Chapter Objective:
This chapter continues discussion of international capital markets with a discussion of the structure of the international bond market.

Chapter Outline
- The World’s Bond Markets: A Statistical Perspective
- Foreign Bonds and Eurobonds
- Types of Instruments
- Currency Distribution, Nationality, Type of Issuer
- International Bond Market Credit Ratings
- Eurobond Market Structure & Practices
- International Bond Market Indices

A Statistical Perspective:

<table>
<thead>
<tr>
<th>Currency</th>
<th>(U.S. $ billions)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Dollar</td>
<td>22,423.2</td>
<td>43.6</td>
</tr>
<tr>
<td>Euro</td>
<td>13,270.9</td>
<td>25.8</td>
</tr>
<tr>
<td>Yen</td>
<td>8,633.6</td>
<td>16.8</td>
</tr>
<tr>
<td>Other</td>
<td>7,068.1</td>
<td>13.8</td>
</tr>
<tr>
<td>Total</td>
<td>51,395.8</td>
<td>100</td>
</tr>
</tbody>
</table>

The World’s Bond Markets: A Statistical Perspective:
- The total market value of the world’s bond markets are about 50% larger than the world’s equity markets.
- Most issues are denominated in U.S. dollars, euro and Japanese yen.

Amounts of Domestic and International Bonds Outstanding

<table>
<thead>
<tr>
<th>Currency</th>
<th>Domestic</th>
<th>International</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. dollar</td>
<td>$17,930.7</td>
<td>$4,492.5</td>
<td>$22,423.2</td>
</tr>
<tr>
<td>Euro</td>
<td>$8,436.4</td>
<td>$4,834.5</td>
<td>$13,270.9</td>
</tr>
<tr>
<td>Pound</td>
<td>$1,274.6</td>
<td>$778.7</td>
<td>$2,053.3</td>
</tr>
<tr>
<td>Yen</td>
<td>$8,145.0</td>
<td>$488.6</td>
<td>$8,633.6</td>
</tr>
<tr>
<td>Other</td>
<td>$4,506.6</td>
<td>$508.2</td>
<td>$5,014.8</td>
</tr>
<tr>
<td>Total</td>
<td>$40,293.3</td>
<td>$11,102.5</td>
<td>$51,395.8</td>
</tr>
</tbody>
</table>
Amounts of Domestic and International Bonds Outstanding

<table>
<thead>
<tr>
<th>$</th>
<th>0</th>
<th>10,000</th>
<th>20,000</th>
<th>30,000</th>
<th>40,000</th>
<th>50,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. dollar</td>
<td>Domestic</td>
<td>International</td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Euro</td>
<td>0%</td>
<td>5%</td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pound</td>
<td>0%</td>
<td>15%</td>
<td>20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yen</td>
<td>0%</td>
<td>25%</td>
<td>30%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>35%</td>
<td>40%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0%</td>
<td>50%</td>
<td>60%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Domestic and International Bonds Outstanding

<table>
<thead>
<tr>
<th></th>
<th>U.S. dollar</th>
<th>Euro</th>
<th>Pound</th>
<th>Yen</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>0%</td>
<td>10%</td>
<td>20%</td>
<td>30%</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>International</td>
<td>0%</td>
<td>15%</td>
<td>25%</td>
<td>35%</td>
<td>45%</td>
<td>55%</td>
</tr>
<tr>
<td>Total</td>
<td>0%</td>
<td>25%</td>
<td>45%</td>
<td>65%</td>
<td>85%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Foreign Bonds and Eurobonds

- Bearer Bonds and Registered Bonds
- National Security Registrations
- Withholding Taxes
- Recent Regulatory Changes
- Global Bonds

Bearer Bonds and Registered Bonds

- Bearer Bonds are bonds with no registered owner. As such they offer anonymity but they also offer the same risk of loss as currency.
- Registered Bonds: the owners name is registered with the issuer.
- U.S. security laws require Yankee bonds sold to U.S. citizens to be registered.

National Security Registrations

- Yankee bonds must meet the requirements of the SEC, just like U.S. domestic bonds.
- Many borrowers find this level of regulation burdensome and prefer to raise U.S. dollars in the Eurobond market.
- Eurobonds sold in the primary market in the United States may not be sold to U.S. citizens.
- Of course, a U.S. citizen could buy a Eurobond on the secondary market.

Withholding Taxes

- Prior to 1984, the United States required a 30 percent withholding tax on interest paid to nonresidents who held U.S. government or U.S. corporate bonds.
- The repeal of this tax led to a substantial shift in the relative yields on U.S. government and Eurodollar bonds.
- This lends credence to the notion that market participants react to tax code changes.
Recent Regulatory Changes

- **Shelf Registration (SEC Rule 415)**
  - Allows the issuer to preregister a securities issue, and then offer the securities when the financing is actually needed.
- **SEC Rule 144A**
  - Allows qualified institutional investors to trade private placements.
  - These issues do not have to meet the strict information disclosure requirements of publicly traded issues.

Global Bonds

- A global bond is a very large international bond offering by a single borrower that is simultaneously sold in North America, Europe and Asia.
- Global bonds denominated in U.S. dollars and issued by U.S. corporations trade as Eurobonds overseas and domestic bonds in the U.S.

Types of Instruments

- **Straight Fixed Rate Debt**
- **Floating-Rate Notes**
- **Equity-Related Bonds**
- **Zero Coupon Bonds**
- **Dual-Currency Bonds**
- **Composite Currency Bonds**

Straight Fixed Rate Debt

- These are “plain vanilla” bonds with a specified coupon rate and maturity and no options attached.
- Since most Eurobonds are bearer bonds, coupon dates tend to be annual rather than semi-annual.
- The vast majority of new international bond offerings are straight fixed-rate issues.

Floating-Rate Notes

- Just like an adjustable rate mortgage.
- Common reference rates are 3-month and 6-month U.S. dollar LIBOR
- Since FRN reset every 6 or 12 months, the premium or discount is usually quite small

  …as long as there is no change in the default risk.

Equity-Related Bonds

- **Convertibles**
  - Convertible bonds allow the holder to surrender his bond in exchange for a specified number of shares in the firm of the issuer.
  - Bonds with equity warrants
    - These bonds allow the holder to keep his bond but still buy a specified number of shares in the firm of the issuer at a specified price.
Zero Coupon Bonds

- Zeros are sold at a large discount from face value because there is no cash flow until maturity.
- In the U.S., investors in zeros owe taxes on the “imputed income” represented by the increase in present value each year, while in Japan, the gain is a tax-free capital gain.
- Pricing is very straightforward:
  \[ PV = \frac{PAR}{(1+r)^T} \]

Dual-Currency Bonds

- A straight fixed-rate bond, with interest paid in one currency, and principal in another currency.
- Japanese firms have been big issuers with coupons in yen and principal in dollars.
- Good option for a MNC financing a foreign subsidiary.

Composite Currency Bonds

- Denominated in a currency basket, like the SDRs or ECUs instead of a single currency.
- Often called currency cocktail bonds.
- Typically straight fixed rate debt.

Characteristics of International Bond Market Instruments

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Frequency of Payment</th>
<th>Size of Coupon</th>
<th>Payoff at Maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight Fixed-Rate Bond</td>
<td>Annual</td>
<td>Fixed</td>
<td>Currency of issue</td>
</tr>
<tr>
<td>Floating Rate Note</td>
<td>Every 3 or 6 months</td>
<td>Variable</td>
<td>Currency of issue</td>
</tr>
<tr>
<td>Convertible Bond</td>
<td>Annual</td>
<td>Fixed</td>
<td>Currency of issue</td>
</tr>
<tr>
<td>Straight fixed rate with equity warrants</td>
<td>Annual</td>
<td>Fixed</td>
<td>Currency of issue plus conversion to equity shares</td>
</tr>
<tr>
<td>Zero</td>
<td>none</td>
<td>zero</td>
<td>Currency of issue</td>
</tr>
<tr>
<td>Dual Currency Bond</td>
<td>Annual</td>
<td>Fixed</td>
<td>Dual currency</td>
</tr>
</tbody>
</table>

Currency Distribution of International Bond Offerings

<table>
<thead>
<tr>
<th>Currency</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. dollar</td>
<td>51%</td>
</tr>
<tr>
<td>Euro</td>
<td>32%</td>
</tr>
<tr>
<td>Yen</td>
<td>6%</td>
</tr>
<tr>
<td>Pound Sterling</td>
<td>7%</td>
</tr>
<tr>
<td>Swiss franc</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Distribution of International Bond Offerings by Nationality

<table>
<thead>
<tr>
<th>Nationality</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>162</td>
</tr>
<tr>
<td>Canada</td>
<td>267.2</td>
</tr>
<tr>
<td>France</td>
<td>700.8</td>
</tr>
<tr>
<td>Germany</td>
<td>1,810.3</td>
</tr>
<tr>
<td>Italy</td>
<td>510.5</td>
</tr>
<tr>
<td>Japan</td>
<td>285.8</td>
</tr>
<tr>
<td>Netherlands</td>
<td>532.8</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1,032.1</td>
</tr>
<tr>
<td>United States</td>
<td>3,011.8</td>
</tr>
<tr>
<td>Total</td>
<td>11,102.5</td>
</tr>
</tbody>
</table>

(As of Year-End 2003 in U.S. $Billions)
Distribution of International Bond Offerings by Type of Issuer

<table>
<thead>
<tr>
<th>Type of Issuer</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governments</td>
<td>1,122.3</td>
</tr>
<tr>
<td>Financial Institutions</td>
<td>8,032.5</td>
</tr>
<tr>
<td>Corporate issuers</td>
<td>1,446.6</td>
</tr>
<tr>
<td>International organizations</td>
<td>501.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>11,102.5</td>
</tr>
</tbody>
</table>

(As of Year-End 2003 in U.S. $Billions)

International Bond Market Credit Ratings

- Fitch IBCA, Moody’s and Standard & Poor’s sell credit rating analysis.
- Focus on default risk, not exchange rate risk.
- Assessing sovereign debt focuses on political risk and economic risk.

Eurobond Market Structure

- **Primary Market**
  - Very similar to U.S. underwriting.
- **Secondary Market**
  - OTC market centered in London.
  - Comprised of market makers as well as brokers.
  - Market makers and brokers are members of the International Securities Market Association (ISMA).
- **Clearing Procedures**
  - Euroclear and Cedel handle most Eurobond trades.

International Bond Market Indices

- There are several international bond market indices.
- J.P. Morgan and Company
  - Domestic Bond Indices
  - International Government bond index for 18 countries.
  - Widely referenced and often used as a benchmark.
  - Appears daily in *The Wall Street Journal*
International Equity Markets

Chapter Objective:

This chapter discusses both the primary and secondary equity markets throughout the world.

Chapter Outline

- A Statistical Perspective
- Market Structure, Trading Practices, and Costs
- International Equity Market Benchmarks
- iShares MSCI
- Trading in International Equities
- Factors Affecting International Equity Returns

A Statistical Perspective

- Market Capitalization of Developed Countries
- Market Capitalization of Developing Countries
- Measures of Liquidity
- Measures of Market Concentration

Market Capitalization of Developed Countries

Almost 90% of the total market capitalization of the world's equity markets is accounted for by the market capitalization of the developed world.

Market Capitalization of Developing Countries

The other 10% is accounted for by the market capitalization of developing countries in "emerging markets".

- Latin America
- Asia
- Eastern Europe
- Mideast/Africa

Recently the growth rates in these emerging markets have been strong, but with more volatility than we have here at home.

Measures of Liquidity

The equity markets of the developed world tend to be much more liquid than emerging markets.

- Liquidity refers to how quickly an asset can be sold without a major price concession.
- So, while investments in emerging markets may be profitable, the focus should be on the long term.
Measures of Market Concentration

- Emerging Markets tend to be much more concentrated than our markets.
- Concentrated in relatively few companies.
- That is, a few issues account for a much larger percentage of the overall market capitalization in emerging markets than in the equity markets of the developed world.

Market Structure, Trading Practices, and Costs

- Primary Markets
  - Shares offered for sale directly from the issuing company.
- Secondary Markets
  - Provide market participants with marketability and share valuation.

Market Structure, Trading Practices, and Costs

- Market Order
  - An order to your broker to buy or sell share immediately at the market price.
- Limit Order
  - An order to your broker to buy or sell at the at a price you want, when and if he can.
  - If immediate execution is more important than the price, use a market order.

Market Structure, Trading Practices, and Costs

- Dealer Market
  - The stock is sold by dealers, who stand ready to buy and sell the security for their own account.
  - In the U.S., the OTC market is a dealer market.
- Auction Market
  - Organized exchanges have specialists who match buy and sell orders. Buy and sell orders may get matched without the specialist buying and selling as a dealer.
- Automated Exchanges
  - Computers match buy and sell orders.

International Equity Market Benchmarks

- North America
- Europe
- Asia/Pacific Rim

North American Equity Market Benchmarks

<table>
<thead>
<tr>
<th>NAME</th>
<th>SYMBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dow Jones Industrial Average</td>
<td>DJIA</td>
</tr>
<tr>
<td>NASDAQ Combined Composite</td>
<td>CCMP</td>
</tr>
<tr>
<td>S&amp;P 500</td>
<td>SPX</td>
</tr>
<tr>
<td>TSE 300</td>
<td>TX300</td>
</tr>
<tr>
<td>Mexico BOLSA Index</td>
<td>MEXBOL</td>
</tr>
</tbody>
</table>
European Equity Market Benchmarks

<table>
<thead>
<tr>
<th>NAME</th>
<th>SYMBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT-SE 100</td>
<td>UKX</td>
</tr>
<tr>
<td>CAC 40</td>
<td>CAC</td>
</tr>
<tr>
<td>Frankfurt DAX Index</td>
<td>DAX</td>
</tr>
<tr>
<td>IBEX Index</td>
<td>IBEX</td>
</tr>
<tr>
<td>Milan MIB30</td>
<td>MIB30</td>
</tr>
<tr>
<td>BEL20 Index</td>
<td>BEL20</td>
</tr>
</tbody>
</table>

Asia/Pacific Rim Equity Market Benchmarks

<table>
<thead>
<tr>
<th>NAME</th>
<th>SYMBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIKKEI 225 Index</td>
<td>NKY</td>
</tr>
<tr>
<td>Hang Seng Index</td>
<td>HSI</td>
</tr>
<tr>
<td>Sing Straits Times Index</td>
<td>STI</td>
</tr>
<tr>
<td>ASX All Ordinaries Index</td>
<td>AS300</td>
</tr>
</tbody>
</table>

i Shares MSCI

- Country-specific baskets of stocks designed to replicate the country indexes of 21 countries.
- i Shares are exchange traded funds that trade on the American Stock Exchange and are subject to U.S. SEC and IRS diversification requirements.
- Low cost, convenient way for investors to hold diversified investments in several different countries.

Trading in International Equities

- Magnitude of International Equity Trading
- Cross-Listing of Shares
- Yankee Stock Offerings
- The European Stock Market
- American Depository Receipts

Magnitude of International Equity Trading

- During the 1980s world capital markets began a trend toward greater global integration.
- Diversification, reduced regulation, improvements in computer and communications technology, increased demand from MNCs for global issuance.

Cross-Listing of Shares

- Cross-Listing refers to a firm having its equity shares listed on one or more foreign exchanges.
- The number of firms doing this has exploded in recent years.
Advantages of Cross-Listing
- It expands the investor base for a firm.
- Very important reason for firms from emerging market countries with limited capital markets.
- Establishes name recognition for the firm in new capital markets, paving the way for new issues.
- May offer marketing advantages.
- May mitigate possibility of hostile takeovers.

Yankee Stock Offerings
- The direct sale of new equity capital to U.S. public investors by foreign firms.
- Privatization in South America and Eastern Europe
- Equity sales by Mexican firms trying to cash in on NAFTA

The European Stock Market
- There is not as yet a single European stock market that comprises all national markets.
- A lack of common securities regulations, even among the countries of the European Union, is hindering this development.

American Depository Receipts
- Foreign stocks often trade on U.S. exchanges as ADRs.
- It is a receipt that represents the number of foreign shares that are deposited at a U.S. bank.
- The bank serves as a transfer agent for the ADRs

American Depository Receipts
- There are many advantages to trading ADRs as opposed to direct investment in the company’s shares:
  - ADRs are denominated in U.S. dollars, trade on U.S. exchanges and can be bought through any broker.
  - Dividends are paid in U.S. dollars.
  - Most underlying stocks are bearer securities, the ADRs are registered.

Volvo ADR
- A good example of a familiar firm that trades in a U.S. as an ADR is Volvo AB, the Swedish car maker.
- Volvo trades in the U.S. on the NASDAQ under the ticker VOLVY.
- The depository institution is JPMorgan ADR Group.
- The custodian is a Swedish firm, SE Banken Custody.
- Of course, Volvo also trades on the Stockholm Stock Exchange under the ticker VOLVB.
Global Registered Shares

- DaimlerChrysler AG is a German firm, whose stock trades as a GRS.
- GRS are one share traded globally, unlike ADRs, which are receipts for banks’ deposits of home-market shares and traded on foreign markets.
- They trade in both dollars and euros.
- All shareholders have equal status and voting rights.

Macroeconomic Factors Affecting International Equity Returns

- The data do not support the notion that equity returns are strongly influenced by macro factors.
- That is correspondent with findings for U.S. equity markets.

Factors Affecting International Equity Returns

- Macroeconomic Factors
- Exchange Rates
- Industrial Structure

Exchange Rates

- Exchange rate movements in a given country appear to reinforce the stock market movements within that country.
- One should be careful not to confuse correlation with causality.

Industrial Structure

- Studies examining the influence of industrial structure on foreign equity returns are inconclusive.

End Chapter Thirteen