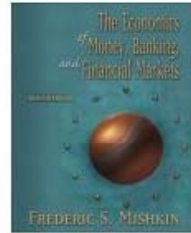


ECON 354 Money and Banking

Professor Yamin Ahmad

Lecture 15

- Puzzles of Financial Structure
- Adverse Selection and Moral Hazard in Financial Markets
- Financial Crises

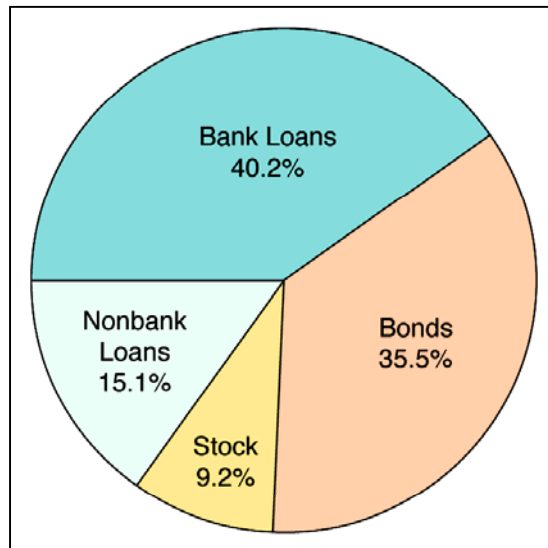


Big Concepts

- Asymmetric Information in Financial Markets:
 - Adverse Selection
 - Moral Hazard
- “Market For Lemons ...”
- Importance of Financial Development for Economic Growth
- Importance of Financial Crises

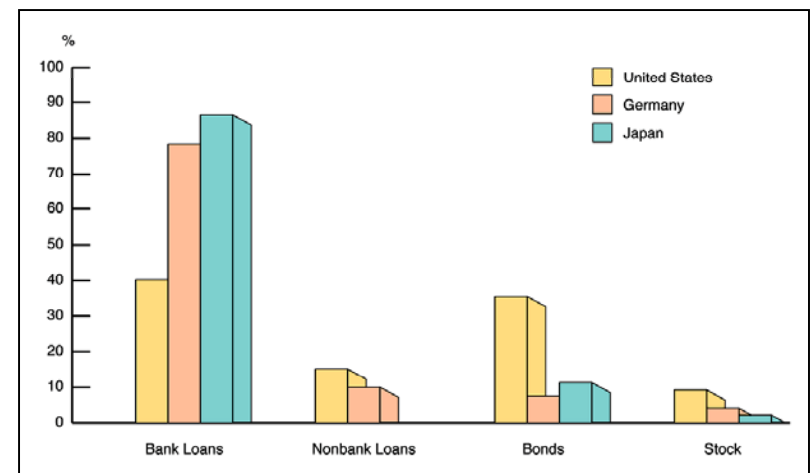
Note: These lecture notes are incomplete without having attended lectures

Sources of External Finance in U.S



Note: These lecture notes are incomplete without having attended lectures

Sources of Foreign External Finance



Note: These lecture notes are incomplete without having attended lectures

“Puzzles” of Financial Structure

1. Stocks are not most important source of external finance for businesses
2. Issuing marketable securities not primary funding source for businesses
3. Indirect finance (financial intermediation) is far more important than direct finance
4. Banks are most important source of external finance

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“Puzzles” of Financial Structure

5. Financial system is among most heavily regulated sectors of economy
6. Only large, well established firms have access to securities markets
7. Collateral is prevalent feature of debt contracts
8. Debt contracts are typically extremely complicated legal documents with restrictive covenants

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Transaction Costs and Financial Structure

Transaction costs hinder flow of funds to people with productive investment opportunities

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Role of Financial Intermediaries

Financial intermediaries make profits by reducing transaction costs:

1. Take advantage of **economies of scale**
Example: Mutual Funds
2. Develop **expertise to lower transaction costs**
Explains Puzzle 3

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Adverse Selection and Moral Hazard: Definitions

Definition: **Adverse Selection**

1. Before transaction occurs
2. Potential borrowers most likely to produce **adverse** outcomes are ones most likely to seek loans and be **selected**

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Adverse Selection and Moral Hazard: Definitions

Definition: **Moral Hazard**

1. After transaction occurs
2. **Hazard** that borrower has incentives to engage in undesirable (**immoral**) activities making it more likely that won't pay loan back

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Adverse Selection and Financial Structure

Lemons Problem in Securities Markets

1. If can't distinguish between good and bad securities, willing to pay only average of good and bad securities' values.
2. Result: **Good securities undervalued** and firms won't issue them; **bad securities overvalued**, so too many issued.
3. Investors won't want to buy bad securities, so market won't function well.

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- *Explains Puzzle 2 and Puzzle 1.*
- *Also explains Puzzle 6: Less asymmetric information for well known firms, so smaller lemons problem*

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Tools to Help Solve Adverse Selection (Lemons) Problem

1. **Private Production and Sale of Information**
 - Free-rider problem interferes with this solution
2. **Government Regulation** to Increase Information
 - *Explains Puzzle 5*

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Tools to Help Solve Adverse Selection (Lemons) Problem

3. **Financial Intermediation**
 - Analogy to solution to lemons problem provided by used-car dealers
 - Avoid free-rider problem by making private loans
 - *Explains Puzzles 3 and 4*
4. **Collateral and Net Worth**
 - *Explains Puzzle 7*

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Moral Hazard: Debt versus Equity

Moral Hazard in Equity:

Principal-Agent Problem

1. Result of separation of ownership by stockholders (*principals*) from control by managers (*agents*)
2. Managers act in own rather than stockholders' interest

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Tools to Help Solve the Principal-Agent Problem

1. **Monitoring**: production of information
2. Government regulation to increase information
3. Financial intermediation
4. **Debt contracts**
 - *Explains Puzzle 1: Why debt used more than equity*

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Moral Hazard and Debt Markets

Moral hazard: borrower wants to take on too much risk

Tools to Help Solve Moral Hazard

1. Net worth
2. Monitoring and enforcement of restrictive covenants
3. Financial intermediation:
Banks and other intermediaries have special advantages in monitoring

➤ *Explains Puzzles 1–4.*

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Summary: Asymmetric Information Problems and Tools to Solve Them

SUMMARY Table 1 Asymmetric Information Problems and Tools to Solve Them		
Asymmetric Information Problem	Tools to Solve It	Explains Puzzle No.
Adverse Selection	Private Production and Sale of Information	1, 2
	Government Regulation to Increase Information	5
	Financial Intermediation	3, 4, 6
	Collateral and Net Worth	7
Moral Hazard in Equity Contracts (Principal-Agent Problem)	Production of Information: Monitoring	1
	Government Regulation to Increase Information	5
	Financial Intermediation	3
	Debt Contracts	1
Moral Hazard in Debt Contracts	Net Worth	
	Monitoring and Enforcement of Restrictive Covenants	8
	Financial Intermediation	3, 4

Note: List of puzzles:
 1. Stocks are not the most important source of external financing.
 2. Marketable securities are not the primary source of finance.
 3. Indirect finance is more important than direct finance.
 4. Banks are the most important source of external funds.
 5. The financial system is heavily regulated.
 6. Only large, well-established firms have access to securities markets.
 7. Collateral is prevalent in debt contracts.
 8. Debt contracts have numerous restrictive covenants.

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Financial Development and Economic Growth

Financial Repression Leads to Low Growth: Why?

1. Poor legal system
2. Weak accounting standards
3. Government directs credit
4. Financial institutions nationalized
5. Inadequate government regulation

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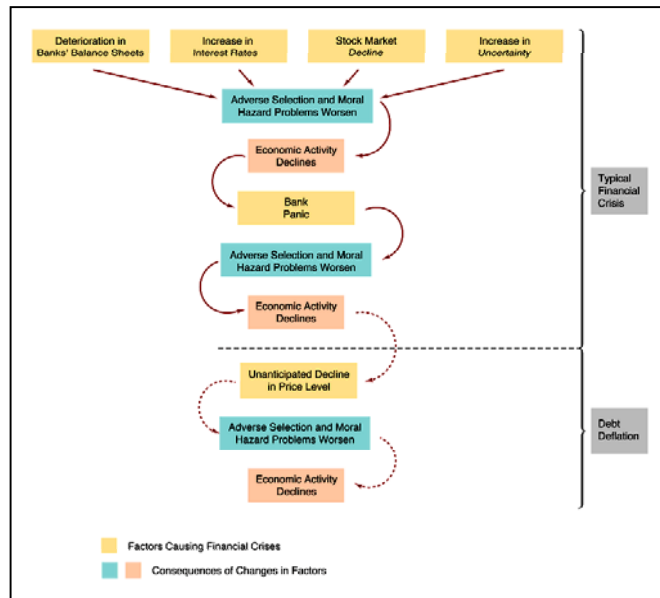
Financial Crises

Factors Causing Financial Crises

1. Increase in interest rates
2. Increases in uncertainty
3. Asset market effects on balance sheets
Stock market effects on net worth
Unanticipated deflation
Cash flow effects
4. Bank panics
5. Government fiscal imbalances

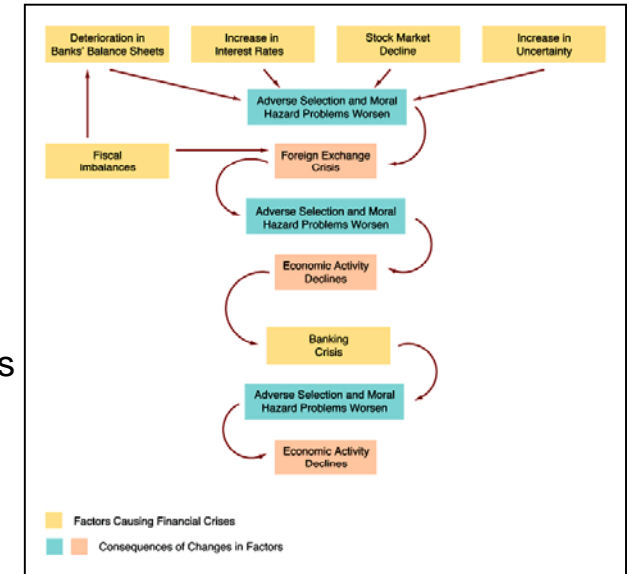
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Events in U.S. Financial Crises



Note: These lecture notes are incomplete without having attended lectures

Events in Mexican, East Asian, and Argentine Financial Crises



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