

The Perversity Of 2004-2005 Federal Reserve Policy

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ABSTRACT

The current policy stance of the Federal Reserve System—to signal that it will continue to raise interest rates at a “measured” pace—creates perverse incentives for agents with rational expectations. The knowledge that interest rates will rise in the future at a known rate implies that current demand for real assets purchased on credit will be higher relative to what demand would be in the absence of that knowledge. Policy effects are perverse in the sense that the usual intent of raising interest rates is to slow demand for real assets, not to increase it. The current “froth” in housing markets observed by Fed Chairman Greenspan may be an unintended outcome of this policy. A rational expectations theory is presented to back up this argument.

INTRODUCTION

This paper focuses on real assets and in particular housing as distinct from financial assets. However, both classes are important from the Federal Reserve perspective. Ferguson (2005) comments that “Rising asset prices support household consumption, whereas falling asset prices dampen consumption. In a scenario of collapse, the damage to balance sheets and private wealth could go as far as undermining the soundness of the financial system and threatening stability of the real economy.”

Ferguson goes on to state “... asset prices are primary components of the channel by which monetary policy is transmitted to the real economy.” Financial assets include products such as cash, demand and time deposits and securities and foreign exchange. Examples of real assets include buildings, land, durables, machines and various commodities such as gold, oil and rights to those.

Many factors influence prices of real assets such as expectations, credit availability, balance sheets and creditworthiness of economic agents, stage of the business cycle, inflation, speculation, availability of information, global volatility and, of course, actions by central banks.

Greenspan (2005) says “Policy (monetary) is implemented through nominal and, implicitly, real short-term interest rates.” He goes on: “Our appreciation of the importance of expectations has also shaped our increasing transparency about policy actions and their rationale. We have moved toward greater transparency at a “measured pace” in part because we were concerned about potential feedback on the policy process and about being misinterpreted – as indeed we were from time to time.”

The view of the writers of this paper is that the transparency of monetary policy has generated the very feedback effect on real asset prices that Chairman Greenspan was concerned about and wanted to avoid. In particular, purchases of houses on credit have accelerated since the Federal Reserve first started to increase the federal funds rate on June 30, 2004.

THEORY

The role of private agents’ expectations in determining the effectiveness of monetary policy has been recognized at least since the 1970’s. During that time of “stagflation” and oil shocks, the Phillips Curve broke down. The supposedly reliable tradeoff between inflation and unemployment, which underpinned faith in traditional Keynesian policy

instruments, became totally unreliable. The breakdown in the Phillips Curve, according to Robert E. Lucas, Jr. (1972), John F. Muth (1981), and others, occurred when agents began to anticipate the consequences of current and future policy actions by the government.

Basically, if agents learn from past experience that increasing the money supply only causes inflation, then future increases in the money supply will fail to increase output and lower unemployment. Agents, being rational, cannot be fooled forever. As John B. Taylor (1979) put it, “A troublesome shortcoming with contemporary methods of quantitative macroeconomic policy is the failure to take full account of business and consumer reactions to the policies formulated.”

The theory of rational expectations led, in the 1970’s and 1980’s, to the formulation of rules for optimal monetary policy. See, for example, Barro (1976), Sargent and Wallace (1975), and Fischer (1977). When private agents learn what policymakers are doing with a time lag, or have adaptive expectations, monetary policy can affect real output in the short run.

But in the long run, money becomes neutral, only affecting nominal variables. The optimum policy under these conditions, therefore, is for the monetary authority to announce to the public a simple policy rule, and then to stick to it. Increasing the money supply at X percent per year, having a target inflation rate of Y percent, or a target interest rate of Z percent—which policy is chosen is not particularly important, so long as the monetary authority sticks to it through thick and thin.

The dilemma facing Federal Reserve policymakers today, in 2005, is that they are trying to combine two incompatible policies. On the one hand, the Fed, since 2000, has reverted to a countercyclical discretionary policy. The collapse of the dot.com boom in stock prices in 2000 led the Fed to cut interest rates sharply. As the economy recovered in subsequent years, the Fed responded by moving monetary policy from “accommodative” back to “neutral”—typical discretionary policy, of the type William McChesney Martin would have been proud.

Unfortunately, the Fed has also been thoroughly indoctrinated into the rules-based policy recommendations of the rational expectations theorists. Policy rules should be explained to the public in advance, and then followed faithfully. But what if the policy is to change the policy? What if the monetary stance is to be changed from “accommodative” to “neutral” at a “measured” pace, gradually, over a period of a year or more?

Consumers, businesses, and investors will know in advance that a key price, the price of credit, will be higher in the future than it is now. When they know that the price of something they buy will be higher in the future, their rational response is to shift spending up from future periods to the current period. That means borrowing now, taking out home mortgages or buying on credit, before such activities become unaffordable. The long-run effect of shifting spending forward may well be neutral, in the sense that total spending in the long run may be the same. But the short-run effect is real and substantial—and contrary to the intent of the shift in monetary policy.

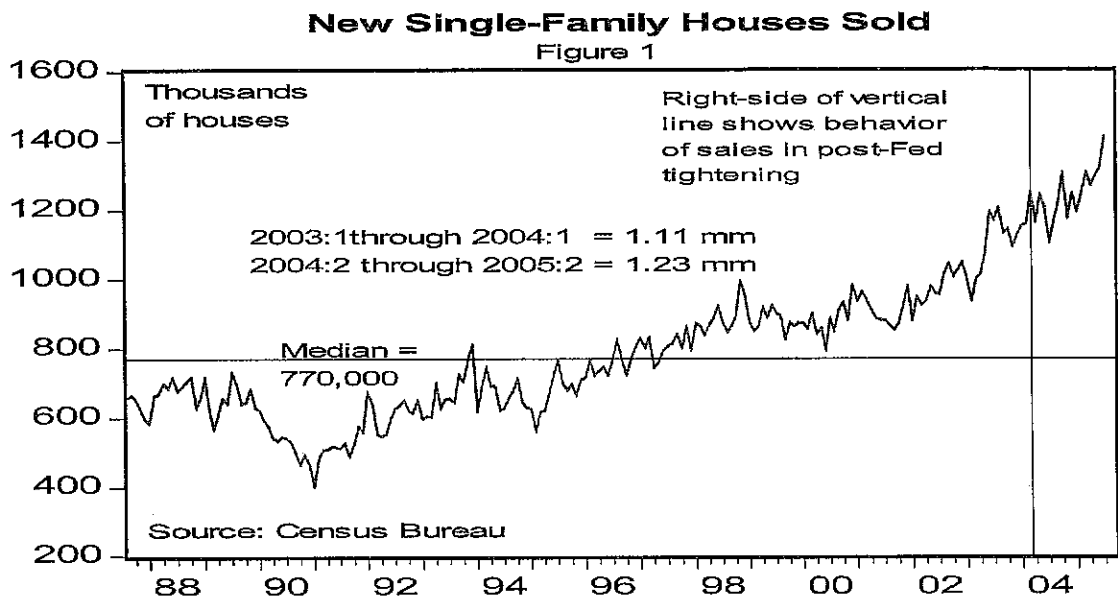
THE BUY-NOW ECONOMY

From June 30, 2004 to at least through September 2005 the Federal Reserve has been very clear about its intentions to remove monetary accommodation at a pace that is likely to be “measured.” The incentive for the private sector on hearing the Federal Reserve and media reports that repeat that mantra is to increase their demand for real assets that are purchased on credit before credit becomes more expensive. Implication – the Federal Reserve policy created incentives that increased the demand for real assets thereby creating private-sector debt additions.

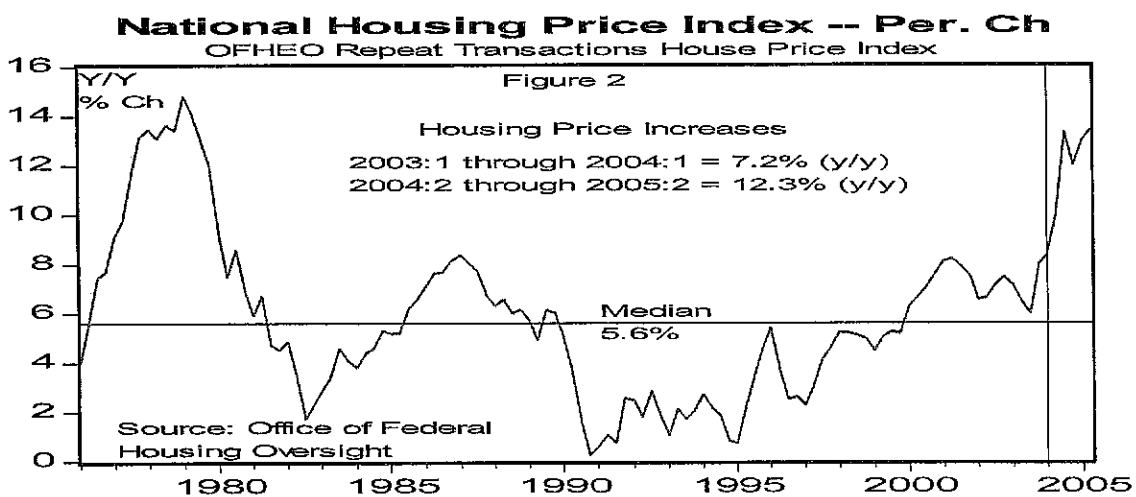
It stands to reason that if someone repeatedly tells rational economic agents such as potential purchasers of new single-family homes that he plans to increase the price – in this case the price of credit -- that purchasers would accelerate their spending to buy more real assets on credit now rather than waiting to buy at a higher price.

If someone plans to buy a house on credit in the next couple of years and the Federal Reserve announces to the world its intention to hike the cost of credit, buyers advance purchase plans. Sales of new single-family houses have increased rapidly for a number of years and continue to set new all time highs. However sales increased nearly 11 percent

faster in the five quarters since Fed tightening started than in the five quarters before as buyers attempted to stay ahead of expected increases in the cost of credit. See figure 1. Demographic conditions are, of course, favorable to housing demand as well as the productivity gains in the 1990s (Krainer, 2005.) But the acceleration in the number of new one-family houses sold since mid-2004 appears to be due to households making a rational response to an anticipated higher cost of credit by shifting spending to the present from future periods. Demographics do not appear to be a factor in this recent surge in sales.



Housing sales price information also supports the thesis of this paper that spending on housing was pulled into current periods from future periods due to the expected rising cost of credit. The house price index used in this paper, figure 2, is the quarterly House Price Index (HPI) from the Office of Federal Housing Oversight (OFHEO) and it is considered to be the preferred official index for capturing changes in home prices (Fratantoni, 2005.)



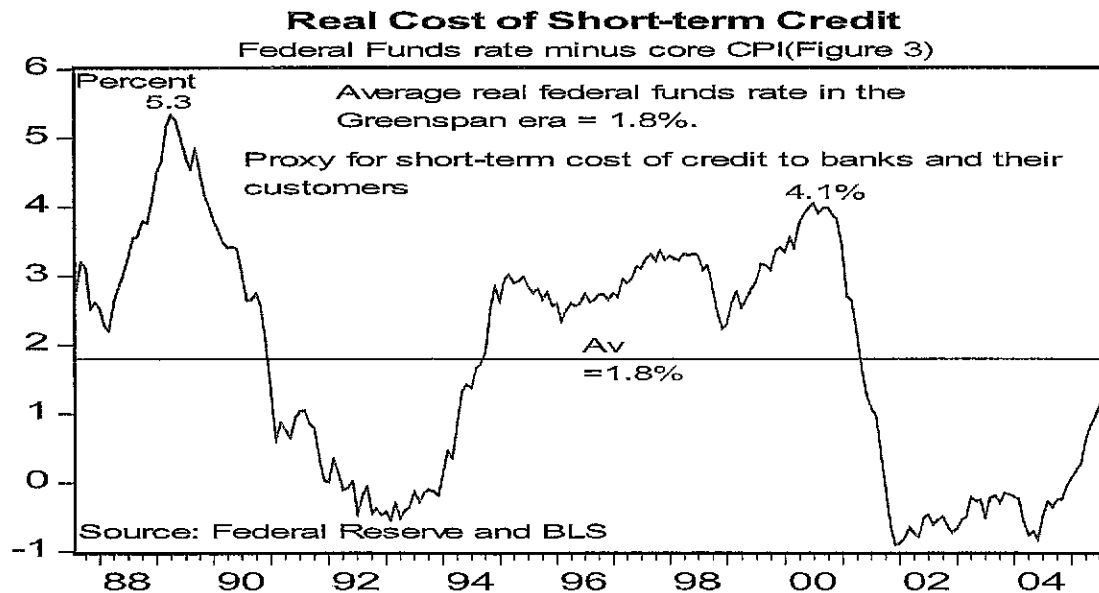
The advantage of this index is that it is not subject to the large compositional bias that can plague other population housing price measures such as Bureau of the Census median and average prices for new homes as well as the National Association of Realtors median and average prices for existing homes (Fratantoni, 2005). A changing proportion of higher priced and/or lower priced homes in any month can substantially skew the median and average prices and provide misleading signals.

In comparison the OFHEO index isn't subject to much of a composition bias and is limited to mortgages that are conventional conforming loans and is based on repeat mortgage transactions – financed more than once -- purchased by Fannie Mae and/or Freddie Mac (Fratantoni, 2005.) So the index reflects price changes of existing homes. Cash transactions as well as homes priced at the upper and lower-end would tend to be limited in this index. The upper end mortgage limit in 2005 was approximately \$360,000. However, that does not prevent an economic agent from purchasing an \$800,000 house and financing \$350,000 with a conforming loan. But it likely limits the number of high-priced homes that may skew some of the other indexes. Federal Housing Administration mortgage insured transactions, which are not included in this index, capture many of the lower priced home ownership changes.

Housing prices, nationally, appreciated at an average 7.2 percent in the five quarters before the Federal Reserve started discussing the possibility of moving monetary policy from accommodative back to neutral, figure 2. In comparison, housing prices appreciated at an average 12.3 percent in the five quarters starting with 2004:2 to 2005:2 – a nearly 70 percent faster rate of increase. Potential housing buyers accelerated their purchase decisions as changes in Federal Reserve policy were widely publicized and housing prices responded.

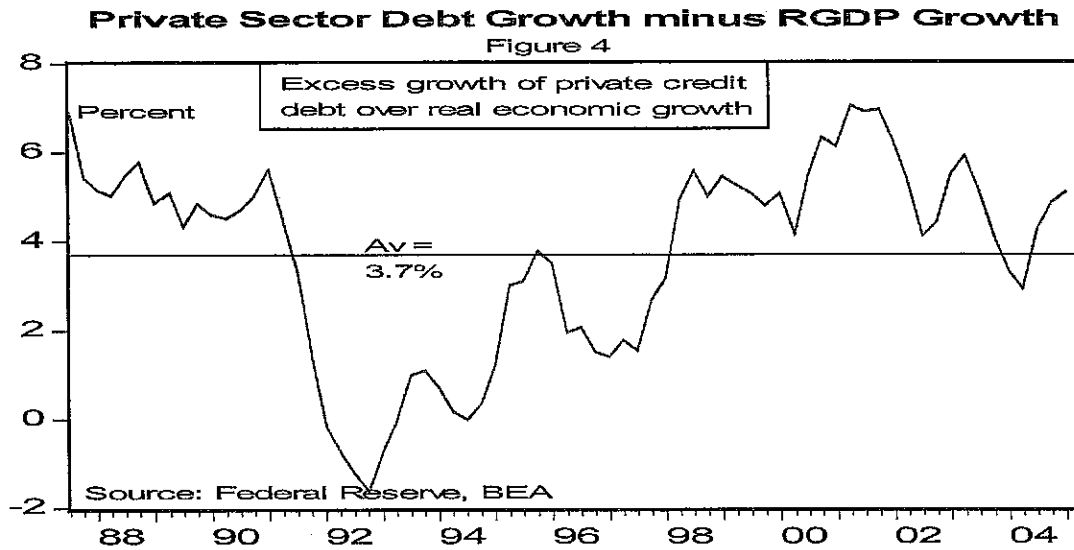
So an economic climate exists in which the Federal Reserve appears to be responding to its own policy moves: the Fed's own actions are driving up housing prices. Home buyers are making a rational response to the Fed's decision to change monetary policy in June 2004 and to make it more transparent. This dilutes the effectiveness of monetary policy in the short term and potentially sets up a situation in which Federal Reserve tightening may end up creating sizeable economic and/or financial dislocations.

The Fed, through September 2005, has hiked the funds rate 11 times since June 30, 2004 when the federal funds rate stood at 1.0 percent. The Federal Reserve, as Chairman Greenspan suggested, implements policy through nominal and real interest rates. One can view the federal funds rate as a proxy for the cost of short-term funds to commercial banks and the real funds rate as the real cost of short-term credit. It remains below its average during the Greenspan period, figure 3.



Business And Household Debt Additions

The Federal Reserve appears to have altered expectations for both business and household economic agents planning on purchasing real assets with credit. In particular, private debt additions – household plus business -- are occurring at a faster pace due, apparently, to the clear signals the Fed has given about its intentions. In turn, the Fed sees the buying-in-advance private debt additions, so the Federal Reserve increases rates more. The role of expectations in advancing purchases by economic agents means that the Fed is responding, in part, to its own policies. In particular private sector debt growth in excess of real economic growth has slowly picked up speed over the past year and is above its average differential of 3.7 percent during the time since Mr. Greenspan has been chairman, as illustrated in Figure 4.



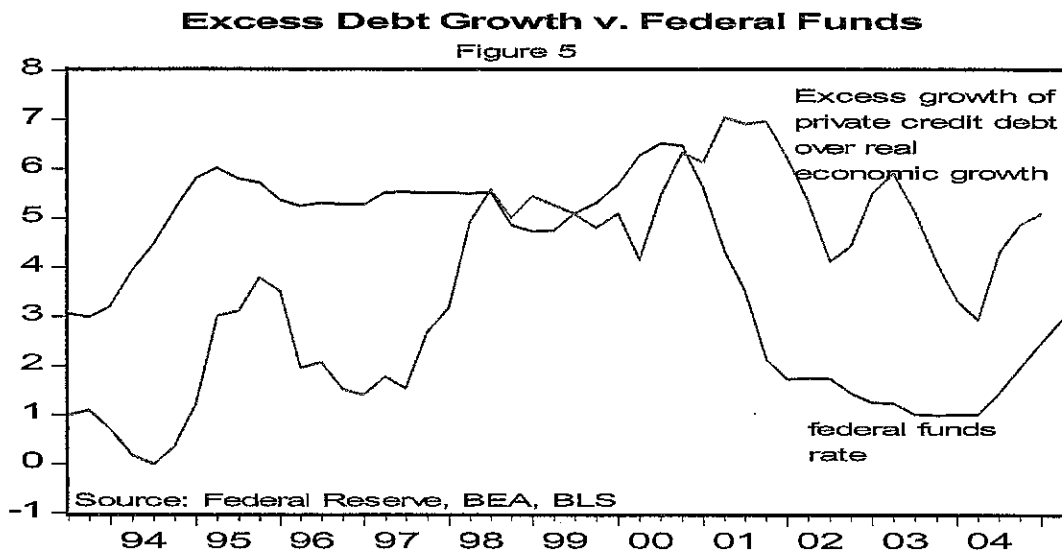
Households as well as businesses understand that the Federal Reserve intends to increase the cost of credit. The Fed has talked about it for over a year and has been “perfectly clear” in that regard. What did the private sector do?

Households rushed to take out a mortgage for new and larger houses, vacation homes, or investment and rental homes. They used home equity loans to pull cash out, to remodel their existing homes, or to finance current consumption. Households and business have an incentive to borrow at a low cost before the Fed drives up the cost of short-term credit, so real debt growth and the nominal cost of short-term credit both moved higher since mid-2004, figure 5. In the current economy, private-sector debt additions appear to be staying ahead of Fed tightening. In turn, this signals the Fed to increase short-term rates further.

MONETARY POLICY TRANSPARENCY AND PERVERSITY

Economists have debated for years as to how clear the Federal Reserve should be regarding its intended policy moves. By moving toward more clarity with its intended policy, the Fed wants to avoid creating disruptions in the financial markets – in other words reduce the risk that some financial market segment gets caught on the wrong side of unexpected Fed moves.

A good idea, but the idea is aimed primarily at the financial portion of the U.S. economy, not the nonfinancial segment, since the inherent risk in financial markets is sizeable without the Federal Reserve adding to that risk by making unexpected policy moves.



It hasn't always been that way. Chairman Greenspan (2001) reminisced about monetary policy transparency. "We need to remember that in decades past it was believed that monetary policy was most effective when it was least transparent. The argument back in the 1950s, as I (Greenspan) remember it, was that market uncertainty created significant differences of opinion in the direction of the prices of short-term debt instruments ... that increased the degree of liquidity."

Mr. Greenspan goes on to say "... more recently, in the 1980s, policymakers, myself included, were concerned that being too explicit about short-run targets would make such targets more difficult to change" "Not too many years ago, the world learned of decisions of the Federal Open Market Committee through minor variations in the minutia of daily open market operations True, over time, those signals became increasingly clear, so that in the end, market participants never missed a policy decision" "Simply put, financial markets work more efficiently when their participants do not have to waste effort inferring the stance of monetary policy"

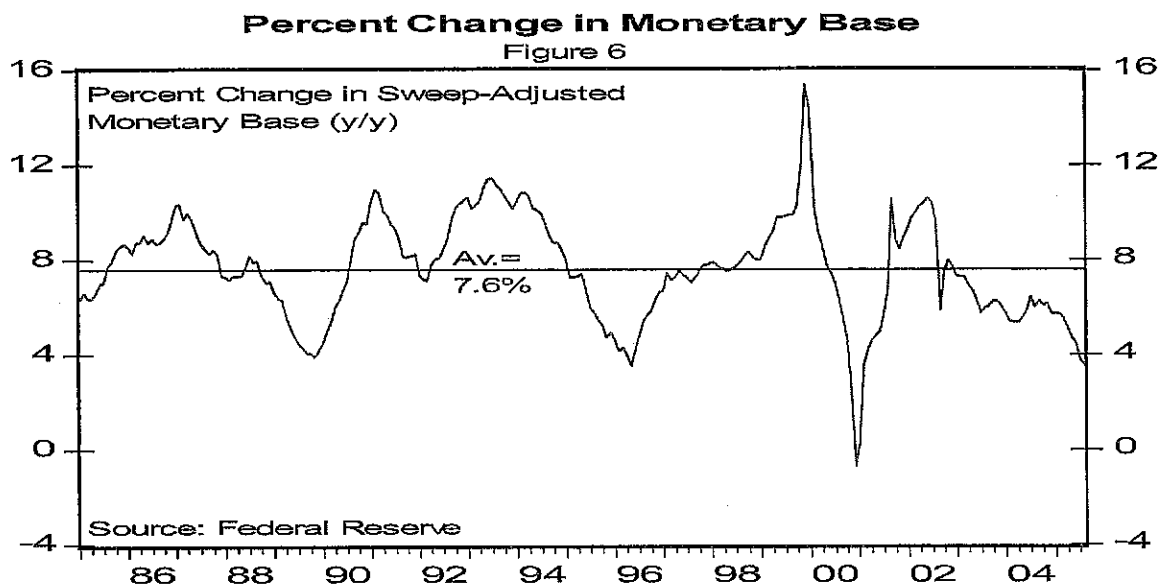
Since June 30, 2004, when the Federal Reserve increased the target federal funds rate from 1.0 to 1.25 percent, it has said that "... accommodation can be removed at a pace that is likely to be measured" in its written comments. The Federal Reserve has essentially kept that phrase in front of the public in its eleven $\frac{1}{4}$ percent hikes through September 2005. This clarity of Fed intentions has set the economy in a buy-now mode even in the face of a high cost of oil, so that the Fed responds to its own moves.

Meanwhile, monetary policy as measured by the change in the sweep-adjusted monetary base is tight (Cosgrove and Marsh, 2005.) Forward price indicators as well as the quantity of sweep-adjusted high-powered money supplied suggest the Fed may be tight enough. Core inflation may have peaked, reflecting the lack of growth in high-powered money and global competitive conditions. High energy prices in conjunction with tight money increase the risk of an economic/financial meltdown taking place somewhere in the global economy in response to changing Federal Reserve policy once again.

SUMMARY

Rational expectations theory suggests economic agents respond to all available information in maximizing their self-interest. In particular, knowledge that prices will rise in the future leads agents to move up spending from future periods to the present. The Federal Reserve's current policy of changing its monetary policy stance from

“accommodative” to “neutral” at a “measured pace” implies that interest rates will continue to rise in the future. Rational agents will borrow more, and purchase real assets at an increased pace, compared to what they otherwise would, based on this knowledge. The implication is that this policy will have perverse effects, leading to more real spending rather than less.



Data on housing sales and prices support this contention. Housing prices, nationally, appreciated at an average 7.2 percent in the five quarters before the Federal Reserve started discussing the possibility of moving monetary policy from accommodative back to neutral. Housing prices, in comparison, appreciated at an average 12.3 percent in the five quarters starting with 2004:2 to 2005:2 – an acceleration in housing price increases of 70 percent since the Federal Reserve started increasing the price of short-term credit.

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