
An Economic Analysis of Financial Structure

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The Financial System

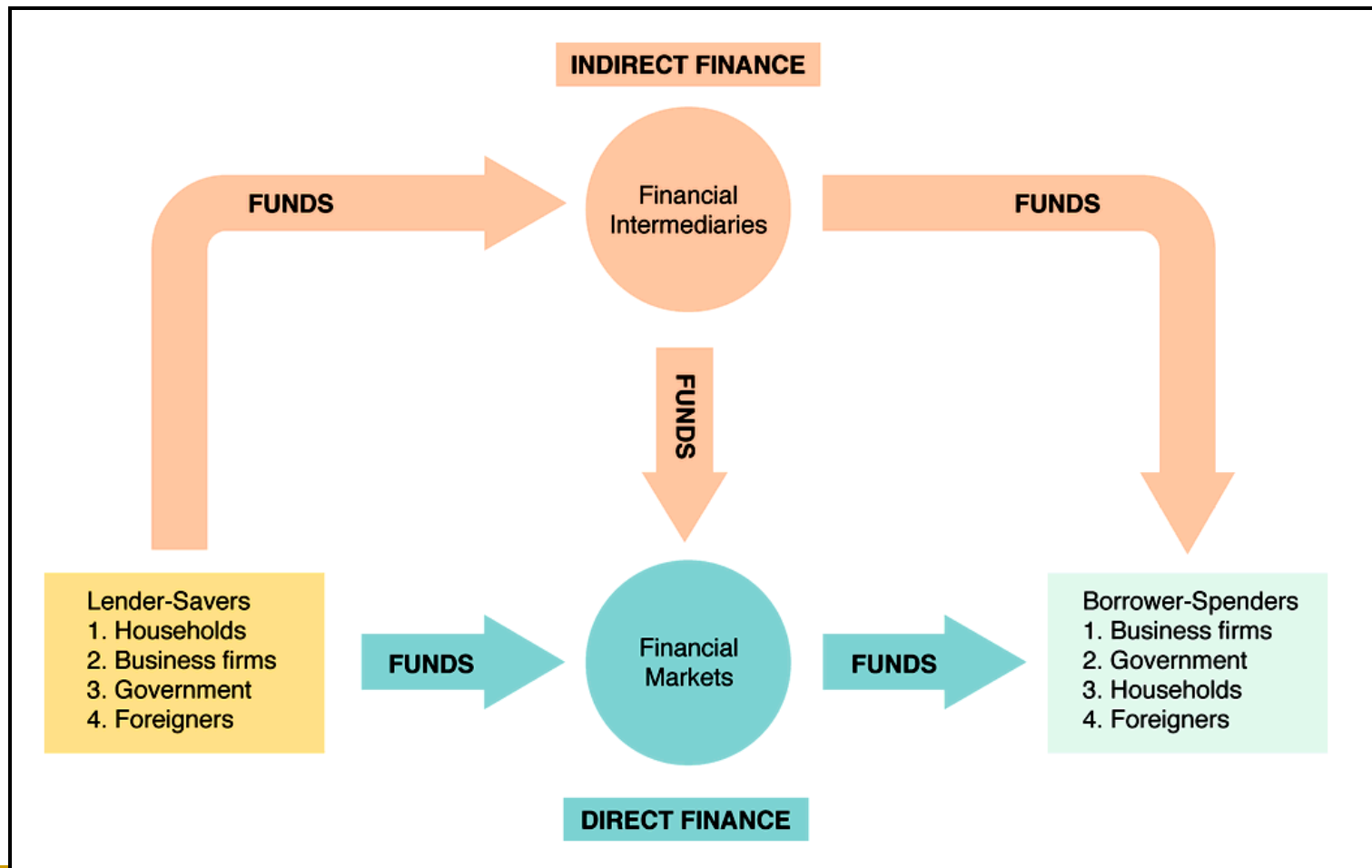
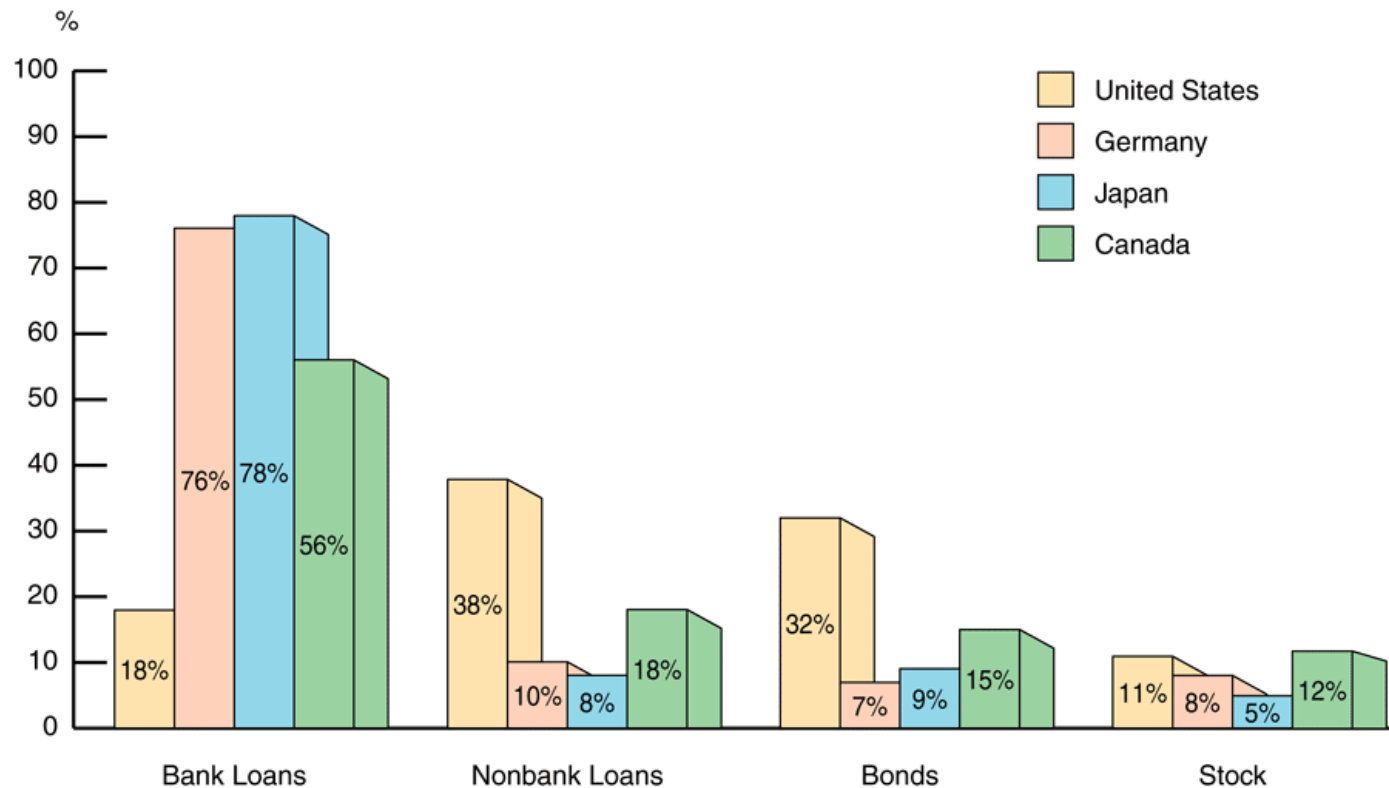


FIGURE 1 Sources of External Funds for Nonfinancial Businesses: A Comparison of the United States with Germany, Japan, and Canada



Source: Andreas Hackethal and Reinhard H. Schmidt, "Financing Patterns: Measurement Concepts and Empirical Results," Johann Wolfgang Goethe-Universität Working Paper No. 125, January 2004. The data are from 1970–2000 and are gross flows as percentage of the total, not including trade and other credit data, which are not available.

Eight Basic Facts (1)

1. Stocks are not the most important sources of external financing for businesses
 2. Issuing marketable debt and equity securities is not the primary way in which businesses finance their operations
 3. Indirect finance is many times more important than direct finance
 4. Financial intermediaries, particularly banks, are the most important source of external funds used to finance businesses.
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Eight Basic Facts (2)

5. The financial system is among the most heavily regulated sectors of the economy
 6. Only large, well-established corporations have easy access to securities markets to finance their activities
 7. Collateral is a prevalent feature of debt contracts for both households and businesses.
 8. Debt contracts are extremely complicated legal documents that place substantial restrictive covenants on borrowers
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Transaction Costs

- Financial intermediaries have evolved to reduce transaction costs
 - **Economies of scale:** the reduction in transaction costs per dollar of investment as the size of transactions increases
 - **Expertise**
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Asymmetric Information

- **Adverse selection** occurs before the transaction
 - **Moral hazard** arises after the transaction
 - Agency theory analyses how asymmetric information problems affect economic behavior
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Adverse Selection: The Lemons Problem

- If quality cannot be assessed, the buyer is willing to pay at most a price that reflects the average quality
 - Sellers of good quality items will not want to sell at the price for average quality
 - The buyer will decide not to buy at all because all that is left in the market is poor quality items
 - This problem explains fact 2 and partially explains fact 1
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Adverse Selection: Solutions (1)

- Private production and sale of information
 - Free-rider problem
 - Government regulation to increase information
 - Not always works to solve the adverse selection problem, explains Fact 5.
 - Financial intermediation
 - Explains facts 3, 4, & 6.
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Adverse Selection: Solutions (2)

- Collateral and net worth
 - Collateral: property promised to the lender if the borrower defaults
 - Net worth: the difference between a firm's assets and its liabilities
 - Explains fact 7.
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Moral Hazard in Equity Contracts

- Called the Principal-Agent Problem
 - Principal: less information (stockholder)
 - Agent: more information (manager)
 - Separation of ownership and control of the firm
 - Managers pursue personal benefits and power rather than the profitability of the firm
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Principal-Agent Problem: Solutions

- Monitoring (Costly State Verification)
 - Free-rider problem
 - Fact 1
 - Government regulation to increase information
 - Fact 5
 - Financial Intermediation
 - Fact 3
 - Debt Contracts
 - Fact 1
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Moral Hazard in Debt Markets

- Borrowers have incentives to take on projects that are riskier than the lenders would like.
 - This prevents the borrower from paying back the loan.



Moral Hazard: Solutions

- Net worth and collateral
 - Incentive compatible
 - Monitoring and Enforcement of Restrictive Covenants
 - Discourage undesirable behavior
 - Encourage desirable behavior
 - Keep collateral valuable
 - Provide information
 - Fact 8
 - Financial Intermediation
 - Facts 3 & 4
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Summary Table 1 Asymmetric Information Problems and Tools to Solve Them

Asymmetric Information Problem	Tools to Solve It	Explains Fact Number
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	Collateral and net worth	6, 7
	Monitoring and enforcement of restrictive covenants	8
	Financial intermediation	3, 4

Note: List of facts:

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.

Asymmetric Information in Transition and Developing Countries

- “Financial repression” created by an institutional environment characterized by:
 - Poor system of property rights (unable to use collateral efficiently)
 - Poor legal system (difficult for lenders to enforce restrictive covenants)
 - Weak accounting standards (less access to good information)
 - Government intervention through directed credit programs and state owned banks (less incentive to proper channel funds to its most productive use).
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Conflicts of Interest

- Type of moral hazard problem caused by economies of scope (applying one information resource to many different services).
 - Arise when an institution has multiple objectives and, as a result, has conflicts between those objectives
 - A reduction in the quality of information in financial markets increases asymmetric information problems
 - Financial markets do not channel funds into productive investment opportunities
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Why Do Conflicts of Interest Arise? (1)

- Underwriting and Research in Investment Banking
 - Information produced by researching companies is used to underwrite the securities issued by the same companies. The bank is attempting to simultaneously serve two client groups whose information needs differ.
 - Spinning occurs when an investment bank allocates hot, but underpriced, IPOs to executives of other companies in return for their companies' future business.
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Why Do Conflicts of Interest Arise? (2)

- Auditing and Consulting in Accounting Firms
 - Auditors may be willing to skew their judgments and opinions to win consulting business.
 - Auditors may be auditing information systems or tax and financial plans put in place by their non-audit counterparts within the firm.
 - Auditors may provide an overly favorable audit to solicit or retain audit business.
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Why Do Conflicts of Interest Arise? (3)

- Auditing and Consulting in Credit-Rating Firms
 - Conflicts of interest can arise when:
 - Multiple users with divergent interests depend on the credit ratings (investors and regulators vs. security issuers).
 - Credit-rating agencies also provide ancillary consulting services (e.g. advise on debt structure).
 - The potential decline in the quality of information negatively affects the performance of financial markets.
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