Financial Development and Economic Growth. Financial Crises.

BFI Lecture 8.1.

Petar Stankov

petar.stankov@cerge-ei.cz

13 Nov. 2008

Outline

1. Financial Development and Economic Growth

2. A Theory of Financial Crises

Financial markets affect the goods and services produced. How?

Financial Development and Economic Growth

Financial markets affect the goods and services produced. How?

- the more developmed financial markets, the more sources of funding for firms

Financial Development and Economic Growth

Financial markets affect the goods and services produced. How?

- the more developmed financial markets, the more sources of funding for firms
- bankruptcy procedures affect allocation of tallent

Financial markets affect the goods and services produced. How?

- the more developmed financial markets, the more sources of funding for firms
- bankruptcy procedures affect allocation of tallent
- various support schemes (state banks)

Financial markets affect the goods and services produced. How?

- the more developmed financial markets, the more sources of funding for firms
- bankruptcy procedures affect allocation of tallent
- various support schemes (state banks)
- setting financial disclosure standards

Financial markets affect the goods and services produced. How?

- the more developmed financial markets, the more sources of funding for firms
- bankruptcy procedures affect allocation of tallent
- various support schemes (state banks)
- setting financial disclosure standards

Can financial markets cause problems to the production side of the economy?

Financial Crises and Aggregate Economic Activity

What is a financial crisis?

Financial Crisis

Financial Crisis: Major disruptions in financial markets that are characterized by sharp declines in asset prices and the failures of many financial and nonfinancial firms

What causes financial crises?

1. adverse selection, moral hazard
2. sharp increases in interest rates
3. increases in uncertainty
4. asset market effects on balance sheets
5. problems in the banking sector
6. government fiscal imbalances

How do these factors work?

1. **Adverse selection, moral hazard**:

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit
3. **Increases in uncertainty**:

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit
3. **Increases in uncertainty**: Risks of failure $\uparrow$ $\Rightarrow$

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit
3. **Increases in uncertainty**: Risks of failure $\uparrow$ $\Rightarrow$ expected profits $\downarrow$ $\Rightarrow$

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit
3. **Increases in uncertainty**: Risks of failure $\uparrow$ $\Rightarrow$ expected profits $\downarrow$ $\Rightarrow$ banks lend less, firms demand less credit, consumers spend less

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit
3. **Increases in uncertainty**: Risks of failure $\uparrow$ $\Rightarrow$ expected profits $\downarrow$ $\Rightarrow$ banks lend less, firms demand less credit, consumers spend less
4. **Asset market effects on balance sheets**:

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit
3. **Increases in uncertainty**: Risks of failure $\uparrow$ $\Rightarrow$ expected profits $\downarrow$ $\Rightarrow$ banks lend less, firms demand less credit, consumers spend less
4. **Asset market effects on balance sheets**: Asset prices decline $\Rightarrow$

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit
3. **Increases in uncertainty**: Risks of failure $\uparrow$ $\Rightarrow$ expected profits $\downarrow$ $\Rightarrow$ banks lend less, firms demand less credit, consumers spend less
4. **Asset market effects on balance sheets**: Asset prices decline $\Rightarrow$ net worth (own capital) declines $\Rightarrow$

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit
3. **Increases in uncertainty**: Risks of failure $\uparrow$ $\Rightarrow$ expected profits $\downarrow$ $\Rightarrow$ banks lend less, firms demand less credit, consumers spend less
4. **Asset market effects on balance sheets**: Asset prices decline $\Rightarrow$ net worth (own capital) declines $\Rightarrow$ banks lend less

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit
3. **Increases in uncertainty**: Risks of failure $\uparrow$ $\Rightarrow$ expected profits $\downarrow$ $\Rightarrow$ banks lend less, firms demand less credit, consumers spend less
4. **Asset market effects on balance sheets**: Asset prices decline $\Rightarrow$ net worth (own capital) declines $\Rightarrow$ banks lend less
5. **Problems in the banking sector**: Non-performing credits $\uparrow$ $\Rightarrow$

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit
3. **Increases in uncertainty**: Risks of failure $\uparrow$ $\Rightarrow$ expected profits $\downarrow$ $\Rightarrow$ banks lend less, firms demand less credit, consumers spend less
4. **Asset market effects on balance sheets**: Asset prices decline $\Rightarrow$ net worth (own capital) declines $\Rightarrow$ banks lend less
5. **Problems in the banking sector**: Non-performing credits $\uparrow$ $\Rightarrow$ banks assets decline $\Rightarrow$

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit
3. **Increases in uncertainty**: Risks of failure $\uparrow$ $\Rightarrow$ expected profits $\downarrow$ $\Rightarrow$ banks lend less, firms demand less credit, consumers spend less
4. **Asset market effects on balance sheets**: Asset prices decline $\Rightarrow$ net worth (own capital) declines $\Rightarrow$ banks lend less
5. **Problems in the banking sector**: Non-performing credits $\uparrow$ $\Rightarrow$ banks assets decline $\Rightarrow$ net worth declines $\Rightarrow$

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit
3. **Increases in uncertainty**: Risks of failure $\uparrow$ $\Rightarrow$ expected profits $\downarrow$ $\Rightarrow$ banks lend less, firms demand less credit, consumers spend less
4. **Asset market effects on balance sheets**: Asset prices decline $\Rightarrow$ net worth (own capital) declines $\Rightarrow$ banks lend less
5. **Problems in the banking sector**: Non-performing credits $\uparrow$ $\Rightarrow$ banks assets decline $\Rightarrow$ net worth declines $\Rightarrow$ (if large-scale) the bank fails

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit
3. **Increases in uncertainty**: Risks of failure $\uparrow$ $\Rightarrow$ expected profits $\downarrow$ $\Rightarrow$ banks lend less, firms demand less credit, consumers spend less
4. **Asset market effects on balance sheets**: Asset prices decline $\Rightarrow$ net worth (own capital) declines $\Rightarrow$ banks lend less
5. **Problems in the banking sector**: Non-performing credits $\uparrow$ $\Rightarrow$ banks assets decline $\Rightarrow$ net worth declines $\Rightarrow$ (if large-scale) the bank fails
6. **Government fiscal imbalances**: Government deficit $\uparrow$ sharply $\Rightarrow$

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit
3. **Increases in uncertainty**: Risks of failure $\uparrow$ $\Rightarrow$ expected profits $\downarrow$ $\Rightarrow$ banks lend less, firms demand less credit, consumers spend less
4. **Asset market effects on balance sheets**: Asset prices decline $\Rightarrow$ net worth (own capital) declines $\Rightarrow$ banks lend less
5. **Problems in the banking sector**: Non-performing credits $\uparrow$ $\Rightarrow$ banks assets decline $\Rightarrow$ net worth declines $\Rightarrow$ (if large-scale) the bank fails
6. **Government fiscal imbalances**: Government deficit $\uparrow$ sharply $\Rightarrow$ foreign investors stop buying G bonds due to $\uparrow$ risk of default $\Rightarrow$

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit
3. **Increases in uncertainty**: Risks of failure $\uparrow$ $\Rightarrow$ expected profits $\downarrow$ $\Rightarrow$ banks lend less, firms demand less credit, consumers spend less
4. **Asset market effects on balance sheets**: Asset prices decline $\Rightarrow$ net worth (own capital) declines $\Rightarrow$ banks lend less
5. **Problems in the banking sector**: Non-performing credits $\uparrow$ $\Rightarrow$ banks assets decline $\Rightarrow$ net worth declines $\Rightarrow$ (if large-scale) the bank fails
6. **Government fiscal imbalances**: Government deficit $\uparrow$ sharply $\Rightarrow$ foreign investors stop buying G bonds due to $\uparrow$ risk of default $\Rightarrow$ government cannot repay an defaults $\Rightarrow$

How do these factors work?

1. **Adverse selection, moral hazard**: If interest rates $\uparrow$, those with higher risk of failure stay on the market $\Rightarrow$ those already on the market take even $\uparrow$ risks $\Rightarrow$ failures $\uparrow$ $\Rightarrow$ non-performing credits $\uparrow$ $\Rightarrow$ banks lend less
2. **Sharp $\uparrow$ in interest rates**: Firms' and households' assets remain unchanged but their debts $\uparrow$ $\Rightarrow$ they invest and spend $\downarrow$; banks provide $\downarrow$ credit
3. **Increases in uncertainty**: Risks of failure $\uparrow$ $\Rightarrow$ expected profits $\downarrow$ $\Rightarrow$ banks lend less, firms demand less credit, consumers spend less
4. **Asset market effects on balance sheets**: Asset prices decline $\Rightarrow$ net worth (own capital) declines $\Rightarrow$ banks lend less
5. **Problems in the banking sector**: Non-performing credits $\uparrow$ $\Rightarrow$ banks assets decline $\Rightarrow$ net worth declines $\Rightarrow$ (if large-scale) the bank fails
6. **Government fiscal imbalances**: Government deficit $\uparrow$ sharply $\Rightarrow$ foreign investors stop buying G bonds due to $\uparrow$ risk of default $\Rightarrow$ government cannot repay an defaults $\Rightarrow$ currecy (exchange rate) crisis

How does a financial crisis develop?