Who Regulates Commercial Banks?

**Table 10.2 Who Regulates Commercial Banks?**

<table>
<thead>
<tr>
<th>National Banks</th>
<th>Office of the Comptroller of the Currency (OCC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Banks</td>
<td></td>
</tr>
<tr>
<td>Members of Federal Reserve System</td>
<td>Federal Reserve and state agencies</td>
</tr>
<tr>
<td>Non-members of Federal Reserve System</td>
<td>FDIC and state agencies</td>
</tr>
</tbody>
</table>
# Capital Requirements for Melvin’s Bank

## Table 10.3 Capital Requirements for Melvin’s Bank

### (A) Computing Weighted Assets

<table>
<thead>
<tr>
<th></th>
<th>Assets</th>
<th>Weights</th>
<th>Weighted Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserves</td>
<td>10</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>Securities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treasury bonds</td>
<td>10</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>Municipal bonds</td>
<td>10</td>
<td>0.5</td>
<td>5</td>
</tr>
<tr>
<td>Loans</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interbank</td>
<td>10</td>
<td>0.2</td>
<td>2</td>
</tr>
<tr>
<td>Home mortgages</td>
<td>20</td>
<td>0.5</td>
<td>10</td>
</tr>
<tr>
<td>C&amp;I</td>
<td>90</td>
<td>1.0</td>
<td>90</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>150</td>
<td></td>
<td><strong>107</strong></td>
</tr>
</tbody>
</table>

### (B) Minimum Levels of Capital

**Based on minimum equity ratio:**

Minimum capital = (0.05)(total assets)

= (0.05)(150)

= $7.50

**Based on Basel requirement:**

Minimum capital = (0.08)(weighted assets)

= (0.08)(107)

= $8.56
A typical financial crisis is triggered by declines in asset prices and the failures of financial institutions. A series of effects then leads to a fall in output, which reinforces the causes of the crisis.

- **Asset prices fall.**
  - Net worth and value of collateral fall.
  - **Lending falls.**
    - Firms and consumers can’t finance investment and consumption.
    - Fewer banks remain; banks become more cautious; securitization is disrupted.
  - **Aggregate expenditure falls.**
    - Output falls, economy is in recession.
  - Firms’ earnings fall; demand for real estate falls.
  - Wealth declines and uncertainty rises, reducing consumption and investment.

- **Financial institutions fall.**
  - Bank revenue falls, loan defaults rise.
11,000 banks closed in the United States 1930-33
Farm Bankruptcies “Fire Sales” Midwest 1930s
Fast Forward...new

Northern Rock
Deposit Run, UK

September 2007

Bank of England
Saves the Bank

Northern Rock hit by sub-prime mortgage credit crisis...
Markets Slide as Wall Street Sees Signs of Trouble
Friday, October 19, 2007  NY Times
The Human Face of Financial Crisis: Present, Past and Future
Indonesia Riots 1998: Thousands of rioters set cars, tires, shops and homes on fire and looted.
Riding Out the Storm: Avoiding Financial Crisis
Economists to the rescue?
The U.S. Financial Crisis and Its Aftermath 2007-2010

In 2007, house prices fall and defaults on subprime mortgages rise

- New Century Financial dedares bankruptcy
- BNP Paribus announces losses on subprime mortgages
- Ameriquest Mortgage closes
- Lending falls sharply in federal funds market

2007

Economy experiences moderate slow down

- Run on Northern Rock Bank in U.K.
- After losses on MBS, Morgan Stanley fires its CEO
- After losses on MBS, Citigroup fires its CEO

Federal crisis events

- Large open-market operations by Fed to prevent federal funds rate from rising
- Fed reduces discount rate by half a percentage point
- Federal funds rate steady at 5.25%

Economy-wide events

- Fed begins to cut federal funds rate
- Fed establishes Term Auction Facility
- Fed encourages banks to request discount loans
In 2007, house prices fall and defaults on subprime mortgages rise

- Bear Stearns on brink of bankruptcy
- Fed funds rate: 3.0%
- Fed establishes Primary Dealer Credit Facility and arranges take over of Bear Stearns
- Federal funds rate: 2.0%
- Unemployment rate: 5.8%
Government places Fannie Mae and Freddie Mac under conservatorship

Fed and Treasury fail to rescue Lehman Brothers

Lehman Brothers declares bankruptcy

Reserve Primary Fund breaks the buck

Shareholders withdraw $210 billions from money market funds

Fed lends $85 billion to AIG

Treasury announces temporary insurance for money market funds

President Bush signs legislation establishing TARP

Losses on MBS threaten solvency of major financial institutions

• Asset holders set off risky assets and buy Treasury bills
• Dow Jones stock index starts falling rapidly
• Bank lending, securitization, and issuance of commercial paper also fall
Fed establishes Money Market Investor Funding Facility
Fed begins large purchases of MBS
Fed establishes Term Asset-Backed Loan Facility
Fed funds rate near zero
Fed funds rate: 3.0%
Dow Jones Stock Index reaches low of 6547 and starts rising
Unemployment rate peaks at 10.1%
Many financial institutions buy back stock from government
Unemployment rate: 9.5%
President Obama signs the Wall Street Reform and Consumer Protection Act
Fed closes most facilities created during the crisis
Treasury uses TARP funds to buy stock in financial institutions

• Falling asset prices, credit crunch, and uncertainty cause sharp fall in aggregate expenditure
• Disruption of commercial paper market leads firms to lay off workers
• Unemployment rises rapidly
In the panic following the failure of Lehman Brothers, financial institutions dumped any assets that appeared risky, causing a sharp fall in stock prices (A), a collapse in securitization of bank loans (B), and higher interest rates on corporate bonds with moderate default risk (C). A surge in the demand for Treasury bills, a safe asset, pushed the interest rate on T-bills near zero (D).

A money market fund “broke the buck” in September 2008 and triggered a series of effects that worsened the financial crisis and increased unemployment.
### TABLE 18.1 Financial Reform Proposals

<table>
<thead>
<tr>
<th>Problem</th>
<th>Proposed Reforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonbank financial institutions are insufficiently regulated.</td>
<td>Impose regulations similar to those for commercial banks: restrictions on assets, capital requirements, supervision. Give a government agency resolution authority over failing institutions.</td>
</tr>
<tr>
<td>Some institutions are considered too big to fail.</td>
<td>Limit size of institutions.</td>
</tr>
<tr>
<td></td>
<td>Tie capital requirements to size.</td>
</tr>
<tr>
<td></td>
<td>Limit scope of institutions.</td>
</tr>
<tr>
<td>Financial institutions have incentives to take too much risk.</td>
<td>Require security issuers to have skin in the game.</td>
</tr>
<tr>
<td></td>
<td>Reform rating agencies.</td>
</tr>
<tr>
<td></td>
<td>Restrict executive pay.</td>
</tr>
<tr>
<td>Multiple regulators lead to gaps in regulation.</td>
<td>Consolidate agencies that regulate financial institutions.</td>
</tr>
<tr>
<td></td>
<td>Create new agency to oversee existing agencies and address systemic risk.</td>
</tr>
<tr>
<td></td>
<td>Tighten regulation of financial holding companies.</td>
</tr>
</tbody>
</table>
Starting in 1991, Argentina’s currency board fixed the nominal exchange rate at one peso per dollar. Argentina’s inflation exceeded U.S. inflation over 1991-1993, so its real exchange rate rose. The nominal and real exchange rates collapsed with the end of the currency board in 2002.

Source: International Monetary Fund