Credit, Housing, Commodities and the Economy
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Overview

- Financial turmoil and the credit crunch
- Downturn in housing markets
- Surge in commodity prices
- Implications for the outlook and policy
The unwinding of a credit market bubble

- A bubble-like situation had developed in the credit markets.
  - Very low long-term real interest rates
  - Investors accepted meager rewards for risk
- Abundance of liquidity was reflected in:
  - Easy financing for leveraged buyouts
  - Carry trades
  - Rapid growth in subprime lending
- Suggested a benign view of underlying risks.
What caused the bubble?

- Securitization and financial engineering appeared to improve risk-return tradeoff.
- Up-front origination fees undermined strong underwriting incentives.
- Institutions in the “shadow banking sector” sought to increase leverage and reach for yield.
- Overreliance on credit ratings that proved unreliable.

Some lessons:

- Inadequate risk management by many sophisticated institutions.
- Shortcomings in financial supervision and regulation.
Underwriting standards deteriorated

Combined Loan-to-Value Ratios
(2/28 Subprime Mortgages)

Percent without Full Documentation
(2/28 Subprime Mortgages)
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- Shortcomings in financial supervision and regulation.
Subprime mortgage delinquencies are rising

Mortgage Delinquency Rates
Reported quarterly; fraction of outstanding loans

Delinquent mortgages are 30 days or more past due but not in foreclosure.
Subprime delinquencies rose as house price appreciation slowed

Mortgage Delinquency Rates and OFHEO House Price Index Changes

Sources: Office of Federal Housing Enterprise Oversight and Mortgage Bankers Association  
* 60 days or more past due or in foreclosure
Subprime delinquencies and house price changes vary inversely across MSAs
Prime mortgage delinquencies are rising too

Mortgage Delinquency Rates
Reported quarterly; fraction of outstanding loans

Delinquent mortgages are 30 days or more past due but not in foreclosure.
Subprime problems triggered financial market disruptions

- Rising subprime delinquencies triggered disruptions in the markets for asset-backed securities (ABS).
  - Contagion to municipal bonds and other ABS markets
- Prices fell, imposing losses on ABS holders.
- Heavy ABS exposure of banks and “shadow banks”--highly leveraged institutions that “borrow short” to hold long-term assets including ABS.
  - Includes investment banks, hedge funds, SIVs/conduits.
The emergence of a credit crunch

- Financial institutions are deleveraging—scaling back their balance sheets.
- Commercial banks experienced unanticipated buildup of loans on their balance sheets.
- Many financial institutions are raising capital.
- But banks are tightening credit terms and restricting availability.
Banks are tightening credit standards

Credit Conditions, Domestic and Commercial Banks

Net percent of respondents tightening credit standards

Source: Federal Reserve Senior Loan Officer Opinion Survey
New issuance of ABS has plummeted

Private-Label RMBS and CMBS Issuance
3-month moving average

Source: Asset-Backed Alert
The interbank lending market is under stress

Spread between LIBOR and Expected Funds Rate
Daily closing; expected funds rate from Overnight Indexed Swap (OIS) contract

LIBOR: London InterBank Offered Rate
Corporate bond spreads have risen

Corporate Long-Term Bond Yields

- High-yield-index bonds
- A-index bonds
- 10-year treasury

Daily closing

Percent

Ap, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec, Jan, Feb, Mar, Apr, May, Jun

5/22
Fed initiatives to improve market liquidity

- Enhanced discount window lending
  - Reduced rate spread and lengthened term of lending

- Established Term Auction Facility (TAF)
  - Term discount window loans at auction rate; $150 billion

- Initiated term repurchase (repo) transactions
  - Agency debt accepted as collateral for 28-day repos; $100 billion

- Established Term Securities Lending Facility (TSLF)
  - Lends Treasuries for highly rated ABS; up to $200 billion

- Provided financing for acquisition of Bear Stearns
  - Term financing to support purchase by JP Morgan; $29 billion

- Established Primary Dealer Credit Facility (PDCF)
  - Overnight borrowing from discount window by primary dealers
New facilities change the composition of Fed’s balance sheet
Spreads on MBS receded in wake of Fed initiatives

MBS Spreads

- Fannie Mae, 30 yr option adjusted spread
- Freddie Mac, 30 yr option adjusted spread
- CMBS, 10 yr AAA spread over swap

Sources: Asset-Backed Alert and Bloomberg
The housing price-to-rent ratio soared

Source: BLS. Data are adjusted as in Gallin (forthcoming)
Housing markets have hit the skids
House prices are still heading down

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**House Prices**
Case-Shiller national index with futures

- Q4
- Futures

Index:
- 235
- 210
- 185
- 160
- 135
- 110
- 85
- 60

Years:
- 1988
- 1993
- 1998
- 2003
- 2008
The price of crude oil has jumped

Price of Oil
West Texas Intermediate; weekly closing price

Futures 5/22
Prices of other commodities are also up
Consumer spending growth and sentiment are down

*Source for consumer sentiment is Reuters/Michigan Survey.*
Employment is shrinking and unemployment rising

Employment Situation
Seasonally adjusted

Unemployment Rate (left scale)
Nonfarm Payroll Employment (right scale)

Empl. Change
Jan. -76 K
Feb. -83 K
Mar. -81 K
Apr. -20 K

Employment is shrinking and unemployment rising.
Capital spending has slowed

Nondefense Capital Goods (Ex. Aircraft)
Seasonally adjusted; 3-month moving average

- Orders
- Shipments
U.S. net exports are a source of strength
Economic growth has stalled

Real Gross Domestic Product (GDP)
Percent change at seasonally adjusted annual rate

-2 -1 0 1 2 3 4 5 6 7 8

2000 2001 2002 2003 2004 2005 2006 2007

May 27, 2008  Federal Reserve Bank of San Francisco
Headline inflation has risen

PCE Price Inflation
12 month percent change

Overall PCE Price Index

Core PCE Price Index
Stagflation involves high inflation and weak growth
Stagflation involves a wage-price spiral

Total CPI and Unit Labor Cost
4-quarter percent change


-4 -2 0 2 4 6 8 10 12 14 16

Total CPI
Unit Labor Cost

2008 Q1
Inflation expectations drive the wage-price spiral

University of Michigan Inflation Expectations

Rate of inflation

Michigan 5-10 years out
Michigan 12 months out
Monetary policy has eased