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

I. A Statistical Perspective

- International Equity Market Benchmarks
- iShares MSCI
- Factors Affecting International Equity Returns
  - Macroeconomic Factors
  - Exchange Rates
  - Industrial Structure

A. Equity Market Capitalizations

- $53.1\text{ trillion}$ = 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.

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.

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
- 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:
  - 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 Where settlement practices for underlying shares vary in foreign countries
  - 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, S E Banken Custody
  - Of course, Volvo shares also trade on Stockholm Stock Exchange (under the ticker VOLVB)

Types of ADRs

<table>
<thead>
<tr>
<th>Description</th>
<th>Level I</th>
<th>Level II</th>
<th>Level III</th>
<th>Rule 144A</th>
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<tbody>
<tr>
<td>Unlisted program in the U.S.</td>
<td>N/A</td>
<td>Listed on a U.S. exchange</td>
<td>Shares offered and listed on a U.S. exchange</td>
<td>Private placement to Qualified Institutional Buyers</td>
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<tr>
<td>OTC</td>
<td>NASDAQ, AMEX, NYSE</td>
<td>NASDAQ, AMEX, NYSE</td>
<td>U.S. private placement</td>
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<tr>
<td>SEC Form F-6</td>
<td>Form F-6</td>
<td>Form F-1 and F-6</td>
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</tr>
<tr>
<td>Exempt under Rule 12g5-2(b)</td>
<td>Form 20-F</td>
<td>Form 20-F</td>
<td>Exempt under Rule 12g5-2(b)</td>
<td></td>
</tr>
</tbody>
</table>

Mechanics of Issuance & Cancellation of ADRs

- Broker buys existing ADR
- U.S. Broker deposits shares
- Depository issues new ADR
- Foreign broker buys shares
- Depository receives confirmation of share deposit
- Depository issues new AER
- Broker orders shares for new ADR
- Delivery

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>
</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>TS300</td>
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<tr>
<td>Mexico BOLSA Index</td>
<td>MEXBOL</td>
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</table>

European Equity Market Benchmarks (Not Exam Material)

<table>
<thead>
<tr>
<th>NAME</th>
<th>SYMBOL</th>
</tr>
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<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>
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</tbody>
</table>

Asia/ Pacific Rim Equity Market Benchmarks (Not Exam Material)

<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>
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.