EMERGING CAPITAL MARKETS

Lecture 6: Emerging Stock Markets II

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Jamuary 2013

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Outline

Part I:

- I. Development of Emerging Stock Markets
- II. Stock Valuation Methods and Stock Selection
- III. Emerging Stock Market Indexes
- IV. Emerging Stock Market Performance

Part II:

- V. Investment Vehicles in Emerging Stock Markets
- VI. Differentiating Features of Stock Exchanges
- VII. Structure of Stock Markets
- VIII. Enabling Environment for Emerging Stock Markets
- IX. Equity Portfolio Strategies and Building an Emerging Market Portfolio

V. Investment Vehicles in Emerging Stock Markets

Investing abroad has been facilitated by the development of a number of equity investment vehicles. The main ones are the following:

1. Direct Purchases.

- The direct way to trade in foreign equity is on the foreign stock market itself.
- But this route is usually reserved for large institutional investors because of the issues involved: initial foreign exchange purchase, a custodian to hold the shares, a bank account to collect and repatriate dividends, pay commissions, pay taxes, etc.
- In addition, the investor should be familiar with the issues of delivery, clearing, and settlements, as will be discussed later.
- All these issues substantially increase the transaction costs of foreign stock markets.
- Other simpler schemes are given below.

2. American Depositary Receipts (ADRs).

- ADRs are negotiable certificates evidencing ownership of foreign equity shares held, on the investor's behalf, by a major US bank in the foreign country where the shares were issued.
- ADRs were first introduced in 1927 by J.P. Morgan to allow Americans the chance to buy shares in London's Selfridge's Department Store. Until that time, a physical presence of the investor in the country was needed.
- In order to issue an ADR, a US bank takes custody of foreign shares in its own foreign office.
- Then, an ADR can be issued as a claim against these shares.
- The US bank will take care of all administrative matters, such as receiving dividends, paying taxes, keeping track of exchange offers.
- Three US banks dominate the ADR market: Bank of New York (with 65% of the market), Morgan Guaranty, and Bankers Trust.

- Owners of ADRs have the right to redeem their ADRs and obtain the true underlying foreign shares. This possible arbitrage ensures that the price of the ADR and the foreign shares will be very close, though there may be a discount.
- Investors can trade their ADRs without recourse to the foreign equity market and without relying on foreign clearing and settlement; thus reducing trading costs.
- In an **sponsored ADR**, the foreign firm pays a fee to the depositary bank for the program cost.
- In an **unsponsored ADR**,the depositary bank takes the initiative to profit from a popular foreign issue.
- ADRs bear all the foreign exchange and commercial risks of the underlying foreign shares, even though they are quoted in US $.
- Global Depositary Receipts (GDRs) are similar instruments trading in other countries, particularly in London and Luxembourg.
- ADRs and GDRs are generally called DRs

- **Level 1 ADRs** are those ADRs that are not traded in an exchange; but they trade in the over-the-counter markets. They do not require full SEC registration. The company is only required to disclose its Financial Statement in English and information provided in its home Annual Report (no need to GAAP accounting principles).
- **Level 2 ADRs** are those that meet the disclosure requirements of a US stock exchange and are listed in the exchanges.
- **Level 3 ARDs** are those that fully complies with US accounting principles and disclosure requirements, and they may raise equity in the US through a public offering.
- **Rule 144A ADRs** are those privately placed with Qualified Institutional Buyers. As a private placement, there is no need of registration and review by the SEC. These ADRs can be resold only to other Qualified Institutional Investors.

- In 2008, more that 2,250 sponsored DRs were traded in the US and Europe, from about 76 countries (from 350 DRs from 24 countries in 1990).
- In 2008, the total value of outstanding DR's reached $1,800 bn ($1,200 bn listed in the US, $320 bn listed in Europe and $250 bn in OTC and others).
- Demand for DRs have been growing, with trading volume reaching $24 trillion during the first half of 2008, increasing by about 25% pa during the last 10 years.
- In 2007, foreign companies raised US$55 billion through DR offerings, of which $27 billion was handled by Bank of New York Mellon, $11 billion by Citibank, $10 billion by JP Morgan, and $8 billion by Deutsch Bank.
- A large number of DRs are from Emerging Market companies, including India (276), Russia (195), China (143), Brazil (129), South Africa (69), Mexico (66), Ukraine (65), Korea (59), Turkey (53), Poland (38), Kazakhstan (24), Hungary (16), etc.
- Ukrainian companies include metallurgical, auto, retailers, oblaenergos, banks, etc
- The largest Emerging Markets companies raising funds in 2007-08 were Gazprom, Lukoil (Russia), Petrobras, Vale (Brazil), American Mobil (Mexico), and Suntech (China).

3. EM Mutual Funds.

- These are organized as corporations with a board of directors. Investors purchase their shares which are pooled and invested in EM securities.
- Mutual funds can be Global (US and non-US shares), International (non-US shares), Regional (in a particular area), County (a particular country), or Sector Specialty (such as energy).
- There are two types: Open-end and close-end mutual funds.
- An ***open-end fund*** stands ready both to issue and to redeem shares, at prices reflecting the **net-asset value** of the underlying foreign shares (assets minus liabilities). The shares of the open-end fund are not normally traded in secondary markets.
- A ***close-end fund*** issues a fixed number of shares against an initial capital offering. It will not redeem the shares but they are traded in the secondary market at prices reflecting a premium or discount relative to the net-asset value of the underlying foreign shares.

- The owner of a share of an open-end fund earns a return based on the change in the net-asset value of the fund.
- The owner of a share of a close-end fund earns a return based on the net-asset value of the fund plus the change in discount/premium.
- Studies in 1994/95 showed that, on average, the variance of close-end country fund returns is three times larger than the variance of the underlying foreign securities.
- The premium/discounts of close-end funds are mean reverting and are affected by news about local events.
- On the other hand, open-end funds are not practical or cost-effective for foreign investment in Emerging Markets.
- This is because it is hard for an open-end fund to stand ready to liquidate stock positions on demand, since foreign equity emerging markets lack liquidity, impose higher transaction costs and restrict full liquidation/repatriation of positions.

- Close-end funds are not forced to liquidate positions when shareholders wish to exit the fund. Exit or purchases will however affect the premium or discount of the fund shares.
- Close-end country funds have become the fastest segment of the market in the last decade.
- EM’s country funds include funds for Argentina, Brazil, Chile, China, Mexico, Philippines,China, India, Indonesia, Korea, Malaysia, Taiwan, Thailand, Turkey, Russia, Ukraine, etc.

4. Index Funds

- Index funds are investment funds whose shares are traded in stock exchanges and are intended to track the performance of a single country index.
- Therefore, they are useful for investors who wish to follow a “passive investment strategy”.
- Index funds started in 1987 when the Toronto Stock Exchange created a fund to hold baskets of the stocks in the Toronto 35 Index.
- In 1993, the American Stock Exchange began trading shares in an index fund that held a portfolio of all common stocks in the S&P 500 (called Standard and Poor Depository Receipts -- "Spiders"). It was an instant success.

- In 1996, the American Stock Exchange opened another index fund for international equities, the World Equity Benchmark Shares Foreign Fund). Its shares were called "Webs". They are now called iShares (for index shares).
- The iShares fund has 20 separate portfolios, each one designed to match the performance of a given country, including EM such as Hong Kong, Mexico, Malaysia, Taiwan, Korea.
- The iShare portfolios are designed to track the Morgan Stanley Capital International (MSCI) Index for that country. They are managed by Barclays (BGI).
- The New York Stock Exchange in 1996 introduced its own Index Fund, Country Baskets. CBs were available for 10 countries and are designed to track the Financial Times/S&P Actuaries World Index for that Country. They are managed by Deutsche Morgan Grenfell.

- CBs and iShares combine the features of close-end funds, open-end funds and ADRs.
- To initiate the fund activities, they rely on the sale of a “creation unit”. In exchange for a sum of money (US$2 million for CBs and US$0.5 million for iShares), an investor purchase a “creation unit” in one index fund.
- The fund manager uses these funds to buy shares and DRs whose performance will match that of the country index.
- Each “creation unit” divides into a specified number of shares that the investor can sell through the corresponding stock exchange.
- Thus, like an open-end fund, the size of the CBs and iShares can grow without limit; but the shares are traded at any time in the secondary markets, like a close-end fund.
- As a DR, prices of CBs and iShares are kept close to the net-asset value of the underlying foreign shares, through arbitrage.

5. Hedge Funds

- A hedge fund is an organization whose management receives compensation in the form of performance incentives, rather than the amount of assets held or transactions made.
- Normally the managers are also large investors.
- In the US, they are usually structured as Partnerships.
- They raise funds as Private Placements: a private offering to a accredited investors (such as financial institutions) and no more than 35 non-accredited investors. The total can not exceed 100 owners. Normally a typical investment is over $250,000.
- Under a Private Placement, the fund avoids registration under the Investment Company Act of 1940, which imposes limitations on the types of investments made and requires strong disclosure.
- If the Hedge Fund is organized outside the US -- called offshore fund -- it can avoid the limitations in raising funds.
- Popular places with low regulations include Bermuda, Cayman Islands, Bahamas, Mauritius, Luxembourg, Switzerland, Dublin.

- Originally, in 1949, hedge funds were introduced A.W. Jones and Co. to maintain highly “leveraged” but relatively “diversified” and "hedged“ positions, with a limited net exposure to “overall” price movements (they developed fast in the 1960s and 1970s):

  Market Exposure = (Long Exposure - Short Exposure) / capital
- Today, Hedge funds follows many different strategies:
  - Market neutral, where the market exposure is low or zero trading on “convergence spreads” between two securities.
  - Event-driven, seeking arbitrage in bankrupt securities.
  - Opportunistic, taking advantage of any opportunities.
- Most hedge funds use derivatives extensively.
- Investors normally have short-term horizons, thereby the hedge fund must have liquidity by investing in short term deals
- Because of risk management failures, hedge funds have suffered from a large share of failures.
- Also, because of the lack of regulations, they have been more vulnerable to fraud.
- In 2002, there were 6,000 hedge funds with $600 billion in assets.

6. Private Equity Funds.

- It is a collective investment vehicle under which large investors (Limited Partners) provide long term financing to a Private Equity Fund (General Partner) for investment in firms that need initial capital (Venture Capital) or capital for restructuring (Buy Outs)
- A professional fund manager (General Partner) monitors and manages the future growth of the invested companies
- PE Funds have a defined life (10 years is standard)
- PE Buy Out Funds invest in few large companies (10-15)
- The GP receives a Management fees to cover costs (2% standard)
- Additional Incentive for manager: Carried interest (usually 20% after a hurdle rate of 6 – 10% pa)
- Private Equity Funds are organized as Limited Liability companies normally incorporated off-shore.
- Funds are raised as Private Placements
- PE can play a critical role in promoting economic growth and preparing companies for purchase by strategic investors

Private equity vs Public Equity

Private Equity

Venture capital
Early stage financing

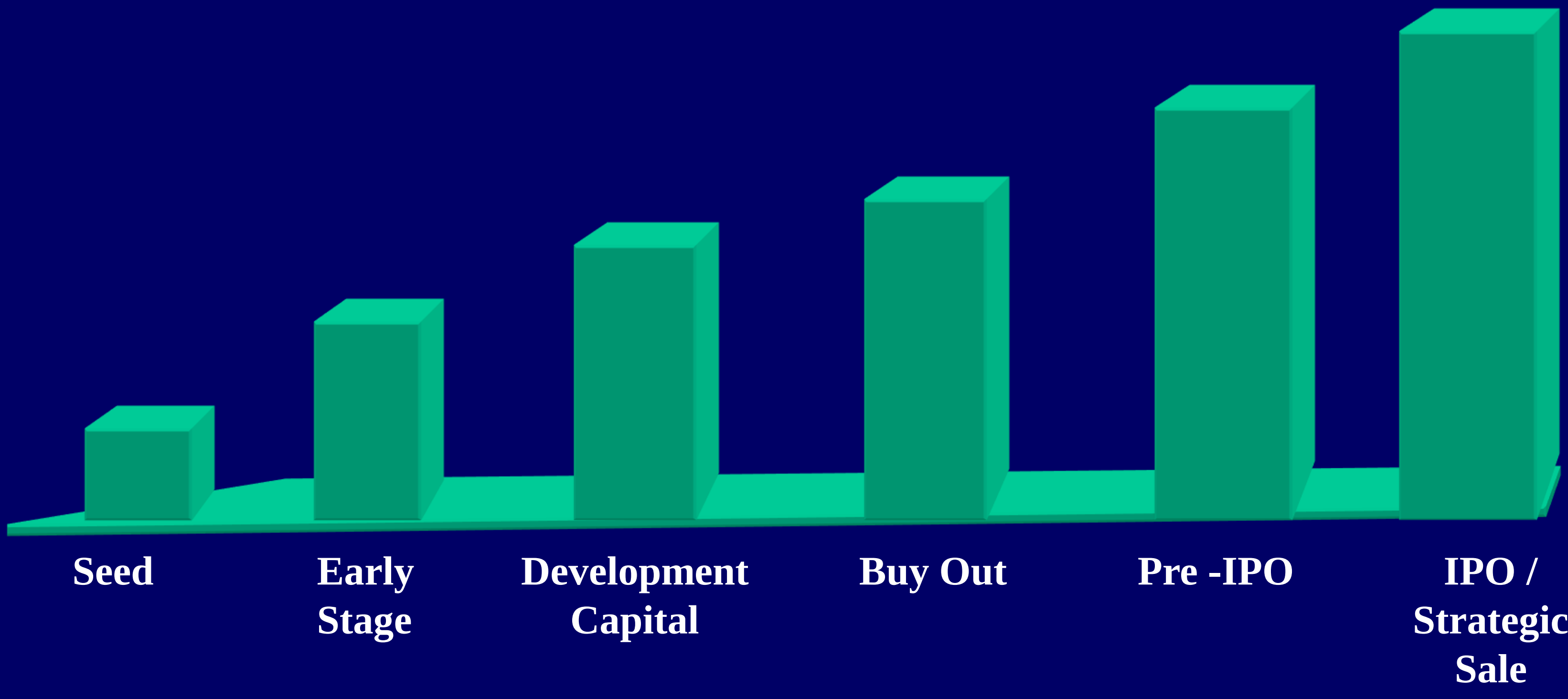
Buy-outs
Later stage financing

Private equity is illiquid, ownership is concentrated, valuation is difficult, intermediaries tend to me small, finance is accompanied by control and mentoring

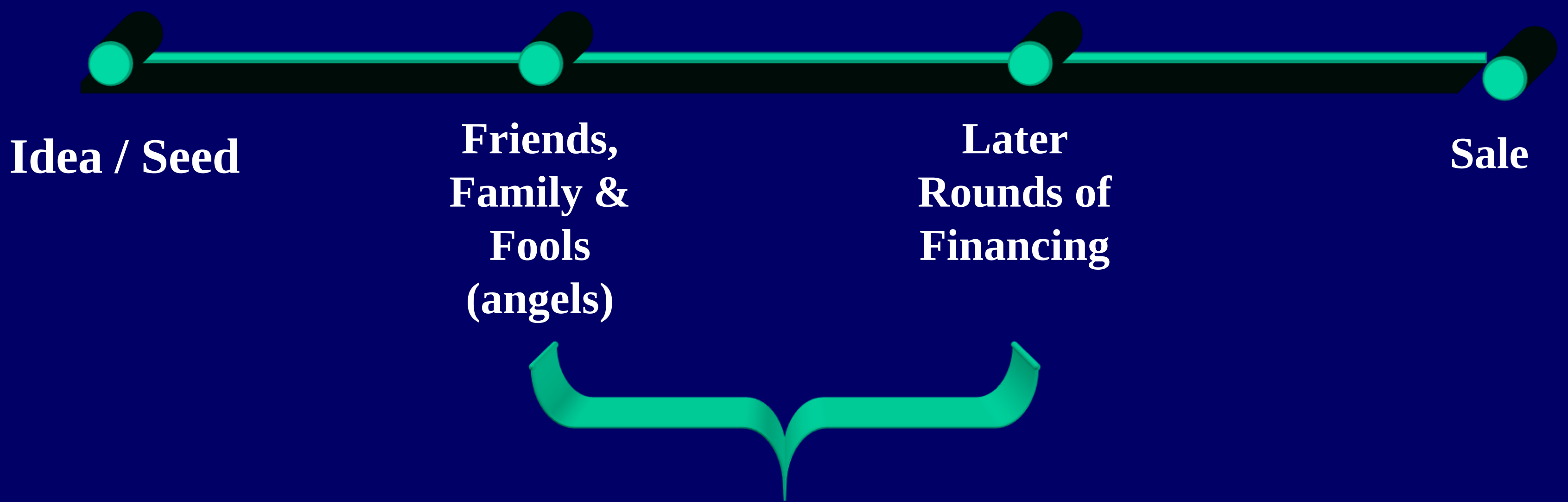
Public equity:
Initial Public Offering (IPO)
With stock market listing

Public equity is liquid, ownership is dispersed, valuation is relatively easy, intermediaries are large, finance is often divorced from control and mentoring

What is difference between Venture Capital, Buy outs and IPOs?



Venture Capital: Identifies and finance new companies with high growth potential



- High growth.
- Exceptional product / Intellectual Property
- Need weekly & monthly board meetings and close monitoring

Buy Outs: Acquire more established -- but underperforming companies -- to improve growth and make possible Exit to strategic investors.

Individual / Family

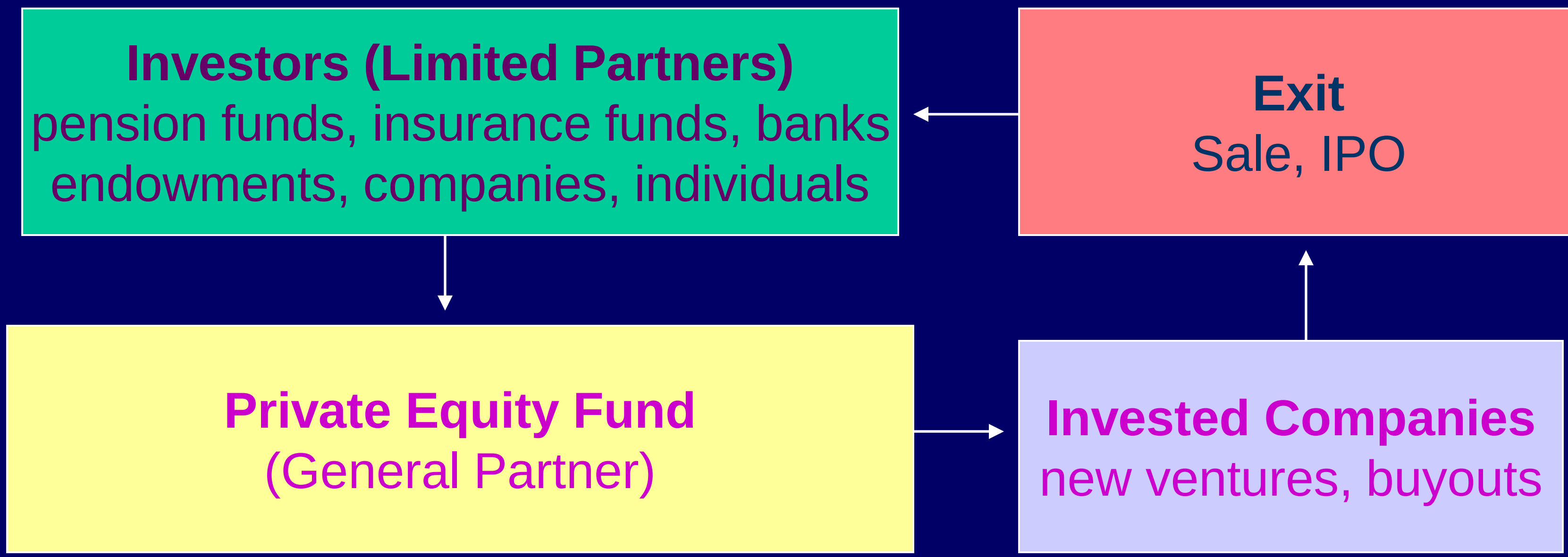
Financial Investors

- Adds value
- Professionalizes
- May change Management
- May merge

Strategic Investor

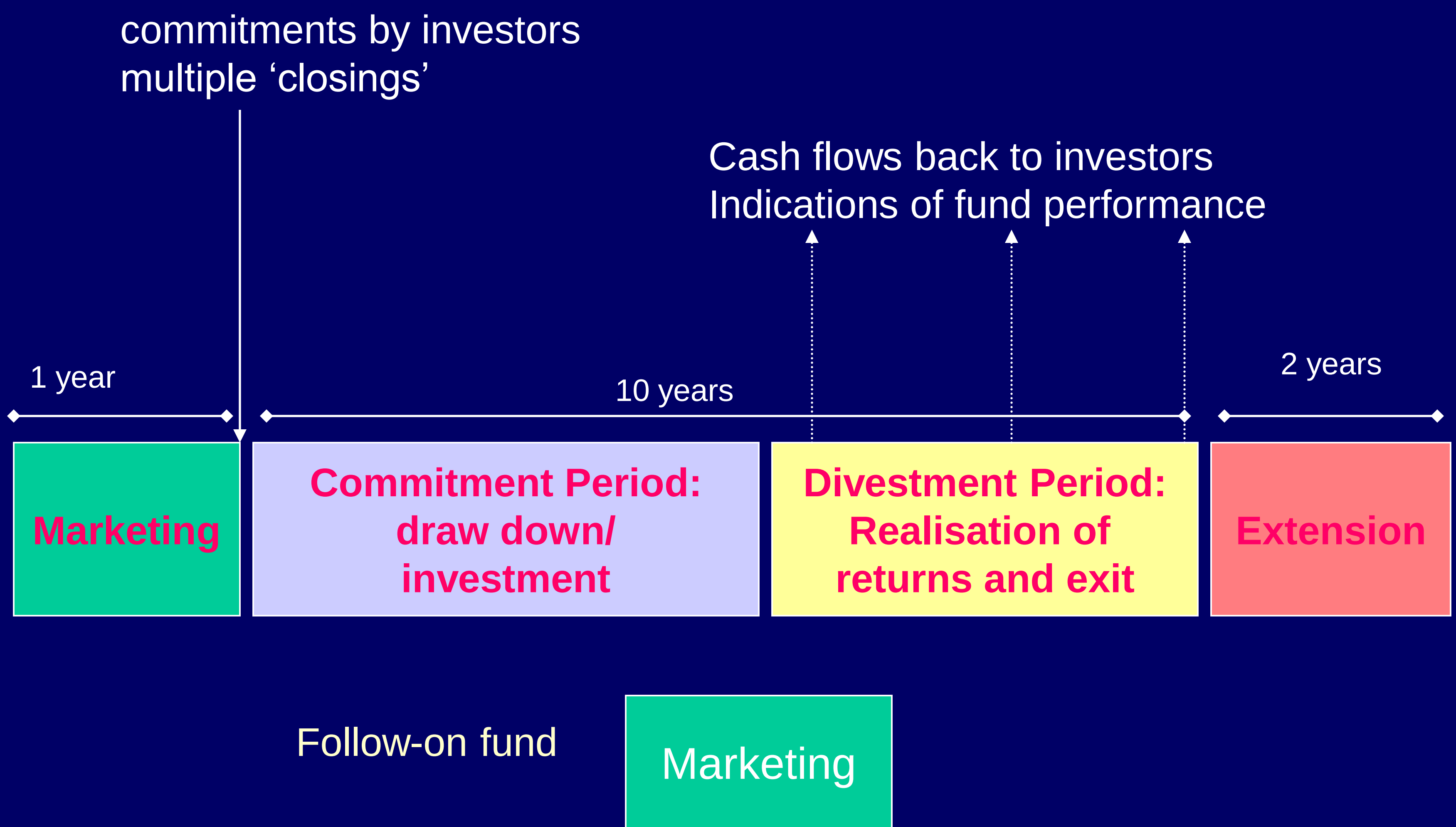
(IPOs are rare)

Private Equity-
The Investment Cycle

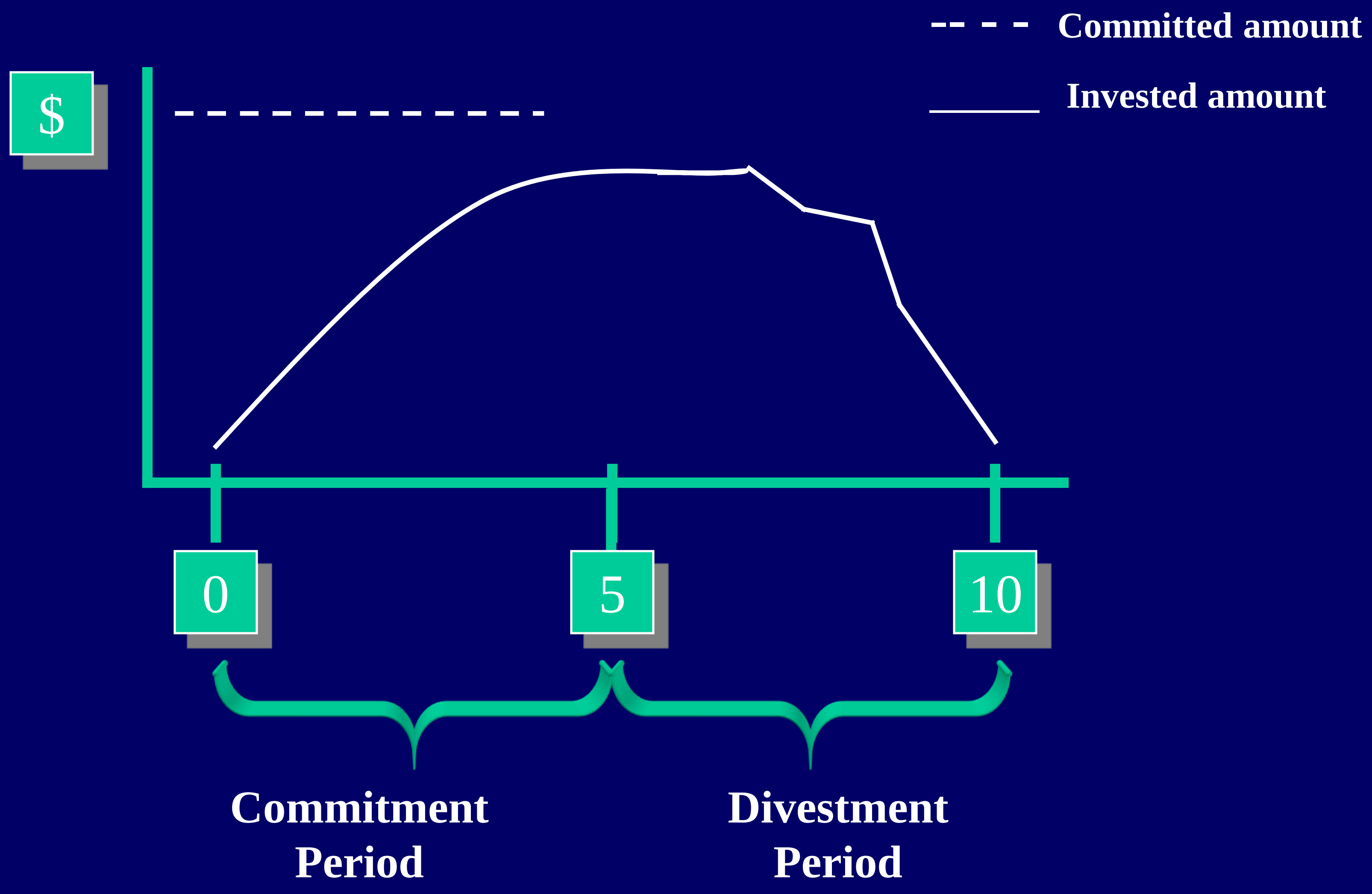


How are Private Equity funds structured?

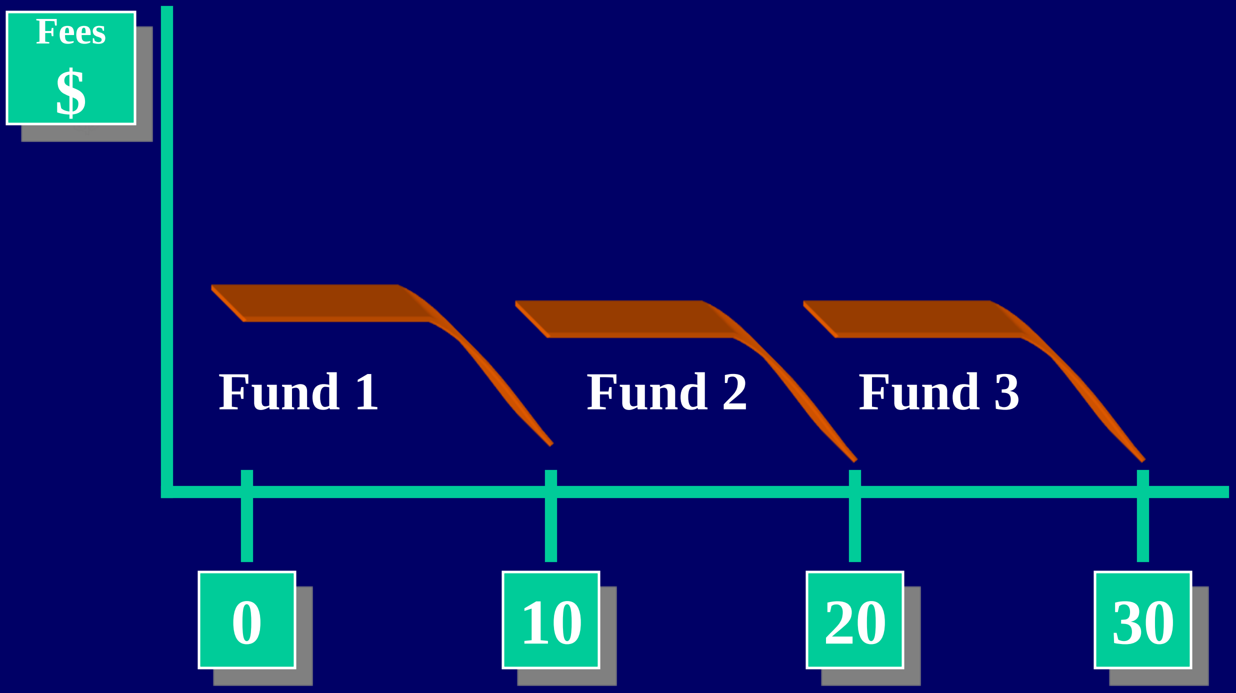
Most private equity is invested via partnerships of a limited duration



Capital Base Overtime



How Teams are kept Together?



Investment Process Summary

Create awareness of Fund → Get Deal Flow → 1st. Screen for deals → Deal Alert → Preliminary due diligence → Formal write up for decision → Investment Committee

Get Deal Flow
- Contacts
- Banks
- Own network
- Seminars
- Cold Calling

1st. Screen for deals
- Preliminary Screening
- Must fit objectives
- Feel for economies

Deal Alert

1 page write up to inform colleagues

Preliminary due diligence
- Financial
- Technology
- Legal

Investment Committee

Can be all internal or internal & external

Final diligence and documentation → Investment Committee sign off → Final Documents → Closing → Monitoring

THEN → Value Addition and Exit/Divestment

7. Equity-Linked Eurobonds.

- Many Emerging Market companies issue Eurobonds with features such as detached stock options (warrants) and convertibility that provide links to equity shares.
- These features provide an alternative vehicles to invest in equity.
- In a country which is largely closed to direct equity purchases from abroad, a convertible bond is one of the ways for a foreign investor to enter the equity market.
- In other countries, such as Indonesia, with difficult equity clearing and settlement procedures, a convertible bond was used to avoid these equity market problems.

8. International Firms.

- An indirect way to participate in the economy of Emerging Markets, is to purchase shares of international companies (US or European) that have a large portion of their revenues and profits from their activities in Emerging Markets.
- For example, a large portion of the revenues of the UK company JKX Oil, Ltd., depends on its oil investments in Russia and Ukraine.
- Other large international companies with substantive involvement in Emerging Markets include: American Express, Bayer, Coca-Cola, McDonalds, Gillette, Minnesota Mining and Manufacturing, Nestle, Unilever, Procter and Gamble.

VI. Differentiating Features of Stock Exchanges

Most EMs have established Stock Exchanges to facilitate stock trading. The key features of these stock exchanges are:

(1) Public versus Private Exchanges:

- In most EMs, stock exchanges were established by Governments, which retain strong influence in their operations.
- Stock dealers and brokers are private, but operate under the surveillance of the state, normally through National Security Commissions.
- Following the Anglo-American model, in South Africa and most of East Asian, stock exchanges are private, but operate under Government regulations, with a good doses of self-regulation.

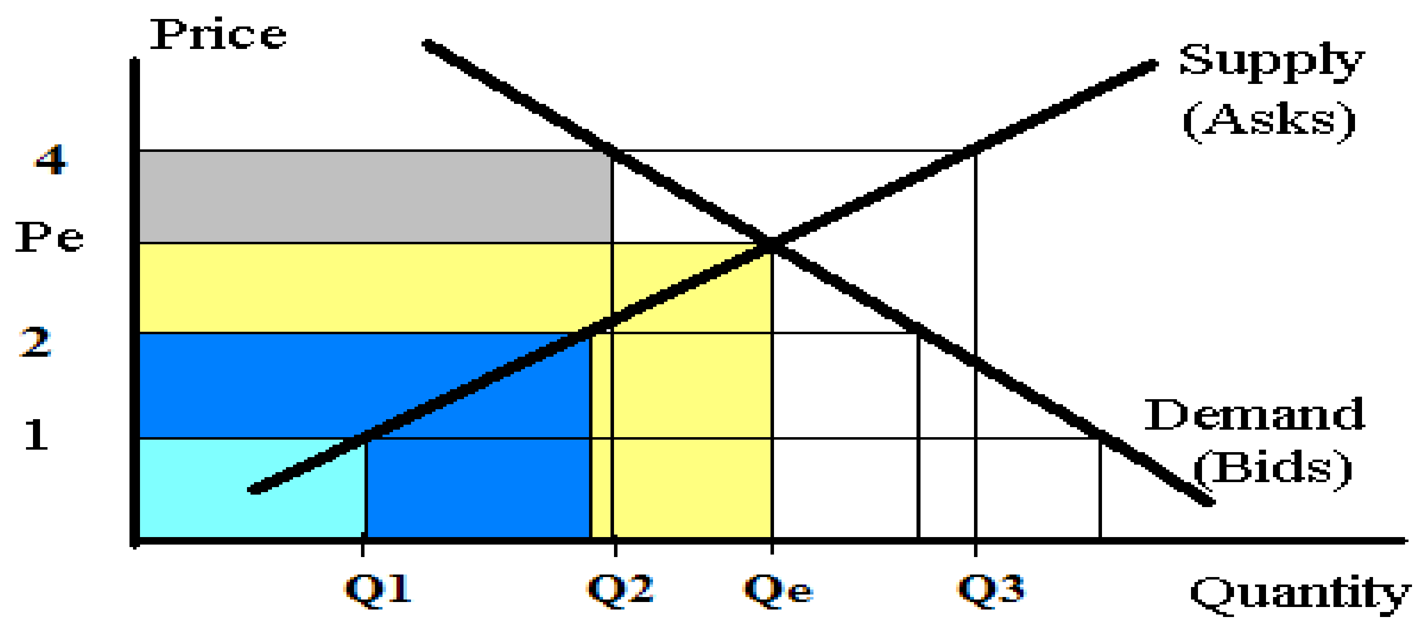
(2) Spot versus Forward Markets.

- In most markets, stocks are traded on a spot or cash basis.
- But almost nowhere are stocks, once traded, delivered on the same day: a typical "spot" or cash settlement of the stock is three to five business days (T+3; T+5).
- Many East Asian exchanges and Rio de Janeiro follow a "forward' market approach (such as in Paris): Stock deliveries and settlement take place once a month at the end of the month. At the time of the transaction, the price is fixed and a deposit is required.

(3) Continuous versus Auction Quotations.

- Most major markets offer continuous pricing of stocks, at least for the major stocks, with ***market-makers*** ensuring liquidity.
- Market-makers will quote both a bid price (for buying) and a asked or offer price (for selling); and stand ready to trade at these prices.

- In smaller markets, the price is determined by **daily auctions**: orders are accumulated, and at the end of the day, a price that maximizes the volume of transactions is determined (this is the price where there is equilibrium of demand and supply). This single equilibrium price applies to all transactions.



At a high price (4), the supply of securities will be high at Q3, but demand will be low at Q2. Only Q2 will be transacted.
At low prices (1), supply will be limited and only Q1 will be traded.
At equilibrium price Pe, the transaction volume is maximized at Qe

(4) Centralized (Floor Trading) versus Decentralized Systems.

- Centralized stock trading at the floor of exchanges continues in many exchanges, due to the advantages to close personal interactions, principally for large transactions.
- But most stock exchanges in Emerging Markets use decentralized computerized systems as the forum for trading, following either (i) price-driven systems; or (ii) order-driven systems.
- These stock exchange systems have their own regulations regarding requirements for membership, access to the system, trading rules, listing and de-listing of securities, registration as market-makers, professional responsibilities, settling of disputes, arbitrage, etc.
- **Price-driven systems**, such as Ukraine's, are based on the NASDAQ system for low-liquidity stocks:
  - It is based on a dealer Price Quotation System (Stock Exchange Automated Quotation- SEAQ). In Ukraine, out of 300 dealers, 200 are members, linked to the system.

- Members are free to register as market-makers, quoting “firm” bid/asked prices for active stocks, up to a maximum limit.
- The difference between the bid and asked prices is the “spread” which is the source of income for the dealer.
    - A 1994 Harvard study of the US’ NASDAQ, found that in many stocks, the spread was always \$0.25 a share, while in others went as low as \$0.12 a share. This prompted to accusations of collusion and a review of competitive practices. Soon thereafter, spreads began to shrink.
- In this price-driven system, transactions do not happen automatically, but are executed at the order of a member dealer.
- Once an order arrives to a market-maker, it is obliged to execute it.
- Both parties are expected to input the transaction and reported it to the main system within 90 seconds.
- If the receiver of the order does not execute it within a few minutes, the originator can input both entries and report it.
- Some minor stocks have only a handful of market-makers; big company stocks have as many as 50.

- The screen of a dealer would list bid/asked quotations by market-makers for a specific company stock, as follows:

DEALER B

SECURITY : Common Stock Cia AA
LAST BID : xxx
LAST ASK : xxx
LAST PRICE : xxx
AMOUNT SOLD: xxx

MESSAGE: proposal by buyer or seller. Must be accepted in 10 minutes and transaction recorded by both parties. Otherwise originator can input it him/herself .

BID RANKING (Offer to Buy)

DEALER	PRICE	DAYS	AMOUNT
Dealer B	1.9	2	10,000
Dealer C	1.8	3	40,000
Dealer D	1.6	2	20,000
Dealer E	1.5	6	10,000

ASK RANKING (Seek to Sell)

DEALER	PRICE	DAYS	AMOUNT
Dealer M	2.0	2	20,000
Dealer B	2.2	3	10,000
Dealer E	2.3	2	15,000
Dealer P	2.5	5	20,000

- **Order-driven systems** are based on the Paris and Toronto systems:
  - All exchange members have trading screen in their offices.
  - For listed stocks, members enter their **limit-orders**, indicating the ***maximum*** price for buying the stock (maximum bid price) and their ***minimum*** price for sale of the stock (minimum asked).
  - Trading takes place automatically against this computerized limit-order book.
  - When a new order arrives, if possible, it is immediately routed and executed against the limit-order book: it would be possible if the new order has a price for purchase that is above or equal to the minimum price asked by another dealer for the sale of the stock.
  - If it not possible to execute the order, it is entered into the limit-order book for future trading.
  - Since bid/asked orders are not of equal quantities, orders are executed following price/time/size priority rules: (highest bid and lowest asked have priority over other orders).

– In some cases, large trades are done over the telephone, rather than left to the computer. Once executed, they are recorded in the computer and taken into account in price calculations.

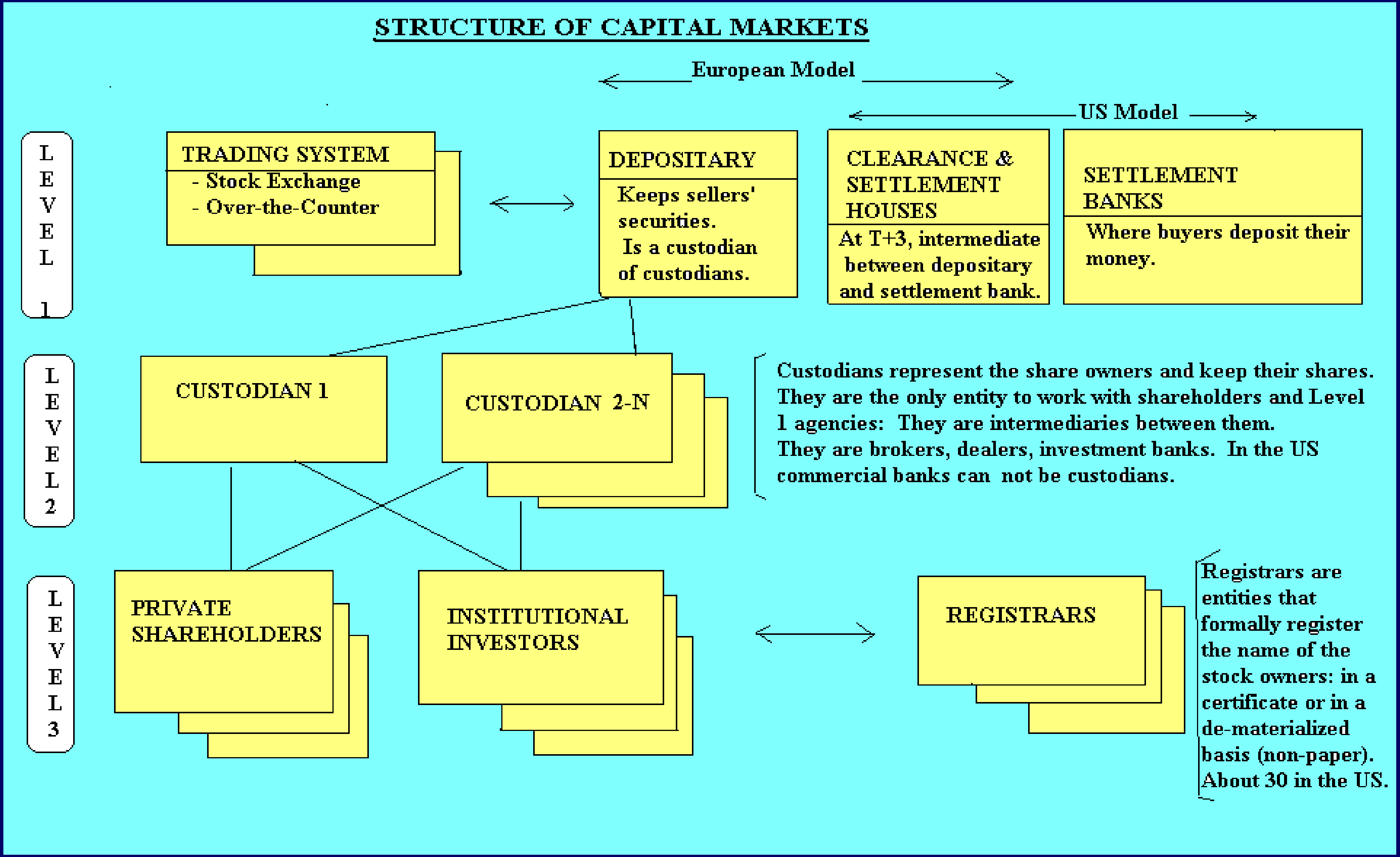
– In small stock markets, such as Moldova, trading is not continuous: Members enter their limit-orders between 10:00 am and 2:45 pm. At 2:45 pm entry is closed and orders are matched, as follows:

Max Bids (Buyers)			Min Asked (Sellers)		
Dealer	Price	# Shares	Dealer	Price	# Shares
A	4.0	300	D	3.0	100
B	2.0	500	E	4.0	100
C	1.0	200	F	5.0	100

The only transaction that would take place is the purchase by dealer A of 200 shares, 100 from dealer D at $3.0/share and 100 from dealer E at 4.0/share. The average price will be $3.5 per share, which will be registered for the records.

VII. Structure of Stock Markets

The following chart provides a graphical representation of the structure of stock capital markets:



- The Lower Level (Level 3) includes the "**Shareholders**".
- Their share ownership is formally recorded -- for a fee --in specialized entities called "**Registrars**".
- Registrars will issue Certificates of Ownership, either in paper or dematerialized (electronic) form.
- There are about 30 specialized Registrars in the US.
- In many EMs, any agency could be a Registrar, including the same company (until recently, there were 400 Registrars in Ukraine; in Russia, owners "disappear" before dividend payment date).
- The independence, qualification and regulation of Registrars is a key factor to avoid abuses and give confidence to a stock market.
- Level Two includes the "**Custodians**" (dealers, brokers, banks) which represent the shareholders, keeping their shares in custody, either physically or electronically (paperless).
- The Custodians are only entities working with Level One agencies and Level 3 entities. There are 5,000 in the US; 60 in Ukraine.

- The Level One agencies include:
  - **The Trading Systems:** Stock Exchanges and Over-the Counter, where the trading takes place.
  - **The Depositary:** which receives from Custodians the shares to be sold and keeps them in anticipation of the trade.

    A centralized, independent depositary is key to give confidence to the market.
  - **The Settlement Bank:** which keeps the cash accounts of buyers.
  - **The Clearance and Settlement System:**
    - Trade clearance involves verifying and comparing information provided separately by buyers and sellers and finding out if there is a match. Otherwise, they go back to the dealers.
    - If the match is successful, settlement obligations are calculated.
    - On T+1 to T+3 day, it will check that the seller's shares are indeed deposited in the Depositary and that the buyers do have cash in their accounts in the Settlement Bank.

    - If so, it instructs the Depositary to transfer the securities from seller to buyer; and gives the order to the Settlement Bank to transfer money from the buyer account to the seller account.
    - Settlement can be made on a "gross" basis for an individual deal, on a "bilateral net" basis for more than one trade among two parties, or on an " multilateral net" basis (the last one is typical in the US).
- – A key function of this system is to protect shareholders rights and provide confidence that payments will be made only if there is delivery of the securities.
- – A Delivery-Versus-Payment (DVP) system has controls to ensure that final delivery of securities (or cash) occurs only if final transfer of funds (or securities) occur.
- – Many EMs have non-DVP systems, with the risk that the full amount of the transaction may be lost.

- In Europe, the tradition is to combine the functions of Depositary with Clearance and Settlement Houses.
    - For example, in Switzerland, the securities transfer system SECOM is linked to a separate fund transfer system, SIC.
    - A DVP transaction causes securities to be reserved in SECOM, which then generates a payment instruction from the buyer to the seller in SIC.
    - SECOM releases the securities to the buyer when SIC confirms final payment.
- In the US, the functions of Clearance and Settlement Houses and Settlement Banks are performed by the National Securities Clearance Corporation (NSCC) and the US Federal Reserve's Fedwire Securities and Fund Transfer Systems.
- In the books of the Federal Reserve, banks maintain both security and fund accounts, which permits simultaneous transactions.
- In the US, depositaries are organized as limited-purpose trust companies under banking laws.

VIII. Enabling Environment for Stock Markets.

Investing in equities in EMs has special risks, including:

(a) Information Barriers. Differences in accounting standards, and high cost of information.

(b) Political and Capital Control Risks. As a foreign investor, you money is under another jurisdiction. What are the protections you enjoy.

(c) Foreign Exchange Risks. The value and returns from the equity is denominated in a foreign currency. Is there convertibility or restrictions on foreign exchange?

(d) Restrictions on Equity Investments.

(e) Excessive Taxation.

(f) High Transaction Costs.

The way how the country deals with them defines the quality of the enabling environment for stock market development.

- In assessing the adequacy of the enabling environment for capital markets in the country, the following matters should be analyzed:

1. **Adequacy of the Legal and Regulatory Framework for the Stock Market.**
   - Does it provide adequate protection of ownership rights for small and other shareholders?
   - Does it contains adequate and severe penalties for fraud?
   - Does it permit sufficient competition to facilitate stock trading and reduce transactions costs?
   - Are the Broker/Dealer regulations adequate in terms of net capital requirements, qualification standards, commission limitations, auditing requirements?
   - Is there a system of self-regulation by market participants?

2. Adequacy of Prudential Supervision of Capital Markets.

- Is the supervision system capable of detecting abuses, inside trading?
- What is the role of the national security and exchange commission? Are there conflicts with other agencies?
- Are the procedures adequate to carry out inspections, off-site and onsite surveillance?
- How are prudential regulations enforced on market participants?

3. Adequacy of Information, Accounting and Auditing Standards.

- Are the listing requirements, including documentation of qualitative and quantitative qualifications, satisfactory? excessive?
- Do the listed companies comply with international accounting and auditing standards?

- Are the requirements for disclosure of information satisfactory for Public Offerings? Private Placements?
- Do they provide for information through Annual Reports with adequate transparency standards, such as compensation of managers?

4. Adequacy of Tax Policies for stock market activities.

- Do taxes unduly penalizes capital market transactions and profits?

5. Adequacy of the Stock Markets Infrastructure.

- Does the current market infrastructure protects from counterpart risk: the possibility that the other party (seller or buyer) will not deliver at settlement.
- Does a central and independent depositary system exist to minimize abuses and risk of non-delivery?

- Is there an adequate system for registration and custody of shares? (is an accurate custody of ownership records maintained? will shares be wrongfully lost, challenged?
- What systems are used to handle the formal Clearing Process? (process of verifying and identifying the traded shares, the identity of buyers and sellers, and the price and date of trade)
- How good is the system for the settlement of stock transactions (time periods, level of technical fails, adequacy of the delivery-versus-payment system, netting process?)
- What is the level of technology sophistication and types of risk controls are used in clearance and settlement?
- What are the sources of trade data and how it is reported?
- What is the peak and normal processing capacity of the existing infrastructure?

6. **Availability of private and sound Credit Rating Agencies.**
   - The availability of credit rating agencies has been proven to be a key factor leading to better market discipline and transparency by listed companies.
   - Credit Rating companies exercise a good degree of "market" control.

IX. Equity Portfolio Strategies

- The main argument for global investment -- and particularly for portfolio allocation in emerging capital markets -- is based on the appeal of diversification (to reduce the total risk of a portfolio).
- As noted before, empirical work has shown that EMs stocks are more volatile that stocks in developed markets but their correlation with other markets is low.
- Therefore, EM stocks can actually reduce portfolio risks while increasing returns.
- The risk of an EM stock is defined by the volatility of its returns.
- But contrary to the US situation, the "standard deviation" of returns is not a good measure of risk, since they do not follow a normal or symmetric distribution. To assess the risk of the EM stock, the investor must look at the economic situation of the country.

- Another form of international portfolio risk is **correlation risk:** The risk that a seemingly diversified portfolio will prove to be un-diversified in the future because its assets will begin to move uniformly, rather than independently.
- Increasing cross-border investments and improved communications is increasing the correlation among developed markets.
- But except during periods of large variations, correlations of developed market stocks with emerging market stocks are still low.
- These correlations are still low due to the fact that emerging markets are still segmented in an international context.
- This segmentation is due to market imperfections and constraints, including: lack of information, Government constraints, investors perceptions, etc.

- Although, long term gains from diversification are feasible, portfolio managers should be aware that in times of large market movements almost all markets seems to move in the same direction: During periods of disaster there is no safe place to hide.
- However, the impact of a crisis on other individual EM depends on the economic strength of the country: Countries with sound economic policies have suffered less from crises.
- All this suggests that rules-of-thumb do not work well in EMs. Investors should carefully build their own Emerging Market Portfolio based on fundamental analysis.

Building an Emerging Market Portfolio

- The stock selection process could follow a Top-Down approach or a Bottom-up Approach.

(1) Top-Down Investing.

- Under this approach, a country (sector) should be selected first, based on fundamental macroeconomic factors.
- This approach is based on the believe that stocks within a country (sector) are highly correlated and move together.
- Therefore, the emphasis is put in identifying countries (sectors) that are expected to outperform.
- After a country (sector) is selected, then, stocks can be chosen within the selected country: Most Top-down investors would use a “passive management” for stock selection (such as using a country index).

- But others would use active management (picking up individual stocks). But since stock selection is less important, they tend to concentrate in large, liquid stocks.
- In order to forecast the relative performance of the country's stock exchange, there is a need to look at the soundness of the economy as a whole.
- A sound economy is one that has both growth and stability.
- Growth is defined by a high rate of GDP growth.
- Stability is defined by a low inflation rate (internal stability), and a stable foreign exchange rate (external stability).
- Sustainable rates of real GDP growth and firm stability are the key factors affecting the performance of the stock exchange.
- Growth and stability are secured by the implementation of sound economic policies.
- The following economic policies have been proven to be essential (I for Stability; II and III for sustainable growth).

(I) Macroeconomic Stabilization Policies:

- Fiscal Policies under which the Government's fiscal budget has a deficit that can be financed by borrowings on a sustainable basis (normally no more than 3% of GDP).
- Monetary Policies, under which the creation of money (money supply) will not exceed the demand for money (which is affected by income and interest rates).

(II) Liberalization of the Economic Environment

- Liberalization of the Formation and Operation of Enterprises
- Liberalization of the Closure of Failing Enterprises
- Liberalization of Product Pricing and Trade
- Liberalization of the Financial Sector
- Liberalization of Labor and Land Markets

(III) Good Public Governance with Sound Institutions

- Sound & efficient Government services without corruption
- Stable and predictable legal environment
- Low political risks.

(2) Bottom-Up Investing.

- These investors base their portfolio selection on the merits of individual stocks.
- The emphasis is put on identifying stocks that are expected to outperform.
- Country considerations are reviewed at a second stage, with emphasis on exchange rate movements and interest rate changes.
- Professional investors often "screen" thousand of EM stocks by applying a set of criteria that filters out all but the companies that merit a closer look.
- Screening criteria fall into five categories: Growth, Profitability, Pricing, risks, liquidity.
- In Emerging Markets, the most important screening is growth.
- Then, for a closer look at individual company stocks, most investors use the stock valuation methods discussed in Part II above, including discounted cash flows, P/E ratios, EV/EBITDA ratios, asset-based ratios and industry-specific benchmarks.