

# CHAPTER 8

## An Economic Analysis of Financial Structure

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- Provide an economic analysis of how our financial structure is designed to promote economic efficiency.
- Why financial contracts are written as they are.
- Why financial intermediaries (insurance co, pension funds, mutual funds) are more important than securities markets for getting funds to borrowers.
- Relationship between the financial sector and economic growth (the development of financial crisis).

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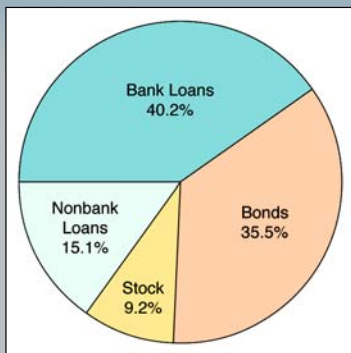
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### Sources of External Finance in U.S (outside the business itself)



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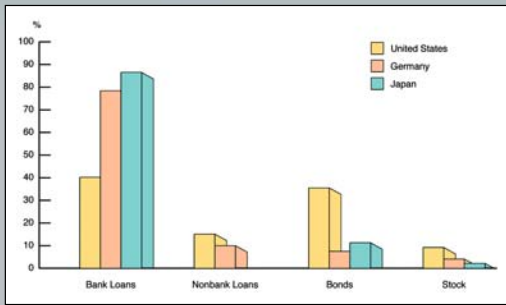
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## Sources of Foreign External Finance



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## Puzzles of Financial Structure

1. Stocks are not the most important source of external finance for businesses
2. Issuing marketable securities not primary funding source for businesses (Bonds + Stocks = less than half of fund sources)
3. Indirect finance (financial intermediation) is far more important than direct finance (direct is less than 10% of external funding)
4. **Banks are most important source of external finance**
5. Financial system is among most heavily regulated sectors of economy
6. Only large, well established firms have access to securities markets (individuals and small business go to banks)
7. Collateral is prevalent (dominant) feature of debt contracts
8. Debt contracts are typically extremely complicated legal documents with restrictive covenants

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- Important feature of Financial market is the presence of transaction costs and information costs (Asymmetric Information – Agency Theory).
- To understand the eight puzzles, let's provide an economic analysis of these costs.
- Later, we will study the impact of these costs on the structure of the financial system.

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## Transaction Costs and Financial Structure

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

**Financial intermediaries make profits by reducing transaction costs** (Explains Puzzle 3)

1. Take advantage of economies of scale (the reduction in transaction costs per dollar of investment as size of transaction increases)  
Example: Mutual Funds
2. Develop expertise to lower transaction costs

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## Information Costs and Financial Structure

### **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

### **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.

**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 (SEC)**  
**Explains Puzzle 5**
- 3. Financial Intermediation Explains Puzzles 3 and 4**
  - A. Analogy to solution to lemons problem provided by used-car dealers
  - B. Avoid free-rider problem by making private loans
- 4. Collateral and Net Worth (equity capital)**  
**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

### Tools to Help Solve the Principal-Agent Problem

1. Monitoring: production of information
2. Government regulation to increase information
3. Financial intermediation (venture capital firm – high tech)
4. Debt contracts (fixed interest regardless of profits)

*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 (legal document with restrictive provisions)
3. Financial intermediation  
Banks and other intermediaries have special advantages in monitoring

*Explains Puzzles 1–4.*

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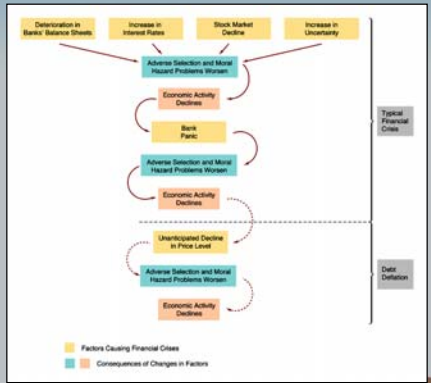
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# Events in U.S. Financial Crises




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