



9TH JACQUES POLAK ANNUAL RESEARCH CONFERENCE  
NOVEMBER 13-14, 2008

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# What Happens During Recessions, Crunches, and Busts?

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Federal Reserve Board

Presented at the 9th Jacques Polak Annual Research Conference  
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Comments on:

“What Happens During Recessions,  
Crunches, and Busts?”

Stijn Claessens, Ayhan Kose, and  
Marco Terrones

Steven B. Kamin  
Federal Reserve Board  
November 13, 2008



# “What Happens During Recessions, Crunches, and Busts”

- Comprehensive, well-researched, sophisticated addition to literature on business cycles, real/financial interactions

Builds, inter alia, on previous work by  
IMF staff

- Morsink, Helbling, and Tokarick (2002 WEO) : “Recessions and Recoveries”
- Helbling and Terrones (2003 WEO): “Real and Financial Effects of Bursting Asset Price Bubbles”

# “What Happens During Recessions, Crunches, and Busts”

- Focus on building up stylized facts of interactions between real and financial sectors
  - To help us understand what’s occurring at present
  - Provide solid basis for future research

# Key results:

## 1. International synchronization:

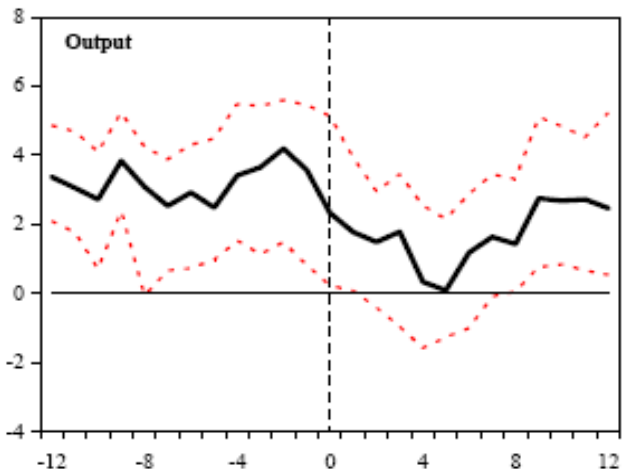
- GDP growth
- House prices
- Equity prices
- Credit

Current crisis is extraordinary, but we've seen this stuff before.

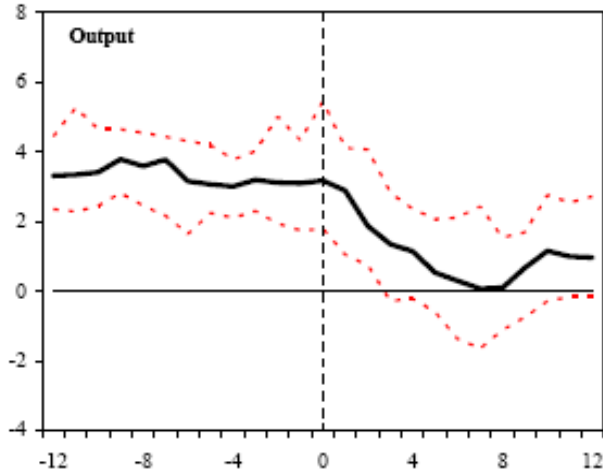
# Key results:

2. Clearly indicates how economic activity changes during periods of marked declines in credit, house prices, and equity prices.

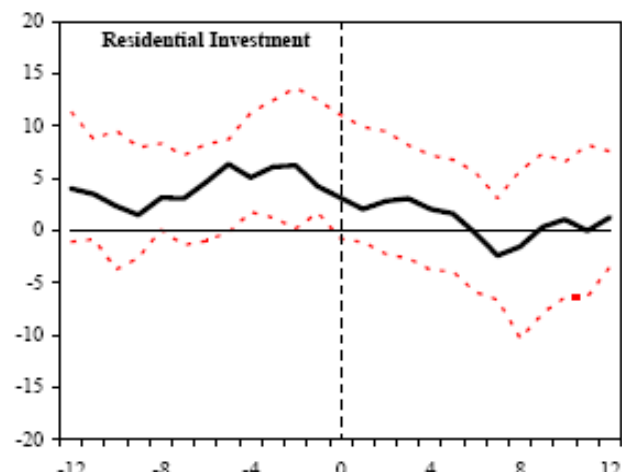
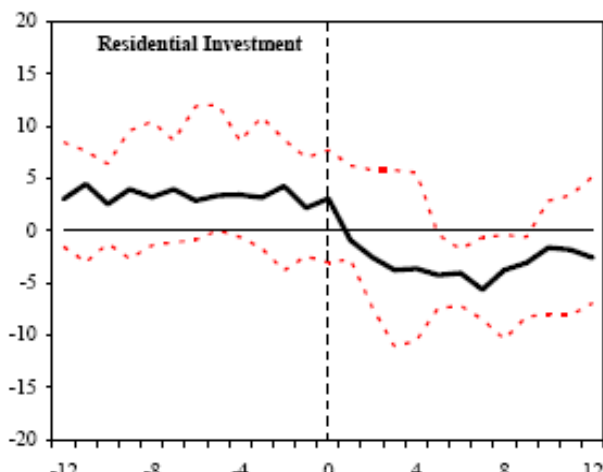
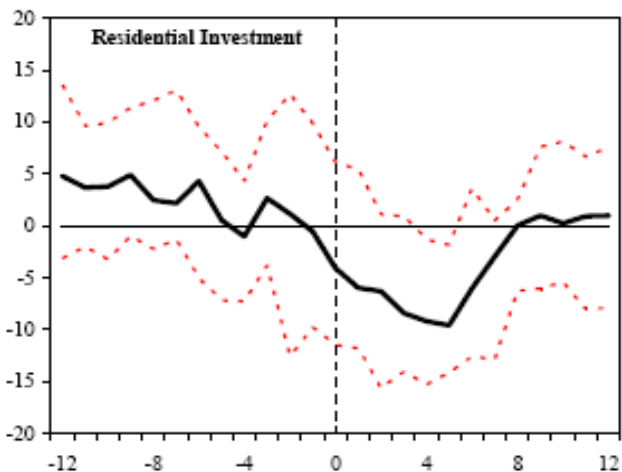
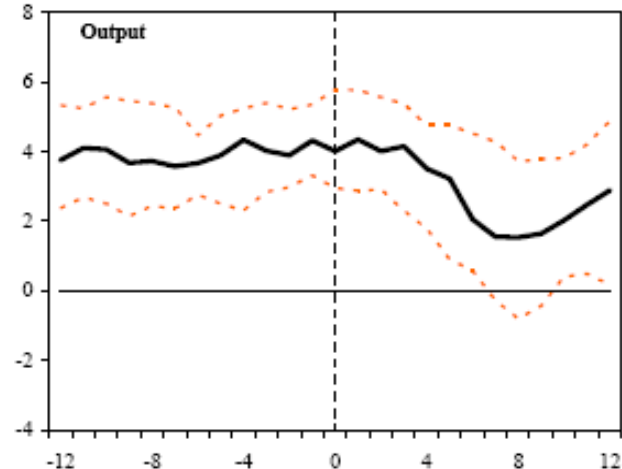
### Credit Crunches



### House Price Busts



### Equity Price Busts





# Key results:

## 3. Focusing just on recession episodes:

- Recessions associated with credit crunches, housing busts, and equity prices are deeper than those without such events.
- Results weaker for equity price busts.

- Plausible results
- Confirm conventional wisdom

# Questions that need addressing:

1. What does it mean to speak of recessions “associated with” credit crunches, housing busts, or equity busts ....

... when everything depends on everything else in general equilibrium?

Wealth

House  
Prices

Cons.

Credit  
Demand

GDP

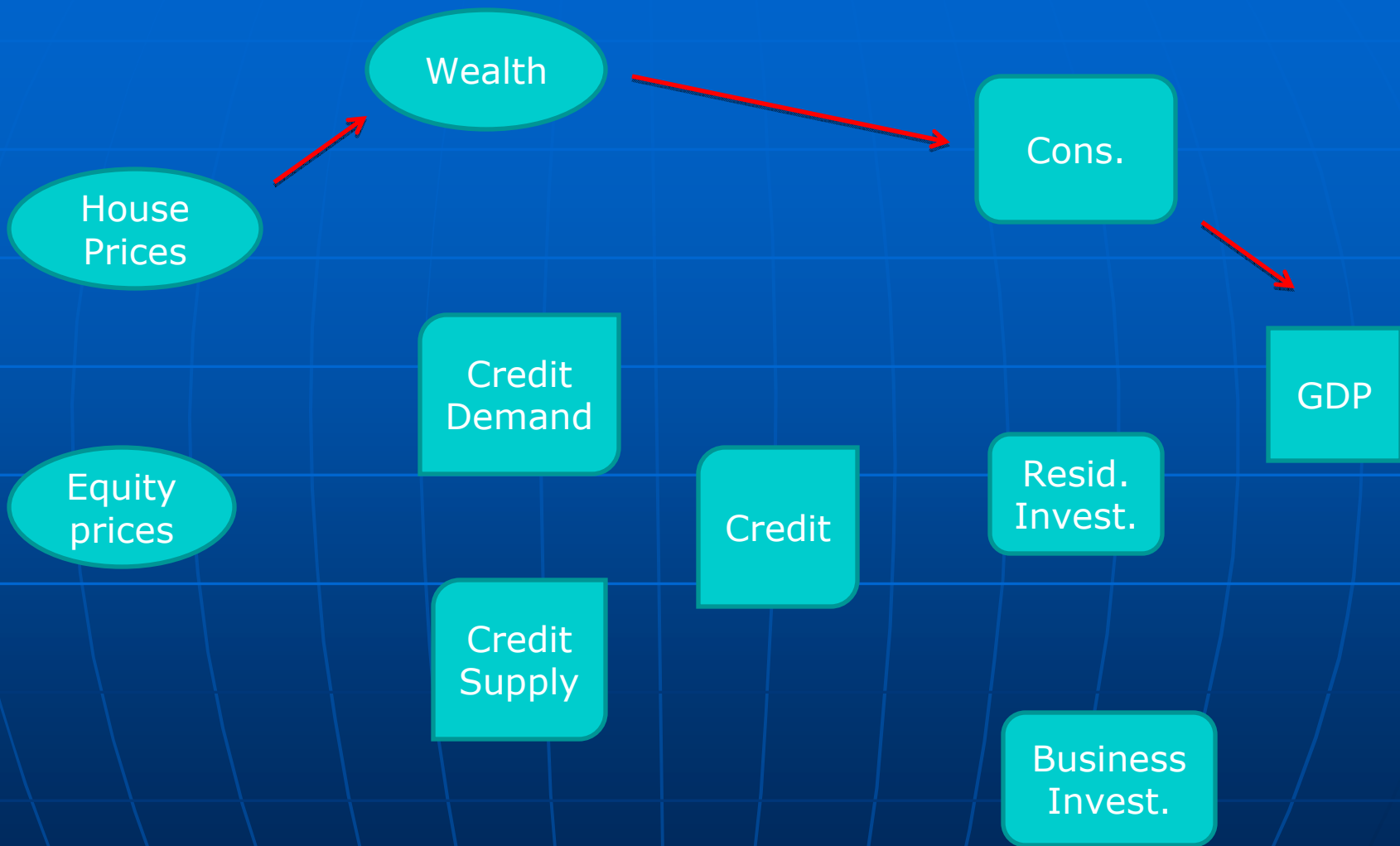
Equity  
prices

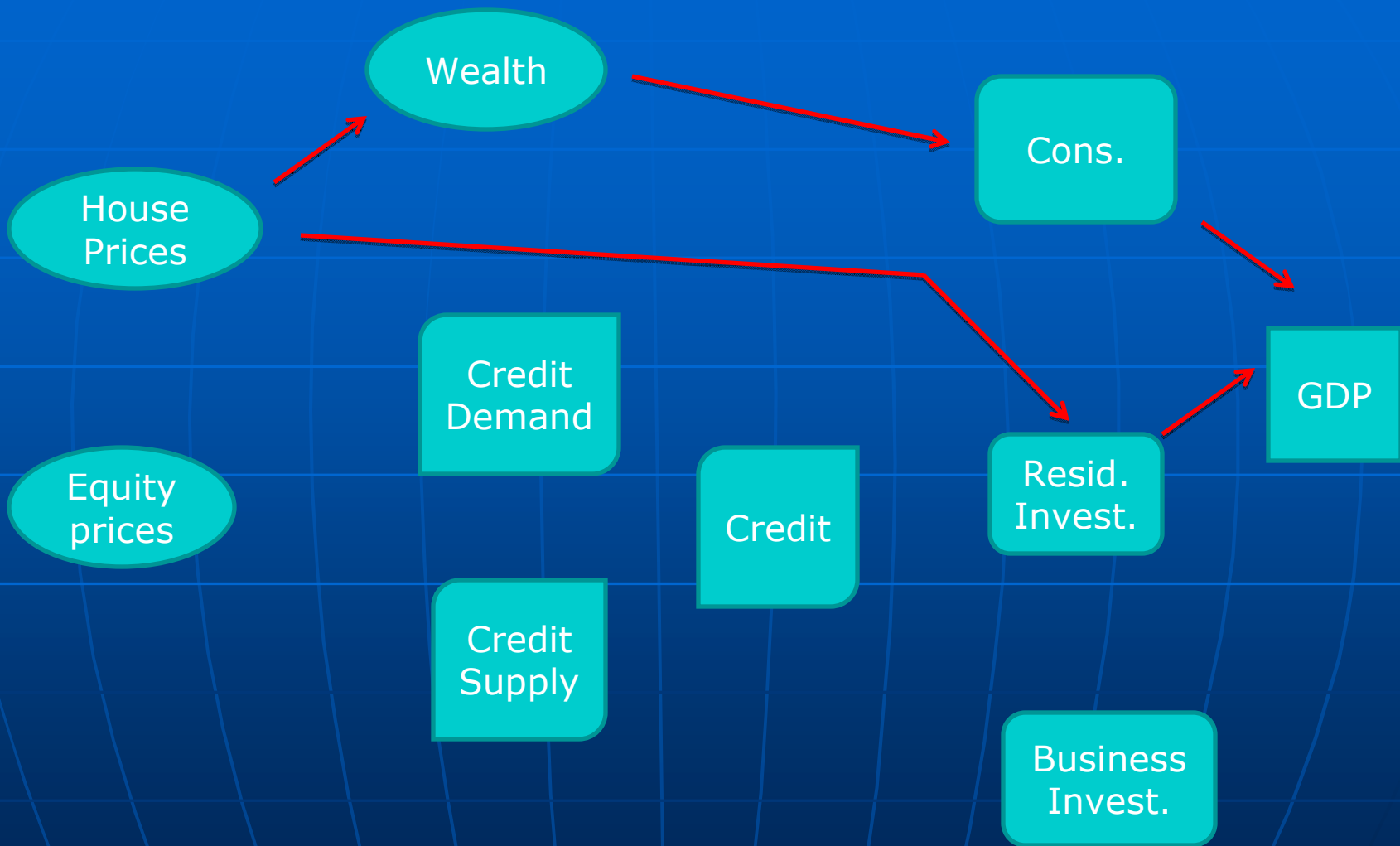
Credit

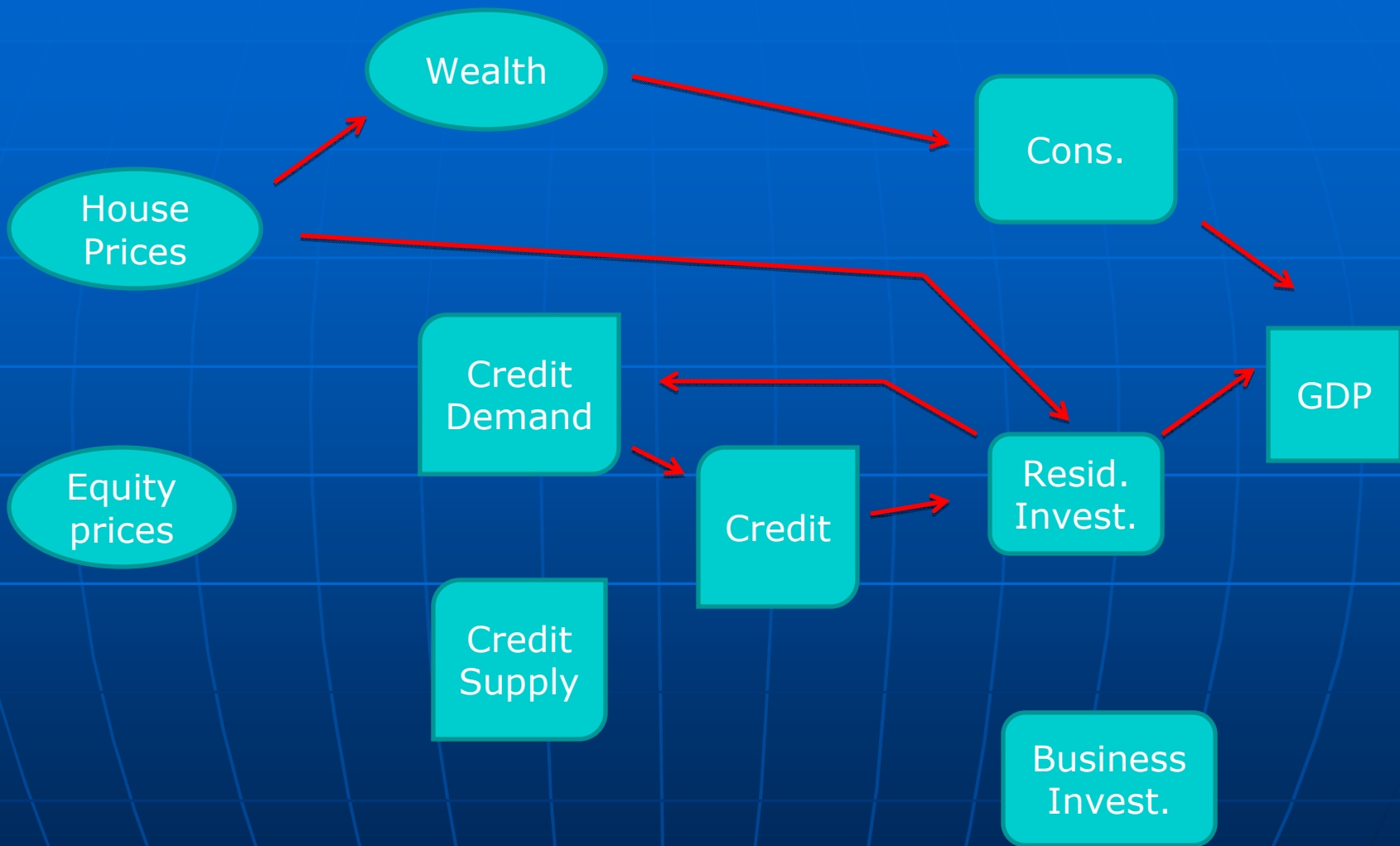
Resid.  
Invest.

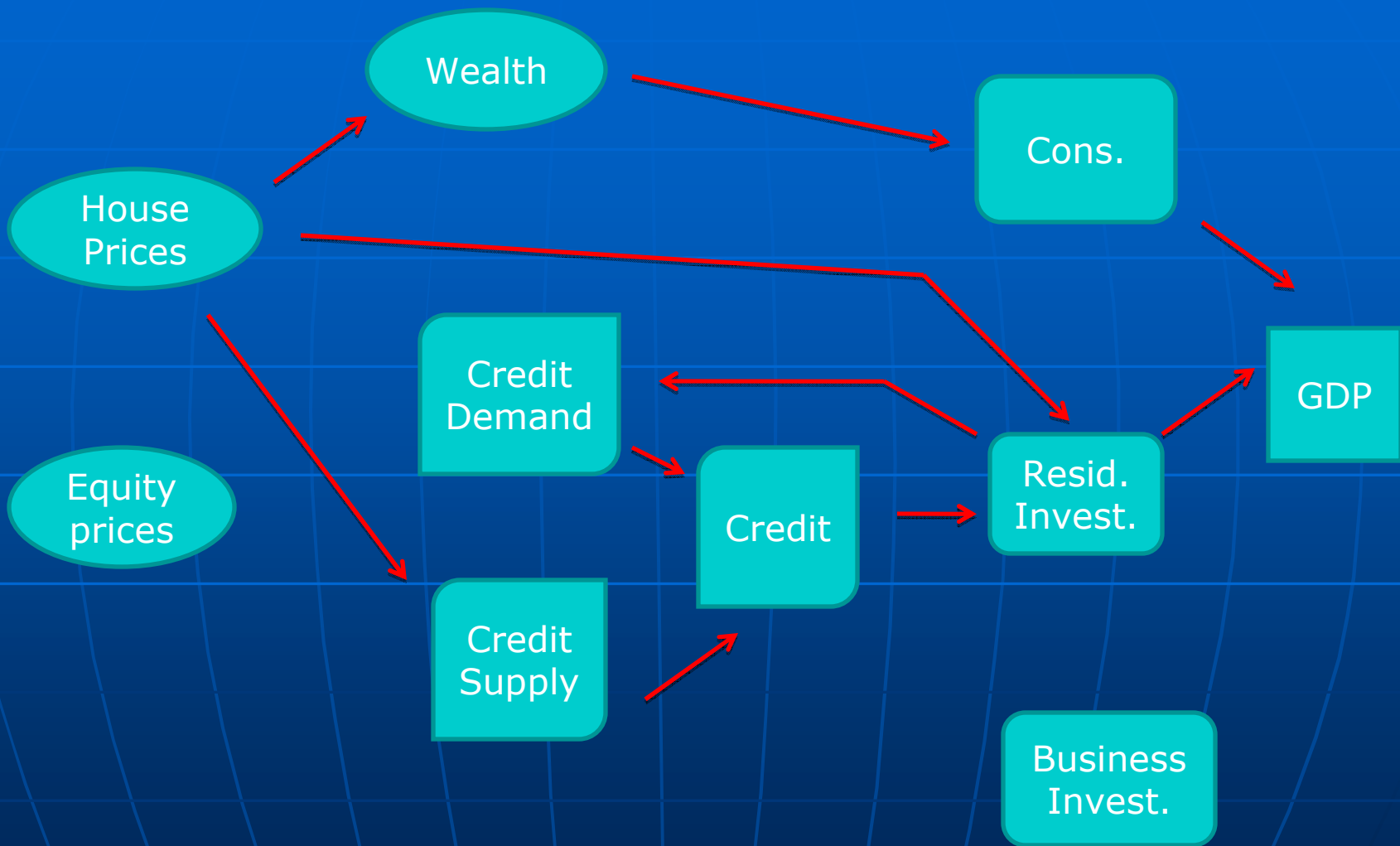
Credit  
Supply

Business  
Invest.



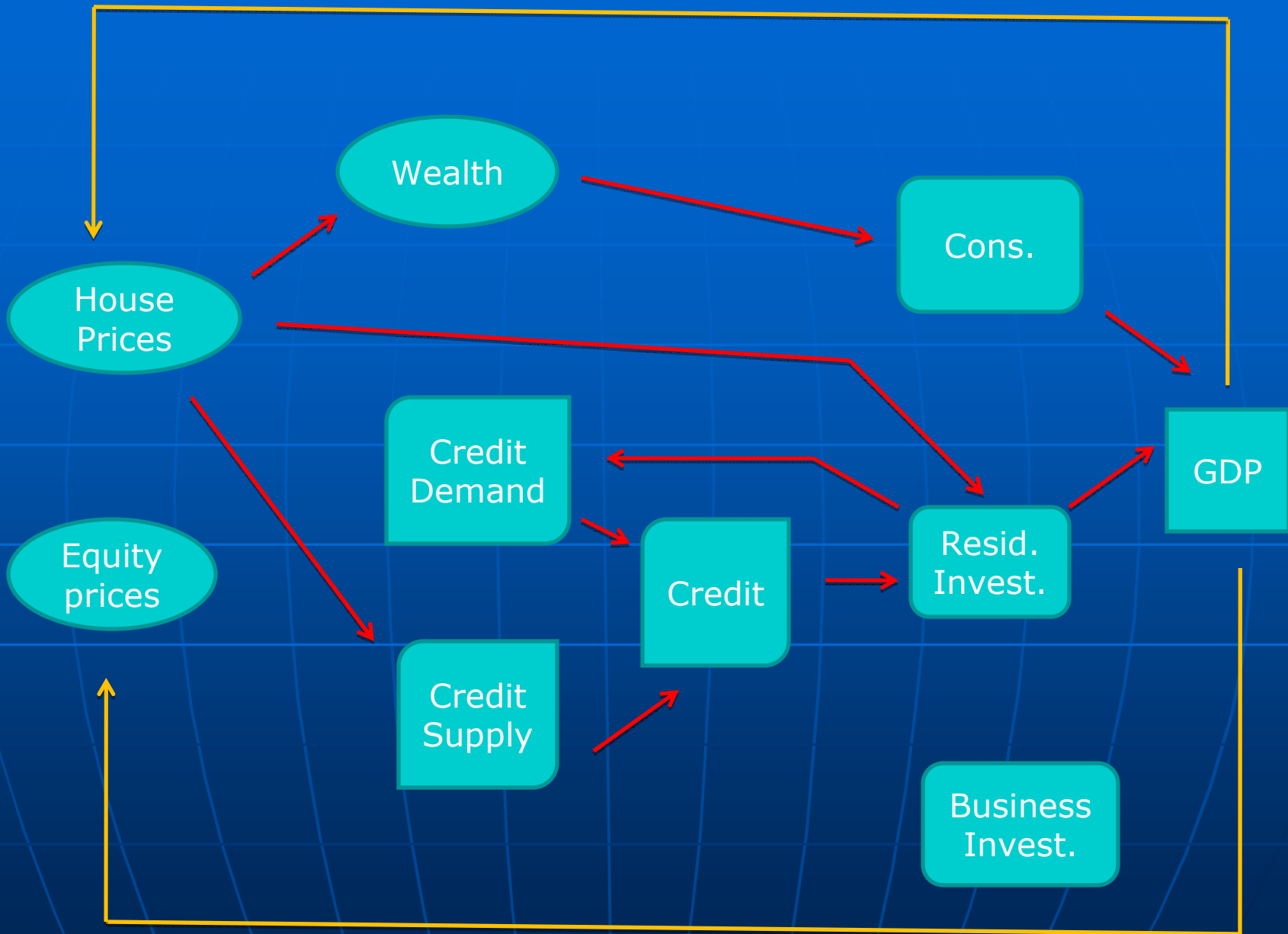


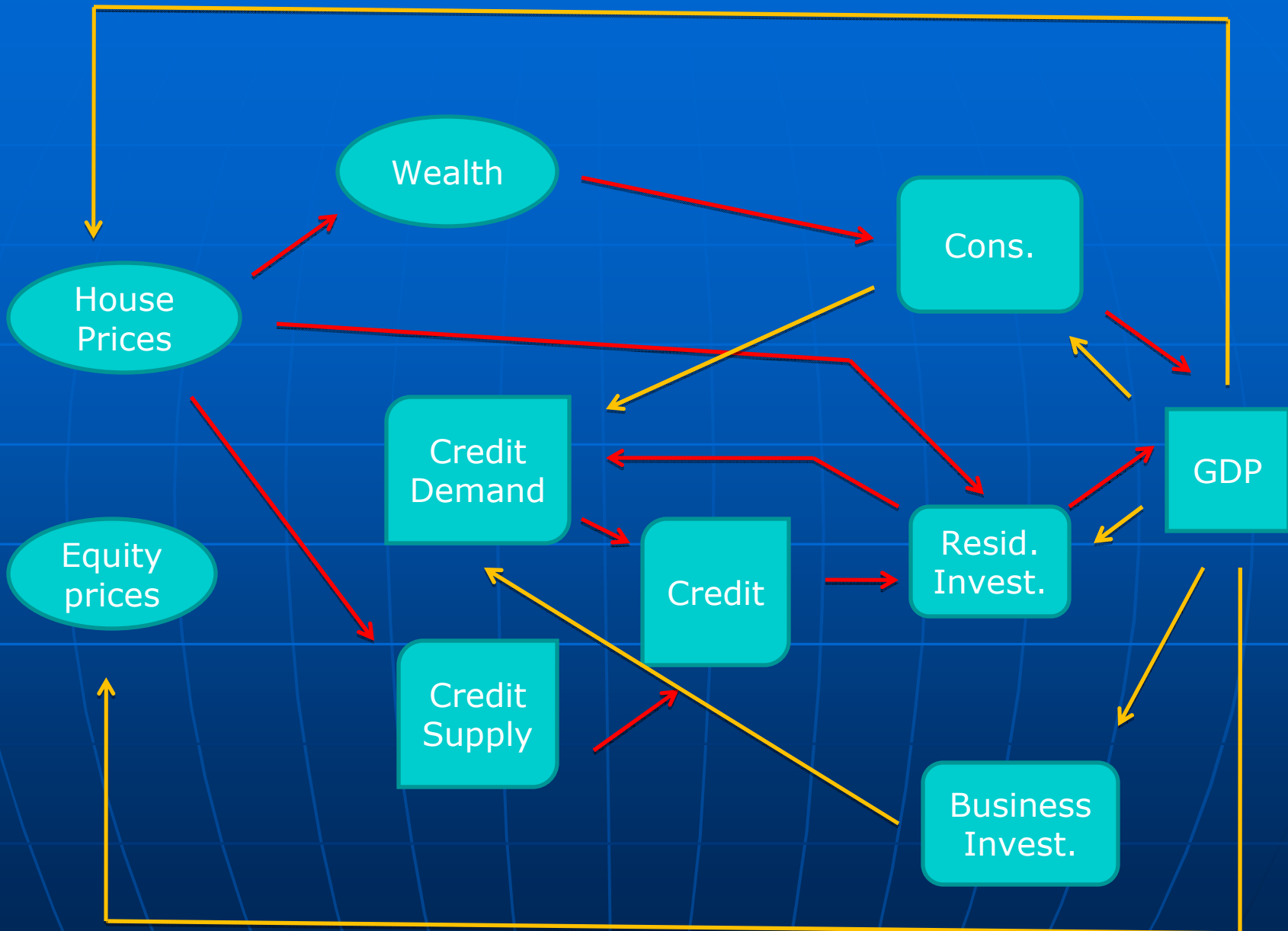






- How can we distinguish a recession associated with a house price bust from one associated with a credit crunch?



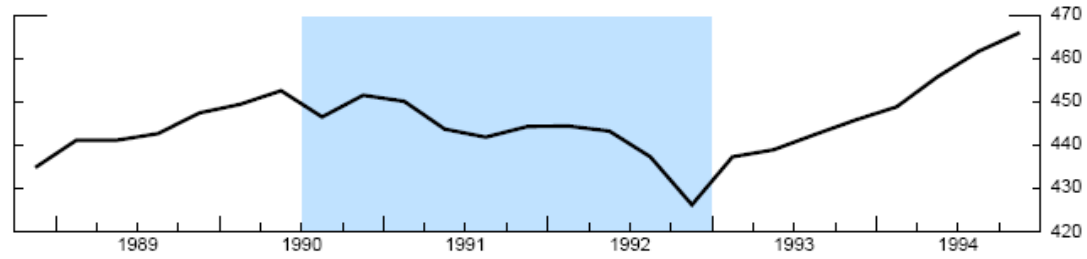


- How can we tell whether downturns in asset and credit markets are the cause or consequence of recessions?

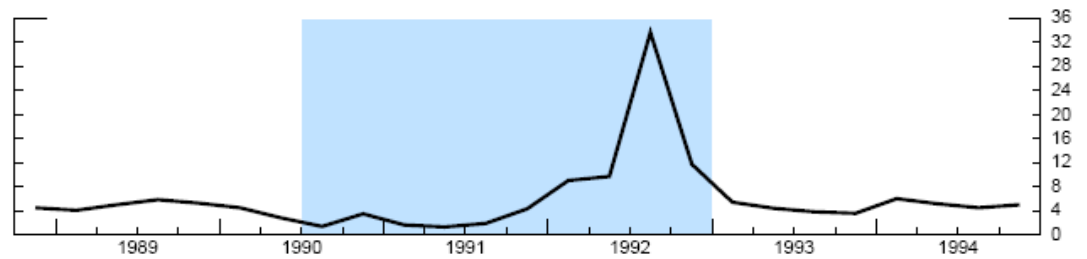
- Authors are clear they're not trying to identify causal relations.
  
- But they do try to categorize recessions and solve endogeneity problems by looking at timing:
  - If fall in credit, house prices, or asset prices precede fall in output...
  
  - ... recession is "associated" with that fall.

# Sweden

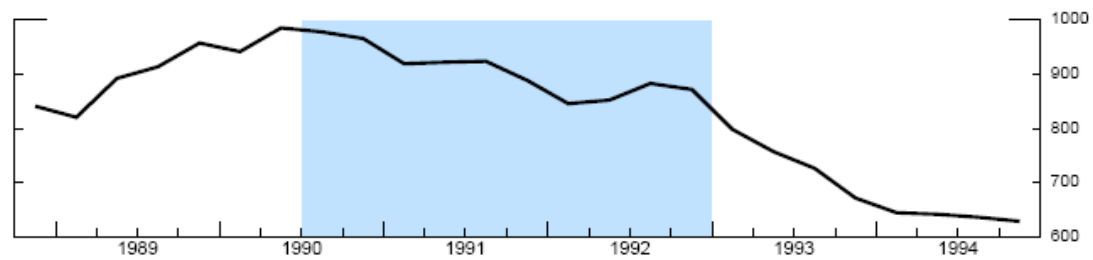
## Real GDP



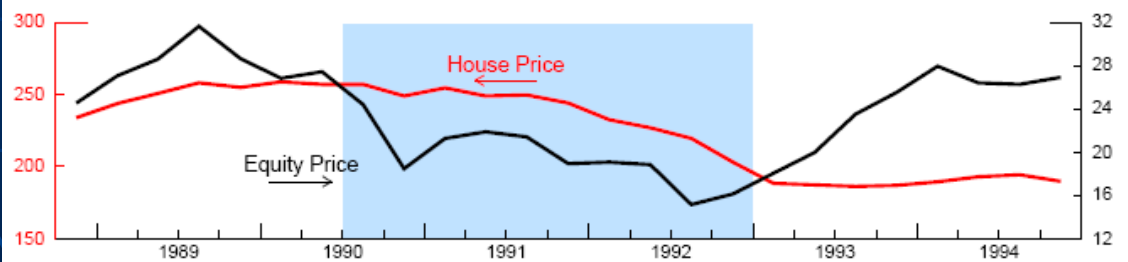
## Real Policy Interest Rate



## Real Credit

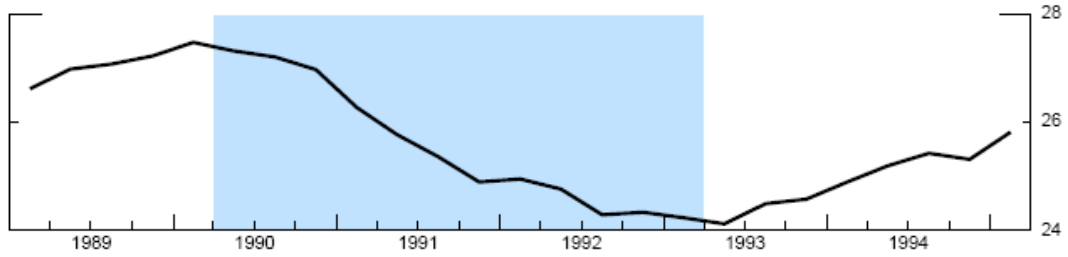


## Real Equity Price and Real House Price

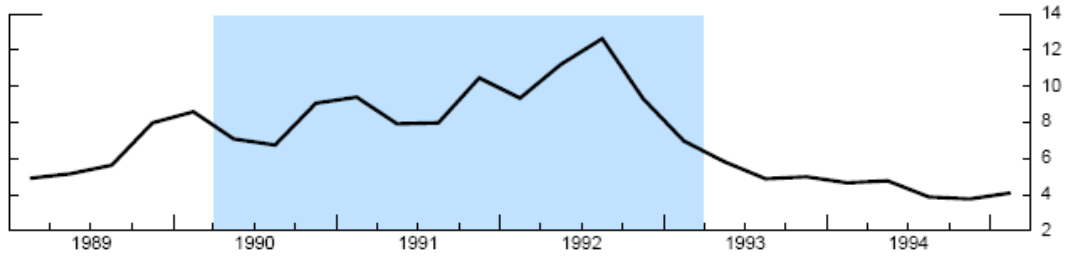


# Finland

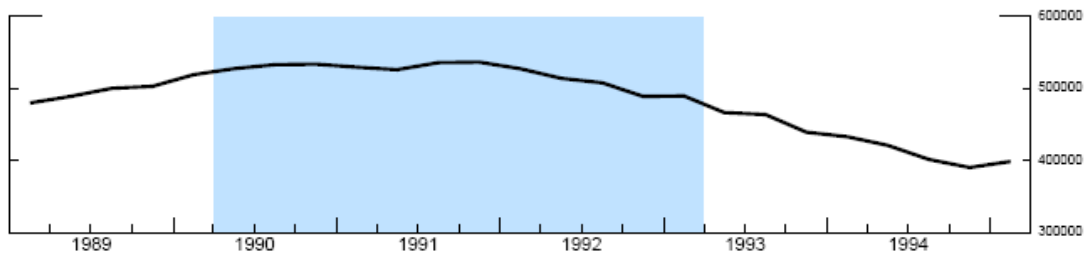
## Real GDP



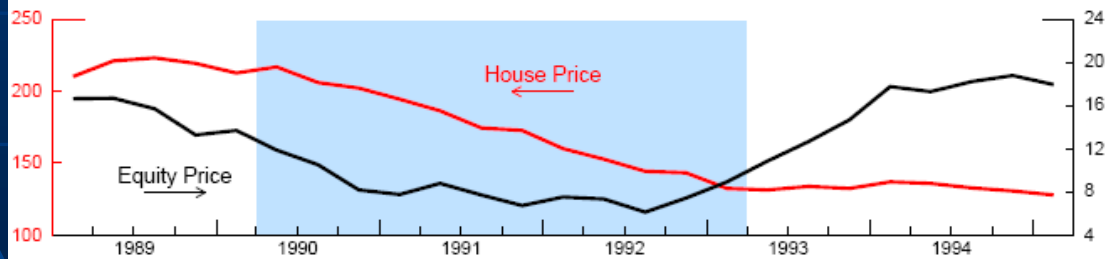
## Real Policy Interest Rate



## Real Credit

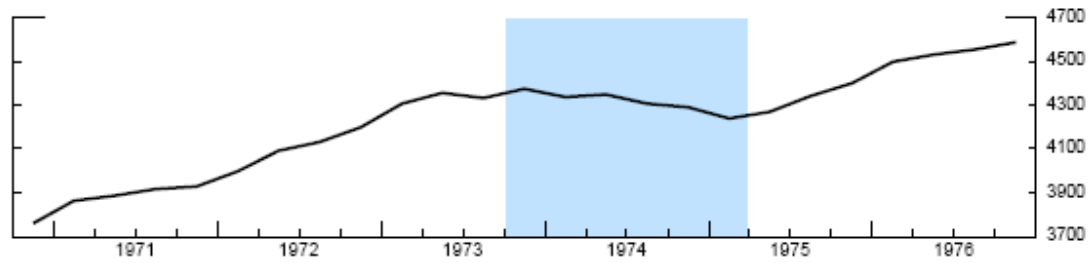


## Real Equity Price and Real House Price

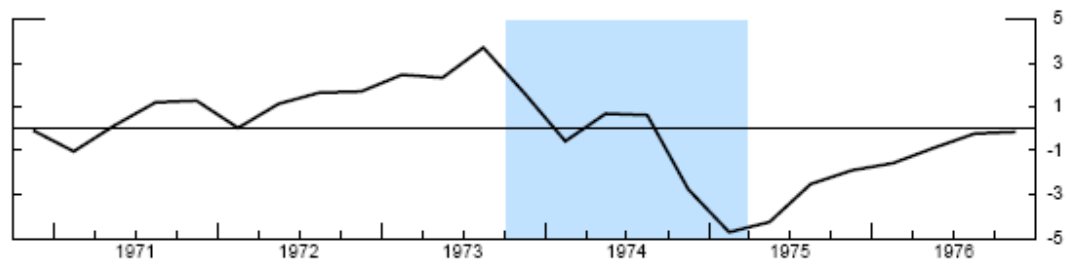


# United States: 1973-74 Recession

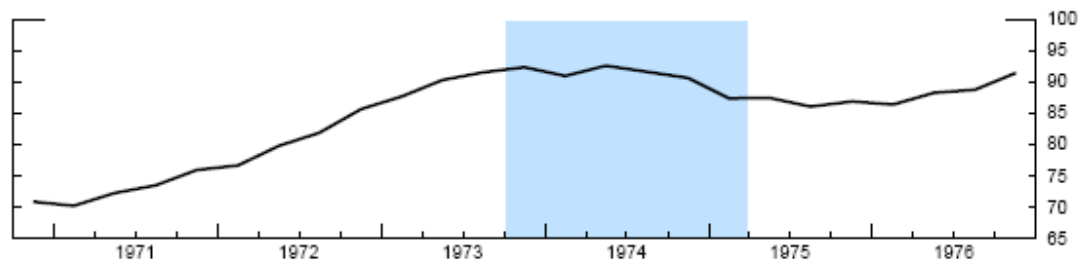
## Real GDP



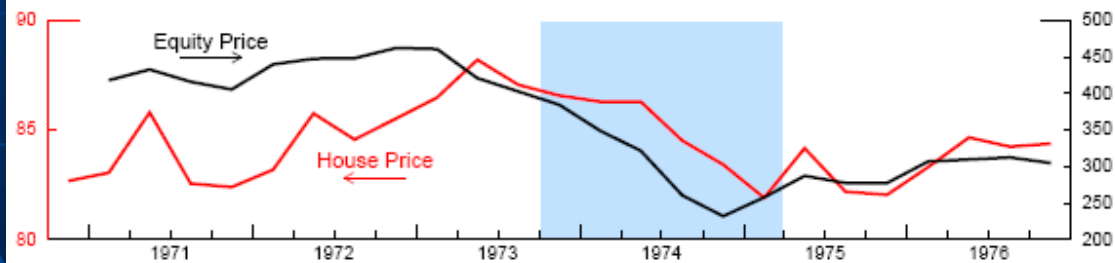
## Real Policy Interest Rate



## Real Credit



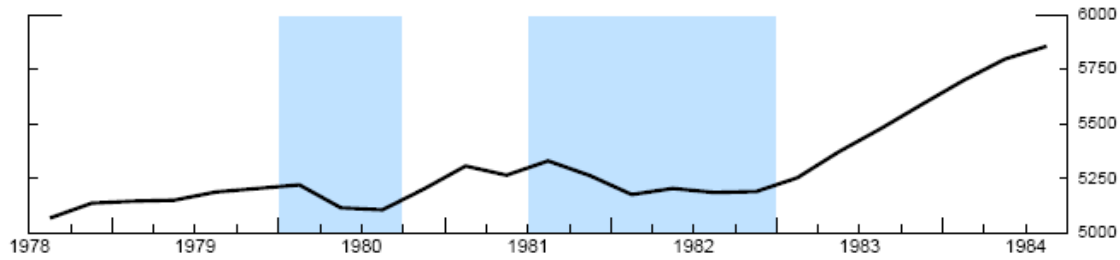
## Real Equity Price and Real House Price



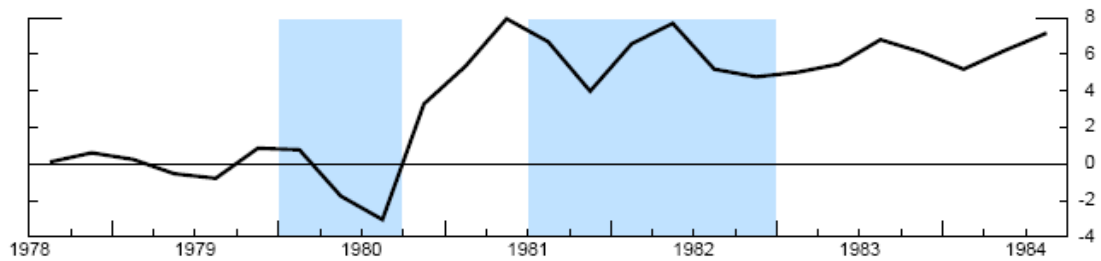


# United States: 1981-82 Recession

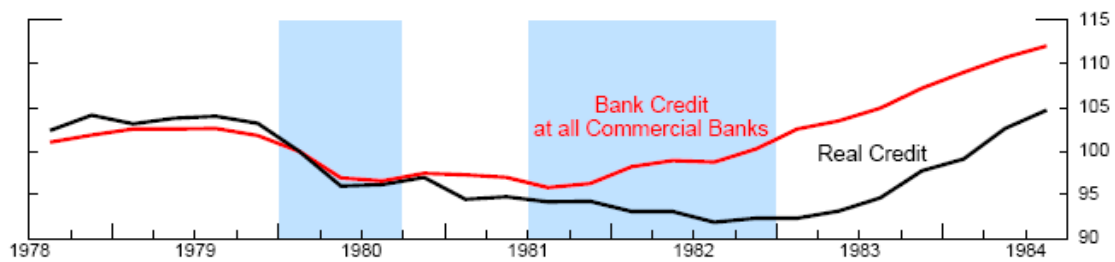
## Real GDP



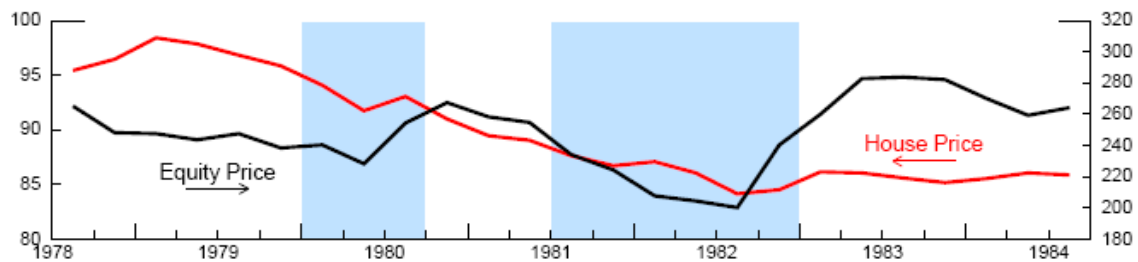
## Real Policy Interest Rate



## Real Credit



## Real Equity Price and Real House Price



# Bottom line:

- Main drivers of a recession not necessarily the factors that move first.

- In categorizing recessions,
  - Determine if they substantially overlap with asset price declines or credit crunches
  - Don't worry about which comes first

# Questions that need addressing:

2. Are movements in credit aggregates the best way to identify periods of credit market distress?

# Semantics:

- Credit crunch: sharp cutback in supply of credit
- Shocks to credit markets can come from either supply or demand

- Demand for credit in part derived from demand for investment and consumption.
- Not clear that changes in actual credit are reflecting credit market events rather than shocks to economic activity.

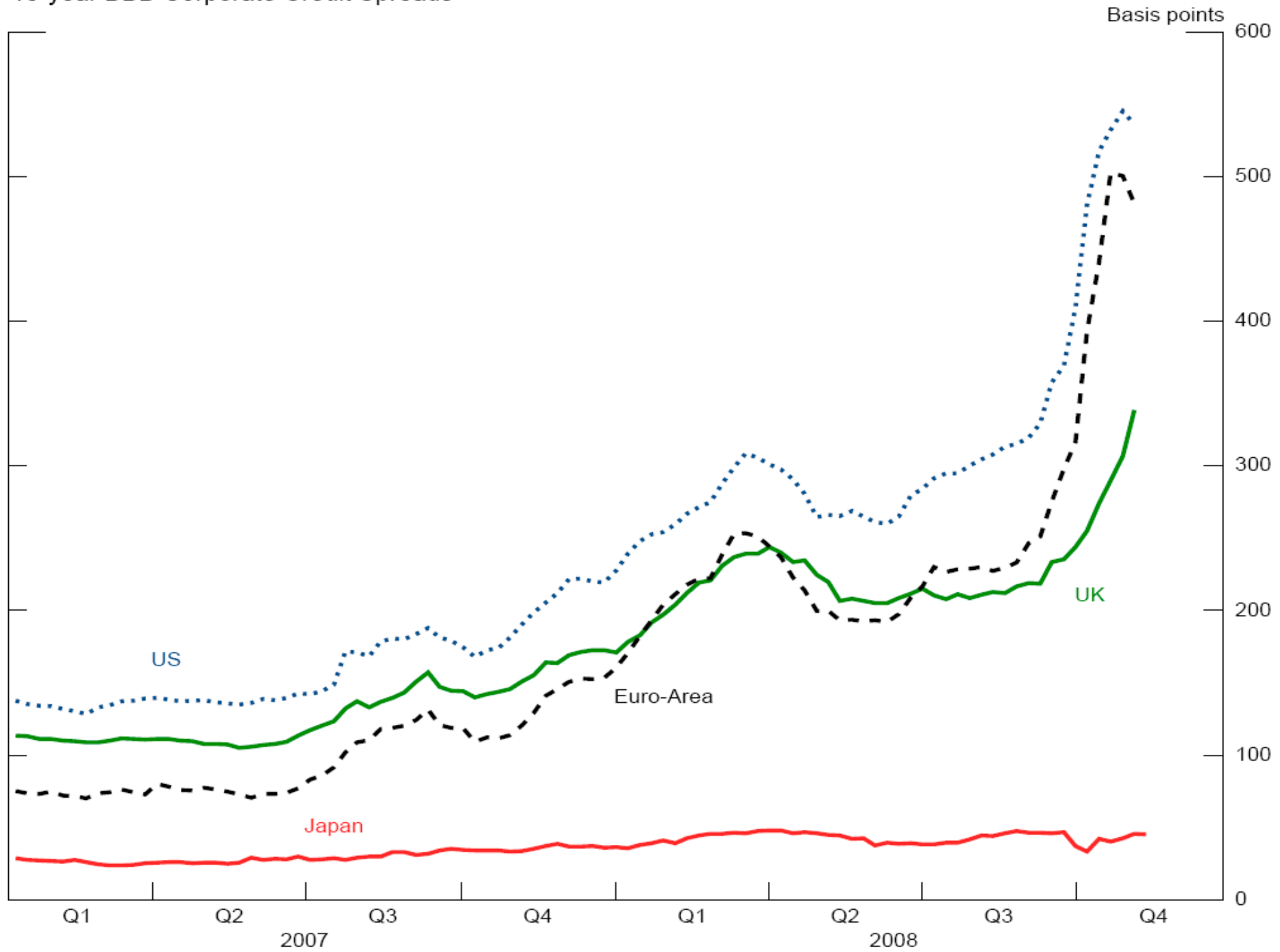
- Recent developments also suggest evolution of credit outstanding may be misleading indicator of distress in credit markets.

Interbank Spread over OIS (3-Month)





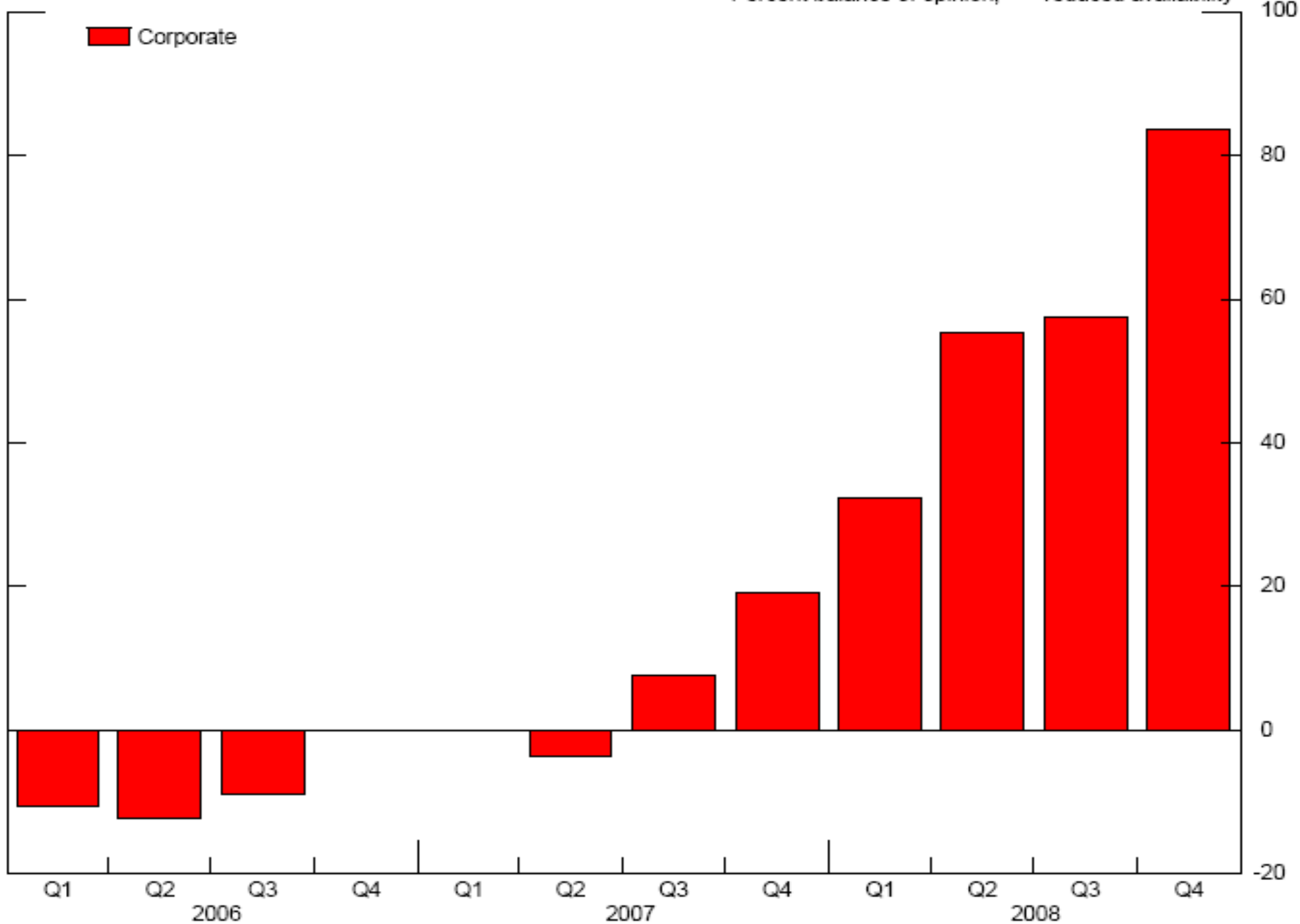
# 10-year BBB Corporate Credit Spreads



# U.S. Senior Loan Officer Opinion Survey

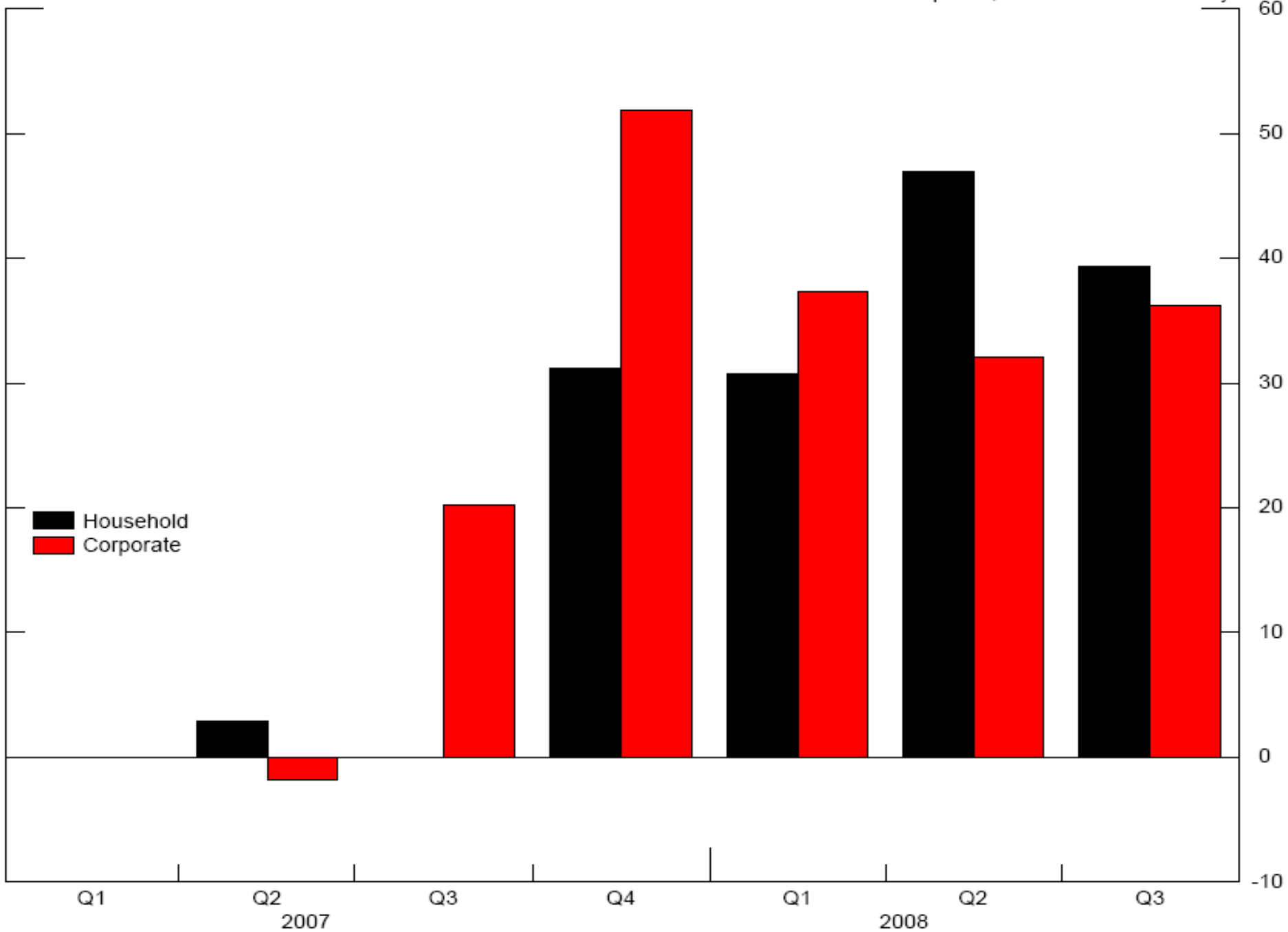
Percent balance of opinion, + = reduced availability

Corporate



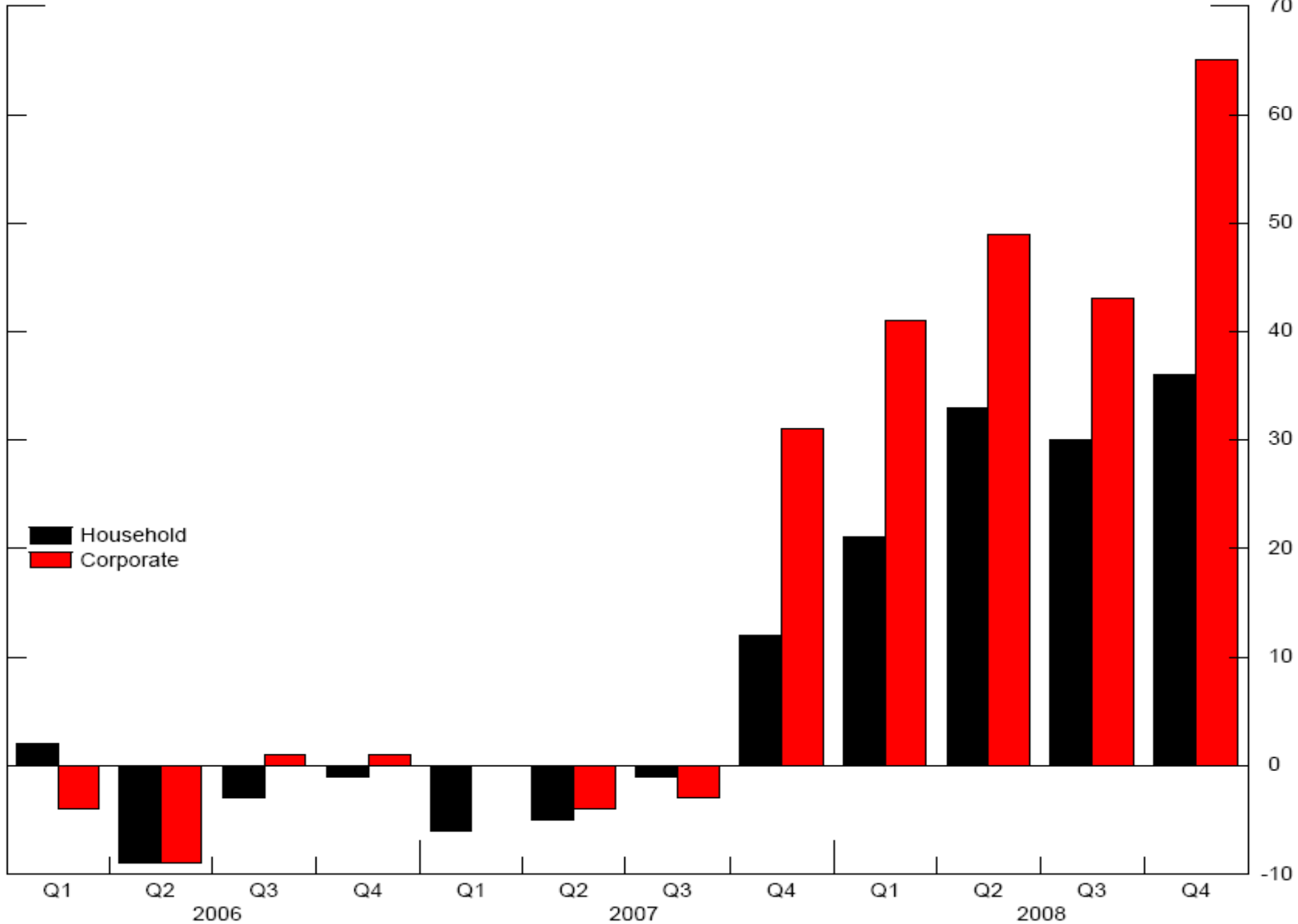
# Bank of England Credit Conditions Survey

Percent balance of opinion, + = reduced availability



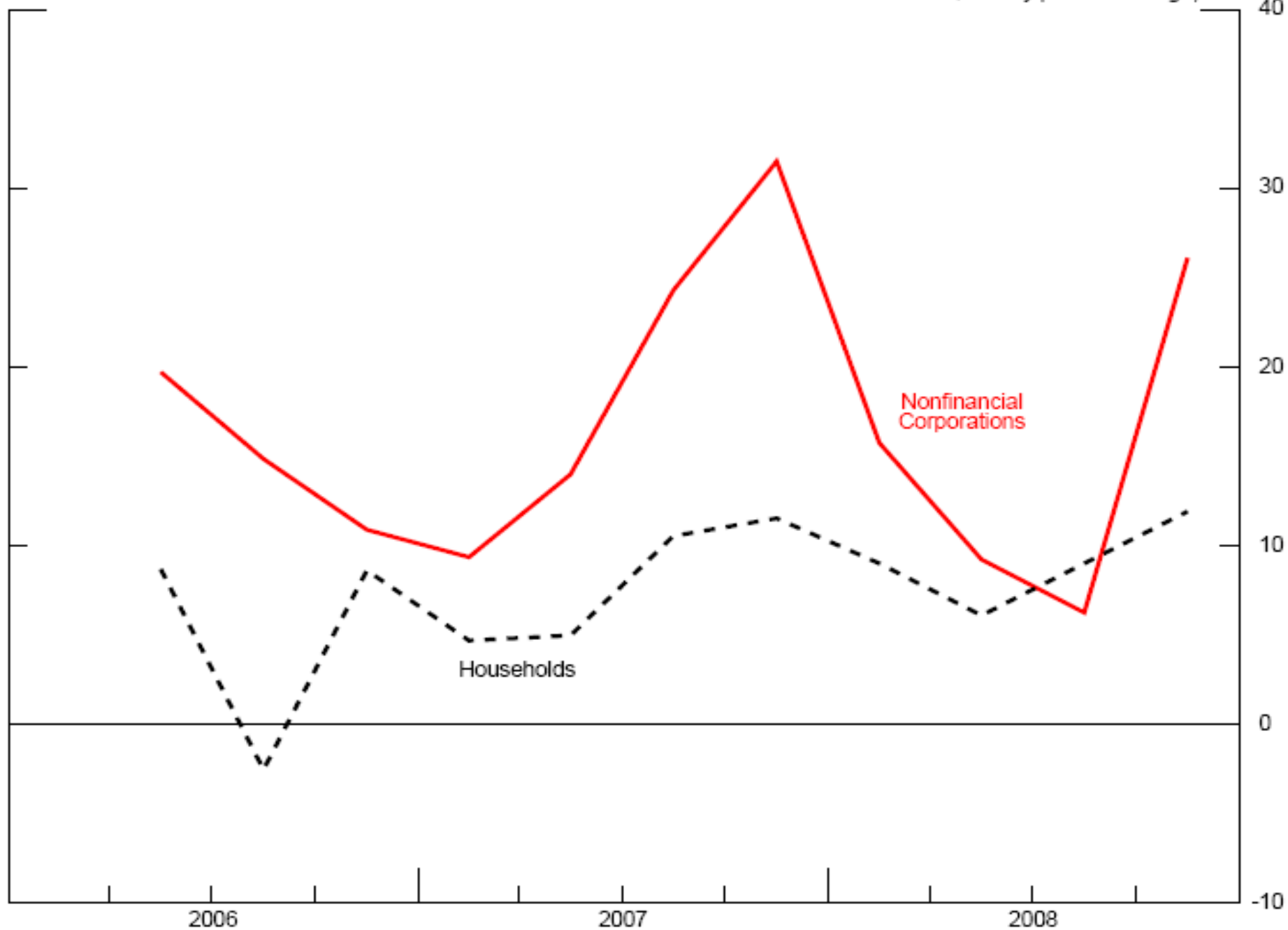
# ECB Lending Survey

Percent balance of opinion, + = tightening



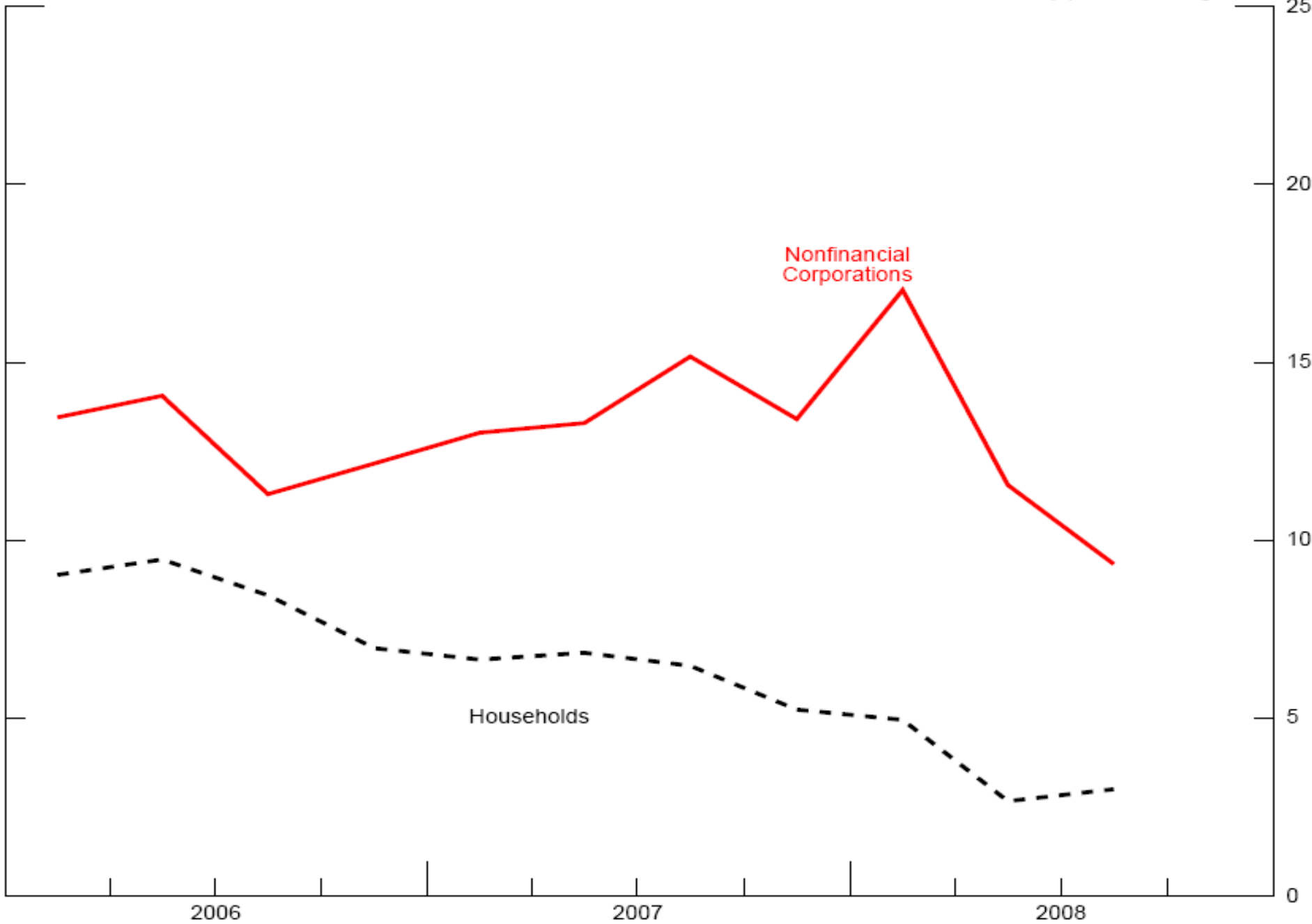
# U.S. Loans

Quarterly percent change, a.r.



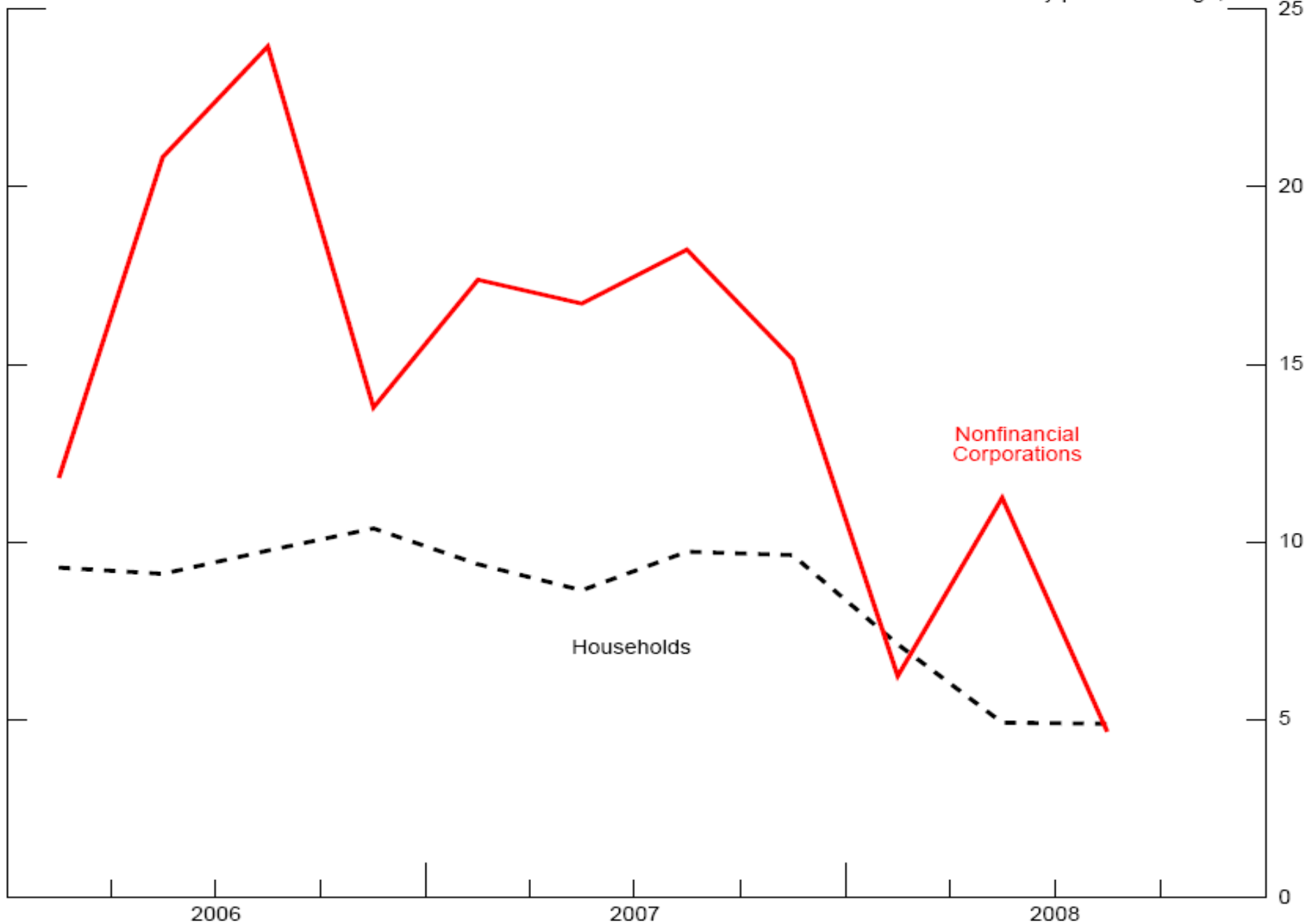
# Euro Area Loans

Quarterly percent change, a.r.



# United Kingdom Loans\*

Quarterly percent change, a.r.



\*Q3 data is staff estimate.

## Bottom line:

- Movements in credit aggregates may not be a good indicator of stress in credit markets
- Might be better to identify episodes of credit market stress with deeper underlying indicators



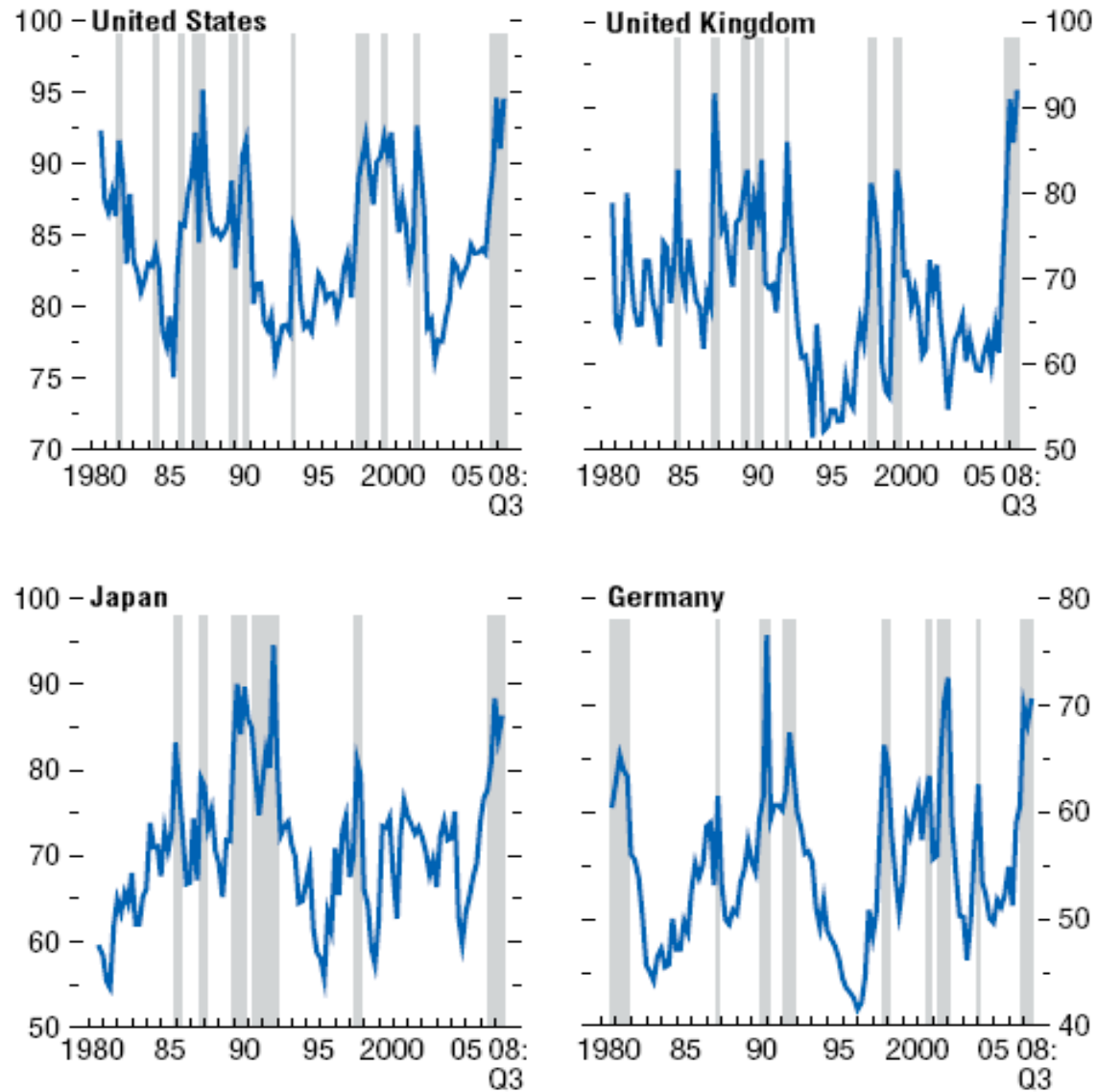
Lall, Cardarelli, and Elekdag  
“Financial Stress and Economic Downturns”  
Ch. 4, October 2008 WEO

- Financial stress index
  - 7 financial market indicators
    - Bank stock beta
    - TED spread
    - Slope of yield curve
    - Corporate bond spread
    - Stock market return
    - Stock market volatility
    - Exchange rate volatility

## Figure 4.2. Financial Stress Index

*(Shaded areas denote financial stress episodes)*

The financial stress index appears to capture the current episode of financial stress in all countries in the sample.



# Conclusion

- Well-researched paper
- Meticulous econometric methodology
- Useful insights and findings