The Credit Crisis

James A. Wilcox

Haas School of Business
University of California, Berkeley

jwilcox@haas.berkeley.edu
http://haas.berkeley.edu/finance/wilcoxon.html
Prelude to the Credit Crisis

- Increase in worldwide supply of funds
- Stimulative monetary policy in the U.S.
- Lax lending
  - Perceived risk reduction due to Great Moderation?
- House prices bubbled up... a lot
  - In the U.S.
  - In Ireland, Spain, U.K.
- House prices fell... quite a lot ... in some places
U.S. Inflation-adjusted House Prices
(Shiller 1950-1974, OFHEO 1975-2008,
Indexed 1995=100, annual)
Intertwined Solvency and Liquidity Concerns about FIs

- Now, mortgage loan losses loom large at financial institutions (FIs)
  - Banks, hedge funds, bond funds, investment banks, pension funds, insurance companies, etc.

- Still, great uncertainties
  - About how large and which FIs have losses
  - About how large losses might become

- Uncertainties reduced FIs’ lending to each other
  - Markets for LIBOR, fed funds, commercial paper, etc.
Spread of 1-month US$ LIBOR Rate over T-bill Rate
(%, monthly)
Old-Fashioned Runs on “New-Fashioned Banks”

- Insolvency risk has raised liquidity risk
  - Raises risk that funds run
    - à la “It’s a Wonderful Life”
- Runs on banks, MMMFs, hedge funds, bond funds
- Runs can convert illiquidity into insolvency
  - Selling assets to raise cash leads to lower, “fire-sale” prices
    - At fire-sale values, FIs are likely insolvent
  - Billions “ran” from Schwab Ultra-short bond fund
    - Last out maybe got less than 80, first got about 100 cents per dollar
Many fear that everyone else will run
- Via withdrawals or not renewing short-term loans

Incentive for each of us to run before other guy
- Everyone can’t run before the fire sale

Fear of runs led FIs to scramble for liquidity
- Hold more “cash” just in case (such as T-bills)
  - Banks can trade loans for cash at Federal Reserve
- Replace running funds with stable funds from Fed
Federal Reserve Credit Facilities
($ billion, monthly)

Discount window (primary credit) - left
Primary dealer credit facility - right
Excess Reserves
($ billion, monthly)
“De-leveraging” and “Re-capitalizing”

- In addition, FIs are aiming for less debt
  - Now, leverage seems riskier than it did before
  - Reduces FIs’ borrowing of funds—and thus lending
- More capital can avert less lending
  - Add equity, rather than subtract debt
- Taxpayers want some upside from Rescue Plan
  - Can get it by buying shares or warrants in banks
    - Via outright purchases
    - Via Treasury auctions
Freezes:
Credit Markets and Loans

- Banks reluctant to make or buy loans
  - Making loans means letting go of cash
  - If can’t sell assets, FIs reluctant to acquire them
  - FIs can build liquidity by not re-loaning the funds as loans are paid
- FIs less willing to lend to FIs--and to non-FIs
- “Loan run” now on fear of less lending later
  - Precautionary, not productive, borrowing
Commercial Paper
(Outstanding volume, $ trillion, monthly)

Asset backed
Financial
Nonfinancial

2001 2002 2003 2004 2005 2006 2007 2008
Spread of High-yield Bond Yields over 10-year Treasurys Yields
(%, monthly)
2½ Cheers for the Rescue Program (so far)!

- Quelled credit market panic of mid-September
- Authorizes Treasury to buy assets
  - Designed to “prime the pump”
    - More lending if loans are liquid when markets thaw
  - To produce prices “fair” to sellers and buyers
    - More clarity re: solvency: Some strong, some gone
  - When assets sold, cash perhaps then lent out
  - Apparently, will include purchases of bank stock
  - Later, like RTC, Treasury sells off all assets
Next, Expensive Programs?

- Mortgage balance reductions?
  - Via bankruptcy law changes?
- Rate reductions via refinancing?
- Tax credits for buying a house during 2009?
## The Outlook: Look Out!

<table>
<thead>
<tr>
<th></th>
<th>2007 (Actual)</th>
<th>2008 (Estimated)</th>
<th>2009 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (growth, real, %)</td>
<td>2.0</td>
<td>1.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Unemployment rate (%)</td>
<td>4.6</td>
<td>5.7</td>
<td>7.3</td>
</tr>
<tr>
<td>Federal funds rate (%)</td>
<td>5.0</td>
<td>2.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Federal budget deficit ($ billion)</td>
<td>162</td>
<td>450</td>
<td>720</td>
</tr>
<tr>
<td>Inflation rate (%)</td>
<td>2.9</td>
<td>4.2</td>
<td>2.2</td>
</tr>
<tr>
<td>Residential investment (growth, real, %)</td>
<td>-19</td>
<td>-20</td>
<td>-2</td>
</tr>
</tbody>
</table>