Chapter Outline

- A Statistical Perspective *(not exam material)*
  - Market Capitalization – Developed Countries
  - Market Capitalization – Developing Countries
  - Measures of Liquidity & Market Concentration
- Market Structure, Trading Practices & Costs
- Trading in International Equities
  - Magnitude of International Equity Trading
  - Cross-Listing of Shares
  - Yankee Stock Offerings
  - ADR – American Depository Receipts
  - Empirical Findings on Cross-Listing and ADRs

Chapter Outline Continued

- International Equity Market Benchmarks
- iShares MSCI
- Factors Affecting International Equity Returns
  - Macroeconomic Factors
  - Exchange Rates
  - Industrial Structure
I. A Statistical Perspective

- Market capitalization of developed countries
- Market capitalization of developing countries
- Measures of liquidity
- Measures of market concentration

A. Equity Market Capitalizations

- $53.1 trillion = year-end 2012 (total) market cap of world equity markets
  - > 75% = market cap of major equity markets from 31 developed countries.
  - > 25% = market cap of developing countries in emerging markets

B. Emerging Markets

- EMs include countries in Latin America, Asia, Eastern Europe and Mideast/Africa
- Definition:
  - Standard & Poor’s Emerging Markets Database classifies a stock market as “emerging” if it meets at least one of two general criteria:
    - It is located in a low- or middle-income economy as defined by the World Bank.
    - Its investable market capitalization is low relative to its most recent GNI figures.
C. Stock Market Liquidity

- **Fact:**
  Developed equity markets tend to be much more liquid than emerging markets.
  
  - *Liquidity* measures how quickly an asset can be sold without a major price concession
  
- **Implication:**
  While investments in emerging markets may be (very) profitable, investors’ focus should be on the long term.

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Measuring Liquidity

- One measure of liquidity for a stock market is its turnover ratio:
  
  \[
  \text{turnover ratio} = \frac{\text{stock market transactions}}{\text{market capitalization}}
  \]
  
  - The higher the ratio, the more liquid the market.
  
  - In 2012, the turnover ratio varied from a low of 2 (for Bahrain) to a high of 164 (for China).
  
  - In the majority of emerging markets, there is poor liquidity.

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D. Measures of Market Concentration

- Emerging equity markets tend to be much more concentrated than developed markets.
  
  - *Concentrated* means that relatively few issues/companies account for much of the overall market capitalization
  
  - The number of equity investment opportunities in emerging stock markets in developing countries has not been improving in recent years
  
  - How about private equity?
    - Cameroon example (KSB grad)
II. Equity Market Structure, Trading Practices & Costs

- **Primary** markets
  - Shares offered for sale directly from the issuing company.

- **Secondary** markets
  - Where shares trade after they have been issued
  - Provide market participants with share marketability and updated valuations

Market Consolidations & Mergers

- There are approximately 80 major national stock markets:
  - Western and Eastern Europe once had more than 20 national stock exchanges where at least 15 different languages were spoken.
  - Over time a European stock exchange will likely develop. However, a lack of common securities regulations, even among the countries of the European Union, is hindering this development.
- Today, stock markets around the world are under pressure from clients to combine or buy stakes in one another to trade shares of companies anywhere, at a faster pace.

*(Not Exam Material) Market Structure, Trading Practices, and Costs*

- Types of orders to buy/sell shares:
  - **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 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

Types of markets (see also Lecture Notes 1):

- Dealer market
  - Shares traded through 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 monopolistic 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.

III. Trading in International Equities

- Magnitude of international equity trading
- Cross-listing of shares
- Yankee stock offerings
- The European stock market
  (Not Exam Material)
- American Depository Receipts (ADRs)

A. Magnitude of International Equity Trading

- In the 1980s, world capital markets began a trend toward greater global integration.
- Drivers:
  - Diversification
  - Reduced regulation / capital account liberalization
  - Improvements in computer/comm technology
  - Higher demand from MNCs for global issuance.
B. 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

- Expands the investor base for a firm.
  - Very important advantage for firms from emerging market countries with limited capital markets
- Establishes name recognition for the firm in new capital markets
  - Paves the way for new issues
  - May offer marketing advantages
  - May mitigate possibility of hostile takeovers

C. Yankee Stock Offerings

- Definition: direct sale of new equity capital to U.S. public investors by foreign firms
- Some of the drivers:
  - Privatization in South America & Eastern Europe.
  - Equity sales by Mexican firms trying to “cash in” following implementation of NAFTA.
D. American Depository Receipts

- Foreign stocks often trade on U.S. exchanges as ADRs.
- Definition:
  - ADR = receipt that represents the number of foreign shares deposited at a U.S. bank.
  - The bank serves as a transfer agent for the ADRs.
  - Most underlying stocks are bearer shares (whereas the ADRs are registered).

Advantages of ADRs

- There are many advantages to trading ADRs as opposed to direct investment in the company’s shares:
  - denominated in U.S. dollars, trade on U.S. exchanges & can be bought through any broker
  - ADR trades clear in 3 business days
  - Dividends are paid in U.S. dollars.

Example: Volvo ADR

- A good example of a familiar firm that trades in the 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:
  - depository institution = JPMorgan ADR Group
  - custodian = a Swedish firm, SE Banken Custody
- Of course, Volvo shares also trade on Stockholm Stock Exchange (under the ticker VOLVB)
Mechanics of Issuance & Cancellation of ADRs

ADR Investor

Buyer decides
Place order
Brokers buys existing ADR

U.S. Broker

Depository

Broker receives order
Depository

Shares for new ADR
Depository

Depository issues new ADR

Depository receives confirmation of share deposit

Depository

broker issues

New ADR

Broker

orders

Foreign broker

broker

Foreign Exchange

Foreign Exchange

Types of ADRs

<table>
<thead>
<tr>
<th>Level I</th>
<th>Level II</th>
<th>Level III</th>
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<td>Buyers</td>
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<td>OTC</td>
<td>NASDAQ, AMEX, NYSE</td>
<td>U.S. private placement</td>
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<td>Form 20-F</td>
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E. Global Registered Shares

- The merger of Daimler Benz AG and Chrysler Corp. in Nov. 1998 created DaimlerChrysler AG, a German firm.
  - The company was renamed Daimler AG in October 2007 when it spun off Chrysler.
- The 1998 merger simultaneously created a new type of equity share, called Global Registered Shares (GRSs).
  - GRSs are traded globally
  - Unlike ADRs, which are traded on foreign markets.
- The primary exchanges for Daimler GRSs are the Frankfurt Stock Exchange and the NYSE
  - however, also traded on a total of 20 exchanges worldwide.
- The shares are fully fungible—a GRS purchased on one exchange can be sold on another. They trade in both U.S. dollars and euro.
Global Registered Shares

- **Main advantage of GRSs over ADRs**
  - all shareholders have equal status and direct voting rights
- **Main disadvantage of GRSs**
  - greater expense in establishing the global registrar and clearing facility
- GRSs have met with limited success
  - many companies that considered them opted instead for ADRs.
- Deutsche Bank, UBS, and NYSE Euronext also trade as GRSs.

F. Empirical Findings on Cross-Listings & on ADRs

- An internationally diversified portfolio of ADRs outperforms both a U.S. stock market and a world stock market benchmark on a risk-adjusted basis.
- For most stocks, the home-market price and the ADR price is within 20-85 basis points—thus limiting any arbitrage opportunities.

V. International Equity Market Benchmarks

- North America
- Europe
- Asia/Pacific Rim
### North American Equity Market Benchmarks (Not Exam Material)

<table>
<thead>
<tr>
<th>NAME</th>
<th>SYMBOL</th>
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<tbody>
<tr>
<td>Dow Jones Industrial Average</td>
<td>DJIA</td>
</tr>
<tr>
<td>NASDAQ Combined Composite</td>
<td>CCMP</td>
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<tr>
<td>S&amp;P 500</td>
<td>SPX</td>
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<tr>
<td>TSE 300</td>
<td>TS300</td>
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<tr>
<td>Mexico BOLSA Index</td>
<td>MEXBOL</td>
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### European Equity Market Benchmarks (Not Exam Material)

<table>
<thead>
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<th>NAME</th>
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<tr>
<td>FTSE 100</td>
<td>UKX</td>
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<tr>
<td>CAC 40</td>
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<tr>
<td>Frankfurt DAX Index</td>
<td>DAX</td>
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<tr>
<td>IBEX Index</td>
<td>IBEX</td>
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<tr>
<td>Milan MIB30</td>
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<tr>
<td>BEL20 Index</td>
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### Asia/Pacific Rim Equity Market Benchmarks (Not Exam Material)

<table>
<thead>
<tr>
<th>NAME</th>
<th>SYMBOL</th>
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<tbody>
<tr>
<td>NIKKEI 225 Index</td>
<td>NKY</td>
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<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>
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</table>
iShares MSCI

- **MSCI indices** = Country-specific baskets of stocks designed to replicate the country indexes of 22 countries.
- **iShares** = exchange-traded funds that trade on the American Stock Exchange
  - subject to U.S. SEC and IRS **diversification requirements**.
  - Low cost, convenient way for investors to hold diversified investments in several different countries.

VI. Factors Affecting International Equity Returns

- Macroeconomic factors
- Exchange rates
- Industrial structure

Macroeconomic Factors Affecting International Equity Returns

- The data do not support the notion that equity returns are strongly influenced by contemporaneous macro factors.
- This matches with findings for U.S. equity markets.
  - Why?
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.