Overview of U.S. Financial Markets and Institutions

I. Major U.S. Financial Markets

- Financial markets may be separated into five categories:
  1) Money markets
  2) Bond markets
  3) Mortgage markets
  4) Equity (stock) markets
  5) Derivative markets

A. Money market instruments refer to bonds issued by governments and high credit quality firms that are one year or less in maturity and generally pay no coupons (zero-coupon bonds). A detailed reference of each of these instruments can be found in T. Cook and R. LaRoche, eds., (1993) Instruments of the Money Market, Federal Reserve Bank of Richmond, available at http://www.rich.frb.org/pubs/instruments/.

Types:

1) Treasury bills are auctioned by the U.S. Treasury with maturities of 91 and 182 days.

2) Commercial paper is unsecured debt with an average maturity of 30 days issued by large finance companies, bank holding companies, investment banks, or non-financial corporations.

3) Certificates of Deposit (CDs) are large 7 day to 12 month maturity time deposits issued by commercial banks, thrifts, U.S. branches of foreign banks (Yankee CDs), or banks in foreign countries (Euro-CDs). An important benchmark rate based on the interest rates of (London) Euro-CDs is referred to as the London Interbank Offer Rate (LIBOR).

4) Federal Funds are inter-bank short-term (usually overnight) borrowings of reserves.

5) Repurchase Agreements (Repos) are short-term borrowings that are secured (collateralized) by another money market instrument.

B. The bond market includes fixed-income securities issued by governments and corporations.

Types:

1) Treasury notes are federal government debt with a maturity from 2 to 10 years.

2) Treasury bonds are federal government debt with a maturity greater than 10 years.

3) Corporate notes and bonds are fixed or floating coupon debt issued by private firms.
4) Municipal bonds are issued by state or local governments whose coupon income is exempt from federal taxes.

C. The mortgage market refers to loans secured by residential (75%) or commercial (25%) real estate.

Over one-half of U.S. mortgage loans are securitized: mortgage loans are sold by the originating bank to a special purpose corporation (or "grantor trust") that pools these loans and obtains funds by issuing publicly traded securities.

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D. The equity or stock market refers to securities that represent ownership shares in corporations. Equityholders receive dividend payments which, over the longer-run, reflect the firm's earnings.

*Primary* stock and bond markets refer to firms offering securities for sale to the public. Investment bank underwriters help to market these securities to potential investors.

*Secondary* stock and bond markets refer to the trading between investors of outstanding securities, either on a securities exchange or “over-the-counter” (computer-linked market).

E. Derivative securities have payoffs that are linked to the value of commodities, currencies, securities, or security indices. They include forward, futures, options, and swap contracts.

Derivative securities can be traded at an organized futures or options exchange or, increasingly, in an “over-the-counter” market (a market where large banks act as dealers and provide customized derivative contracts to their customers).

II. Major Types of U.S. Financial Institutions

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<td>Mortgages</td>
<td>Time Deposits (CDs)</td>
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<td>Consumer Loans</td>
<td>Other Debt</td>
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<td>Government Securities</td>
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<td>Thrift Institutions</td>
<td>Mortgages</td>
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<td>Consumer Loans</td>
<td>Savings Deposits</td>
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<td>Checkable Deposits</td>
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<td>Net Worth or Equity</td>
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<td>Credit Unions</td>
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<td></td>
<td>Government. Securities</td>
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<td>Type</td>
<td>Primary Assets</td>
<td>Primary Liabilities</td>
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<tr>
<td>B. Contractual Savings Institutions</td>
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<td>• Life Insurance Companies</td>
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<td>Corporate Stocks</td>
<td>Net worth or equity</td>
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<td>Companies</td>
<td>Corporate Stocks</td>
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<td>Government Securities</td>
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<td>Employees' Pension Benefits</td>
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<td>Pension Funds</td>
<td>Corporate Bonds</td>
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<tr>
<td></td>
<td>Government Securities</td>
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</tbody>
</table>

Types of pension funds:
1) **Defined-benefit**: an employee’s promised pension benefits are determined by formula that usually depends on salary and years of service, not the returns earned by the pension fund’s assets.
2) **Defined-contribution**: an employee’s pension benefits depend on the contributions made to his pension fund account and the returns earned by the pension fund’s assets.

C. Other Financial Institutions

| • Finance Companies                       | Consumer Loans                   | Commercial Paper                   |
|                                           | Business Loans                    | Other Debt                          |
|                                           | Mortgages                         | Equity                              |
| • Investment Banks                        | Corporate Stocks and Bonds        | Client Credits                      |
|                                           | Government Securities             | Loans from Banks                    |
|                                           | Business Loans                    | Commercial Paper                    |
|                                           |                                   | Other Debt and Equity               |

Investment banking activities:
1) Underwriting securities
2) Securities brokerage, dealing, and trading for own account (proprietary trading).
3) Mergers and acquisitions advice and financing.

• Venture Capitalists                     | Debt and Equities of              | Equity of partners                  |
|                                           | Start-up Firms                    | Debt                                |

• Mutual Funds                            | Corporate Stocks                  | Equity Shares                        |
|                                           | Corporate Bonds                   |                                    |
|                                           | Government Securities             |                                    |

Types of mutual funds:
1) **Open-end**: the fund redeems or issues shares on demand at the fund’s net asset value
2) **Closed-end**: the fund does not redeem or issue shares on demand. Shares of fund trade on a secondary (stock) market.
As of 2002Q3, of the total amount of assets in U.S. (worldwide) mutual funds, 43% (37%) were in equity mutual funds, 35% (28%) were in money market mutual funds, 17% (23%) were in bond mutual funds, and 5% (12%) were in hybrid debt/equity funds.

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<tr>
<th>Type</th>
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<th>Primary Liabilities</th>
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</thead>
<tbody>
<tr>
<td>Money Market Mutual Fund</td>
<td>Money Market Securities</td>
<td>Checkable Equity Shares</td>
</tr>
<tr>
<td>Exchange Traded Fund</td>
<td>Stocks or Bonds of an Index</td>
<td>Traded Equity Shares that can also be redeemed for underlying assets. Shares can also be created by delivering the underlying assets.</td>
</tr>
<tr>
<td>Hedge Fund</td>
<td>Long and Short Positions in securities</td>
<td>Equity Shares of Private Investors Debt</td>
</tr>
<tr>
<td>(Quasi-) Federal Government Agencies</td>
<td>Mortgages (FNMA, GNMA) Agricultural Loans (FHA) Small Business Loans (SBA) Students Loans (SLMA)</td>
<td>Debt Net Worth or Equity</td>
</tr>
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</table>

III. Some Recent Issues Affecting Financial Institutions

A. *Firms' shift toward public security issuance from bank loan financing*

   Improvements in information technologies (computers, telecommunications) have given potential investors greater amounts of low cost credit information on greater numbers of firms. This has allowed investors to better judge the credit risk of firms, leading to firms being able to issue securities at more attractive prices. Examples include the commercial paper market and the high-yield bond (junk bond) market. This has decreased commercial banks' market share of corporate financing. Commercial banks are often at a disadvantage relative to other financing alternatives because bank regulations, such as capital requirements and reserve requirements, can raise banks' cost of funding loans using deposits.

B. *Loan selling (asset securitization)*

   Banks that face relatively high costs of funding loans using deposits (because of the additional regulatory costs), can sometimes find an alternative method of funding the loans they originate. This involves raising funds by selling loans to other investors. Thus funds obtained from loan buyers are not considered deposits and, therefore, are not subject to costly capital or reserve requirements.

   Loan sales have been primarily successful with short-term loans to well-known firms, and pools of consumer loans, such as mortgages, automobile loans, and credit card receivables.
C. Expansion of commercial bank activities versus reducing deposit insurance losses

Greater competition from public security markets and non-bank lenders (e.g., finance companies and insurance companies) has decreased the profitability of banks’ traditional lending activities. Banks have responded by lobbying government officials for the right to provide other financial services, such as corporate securities underwriting, money management (mutual funds), dealing in derivative securities (swaps, options, futures), and insurance services. Until the Gramm-Leach-Bliley Act of 1999 was passed, government officials had been reluctant to grant new powers to banks for fear that this would increase the risk of banking and increase deposit insurance losses. A long-run solution to this conflict may be allowing greater powers to bank holding companies that segregate these new activities into separate subsidiaries that do not issue insured deposits (but uninsured debt and equity). Deposit insurance would only be provided to a bank holding company’s subsidiary that is restricted to invest in a set of narrow, relatively safe, activities.

IV. U.S. Financial Regulation, Past and Present

- National Banking Act of 1863
  - Created Office of the Comptroller of the Currency (OCC) to charter and supervise National Banks, which had to hold reserves in Treasury bonds to help finance the Civil War.
  - Individual states already chartered and supervised their own banks. Thus, a "Dual Banking System" was begun.

- 1913 Federal Reserve Act
  - Fed given power to supervise Federal Reserve member banks with state charters. OCC continued to supervise all National Banks which were required to become members of the Federal Reserve.

- McFadden Act of 1927
  - National Banks restricted to branching in the same manner as state banks in the state which they were located.
  - Until recently states restricted branching across state lines.

- Banking Act of 1933 & 35 (Glass-Steagall)
  - Created FDIC (required of all Fed members, option of others) which is the primary supervisor of non-Fed member banks.
  - More restrictive chartering requirements and capital adequacy standards for FDIC members. End of "free-banking."
  - Interest rate restrictions on deposits, "Regulation Q"
  - Separation of Investment and Commercial banking. Investment banks could not accept deposits.
  - Types of assets and activities of commercial banks restricted. For example, no underwriting or dealing in non-government securities.

- Securities Act of 1933, 1934
  - Created the Securities and Exchange Commission (SEC) which was given broad powers to regulate the sale of new corporate securities as well as secondary market trading.
  - Investment bank underwriting of securities subject to registration and disclosure requirements.

  - Sets requirements for disclosure, organization, and management of mutual funds.
  - 1970 amendments modified rules for management fees and sales commissions of funds.

- McCarran-Ferguson Act of 1945
- Exempted property/casualty insurers from anti-trust restrictions on sharing pricing information, but subjected them to state-controlled premium setting.

  - To get around interstate banking restrictions, BHC's were formed after WWII. The Fed was put in charge of these BHC's, and given power to specify in which activities BHC subsidiary could engage.
  - Douglas Amendment prohibited a BHC from acquiring a bank in another state unless that state authorized acquisition.
  - 1970 amendment also put "one bank BHC's" under Fed's supervision, which were not covered by 1956 law. (BHC's control approximately 90% of deposits in U.S.).

  - Regulatory agency responsible for regulation and monitoring of futures markets. Also regulates markets for options written on futures contracts. (SEC regulates other options markets.)

- Depository Institutions Deregulation and Monetary Control Act (DIDMCA) of 1980
  - Uniform reserve requirements for all depository institutions: 12% for transactions accounts, 0% for personal time deposits, 3% for non-personal short-term time deposits and C.D.'s.
  - Fed services priced at cost.
  - Gradual elimination of deposit interest rate ceilings.
  - Allowed commercial banks, thrifts, mutual savings banks to provide many of the same services. (e.g. offer demand deposits, make commercial loans, mortgages.)

- Garn-St. Germain Depository Institutions Act of 1982
  - Accelerated removal of interest rate ceilings. MMDA's and NOW's
  - FDIC and FSLIC given expanded powers to deal with bank failures.

- Federal Reserve Board's Permission of Commercial Bank Underwriting (1980s-1990s)
  - Certain BHC's given permission to carry out securities business in a subsidiary so long as that subsidiary is not "principally engaged" in dealing in or underwriting securities banned by Glass-Steagall. (Currently: Subsidiary's revenue from corporate underwriting is limited to 25 percent.)
  - Morgan Guarantee first bank to be given permission to underwrite corporate stock and bonds, 9/90.

- Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA) of 1989
  - Abolished Federal Home Loan Bank Board and FSLIC and created Office of Thrift Supervision to regulate thrifts. FDIC took over control of deposit insurance for thrifts.
  - Raise at least $50 billion over three years by issuing 30 years bonds through a new agency, the Resolution Trust Corporation. (This is on top of approximately $50 billion already spent to resolve failed thrifts. The cost to taxpayers was approximately $60 billion, with the savings industry paying $66 billion through higher deposit insurance premiums.
  - Capital standards toughened for Savings and Loans so that they equal those of commercial banks.

- Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991
  - Authorized the FDIC to borrow an additional $70 billion to resolve bank failures.
  - Set a series of (book-value) capital levels that mandate regulatory action, such as disallowance of brokered deposits, limiting rate of growth, elimination of dividends, forcing a new stock issue, or firing management. Banks required to be closed when capital falls below 2% of assets.
  - After 1/1/95, uninsured deposits (domestic > $100.00 and all foreign branch deposits) cannot be "de facto" insured during a bank failure unless approval given by Treasury Secretary, 2/3rds of FDIC Directors, and 2/3rds of Federal Reserve Board of Governors.
- FDIC must draw up and implement by 1/1/94 a deposit insurance system that links an individual bank's premium to its risk.
- Security firms given direct access to Fed Discount Window during financial distress.

  - Allows bank holding companies to acquire banks in any other state starting in October 1995.
  - Allows mergers between banks located in states starting in June of 1997. The act will allow interstate banking organizations to consolidate into a single branch network and provide for a uniform standard for interstate expansion.

- Gramm-Leach-Bliley Act of 1999
  - Repealed many provisions of the Glass-Stegall Act that had separated commercial banking and investment banking activities.
  - A bank holding company can convert to a financial services holding company to offer a variety of financial activities in separately capitalized subsidiaries. These include lending, insurance underwriting, securities underwriting and dealing, and financial advice services. However, only traditional banking activities, such as lending, can be housed in subsidiaries that issue insured deposits.
  - National banks may set up financial subsidiaries that engage in a number of investment banking activities, such as securities underwriting, that are not allowed by regular commercial banks. These subsidiaries could be financed by insured deposits but only well-capitalized banks would be permitted to set up such subsidiaries, and they would be more tightly regulated.

- International Banking Regulation
  A. Activities of U.S. Banks
    - Besides conducting int'l transactions from their U.S. (domestic) offices, banks can establish foreign branches subject to approval of state regulatory authorities, or if bank is a Fed member, by permission from the Fed. In general, with Fed's permission, a foreign branch can offer services permitted in foreign country that may not be permitted in U.S., for example, securities underwriting.
    - U.S. banks can own a foreign bank, creating a subsidiary called an "Edge Act Corporation" (previous to 1919 Edge Act, ownership of foreign banks not permitted). An E.A.C. is allowed to have branches in any U.S. city, but may only conduct transactions directly linked to int'l trade.
    - In 1981, Fed granted U.S. banks right to establish International Banking Facilities: a domestic "free-trade" zone for carrying out Eurocurrency business. Only int'l transactions of accepting deposits from non-U.S. citizens and making overseas loans free from U.S. reserve requirements and local taxes are permitted in these subsidiaries. Reflects an attempt to recoup business that left U.S. to be carried out at "off-shore branches."

  B. Activities of Foreign Banks in U.S
    - Int'l Banking Act of 1978: foreign banks permitted similar activities of domestic BHC's as specified in BHC Act and McFadden Act. Foreign banks forced to declare a "home" state, but could establish EAC branches.
    - Foreign Bank Supervision Act of 1991: passed as part of FDICIA in response to BCCI failure. Foreign banks must demonstrate to Fed that they are subject to comprehensive supervision and regulation on a consolidated basis from their home country regulator prior to opening a U.S. office.

  C. General Characteristics of Bank Regulation in Foreign Countries
    - Similar to U.S. in that it was previously highly regulated, but regulation is being gradually dismantled, since it is seen as a hindrance to their domestic institutions' ability to compete in world financial markets.
    - Dissimilar to U.S. in that banking is much more concentrated, much fewer number of banks.
• Risk-Based Capital Standards

Definition of Bank Capital:

Tier 1 (Core Capital) = Fully paid in shareholders' equity and retained earnings + Qualifying perpetual preferred stock (< 25%)

Tier 2 (Supplementary Capital) = Subordinated debt (< 50% of tier 1) + perpetual preferred + certain hybrid debt/equity instruments + loan loss reserves (< 1.25% of risk-weighted assets)

Tier 1 plus Tier 2 Capital must be a minimum of 8% of a bank’s risk-weighted assets. Tier 1 Capital must be a minimum of 4 percent of a bank’s risk-weighted assets.