Understanding “Toxic Assets”
THE CRISIS CREDIT

http://crisisofcredit.com/
GEOGRAPHY OF A RECESSION

ROAD TO RECOVERY
### The Government as Investor

**$4.6 trillion**

**Spent:** $211 billion

Includes direct investments in financial institutions, purchases of high-grade corporate debt and purchases of mortgage-backed securities issued by Fannie Mae, Freddie Mac and Ginnie Mae.

<table>
<thead>
<tr>
<th>Type</th>
<th>Committed</th>
<th>Spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial paper</td>
<td>$1.6 trillion</td>
<td>$257 billion</td>
</tr>
<tr>
<td>Public-private investment fund</td>
<td>$1.0 trillion</td>
<td>$0 billion</td>
</tr>
<tr>
<td>Troubled Asset Relief Program (TARP)</td>
<td>$700 billion</td>
<td>$510 billion</td>
</tr>
</tbody>
</table>

### The Government as Lender

**$2.4 trillion**

**Spent:** $666 billion

A significant expansion of the government’s traditional overnight lending to banks, including extending terms to as many as 90 days and allowing borrowing by other financial institutions.

<table>
<thead>
<tr>
<th>Type</th>
<th>Committed</th>
<th>Spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Home Loan Bank securities</td>
<td>$600 billion</td>
<td>$212 billion</td>
</tr>
<tr>
<td>Money market funds</td>
<td>$600 billion</td>
<td>$17 billion</td>
</tr>
</tbody>
</table>

### The Government as Insurer

**$1.8 trillion**

**Spent:** $252 billion

Includes insuring debt issued by financial institutions and guaranteeing poorly performing assets owned by banks and Fannie Mae and Freddie Mac.

<table>
<thead>
<tr>
<th>Insurer</th>
<th>Committed</th>
<th>Spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.I.G.</td>
<td>$53 billion</td>
<td>$44 billion</td>
</tr>
<tr>
<td>Bear Stearns</td>
<td>$29 billion</td>
<td>$29 billion</td>
</tr>
<tr>
<td>Reserve U.S. Government Fund</td>
<td>$4 billion</td>
<td>$4 billion</td>
</tr>
</tbody>
</table>

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Sources: Treasury; Federal Reserve; Federal Deposit Insurance Corporation

The New York Times
Keeping Tabs on the $700 Billion Bailout

The Treasury Department's $700 billion bailout to the financial system was expected to enable banks to make more loans to companies and consumers. But the Treasury has indicated that the 52 banks already funded by the program have mostly used their investments — $103 billion so far — to bolster their balance sheets at a time when options for raising capital are slim. And analysts expect that the more than 100 banks that have yet to receive money will be similarly cautious.

Treasury Secretary Henry M. Paulson Jr. has acknowledged that 'lending won't materialize as fast as any of us would like,' but has said that loans will begin to flow as confidence returns.

Some analysts agree. "In a few quarters, banks should be comfortable enough to begin to put that new capital to work," said Mark Fitzgibbon, a banking analyst at Sandler O'Neill & Partners.

But regulators will have to keep a watchful eye on banks, say officials in the Government Accountability Office. In a report released on Thursday, the office urged the Treasury to increase its oversight of the program, as banks are not currently required to report on their use of government dollars.

Companies that have received or expect to receive Treasury money
Circles sized by expected investment, in billions
Back outline show banks that were required to accept financing

The Biggest Nine
On Oct. 14, the Treasury required nine financial firms to accept a total of $125 billion. This kicked off the first half of the Treasury's $250 billion recapitalization program. The government also chose to invest $40 billion in the insurance giant A.I.G. in early Nov.

The Bank Tally
More than 160 banks have voluntarily applied for the program's remaining money. A third to a half have received money. But some applicants, like Hopfink Bancorp in Kentucky, are weighing the drawbacks of participation, like limits on dividend payments, stock buyback programs and executive compensation.

Insurers and Others Jump In
The Treasury has allowed nonprofits to apply for money. Insurers like The Hartford, Protective Life and Lincoln National, as well as the credit card company American Express, have chosen this path, but none have received financing yet.

Outsiders Wait
Philadelphia, Atlanta and Phoenix asked the Treasury in November to provide $50 billion to help cities throughout the country. The Treasury has agreed to discuss the plan later this month. G.M., Ford and Chrysler offered plans to Congress last week for $34 billion in loans.

Sources: Treasury, companies, Bloomberg, Sandler O'Neill & Partners, American Bankers Association

Approaches to Recovery: Credit Crisis

Government Approach

- Public-Private Investment Program (P-PIP) – a federal program designed to buy back troubled assets on the balance sheets of lending institutions

Market Approach

- Peer-Peer Lending - market makers and sales advisers for debt securities can sell, possibly on behalf of the federal government, troubled assets (example companies: DebtX, Prosper)
Approaches to Recovery:
Mortgage Crisis

• Key components of any mortgage crisis policy should:
  – Help homeowners facing foreclosure remain in their homes
  – Not be considered a bailout for mortgage lenders and investors, creating a moral hazard
  – Limit the costs to the federal government
  – Be able to be implemented quickly
Approaches to Recovery: Mortgage Crisis

• Congressman Barney-Senator Dodd Proposal
  – Have the FHA refinance loans that reduce the principal owed up to 90%
  – Establish an auction process to expedite refinancing
  – Similar to proposals from the Office of Thrift Supervision, the National Community Reinvestment Coalition, investment banks, academic economists, etc.

• Home Appreciation Mortgage Plan
  – Have the mortgage lenders refinance loans that reduce the principal owed up to 90% of the first and second mortgage loans
  – Modify original first mortgage loan and second home appreciation loan (backed by FHA)
  – If sold if 3-10 years, equity is shared between lender and homeowner (also used to pay off FHA fees and lender write down amounts)
Drawing Down TARP

Just over half of the Treasury Department’s $700 billion Troubled Asset Relief Program, or TARP, was committed during the Bush administration. On Tuesday, Treasury Secretary Timothy F. Geithner unveiled some details about how the new administration would use the fund.

**COMMITTED UNDER THE BUSH ADMINISTRATION**

- **$379.8 billion**

**ANNOUNCED TUESDAY**

- **$320.2 billion**

- **$25 billion**
  - Bank of America
- **$25 billion**
  - Citigroup
- **$75 billion**
  - Six other institutions
- **$20 billion**
  - Bank of America
- **$70.5 billion**
  - Allocated
- **$54.4 billion**
  - Funds still available
- **$20 billion**
- **$80 billion**
- **$100 billion**
  - Funds to back a Fed program that will encourage lending to consumers and business
- **$50 billion**
  - Help for homeowners
  - A new program is planned to help millions of homeowners facing foreclosure to renegotiate the terms of their mortgages.
- **$190.2 billion**
  - Remaining funds
  - Without providing an exact figure, the Treasury said that remaining TARP funds could be used for additional capital injection into banks.

**$125 Capital for big banks**

Congress required nine big banks to participate in the program. The $10 billion for Merrill Lynch went to Bank of America after their merger.

**$45 Additional capital for big banks**

**$125 Capital for small banks**

Available to public and private financial institutions by application. As of Feb. 11, the Treasury has purchased stock from more than 350 companies.

**$40 Capital for A.I.G.**

**$24.8 Capital for automakers**

Source: Treasury
An Estimate: Adding Up Bank Losses

Analysts say they believe that banks will have more losses, but estimates vary of how much. Here is a breakdown by RGE Monitor, a consulting firm started by Nouriel Roubini, an economics professor at New York University. RGE’s total estimated bank losses are $1.7 trillion to $1.8 trillion.

ASSUMPTIONS Total contraction in the United States economy from its peak reaches 5 percent; housing prices decline another 20 percent from current levels; unemployment peaks at 9 percent.

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Losses</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Loans</td>
<td></td>
</tr>
<tr>
<td>Commercial and industrial loans</td>
<td>$100, 300, 500 bil.</td>
</tr>
<tr>
<td>Consumer loans (credit card, auto, student, etc.)</td>
<td>BANK LOSSES</td>
</tr>
<tr>
<td>Leveraged loans</td>
<td></td>
</tr>
<tr>
<td>Mortgages</td>
<td></td>
</tr>
<tr>
<td>Commercial real estate</td>
<td></td>
</tr>
<tr>
<td>Subprime mortgages (riskiest mortgages)</td>
<td></td>
</tr>
<tr>
<td>Alt-A mortgages (somewhat risky mortgages)</td>
<td></td>
</tr>
<tr>
<td>Prime mortgages (highest quality)</td>
<td></td>
</tr>
<tr>
<td>Asset-Backed Securities</td>
<td></td>
</tr>
<tr>
<td>Asset-backed securities (mostly subprime mortgages)</td>
<td></td>
</tr>
<tr>
<td>Asset-backed securities collateralized debt obligations</td>
<td></td>
</tr>
<tr>
<td>Commercial mortgage-backed securities</td>
<td></td>
</tr>
<tr>
<td>Consumer asset-backed securities (credit card, auto loans, etc.)</td>
<td></td>
</tr>
<tr>
<td>Prime mortgage-backed securities</td>
<td></td>
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<tr>
<td>Corporate Debt</td>
<td></td>
</tr>
<tr>
<td>High-grade corporate debt</td>
<td></td>
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<tr>
<td>High yield corporate debt (also known as junk bonds)</td>
<td></td>
</tr>
<tr>
<td>Collateralized loan obligations</td>
<td></td>
</tr>
</tbody>
</table>

Source: RGE Monitor

BENCHMARKING PROJECTS
CityCentre, Las Vegas NV

• Estimated Costs: $14.6 billion

Central Artery/Tunnel, Boston MA

- Estimated Costs: $14.6 billion

http://images.businessweek.com/ss/06/01/wonders_bigdigs/image/big-dig-1.jpg
Eurotunnel

- Estimated Costs: $16 billion (1994)

http://www.francedirect-travel.com/images/eurotunnel_train.jpg
Hoover Dam, Boulder City NV

- Estimated Costs: $690 million

http://www.korto.com/images/Hoover%20Dam.jpg
Panama Canal

- Estimated Costs: $14.3 billion (2007 dollars)

http://www.scd.eu/Panama/panama_canal2.JPG
Interstate Highway System

- Estimated Costs: $500 billion

http://www.upa.pdx.edu/IMS/currentprojects/TAHv3/Content/Conservation/JPGS/Natl_Hwy_System.jpg
Masdar City, Abu Dhabi UAE

- Estimated Costs: $22 billion

Hong Kong International Airport

• Estimated Costs: $20 billion

• **Subprime Mortgages** – loans made to borrowers with less than perfect credit

• **Collaterized Debt Obligations** – an asset-backed securities issued with several maturity and credit risk characteristics

• **Troubled Asset Relief Program (TARP)** – a P-PIP initiative established to buy back assets from lending institutions

• **Term Asset-Backed Securities Loan Facility (TALF)** – a federal program established to buy securities (i.e. issue credit) for different types of debt, including credit card, auto, student and small business loans