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Calm before the storm

Dollar bills will tumble from the digital presses until the labor market gets a pulse. Only then will the very same dollars be magically caused to disappear. In this way, pledges the Bank of Bernanke, there will be no unscripted inflation and no unsightly bubbles, only a controlled, 2%-per-annum rise in the general price level, as defined. It will be as if quantitative easing, parts one, two and three, never happened.

Now begins an essay in doubt and speculation. We doubt that the Federal Reserve will recognize the moment at which to backpedal, and we speculate that the future will bear no obvious resemblance to that version of the future that the Fed today makes bold to forecast. Hold on to your hats is the executive summary of the *Grant's* credit and interest-rate forecast; details—particularly with respect to the new risks confronting investors in mortgage real estate investment trusts—to follow.

On Sept. 13, the Federal Open Market Committee pledged to purchase \$40 billion of mortgage-backed securities each month until the American economy does what its government tells it to do. "Even after the economy starts to recover more quickly, even after the unemployment rate begins to move down more decisively," said the chairman in the press conference following the announcement of QE-unlimited, "we're not going to rush to begin to tighten policy. We're going to give it some time to make sure the recovery is well established."

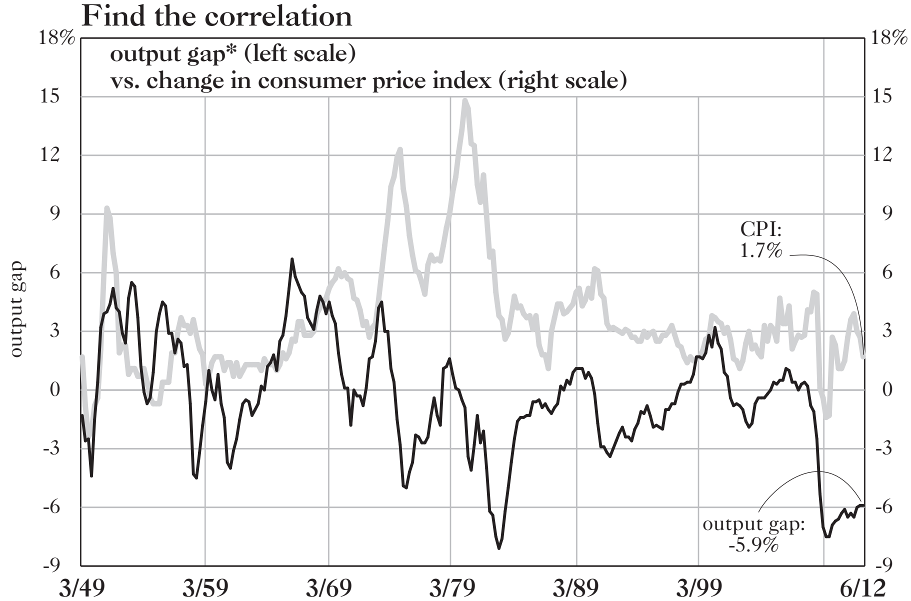
"Well established" by the Fed's own lights—but how bright is that illumination? Let us review the evidence. "There are some straws in the wind that housing markets are cooling a bit," Chairman Bernanke told Congress on Feb. 15, 2006. "Our expectation is that the decline in activity or the slowing in activity will be moderate; that house prices will probably continue to rise but not at the same pace that they had been rising." Since February 2006, house prices have declined by 31%.

Bernanke was back before Congress on March 28, 2007. Yes, house prices had begun to weaken—they were down by 1% from the peak. "At this juncture, however," he testified, "the impact on the broader economy and financial markets of the problems in the subprime market seems likely to be contained."

The chairman opined on the economic outlook before the Women in Housing and Finance and the Exchequer Club Joint Luncheon in Washington, D.C., on Jan. 10, 2008. "The Federal Reserve is not currently forecasting a recession," he said, one month into what turned out to be the Great Recession.

In November 2008, Queen Elizabeth asked why economists had failed to predict the biggest cyclical event of their lives. In July 2010, the Committee on Science and Technology of the U.S. House of Representatives sought answers to the same question, particularly as it touched on the Fed's econometric

Find the correlation



*output gap is difference between potential and real GDP
source: Federal Reserve Bank of St. Louis

models: Are they any good at all?

"The dominant macro model has for some time been the Dynamic Stochastic General Equilibrium model, or DSGE, whose name points to some of its outstanding characteristics," noted the committee in setting the scene for the inquest. "'General' indicates that the model includes all markets in the economy. 'Equilibrium' points to the assumptions that supply and demand balance out rapidly and unfailingly, and that competition reigns in markets that are undisturbed by shortages, surpluses, or involuntary unemployment. 'Dynamic' means that the model looks at the economy over time rather than at an isolated moment. 'Stochastic' corresponds to a specific type of manageable randomness built into the model that allows for unexpected events, such as oil shocks or technological changes, but assumes that the model's agents can assign a correct mathematical probability to such events, thereby making them insurable. Events to which one cannot assign a probability, and that are thus truly uncertain, are ruled out."

As for the beings who inhabit the world of DSGE, they are unlike any you might meet on the subway. Clairvoyant and immortal, they "see to the end of time and are aware of anything that might possibly ever occur, as well as the likelihood of its occurring," as the committee dryly noted. Thus, the "DSGE model excludes from the model economy almost all consequential diversity and uncertainty—characteristics that in many ways make the actual economy what it is."

What, then, did the economists have to say for themselves? "A thoughtful person," responded MIT professor emeritus and Nobel laureate Robert Solow, "faced with the thought that economic policy was being pursued on this basis, might reasonably wonder what planet he or she is on."

But the chairman expresses no such curiosity. "I would argue," said Bernanke at Princeton University, his old stomping ground, on Sept. 24, 2010, "that the recent financial crisis was more of a failure of economic engineering and economic management than of what I have called economic science." He readily admitted that the DSGE models had failed to predict the smashup. And neither "did they incorporate very easily the effects of financial instability."

But that did not mean, Bernanke continued, that the "workhorse new-Keynesian" was irrelevant or irredeemably flawed. "Economic models," said the chairman, "are useful only in the context for which they are designed. Most of the time, including during recessions, serious financial instability is not an issue. The standard models were designed for these non-crisis periods, and they have proven quite useful in that context. Notably, they were part of the intellectual framework that helped deliver low inflation and macroeconomic stability in most industrial countries during the two decades that began in the mid-1980s." In so many words, Bernanke described an analytical division of labor. He and his central banking colleagues will see to the forecasts involving low inflation and smooth sailing. Typhoon warnings, they leave to others.

Naturally, the typhoon specialists make their share of mistakes (we speak from personal experience). Many a forecast storm never happens. But at least the storm trackers' analytical framework acknowledges the possibility of turmoil, upset, temporary mass delusion and other such normal occurrences in the financial and economic life on planet Earth.

"[I]f a model doesn't include abnormal times as a special case of normal time," David C. Colander, professor of economics at Middlebury College, helpfully noted in a paper he prepared for the January 2011 meeting of the Allied Social Sciences Association, "and provides no way of distinguishing normal times from abnormal times, then the model cannot serve as your fundamental scientific model. If that is the best model one has, it is best to admit that one doesn't have a firm scientific understanding of what is going on, and to give up the pretense of fundamental science."

In New York on Sept. 19, Richard W. Fisher, president of the Federal Reserve Bank of Dallas, confessed that nobody at the Fed—neither the staff, nor the brass—really knows what's "holding back the economy"; to that extent, Fisher would seem to concur with Colander, one of the few senior monetary officials to so dissent. The personnel of the Bank of Bernanke mainly toe the chairman's line. Especially do such interest-rate suppressing and money-spinning busybodies as Charles L. Evans and William C. Dudley, presidents, respectively, of the Fed's Chicago and New York outposts, cling to the doctrine that the mandarins know best.

It makes all the difference in investing that the mandarins are just as confused as the rest of us. But adherents of the Bernanke doctrine are, in fact, disadvantaged in comparison to the average Charles Schwab customer. Practitioners whom Mr. Market has taken to school know better than to think they can predict the future. Rare is the Ph.D. with practical instruction in the field of margin calls, client redemptions or unsightly drawdowns. It is easier to believe that one can forecast coming events when one hasn't been punished for trying.

"A great deal of state-of-the-art analysis—done both inside and outside of the Fed—indicates that the severe downturn of 2008-09 was mainly the result of a large drop in aggregate demand which left the economy operating below its potential," said Evans in a Sept. 18 speech at Ann Arbor, Mich. "Research also shows that better and more accommodative policies have the power to reverse these setbacks and raise employment, output and incomes. In other words, more accommodative policy… can deliver these better outcomes without generating inflation that is significantly higher than the Fed's long-run goal of 2%."

Economic research "shows" many things, though it proves precious few. Either today's "nontraditional" monetary policy is inherently inflationary, or it's only potentially inflationary. Either a fast-rising price level (say, 4% to 5% measured year-over-year and sustained for more than just a few months) is baked in the cake of QE, or it's contingent on the return of full employment. Or, perhaps the choice is not between inflation and stability but among inflation, stability, debt deflation, depression and hyperinflation. Anyway, in between the lines of Evans's argument runs the unmistakable message: "We don't worry about inflation. Therefore, you shouldn't."

Disputing what we take to be the Fed's bedrock assumption about the relationship between inflation, on the one hand, and economic "slack," on the other, we do worry. Go ahead and test, as colleague Evan Lorenz has done, for the correlation between the year-over-year change in the CPI and the gap between potential and real GDP (as calculated by the Congressional Budget Office). You, like he, will find that since 1949 the two data series are not only not positively correlated, they are slightly negatively correlated (minus 0.03). They are statistical ships in the night.

To err is human. To persist in error is also human, if regrettable. To persist in error on the authority of "state-of-the-art" econometrics is the salient intellectual error of the stewards of the Ph.D. standard, the monetary system temporarily in place worldwide pending restoration of the true gold standard. Chairman Bernanke, an economics Ph.D. out of central casting, exhibits the weakness of his type by clinging to simplistic notions of monetary cause and effect. Thus, in attempting to predict the consequences of the new mortgage-backed-securities policy (the consequences they hoped for, not the ones they didn't), he held forth at the post-FOMC press conference last month as follows: "The program of MBS purchases should increase the downward pressure on long-term interest rates more generally, but also on mortgage rates, specifically, which should provide further support for the housing sector by encouraging home purchases and refinancing." Maybe all of that "should" happen (or shouldn't; one might let the market decide instead, which is another subject). The spread between the 30-year conforming mortgage rate and the yield on Fannie Mae-issued MBS has increased by eight basis points to 1.43% since the Fed's Sept. 13 announcement. Over the last 15 years, this spread has averaged 0.56%. Then, again, notes Lorenz, a May 21 bulletin from the San Francisco Fed predicted just that. There was, the San Francisco analysis said, a "weaker link between MBS yields and primary mortgages" owing to the consolidation of banks and the post-crisis culling of mortgage originators.

So—yes—the Fed is no monolith. And Bernanke is no Dear Monetary Leader. The Federal Open Market Committee is, indeed, a committee. Neither is Bernanke immortal, nor his term as chairman perpetual. It expires on Jan. 31, 2014, from which it follows that Bernanke is personally unable to guarantee the pledge of the FOMC to hold the Fed's policy rate at zero to one-quarter of one percent through the middle of 2015.

Seeking a second term in 2010, Bernanke found himself opposed by 30 senators, the most to say "nay" to any candidate for the Federal Reserve chairmanship since the Senate began voting on that question in 1978. Maybe, then, two hitches will suffice. But who would follow? If Obama defeats Romney, the nod might go to a candidate even more radical, monetarily uninhibited and model-struck than the former chairman of the Princeton economics department: William Dudley or Charles Evans, perhaps, or even Janet Yellen. Vice chairman of the Fed, Yellen is every bit the chairman's match in monetary openhandedness. "I am convinced," she said in June, "that scope remains for the FOMC to provide further policy accommodation either through its forward guidance or through additional balance-sheet actions." A Romney victory would shine the monetary spotlight on Glenn Hubbard, the Republican's economic advisor. Recall, however, Hubbard's head-scratching assertion in August that Bernanke is "a model technocrat" who should "get every consideration" for a third term. It's hard to tell the players without a scorecard when they pitch for the Establishment.

Mr. Market has weighed the odds of a rise in interest rates and registered his conclusion in a market not everyone has heard of. This is the market in interest-rate volatility. Instead of buying or selling shares of General Motors, or bushels of beans, or ounces of silver, the interest-rate vol participant buys and sells units in a yield-curve-weighted index of implied volatility on one-month Treasury options. Any questions?

In any case, Mr. Market would like you to know that rates are going nowhere, not now and not for the next two years. Since 1988, the interest-rate volatility bellwether known as the MOVE Index (short for the Merrill Lynch Option Volatility Estimate) has averaged 102 basis points. Today's reading is just 60.4 basis points.

This highly technical observation has down-to-earth implications for any who would seek income or manage risk or hedge a mortgage-bond portfolio. In sum and in preview (see the following article), it explains why tradable bank debt is cheap to junk bonds and why the cost of protecting a portfolio of mortgage-backed securities against rising interest rates is remarkably cheap.

What is so unusual today, Harley Bassman, managing director of convexity products at Credit Suisse, advises Lorenz, is that interest-rate volatility is quoted low in the future as well as in the here and now. Ordinarily, if today's vol is low, forward vol won't be. It will be quoted higher, more in line with the long-term average.

To judge by its deeds, if not its actual admissions, the Fed has decided that it can safely tamp down risk and volatility. If that is its mind-set, Bassman says, he emphatically disagrees with it (as do we). "Risk," he points out, "is not like matter in the sense that it cannot be destroyed, but has certain properties that are similar. If risk is compressed today, it may seek out the cracks in the system later on. Similar to the way that the Fed compressed risk in 2004, 2005, 2006, which led to extreme volatility and uncertainty, it's our view that they are presently compressing risk via explicit 'financial repression.' This can lead to greater risk down the road."

One of these fine days, we say, the Fed will lose control of what in the trade is known as the "risk-pricing process." Then the risk dammed up behind the walls of QE and ZIRP and Twist will come rushing down the valley. It's anyone's guess what form this unleashing of market forces may take. We say higher inflation and much higher interest rates—certainly, much higher interest-rate volatility. The longer the Fed keeps the market under its thumb, the greater the distortions in pricing of risk and the more furious the eventual reversion to a state of nature.

QE3 poses special risks to the investors in mortgage real estate investment trusts, a class of income-producing investment that has delivered exotically high interest income—at times, seemingly impossibly high interest income—for many a year (for a primer, see *Grant's*, April 6). By committing to buy up $40 billion a month of MBS, the Bank of Bernanke has presented the mortgage REITs with a poisoned chalice: inflated prices in the short run, inflated risk in the long run. By pushing up MBS prices, the Fed will likely flatter the REITs' third-quarter results. But the same buying is pushing down MBS yields and nudging homeowners, yet again, to refinance or prepay their outstanding balances. The bottom line: mortgage REIT dividend yields are bound to fall, if not this quarter—gains on sale will likely delay the pain—then eventually.

"Recall, please," Lorenz notes, "that borrowers pay precisely 100 cents on the dollar when they refinance, but mortgage REITs in this bull bond market often have MBS on their books at higher prices. For instance, at the end of the second quarter, Hatteras Financial and Annaly Capital marked their portfolios at 102.6% and 103.2%, respectively, of face value. A new refinancing wave would cost them each the premium over par.

"If MBS yields don't increase," Lorenz continues, "mortgage REITs eventually will have to cut dividends. It's a mathematical certainty. American Capital Agency Corp. (AGNC) illustrates the point. At the end of the second quarter, AGNC's assets yielded 2.81% and its liabilities cost 1.19%. Management used $7.60 in debt for every dollar of equity. What spread might AGNC be able to earn on its portfolio? Multiply the yield on the assets, 2.81%, times 8.6, that is, one unit of equity plus the aforementioned 7.6 units of debt. The answer is 24.17%. Now, to calculate the cost of funding those assets, subtract 7.6 units of debt times the aforementioned 1.19%. The result is 9.04%.

"Net yield, therefore, comes to 15.1%—that is, net yield as a percentage of equity before other operating expenses. But all this was before QE3. Between June 30 and Oct. 1, the yield on the current coupon 30-year Fannie MBS fell to 2% from 2.57%. If the yield on AGNC's portfolio fell to 2% from the 2.81% prevailing at the end of the second quarter, and if leverage and the cost of funds remained the same, net interest as a percent of equity would have fallen to 8.2%. AGNC trades at 119% of second-quarter book value (though book value is likely to increase thanks to the Fed-induced rally in MBS prices), and, based on analyst expectations, is priced for an indicated dividend yield of 14.3%. But in the current yield environment, you can't get from here to there."

Will mortgage REIT dividend yields fall? "Absolutely," Annaly CIO and COO Wellington J. Denahan-Norris emphatically replies to Lorenz's question. "I think anybody would be foolish not to recognize that returns across all sectors are going to decline. You can't squeeze the spread out of the market and expect everything to stay as it was. I think people will try to compensate with leverage, but I think it may be foolish to do so."

Because, as Bassman notes, risk can be redirected or repackaged or repressed but can't be eliminated, the risk of running a levered mortgage portfolio is on the upswing. "There's been a lot of extension risk in the mortgage industry leading up to QE3," Hatteras CEO Michael R. Hough says. (Extension risk refers to the lengthening of the maturity of a mortgage-backed security as a result of a slowdown in prepayments.) "At this point in the game going forward, there's going to be more than we've probably ever seen and that is risk that needs to be respected. I think that risk managers such as Hatteras and other asset/liability managers have to be willing to be respectful of that and use caution when running these businesses. It's hard to foresee rates at much lower than we are at right now. With that comes more risk. So I think caution from here going forward is more appropriate than it's ever been.

"There's different ways to manage risk on a levered balance sheet," Hough continues, "the most effective way is through leverage. I think we'll just have to see. There is no great hurry but the amount of money they are pumping into the system brings new risks into the world, especially the world of interest rates that we have to be aware of. As you know, Hatteras has always been very defensive in our interest-rate risk management, which is why we stayed in ARMs [adjustable rate mortgages] and why we've done it the way we've always done it. Now we see additional risk in the market."

A complicating factor for investors seeking to hedge risk is the upcoming requirement to post collateral for swaps and derivatives trades (*Grant's*, Sept. 21). When rates begin their next ascent, prepayment rates will plummet. Managers who locked up collateral to hedge their portfolios might find themselves trapped in a longer duration, low-yielding portfolio while, at the same time, taking negative marks on their portfolios. "[T]here will come a time when extension risk and lack of prepayments are the bigger issue for the market as rates are rising and you need those cash flows to rebalance your position," Denahan-Norris observes.

And herein lies the rub. While the mortgage REIT value proposition has suddenly worsened, so has every other income-generating value proposition. Relatively speaking—and there is no other language in investing—the likes of Annaly, Hatteras and American Capital Agency still beat most of the income-producing alternatives.

"I don't think anyone has seen this set of circumstances lining up," says Denahan-Norris, "and it's difficult to know what the ultimate outcome will be and how long it will take to get there. For us—we've been well telegraphed in this—our stance is to be conservative. What we are producing in a sub-2% 10-year [Treasury] world I think is still very attractive relative to a bigger, broader menu of options for investors."

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