflation constraint could be as low as 3% to 4%. But at an inflation rate of only 3%, the price level doubles every 23 years. Such a rate would erode the real value of nominal government debt fast enough that debt-holders should worry because this inflation expectation is certainly not priced into bond yields. Previously, when inflation expectations ran at 3%, investors could stay ahead of inflation because real rates were positive; today, they are not.

The debt-debasement explanation of central bank behavior, however, is not the only possible explanation. To obtain further insight into the question of what central banks are really doing we interviewed two experts, David DeRosa and Robert Kiernan. The interview with DeRosa appears below, and Kiernan's comments will be in the next (third quarter 2013) *Ounavarra Review*.

David DeRosa, an adjunct associate professor in finance at Columbia University's Fu Foundation School of Engineering, foreign exchange trader, author, and consultant, is a University of Chicago-educated monetary economist and student of Milton Friedman. He is also a friend of mine (we worked together at Ibbotson Associates more than 25 years ago) and an eloquent advocate of free markets. His comments below reveal a surprisingly benign view of inflation prospects in the United States.

In the next quarter's *Ounavarra Review*, we will interview Robert Kiernan, a Senior Fellow at Harvard's Kennedy School of Government where he focuses on socially responsible investing (SRI), and the founder of Advanced Portfolio Management, a hedge fund management company represented by Ounavarra Capital LLC. Kiernan's view of the prospects for inflation is less benign, and his portfolios are designed as inflation hedges for institutional and individual investors concerned about erosion of their portfolios' purchasing power. I will also discuss my own views in the next *Review*.

Interview with David F. DeRosa

L = Larry Siegel, D = David De Rosa.

Why hasn't government stimulus resulted in inflation?

L: Let's start by asking, with all of the government spending and monetary easing that has taken place since 2008, activities that are usually associated with inflation, why there has been essentially no inflation?

D: The government can spend all it wants and it can borrow all it wants, but that doesn't mean there's going to be any inflation. There might be a debt crisis.

L: Why wouldn't there be inflation?

D: In order for there to be inflation, there has to be a meaningful expansion in the money supply in the broad-based sense, and the demand for money has to remain steady. If demand collapses, that can nullify the increase in the money supply.

But the fact that the government is spending money and borrowing money has nothing to do with inflation. To quote our great teacher Milton Friedman, inflation is always and everywhere a *monetary* phenomenon. It's not a debt phenomenon. Inflation is a change in the price of money, that is, at what rate you can exchange money for goods, and the determinants of that price are the supply of money and the demand for money.

L: Is inflation under-reported by the CPI?

D: Only to the extent that we have the normal problems associated with a Laspeyres index, of which the CPI is one. There are some technical issues raised by changes in the composition of the consumption basket. But that is very much a second-order effect. I believe that the men and women who work for the Bureau of Labor Statistics are honest, hard working, intelligent, and competent people. Maybe it's impossible to get the inflation number exactly right, but in my opinion there are no gross mis-statements of inflation by any of the consumer price indexes or wholesale price indexes. They've been doing this for over 100 years. They're not fools and they're not dishonest in any way.

L: I was wondering if the tremendous decline in real estate prices that occurred a few years ago was a factor in the apparent lack of inflation.

D: That's only a small portion of it. And the fact is that real estate prices are now going up, yet you don't really see any signs of inflation. Moreover, I don't know of any place in the world where there's any inflation right now. I also don't know of any capital market that's pricing in any kind of inflation premium right now. I can't think of any interest rate around the world that "prices in" inflation (in the sense of being higher to

compensate for expected inflation in the currency that the interest rate is denominated in). It's nowhere, not even in the EU where you might think it would be.

Hasn't there been consistent inflation in the U.S.?

L: Let me push back on that a little. Here's the inflation. The threshold of middle class income was \$50,000 a year about 20 years ago and now it's \$100,000. So the price level doubled over 20 years, which means 3.5% annual inflation.

D: That's not what I would call real inflation. It's a little bit higher than you'd like, maybe. But 3 or 3½ percent over 20 years is not exactly a major problem.

L: It's not terrible, but there's a difference between doubling the price level every 20 years and not doubling it at all.

D: True. But I expect that there's always going to be some inflation. It's not like 1979 where there was 13 percent inflation. Anyway, whatever inflation there is now is not really a macroeconomic phenomenon. It's not like the late 1970s and early 1980s when interest rates, behaving according to the Fisher equation, rose to over 15 percent then came cascading down when inflation went away. (The Fisher equation is: nominal interest rate = real interest rate + inflation.)

Inflation prospects and asset allocation

L: But a repeat of that scenario is what I'm afraid of, David. It's what some of my clients are asking me how to defend against, using an asset allocation strategy. TIPS have worked well, but that game is over. The TIPS fund that dominates my portfolio has a negative yield of almost negative one. What should my clients and I invest in?

D: They should invest in broadly diversified funds, or index funds, of American common stocks and high quality American real estate. I am emphasizing American assets because I am very concerned about how Europe is going to get out from under the euro [do you capitalize dollar?] crisis.

L: What about the fixed income component of the portfolio, to manage volatility downward?

D: I wouldn't go long duration on anything right now. Short duration is fine. Alternatively, you could buy high quality real estate and get a 2 or 3 percent rental yield on it, plus the potential for capital gains.

L: Interesting.

D: But there are not that many ways to make money on fixed income. The return is just not there in developed-country currencies; you would have to get into emerging market debt. If this whole environment goes wrong, what will go wrong is the inflation rate. (I'll

tell you more in a minute about where the inflation could come from.) And what it would mean is that anything further out than, say, 5 years on the yield curve is going to get clobbered. I don't see that yet, but that's how my expectations could go wrong.

L: Are there any other asset allocation recommendations you would make?

D: You can have some commodities. They are a component of inflation by construction. I don't know if there's much else you can do, other than being a genius at active management, in which case it doesn't matter what inflation is, because you're going to make a fortune. But if you're not a genius at active management, you have to achieve your goals through asset allocation strategy, and the risks should be spread out.

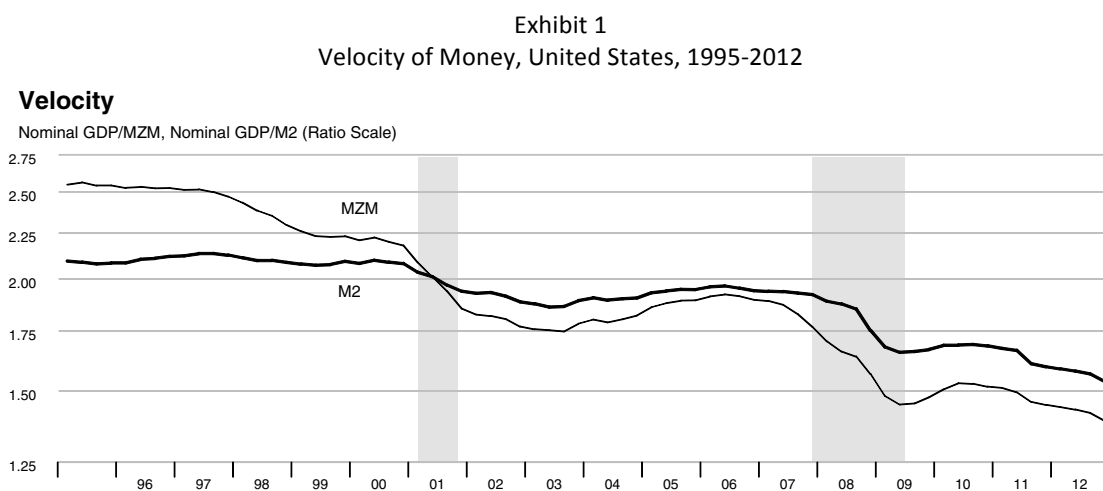
The velocity of money: A key driver of the price level

L: Going back to monetary policy, has the link between the growth rate of the money supply and the inflation rate been broken?

D: No. The missing part of the link is velocity and inflation. The Quantity Theory of Money is $MV=PQ$, money supply times velocity equals the price level times the volume of transactions. V , the velocity of money, has collapsed, so that the increase in M has not translated to an increase in P , which would be inflation. The collapse in V means that people are holding more money.

L: Can you please explain that?

D: Exhibit 1 shows that the velocity of the monetary measure called M2 has gone through a tremendous decline, from something like 2.1 in the 1990s to about 1.4 now. (Velocity is measured as nominal GDP divided by M2 in the dark line, and nominal GDP divided by money-zero-maturity, or MZM, in the lighter line.)

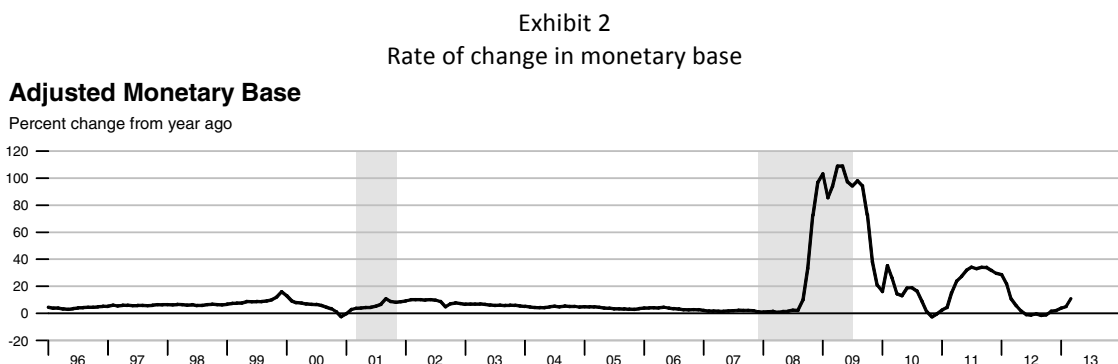


Source: "Monetary Trends" published by The Federal Reserve Bank of St. Louis, April 2013 update, page 12.

So, we did have expansion of the money supply, but not to the extent that people assume when they're talking about Federal spending. It's true that the rate of growth of the money supply went up, and it is still kind of high, but it's been coming down for some time. Whatever it was, the growth in the money supply was counteracted by the willingness of economic agents to hold "real balances," or reserves, of money.

L: Please continue.

D: When the velocity of money drops, it means that a decrease occurs in the number of times the money supply has to turn over to pay for economic income. That's the definition of velocity. If the velocity drops, all other things being equal, it means people are holding more money on average. For that reason alone, you wouldn't expect inflation to follow automatically from the expansion in money supply.



Source: "Monetary Trends" published by The Federal Reserve Bank of St. Louis, April 2013 update, page 12.

If the velocity goes back up, then the question of whether there will be inflation would be tested. However, to mitigate that, the Fed could actually start stripping off assets from its balance sheet. Exhibit 2 from the St. Louis Fed shows percentage changes in the monetary base. The really big increases in the monetary base occurred in 2008 and 2009, which is what you would expect. After that, the Fed has returned to normal levels of monetary base expansion, but velocity has continued to drop.

L: Does this episode test our traditional understanding of the relationship between the money supply, prices, and economic performance?

D: The same mechanisms work that always did. Our understanding of this is not being tested. In fact, the current episode is verifying the basic principles of monetary economics. You wouldn't expect inflation (beyond the background amount that was already there) because there wasn't really that much expansion in the money supply, the rate of growth has dropped, and velocity fell through the floor. That's why you have no unexpected inflation.

What exactly is meant by “money”?

L: We’ve been discussing “money” as if there were some sort of general agreement on what the word means. When I think of how much money I have, I think of it very broadly: cash in my pocket and on deposit in the bank, stocks, bonds, and maybe part of my real estate assets. I’m aware that your use of the word “money” is different and narrower. What is it?

D: If you're talking about the monetary base, that's currency in the hands of the public, plus commercial bank reserves held at the central bank. The sum of those two went up - there was an enormous spike in the rate of growth of that monetary base in mid-2008 through the end of 2009. After that, the growth rate calmed way down again.

There are also broader money supply measures that include the monetary base plus checking deposits and savings accounts and everything else. But the decision variable is the monetary base, which had one period of a year and a half when it was growing very rapidly and then the Fed brought it right back under control. I know that's counterintuitive, but that's what happened.

L: Please continue.

D: Looking at Exhibits 1 and 2 together, whatever monetary growth occurred got sopped up by the decrease in velocity. And then if we look at the Fed's expectations for inflation, they are 2½ to 3 percent – not just this year or in 2014, but 10 years ahead. There's no inflation! However, if this process were to reverse—if, for instance, the velocity of money were to start going up rapidly for some reason—you could start to see some inflation. But there's no inflation beyond the 2 to 3 percent rate that is in the bag. More than that, I don't see.

The risk of monetizing government debt

L: The popular press is saying that inflation risk comes from the government monetizing the debt “in order to be able to pay it off with a lower real value.” Some serious observers of markets have said the same thing. Is it correct?

D: If they do that, which they are not doing, then we’re going to have a lot of inflation. But Bernanke himself has said that he is willing to run down the balance sheet before that happens. There could, however, be another central banker in the mix; there could be inflation in Europe. That would not surprise me. There could be inflation in a lot of places. But I don't think that's going to happen here.

On the other hand, if you tell me that our central bank is going to purposefully, willfully, maliciously crash the internal value of the dollar through a sustained program of monetization of debt so that the government doesn't have to pay it back, then I can tell you right now there will be a lot of inflation. That's not my forecast – that’s an answer

to your hypothetical. If you believe that, then the dollar is doomed, both internally (as regards domestic inflation) and externally (the foreign exchange value of the dollar).

L: What would the Fed have to do, or what would an equivalent body in another country have to do mechanically, to monetize the debt? Who buys what from whom and sells what to whom?

D: The central bank buys government bonds and pays for them by creating deposits of the commercial banks from whom they bought the debt, expanding the reserves.

L: And would that avoid a debt crisis if they do that?

D: In a sense, it would—although the Fed's willingness to roll over the debt (buy new issues of Treasury debt as the old ones it is holding mature) is also a factor.

L: Thank you, David.