Japanese Capital Market

The objectives of the chapter are to provide an understanding of:

- Financial system reforms.
- The banking sector.
- Japanese government bonds.
- Corporate debt markets.
- Stock markets.
- The mutual fund business.

Market Overview

- Is the world's third largest economy and capital market
- Has experienced a decade-long economic recession and depressed securities markets after the bubble economy collapsed.
- Bad real estate loans seriously deteriorated the capital bases of borrowers and financial institutions that lent to them.

Comprehensive Plan for Financial Revitalization

- Implemented to revitalize the financial system and help the banks recover from their bad loans.
  - Created the Financial Supervisory Agency to serve as a watchdog for Japan's banks.
  - Established new full disclosure standards, comparable to those adopted by the U.S. SEC.
  - Allocated 30 trillion yen ($250 billion) to serve as deposit guarantees.

The Big Bang Reforms

- Three principles provided the foundation for these reforms:
  - **Free**—The promotion of free competition to ensure that the market determines the cost of services.
  - **Fair**—The full and timely disclosure of material information to ensure that the playing field is the same for all participants.
  - **Global**—The adoption of global standards in law, accounting, and taxation to ensure that Japanese companies can compete successfully in the increasingly integrated global capital marketplace.

The Big Bang Reforms

- Reforms focused on four general areas:
  - Deregulation of financial products to give borrowers and investors more choice.
  - Promotion of free competition by allowing more direct competition and financial and banking products.
  - Lifting of restrictions on brokers and dealers and provided more diverse markets.
  - Establishment of a reliable framework and rules for fair and transparent transactions and accounting standards.

The Banking Sector

- City banks
  - Are based in large cities and having nationwide branch networks.
  - Traditionally provided short-term funds to large corporations.
  - Were the only banks licensed to conduct foreign exchange.
  - Get their sources of funding from borrowings from the Bank of Japan, the interbank market, and corporate deposits.

The Banking Sector (cont'd)

- Regional banks
  - Provide financing within their prefectures (administrative districts) to small and medium-sized corporations and individuals.
  - Provide interbank loans on the call market to city banks.
- Trust banks
  - Are licensed to engage in banking and trust activities.
  - Obtain their funding from individual and corporate deposits held in trusts.

The Banking Sector (cont'd)

- Long-term credit banks
  - Provide long-term funding to corporations.
  - Have authorization to issue debentures, but they cannot take deposits from borrowers or the government.

Recent Problems in the Banking Sector

- Bad loans and the stock market's prolonged decline
- The Japanese government's power over the banking sector in directing banks to fund targeted firms
  - "Keiretsu": a conglomerate of Japanese businesses that cooperate to achieve common goals.

Japanese Government Bonds

- Characteristics of the benchmark issue:
  - A coupon rate close to the prevailing market rate
  - A large outstanding amount
  - A wide distribution
  - A current maturity of close to 10 years
- Bond auctions
  - Conducted as competitive bidding
  - High coverage ratio of bids to bonds auctioned

The Banking Sector (cont'd)

- Foreign-owned bank branches
  - Are similar to city banks or regional banks.
  - Account for an insignificant share of the market, but are quite active in the derivatives market.
  - Have permission to compete freely with Japanese banks.
- City banks, regional banks, and foreign bank branches together are known as "ordinary banks."

Types of Japanese Government Securities

Type	Maturity	Issuing Frequency
Treasury bills	3-month,6-month,1-year	Monthly
Discount bonds	3-year	Bimonthly
Medium-term bonds	2-year,5-year and 10-year	Monthly
Long-term bonds	15-year	Quarterly
	20-year	Every other month
	30-year	Semiannual

TABLE 18.1

Japanese Yield Curve (February 4, 2003)

Japanese Government Bills/Bonds

	Coupon (%)	Maturity Date	Price (% of par)	Yield (%)
3 months	0.000	05/06/03	100.000	0.002
6 months	0.000	07/10/03	99.999	0.002
1 year	0.100	03/22/04	100.078	0.029
2 years	0.100	02/20/05	100.099	0.050
5 years	0.300	12/20/07	100.124	0.274
10 years	0.900	12/20/12	100.381	0.858
15 years	2.600	03/20/18	119.987	1.064
20 years	1.700	12/20/22	105.431	1.353
30 years	1.400	12/20/32	96.958	1.549

Source: Bloomberg (http://www.bloomberg.com/markets/japan.html).

TABLE 18.2

Growth of Corporate Debt Markets

- **Reasons for growth:**
  - **An increase in corporations turning to the debt markets for their financing needs.**
  - **Low interest rate environment that has prevailed in Japan during the 1990s and 2000s.**
  - **Increased interest in maintaining a high credit rating.**
  - **Introduction of shelf registration**
  - **The popularity of equity-linked securities such as convertible bonds and bonds with warrants.**
  - **An increase in structured deals such as dual-currency bonds and callable bonds.**
  - **International issuance has also increased.**

Foreign Bonds

- Samurai bonds
  - Yen-denominated bonds issued in the Japanese market under domestic regulations.
  - Non–Japanese borrowers use samurai bonds to hedge against foreign exchange risk.
  - Foreign institutions tap into the samurai market and simultaneously swap the issue into another currency to take advantage of the lower costs of funding in Japan.

Yield Quotes

- Japanese bond market yields are quoted on a simple yield-to-maturity basis.
  - Calculate the yield as follows:

$$y = \frac{c \times F + \dfrac{F - P}{M}}{P}$$

Where
y = simple yield,
c = annual coupon rate,
F = par amount,
P = clean price, and
M = years to maturity.

Stock Markets

- Tokyo Stock Exchange (TSE)
  - The largest exchange in Japan, accounting for 85% or more of trading volume in recent years.
- Osaka Securities Exchange
- Japanese Association of Securities Dealers Automated Quotations (Jasdaq)
  - Integrates computerized trading of over-the-counter (OTC) securities.

Milestones in the Growth of the Tokyo Stock Exchange

1951	Margin trading introduced
1956	Bond trading started
1966	Japanese government bonds listed for the first time since World War II
1969	Tokyo Stock Price Index (TOPIX) introduced
1970	Trading in convertible bonds began
1971	Book-entry clearing system for stocks introduced
1973	Yen-denominated foreign bonds listed and foreign stock section opened
1977	Ad valorem brokerage commission system introduced
1982	Computer-assisted Order Routing and Execution System introduced
1985	Trading in 10-year government bond futures started
1988	Trading in TOPIX futures started
1989	Trading in TOPIX options and U.S.T-bond futures started

Source: Tokyo Stock Exchange.

TABLE 18.3a

Milestones in the Growth of the Tokyo Stock Exchange (cont'd)

1990	**Trading in options on government bond futures started and Floor Order Routing and Execution System introduced**
1991	**Central Depository and Clearing System began operation**
1994	**Partial deregulation of commission schedule**
1997	**Equity options introduced**
1998	**Partial deregulation of brokerage commissions and abolition of restriction on off-exchange trading for listed securities**
1999	**Liberalization of brokerage commissions,abolition of the fixed number of members, and establishment of Market of High Growth and Emerging Stocks**
2000	**Hiroshima and Niigata stock exchanges merge into TSE**
2001	**Tokyo Stock Exchange established after demutualization of TSE**

Source: Tokyo Stock Exchange.

TABLE 18.3b

TSE Listing Requirements for Stocks

- Listing of domestic stocks
  - File a registration statement with the Ministry of Finance (MOF).
  - Must disclose specified matters in annual reports filed with the ministry.
  - Must meet specific requirements as to the number of shares, number of shareholders, history of incorporation, shareholder’s equity, and dividends.
  - Must pass a TSE examination and gain approval of the MOF to be accepted by TSE for listing.

TSE Listing Requirements for Stocks (cont'd)

- Listing of foreign stocks
  - Pass a listing examination by the TSE
  - Once accepted, foreign companies are assigned to the Foreign Section at the exchange.
  - Few foreign stocks are listed and their numbers have declined.

Futures Trading

- Futures trade at the Tokyo Stock Exchange and the Tokyo International Financial Futures Exchange
- Japanese government bond (JGB) futures
  - Contracts to trade the underlying bond at a set point in the future for an agreed price.
    - Three-month Euroyen futures
    - Three-month Euroyen LIBOR futures
    - Options on three-month Euroyen futures
    - U.S. dollar-Japanese yen currency futures.

The Mutual Fund Business

- Bond funds and money market funds are the most important segments of the mutual fund industry in Japan.
  - Unit investment trusts
    - Have closed periods during which there are no new investments or redemptions.
  - Open-end funds
    - Accept continuous inflows of money and redemptions.
- The stock market downturn since 1990 has caused investors to switch from equity funds to bond funds.

Emerging Capital Markets

The objectives of the chapter are to provide an understanding of:

- Risk factors of emerging markets.
- Emerging market debt instruments, especially Brady bonds.
- Emerging market indexes and derivatives.
- The crises in Mexico, Southeast Asia, Russia, and Brazil.

Market Overview

- Emerging market
  - The securities markets of a developing country and the use that country makes of international capital markets.
- Characteristics emerging markets:
  - A low per capita gross domestic product
  - Recent liberalization of economic and political systems
  - A lack of well-developed capital market
  - Nonmembership in the Organization of Economic Cooperation and Development (OECD)

Risk Factors

- Primary investment risks of emerging markets:
  - Volatility risk (sudden flight of capital out of market)
  - Risk of contagion effects (spillover of problems in other markets)
  - Liquidity risk (underdeveloped market mechanisms)
  - Clearance and settlement risk (lack of trading controls)
  - Political risk (political corruption and social unrest)
  - Currency risk (inflation and currency devaluation)
  - Limited disclosure and property rights (lack of a legal infrastructure to protect investors)

Emerging Market Debt: Brady Bonds

- Brady bonds
  - Securities issued 1990-97 to solve the debt crisis of developing countries who had borrowed heavily for development purposes and could not repay the loans.
  - Bank loans were converted to Brady bonds and imposed financial conditions and IMF-mandated reforms.
  - U.S. government bonds back most Brady bonds as some guarantee of payment.

Converting Bank Loans to Brady Bonds

- Alternatives for restructuring loan debt:
  - Exchange loans at face value for new 30-year par bonds that paid below-market fixed interest rates.
  - Convert loans into new 30-year bonds that carried a discount from face value (usually a 35% discount) and paid a floating interest rate of LIBOR+13/16%.
  - Carry the principal amount of the loans while providing new lending of at least 25% of the old loans over several years.

    (The bonds issued under the first and second alternatives were the Brady bonds.)

Brady Bonds (cont'd)

- Types of Brady bonds
  - Par bonds
    - Fixed-rate, long-term bonds issued at par.
  - Discount bonds
    - Floating-rate, long-term bonds issued at a discount.
  - Front loaded interest reduction bonds
    - Medium-term step-up bonds that pay below-market interest rates for the initial five to seven years, and then pay a floating rate until maturity.
  - Debt conversion bonds
    - Short-term floating-rate bonds issued without collateral.

Brady Bonds (cont'd)

- Types of Brady bonds
  - Interest arrears capitalization bonds
    - Short-term floating-rate bonds that represent the rescheduled interest in arrears on Brazilian, Argentine, and Ecuadorian debt.
    - Bonds capitalize (add to principal) the interest difference between the current step coupon rate and the notional 8 percent such that interest accrues on both the principal and any capitalized interest.
    - Both capitalized interest and principal payments are made after a 10-year grace period.

Sovereign Foreign Currency Ratings: Bonds and Notes (2003)

Country	Long-term	Short-term
Argentina	CA	NP
Brazil	B2	NP
Bulgaria	B1	NP
Chile	Baa1	P-2
China	A3	P-2
Colombia	Ba2	
Croatia	Baa3	P-3
Czech Republic	A1	P-1
Dominican Republic	Ba2	NP
Ecuador	Ba1	NP
Egypt	Ba1	NP
Hong Kong	A3	P-1
Hungary	A1	P-1
India	Ba1	NP
Indonesia	B3	NP
Jordan	Ba3	NP
Kazakstan	Baa3	NP
Korea	A3	P-2
Latvia	A2	P-1

Country	Long-term	Short-term
Lithuania	Baa1	P-2
Mexico	Baa2	P-2
Pakistan	B3	NP
Panama	Baa1	P-2
Peru	Ba3	NP
Philippines	Ba1	NP
Poland	A2	P-1
Romania	B1	NP
Russia	Ba2	NP
Singapore	Aaa	P-1
Slovak	A3	P-2
Slovenia	Aa3	P-1
South Africa	Baa2	P-2
Taiwan	Aa3	P-1
Thailand	Baa3	NP
Turkey	B1	NP
Uruguay	B3	NP
Venezuela	Caa1	NP

Source:Ratings List: Government Bonds and Country Ceilings, Moody's, February 2003.

TABLE 19.1

Emerging Market Indexes

- Standard & Poor's Emerging Market Data Base (EMDB)
  - Provides information and indexes on stock markets in developing countries.
    - Global (S&P/IFCG) index for securities without accounting for the stock's availability to foreign investors.
    - Investable (S&P/IFCI) index screens stocks for foreign ownership restrictions,factoring in minimum market capitalization and liquidity.
    - Frontier (S&P/IFCG Frontier) index covers small and illiquid securities.

Emerging Market Derivatives

- The Chicago Mercantile Exchange
  - Options contracts on Brady bonds
    - Mexican par bonds
    - Argentine floating-rate bonds
    - Brazilian C-bonds
    - Brazilian eligible interest bonds
  - Options on country indexes
    - Mexican IPC Stock Index Options
    - Dow Jones Taiwan Stock Index Options

Mexico’s Peso Crisis

- Economic problems leading to the crisis:
  - A widening income inequality in Mexico
  - Mexico’s account deficit (6.5 percent of GDP)
  - Economic growth slowing to less than 1 percent
  - Political and social unrest
  - Capital flight out of the stock market and the country
  - Currency speculation in the peso market
  - Abandonment of the “crawling peg” exchange rate policy for a floating exchange rate policy

Asian Financial Crisis

- Factors precipitating the crisis:
  - Appreciation of the U.S. dollar against the yen
  - Devaluation of the Chinese yuan
  - Large current account deficits
  - High levels of short-term offshore debt
  - Overvalued currencies
  - Lax regulation of financial markets
  - A speculative real estate market bubble
  - Overcapacity in key export industries
  - Corruption in government and financial circles

Russia Financial Crisis

- Factors in the crisis:
  - Withdrawal of funds from developing countries
  - High level of external debt
  - Heavy dependency on exports of raw materials
  - Overvalued ruble (currency)
  - Default on offshore debts.
- Resolving the Crisis
  - London Club: private creditors holding Russian debt
  - Paris Club: Sovereign creditors (governments) holding Russian debt

Brazil's Real Devaluation

- Factors in the Brazilian crisis:
  - Growing current account deficit
  - Ballooning debt
  - Growing fiscal budget deficit
  - Creditor reluctance to roll over short-term debt
  - Capital flight out of the foreign exchange
  - Severe rapid declines in the *Bovespa* stock market
  - Refusal of internal states to service their debts
  - Rapid devaluation of the real (currency)