

# Economic SYNOPSES

short essays and reports on the economic issues of the day

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## Money Supply, Credit Expansion, and Housing Price Inflation

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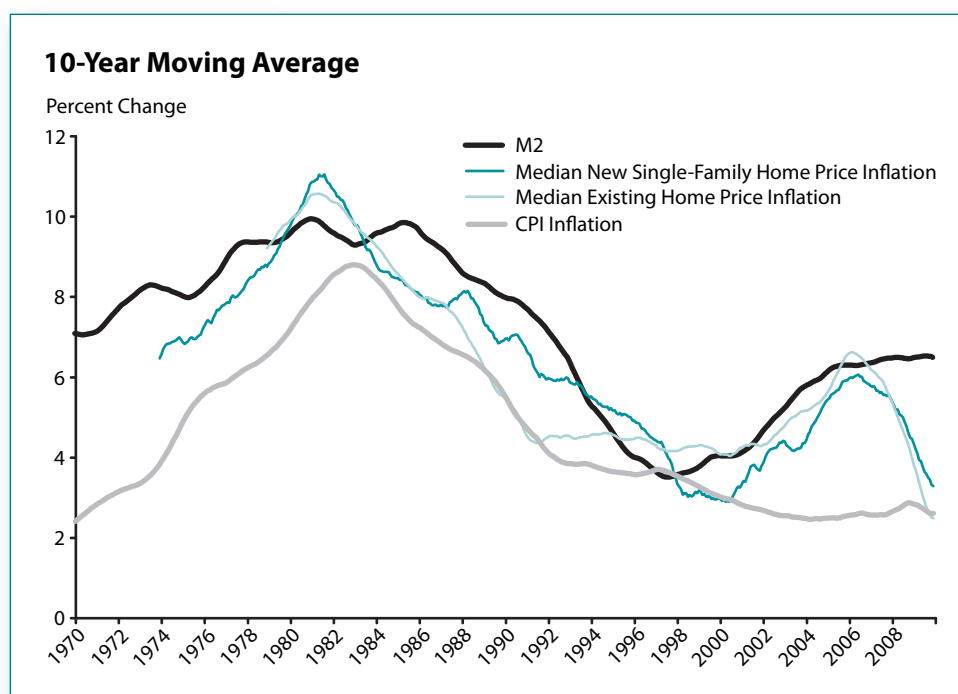
Should monetary policy be concerned about housing price inflation? Housing prices are affected by the credit supply because housing purchases are financed by borrowing. When home demand goes up, housing prices also increase. On the other hand, the cost of borrowing depends on nominal interest rates, which in turn may be influenced by monetary policy.

Economists often define inflation as changes in the price level of all commodities currently produced (the gross domestic product deflator) or consumed (the consumer price index [CPI]). Neither measure explicitly includes housing prices because housing purchases are considered investments rather than consumption. Rental prices are included in the CPI; however, they do not fully reflect housing prices for at least two reasons: (i) The rental market is relatively thin, so rental rates and housing prices do not necessarily follow each other closely; and (ii) during “bubble” periods many people buy houses for investment purposes rather than as primary residences. This creates a wedge between rental rates and housing prices. The lack of strong correlation between rental rates and housing prices is evidenced by greater volatility in housing prices than in the present value of future rents.

It is well known that the housing market strongly leads the business cycle. One reason is that home purchases (especially new home purchases) increase aggregate demand by increasing the demand for durable goods (such as furniture, home appliances, flooring materials, and so on). Because housing prices tend to rise with a rise in the rate of home purchases, it is reasonable to assume that home prices and the real economy are well connected.

**Credit and M2 may be driven simultaneously as part of a broader financial intermediation process; a common underlying factor may be the interest rate.**

The chart, which uses post-World War II U.S. data, shows 10-year moving averages of various indicators, including the growth rate of M2 (the black line on the chart). M2 money stock is composed of currency, travelers checks, demand deposits, checking accounts, savings deposits, small-denomination time deposits, and retail money funds. The chart also shows housing price inflation, measured as the median price of existing homes (the dark blue line), new single-family homes (the light blue line), and CPI inflation (the gray line). The 10-year moving average captures longer-



term relationships for the time series, including a close relationship between (i) money growth and either measure of housing price inflation and (ii) housing inflation and CPI inflation until around 2000. In particular, the steady increase in the housing price inflation rate since the early 2000s is closely associated with the steady increase in the money supply during the same period. Overall, housing price inflation appears to lead CPI inflation.

The chart does not provide any causal relationships among the series. M2 is mostly endogenous, determined more or less simultaneously with credit via financial intermediation. However, credit and M2 may be driven simultaneously as part of a broader financial intermediation process;

a common underlying factor may be the interest rate. A lower interest rate may stimulate borrowing and housing demand, which in turn may induce higher demand for durable goods. Because durable goods are purchased with money, the demand for money may also increase. As a result, aggregate demand and the money supply may increase, which raises the aggregate price level. Therefore, policy-makers may want to closely watch housing price inflation, not only because it leads CPI inflation, but also because an overheated housing market may encourage more risk-taking behaviors by banks and cause the aggregate money supply to increase, resulting in excess aggregate demand and higher inflation risk. ■

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*Views expressed do not necessarily reflect official positions of the Federal Reserve System.*