FINANCIAL CRISES AND THE SUBPRIME MELTDOWN

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FACTORS CAUSING FINANCIAL CRISES

- Financial crises: asymmetric information causes adverse selection and moral hazard problems.
- Funds can not move from savers to lenders efficiently.
- Economic activity contracts sharply.
FACTORS CAUSING FINANCIAL CRISES

I. Asset Market Effects on Balance Sheets

- Stock market decline
  Net worth of firms ↓ → lenders unwilling to lend → capital input ↓ → output ↓ & risky investments ↑
- Unanticipated decline in the price level
  \( P \downarrow \) → liabilities in real terms ↑
- Unanticipated decline in the value of the domestic currency
  Issuing debt in foreign currencies → value of domestic currency ↓ → debts ↑

- Asset Write-Downs
  Asset price ↓ → a write down of the assets side of the balance sheets
- Deterioration in Financial Institutions’ balance sheets
  contraction in capital → fewer resources to lend
FACTORS CAUSING FINANCIAL CRISES

II. Banking Crisis
- Bank panic:
  Depositors withdraw the deposits to the point the banks fail.
  A large number of banks fail in a short time.
- Supply of funds decreases, interest rate raise.
- Severe contraction in economic activity

III. Increases in Uncertainty
- Lenders are hard to tell good from bad credit risks.

IV. Increase in Interest Rates
- Good credit risks are less likely to borrow while bad credits are still willing to borrow.
- Interest payments increase, then cash flow decrease.
**FACTORS CAUSING FINANCIAL CRISES**

- V. Government Fiscal Imbalances
  - Demand for bonds decreases.
  - Financial institutions are forced to purchase bonds. Their balance sheets are weaken when price of bonds decreases.
  - Foreign funds run out of the country.

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<td>Unemployment Rate</td>
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Financial Innovations Emerge in the Mortgage Markets

Subprime mortgages: borrowers with lower credit.

Mortgage-backed securities

Structured credit products: CDOs (collateralized debt obligations) paid out cash flows from such securities in different tranches.

Housing Price Bubble Forms

- Subprime mortgage market grew up.
- Subprime borrowers could refinance their houses when house value appreciated.
- The demand for houses increased and prices were even higher.
Agency Problems Arise

- **Originate-to-distribute model**: Mortgage was originated by broker, then distributed to an investor as an underlying asset in a security.
- Brokers have little incentive to make sure if the mortgage is a good credit risk. They encouraged households to take higher loan, or even falsify information.
- Banks didn’t make sure if the securities and CDOs would be paid off.

Information Problems Surface

- The increased complexity of structured products made asymmetric information worsen.

Housing Price Bubble Bursts

- Asset prices must come down if they rise too high.
- The value of the house fell below the amount of the mortgage.
- Defaults on mortgages shot up, over 1 million mortgages in foreclosure.
THE SUBPRIME FINANCIAL CRISIS OF 2007-08

- Crisis Spreads Globally
  - Mortgage-backed securities and CDOs were downgraded.
  - Banks began to hold cash and be unwilling to lend to each other.
- Bank’s Balance Sheets Deteriorate
  - Mortgage-backed securities and CDOs collapsed.
  - A write-downs at banks.
  - Banks began to deleverage, selling off assets and restricting the loans.

THE SUBPRIME FINANCIAL CRISIS OF 2007-08

- High-Profile Firms Fail
  - In March 2008, Bear Stearns was sold to J.P. Morgan.
  - On Sep. 14th, Merrill Lynch announced its sale to BOA.
  - On Sep. 15th, Lehman Brothers filed to bankruptcy.
  - On Sep. 16th, AIG suffered an extreme liquidity crisis.
  - On Sep. 25th, WAMU was sold to J.P. Morgan.
THE SUBPRIME FINANCIAL CRISIS OF 2007-08

- Bailout Package Debated
  - On Sep. 29th, A 700 billion dollar bailout was voted down.
  - The Emergency Economic Stabilization Act was passed.
- Stimulus package
- Recovery in Sight?