

Overview of Equity Analysis

FN 451
Class 1



Course objectives

- General
 - Valuation techniques
 - Writing stock reports and selling your ideas
 - Interaction between analysts with firm management, investment bankers, and their clients
 - The role of analysts in promoting information efficient markets
 - The role of mutual funds and asset allocation concepts
- Personal
 - Helps you make decision about your career
 - Understand importance of investment planning for future savings goals
 - Personal asset allocation plans



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Today's outline

I Overview of equity valuation process

Valuation of financial assets

Fundamental analysis vs quantitative analysis

II A career in asset management and investments

- Overview of asset management industry
- The role of equity analysts
- A day in a life of an ordinary equity analyst
- The role of fund managers

III Asset management industry in Thailand

- SET and ASEAN



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I) OVERVIEW OF EQUITY VALUATION



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Example – Pure price-time precedence

Time	Trader	Buy/Sell	Size	Price
12:02	Sammy	Sell	100	\$20.05
12:06	Steve	Sell	200	\$20.06
12:15	Bernie	Buy	500	\$20.06
12:16	Sopa	Sell	300	\$20.08
12:20	Ben	Buy	200	Infinite
12:21	Bob	Buy	100	\$20.08
12:24	Sandy	Sell	500	\$20.12
12:25	Dan	Buy	500	\$20.08
12:27	Bill	Buy	200	\$20.05
12:27	Sutee	Sell	200	\$20.10



Example – the order book

Sellers			Buyers	
Trader	Size	Price	Size	Trader
Sammy	100	\$20.05	200	Bill
Steve	200	\$20.06	500	Bernie
		\$20.08	100	Bob
Sopa	300	\$20.08	500	Dan
Sutee	200	\$20.10		
Sandy	500	\$20.12		
		Infinite	200	Ben



Discussion

- Why do these people have different bidding and selling prices?
- Why are they submitting at different timing?



Valuation of assets

- Asset value = Common value + Private value
- Asset value is the price that you are willing to buy/sell the asset
- Common value: a **common value** is value in which information about the **value** of the object for sale is dispersed among bidders.
- Private value: Only the bidder knows how much he/she values the item.
- Intrinsic value: Refers to **value** of a company, stock, currency or product determined through fundamental analysis without reference to its market **value**.



Asset pricing from an economist's view

Asset price = Common value + Private value

$$\tilde{v}_t = \tilde{y}_t + \tilde{u}_t$$
$$\tilde{y}_t \sim N(\bar{y}, \sigma_y)$$
$$\tilde{u}_t \sim N(\bar{u}, \sigma_u)$$

Uncertainty makes the market colorful and creates trading opportunities.



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Valuation vs share price

- Valuation is a personal belief, share price reflects average market expectations of valuation.

Nature	Firm view	Capital market view
Estimates	In-house business plan	Consensus expectations
Degree of information	Inside information knowledge	Only public information available
Information circulation and quality	Instant information	News, price/volume momentum, rumors
Valuation	Usually absolute terms	Relative valuation
Premium	Control premium or other private values	No control premium for individual listed shares Premium depends on risk aversion and diversification benefit



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Fundamental analysis

- A technique that attempts to determine a security's value by focusing on underlying factors that affect a company's actual business and its future prospects.
- One of the primary assumptions of fundamental analysis is that the price on the stock market does not fully reflect a stock's "real" value. After all, why would you be doing price analysis if the stock market were always correct? In financial jargon, this true value is known as the intrinsic value.



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Types of fundamental factors

- Quantitative fundamentals are numeric, measurable characteristics about a business. It's easy to see how the biggest source of quantitative data is the financial statements. You can measure revenue, profit, assets and more with great precision.
- Qualitative fundamentals are the less tangible factors surrounding a business - things such as the quality of a company's board members and key executives, its brand-name recognition, patents or proprietary technology.



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Quantitative investment analysis

- A quantitative analyst or quant is a person who specializes in the application of mathematical and statistical methods – such as numerical or quantitative techniques – to financial and risk management problems.
- Although the original quantitative analysts were "sell side quants" concerned with derivatives pricing and risk management, the meaning of the term has expanded over time to include those individuals involved in almost any application of mathematics in finance, including the "buy side".
- Source; Wikipedia



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Fundamental Analysis

- Fundamental analysts look for companies whose financial health is good and getting better, and which are undervalued by the market
- They scour financial reports, calculate ratios, compare to other similar companies, etc
- Fundamental analysts believe that "earnings drive stock prices" at least in the long run
- Fundamentalists tend to be buy and hold investors, as opposed to technicians who tend to be shorter-term traders



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Fundamental analysis

Top down approach: An analysis of the impacts of the economic environment on industries and securities of companies in the industries.

Bottom up approach: An analysis of industries and forecasts fundamentals for the companies in those industries in order to determine valuation.

John Burr Williams (1900 – September 15, 1989), one of the first economists to view stock prices as determined by "intrinsic value". He is recognized as a founder and developer of fundamental analysis. He is best known for his 1938 text "The Theory of Investment Value", based on his Ph.D. thesis at Harvard University.



Fundamental analysis

Economic Analysis

- State of overall economy

Industry Analysis

- Outlook for specific industry

Company Analysis

- Financial condition of specific company
- Forecasts of future financial positions, profits and cash flows

An analyst must be able to access the impacts of economic conditions on industries and companies.



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Quantitative analysis

- Examples include statistical arbitrage, quantitative investment management, and algorithmic trading.



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II) Overview of an equity analyst's job

An analyst's role and responsibility



Role of an equity analyst: "My 4 Rs"

Right forecasts, valuation, recommendation

Right timing

Right communication

Relationship with clients and firms

⇒ Samples of analysts' reports

initial coverage report, maintenance report,
investment call report / theme report



Analyst types

- Sell-side: Employed by investment banks or brokerages

To help clients make better investment decisions

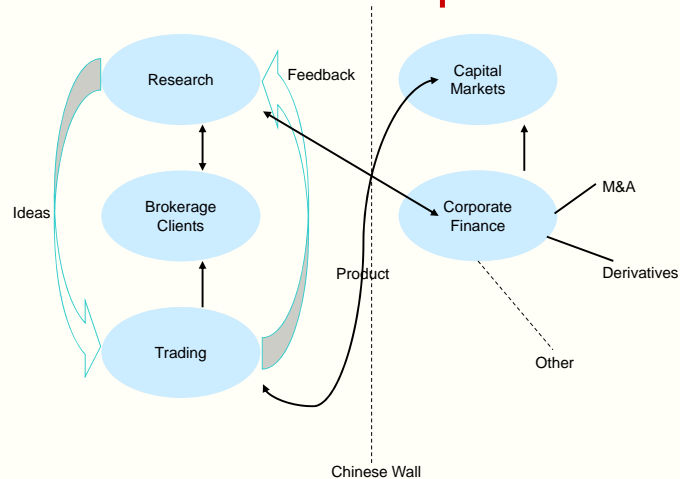
- Buy-side: Employed by investment funds

To recommend stocks that "go up" to a Portfolio Manager (within framework of a stated investment strategy)



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Information and product flow



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Role: Who are the 'clients'?

(those who value equity research)

External

1. Institutional Investors (primary client)
2. Companies
3. Retail investors

Internal

3. Sales & Trading
4. Investment Banking

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Regardless of clientele...

The ultimate goal of the equity analysis is to exploit any difference between a stock's market price and its value or target price!

What is the role of equity analyst? (For investors)

- Help client achieve investment objectives.
- How so?
- Equity analysis is the prediction (**valuation**) of a stock price, **a target price**.
- To find the target price, an analyst makes a projection of future financial performance.
- An analyst's job is to present a position, supported by financial and non-financial evidence or **assumptions**

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Investment action

BUY if Intrinsic value > market value (Undervalued)

SELL if Intrinsic value < market value (Overvalued)

BUY if expected return > required return (Undervalued)

SELL if expected return < required return (Overvalued)

Expected return and required return are equal if market is fairly valued (equilibrium price, i.e. price where demand equals to supply). This is the equilibrium return base on homogeneous expectations.



Intrinsic value and market value

An Intrinsic value (fundamental value, fair value) is the equilibrium value, which reflects the price that rational investors with full knowledge about the asset's characteristics are willing to pay for the firm's future earnings.

A market value of equity is the total value of firm's outstanding shares based on market price.



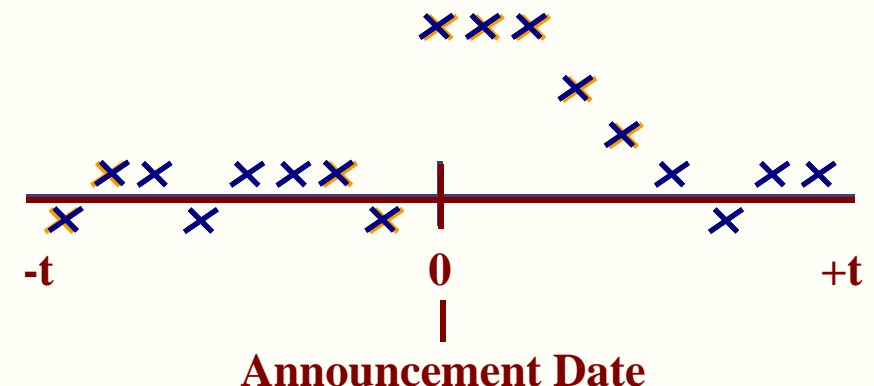
What is the role of an equity analyst? (Policy makers, academics, strategists)

- Supporting an "information" efficient market
- But this idealized role faces certain difficulties
 - Dispersion of analysts views: Why?
 - Bias of sell-side analysts: Why? [See article Bias in European analysts recommendation]



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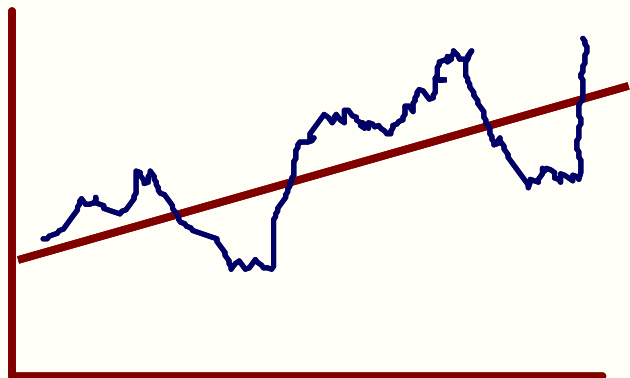
Return response to positive news



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Random walk and the EMH

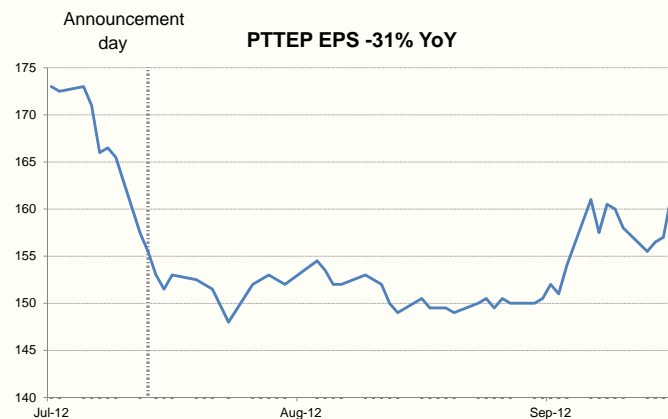
Security Prices



Time 29

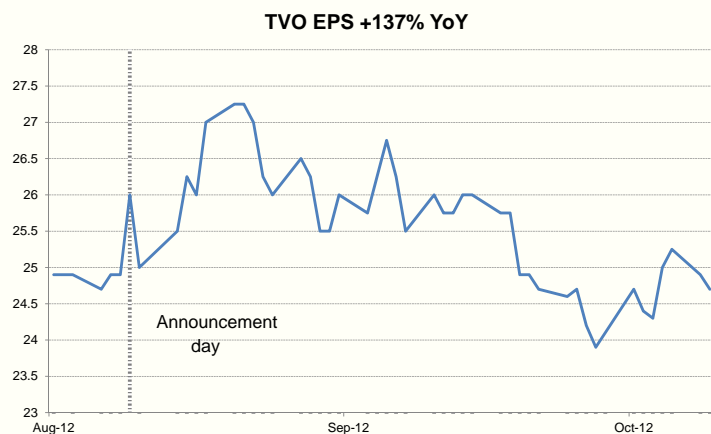


Earnings Announcement & Stock Price



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Earnings Announcement & Stock Price



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Role of an equity analyst: Fundamental value

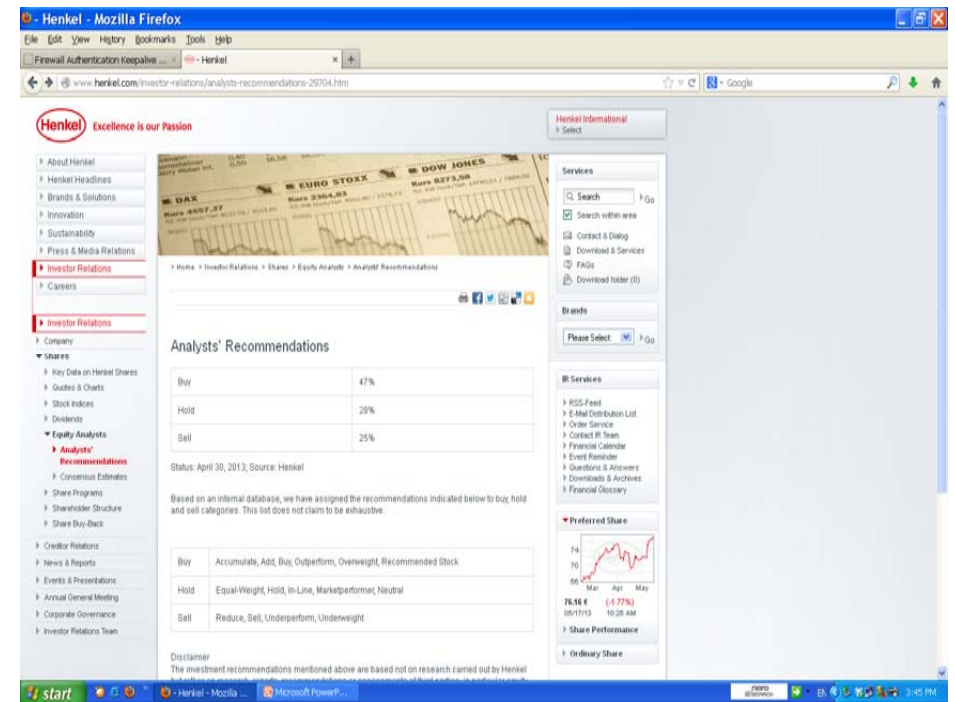
The aim of equity analysis is to find the **equilibrium value (intrinsic value)** of equity (i.e. the equilibrium value of common share).

Efficient market hypothesis (Eugene F. Fama, the University of Chicago): Financial markets are **informationally efficient**. One cannot consistently achieve returns in excess of average market returns on a risk-adjusted basis. EMH is based on an assumption the market as a whole **acts rationally**.



What is the role of equity analyst? (For brokerages/investment banks)

- Generate income from clients passing order through brokerage.
- Build relationship with clients and firms.
- Providing in-house investment recommendations.

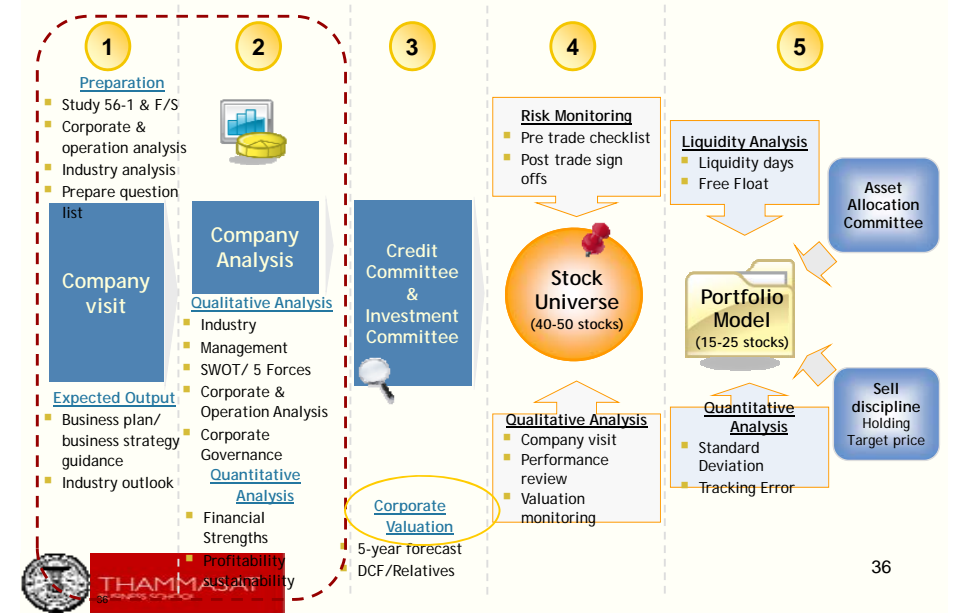


Career path

- Assistant analyst
- Senior analyst
- Head of equities research or sales or consulting
- Fund manager or consulting
- CFO



Equity Valuation Process

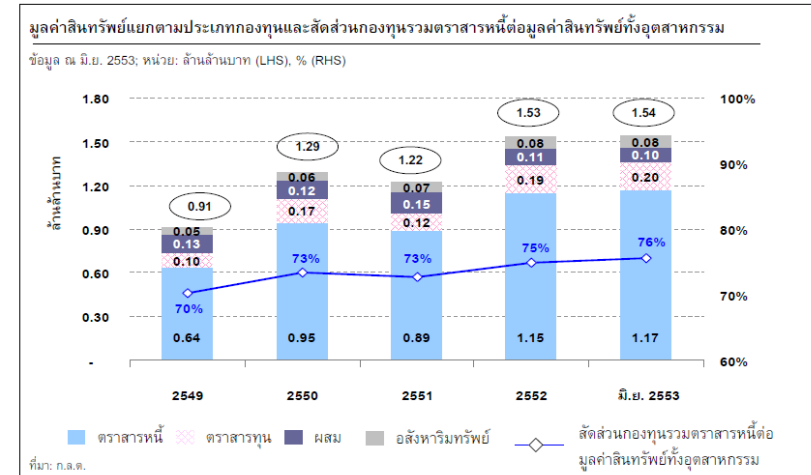


Asset management industry in Thailand

www.aimc.or.th; www.morningstarthailand.com/th/



Share of mutual funds by type



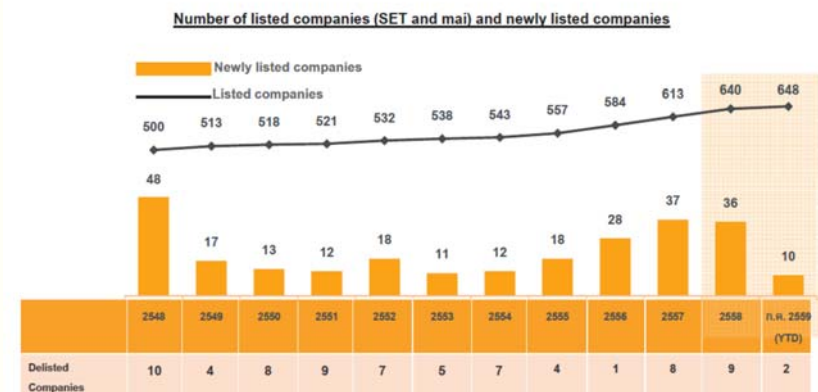
SET updates: Let's analyze each slide

Source: Stock Exchange of Thailand www.set.or.th



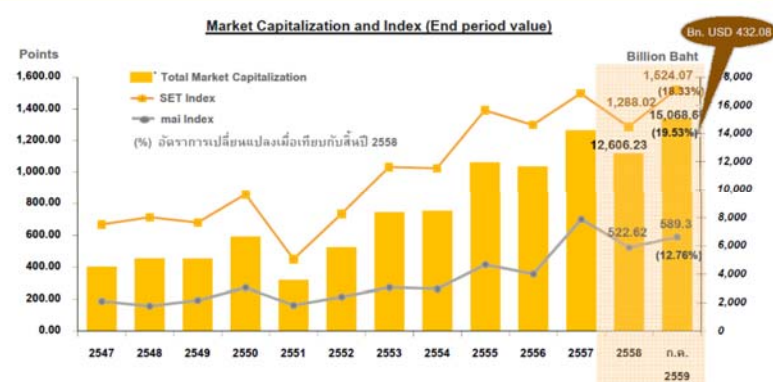
New listings

Number of new and existing listed companies (SET and mai)



Market size and index

Market Capitalization and Index (End period value)

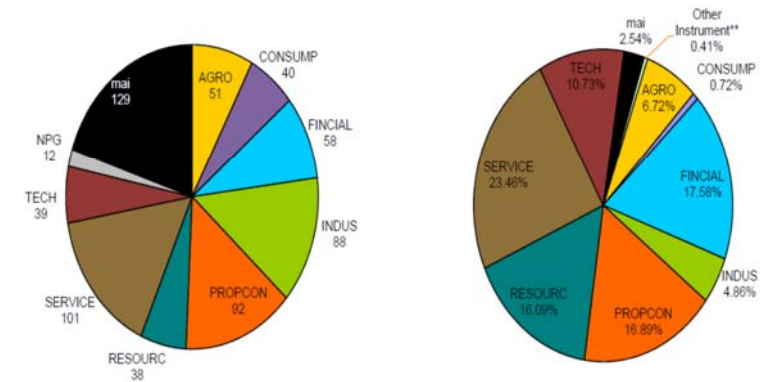


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Sector break-downs

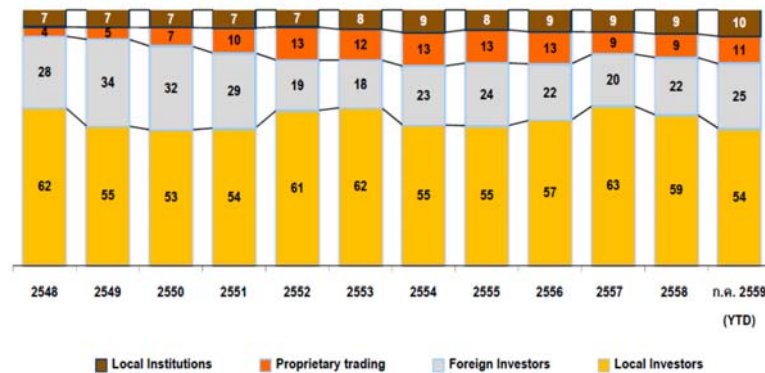
Total number of listed companies = 648 companies *

Total Market Cap = 15,068.66 billion baht***



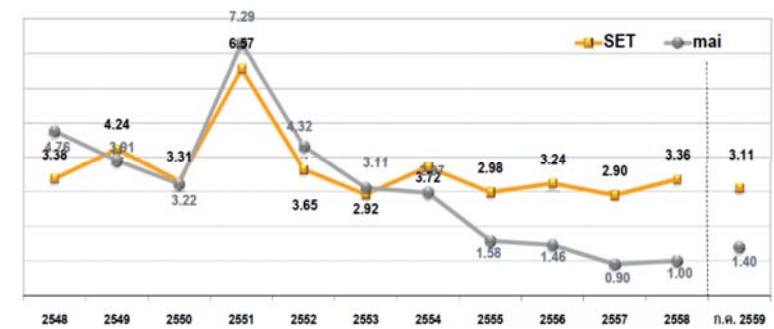
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Transaction by investor type



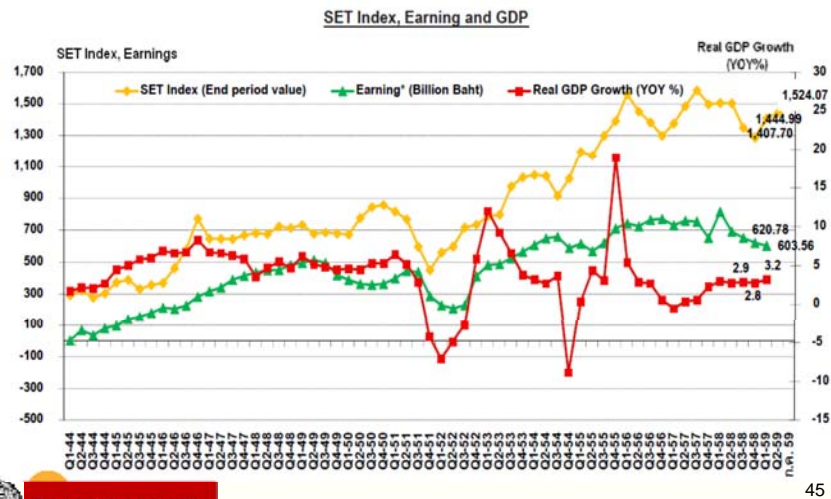
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Dividend yield



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Market performance, earnings, and GDP



SET and markets around the world

What does this mean for us?

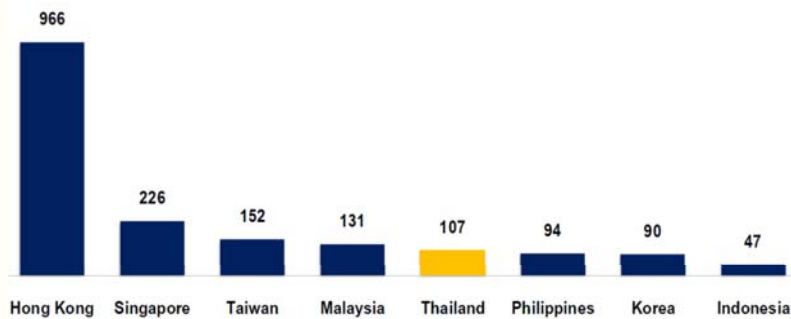
Source: www.set.or.th



SET's presence in Asia

Market Capitalization to GDP Comparison : Asia Countries

Unit: Percentage



Sources: Market Capitalization from World Federation of Exchanges (WFE) and Nominal GDP from International Monetary Fund, World Economic Outlook Database, Oct. 2015
 Note: - Market capitalization in terms of USD at the end of Jun 2016
 - Nominal GDP in terms of USD for Year 2015 (Estimated)

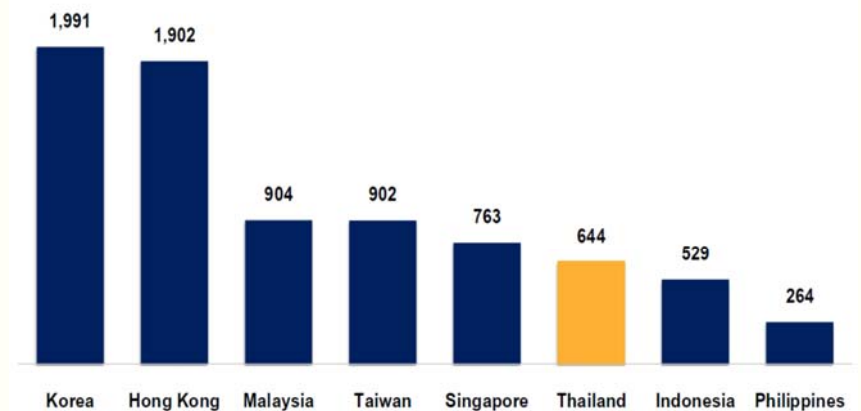
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SET's presence in Asia

Number of Listed Companies : Asia Countries

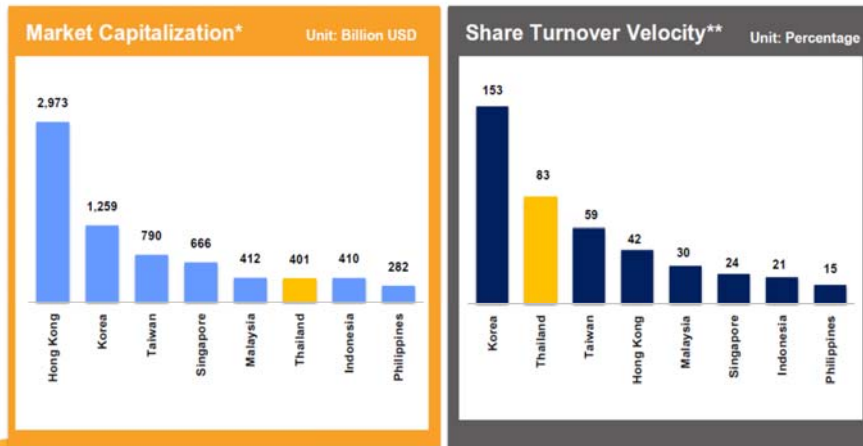
(As end of Jun 2016)



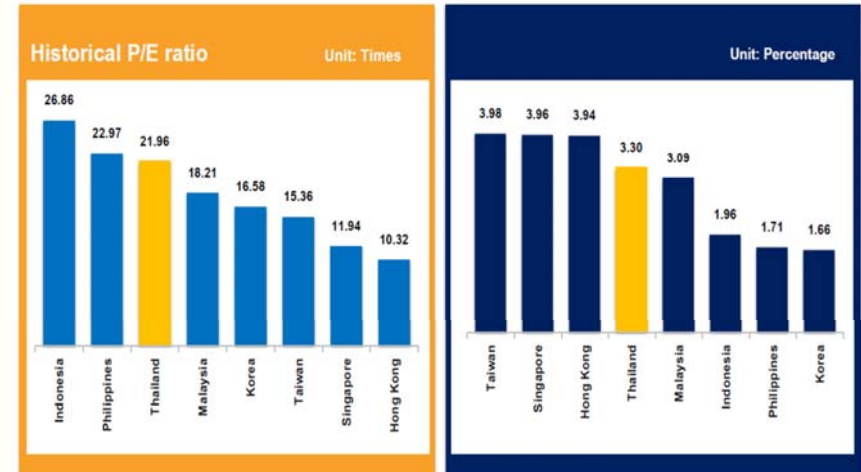
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SET's presence in Asia



SET's relative valuation



WHAT DO WE KNOW ABOUT MARKET INTEGRATION?

Financial integration

Benefits

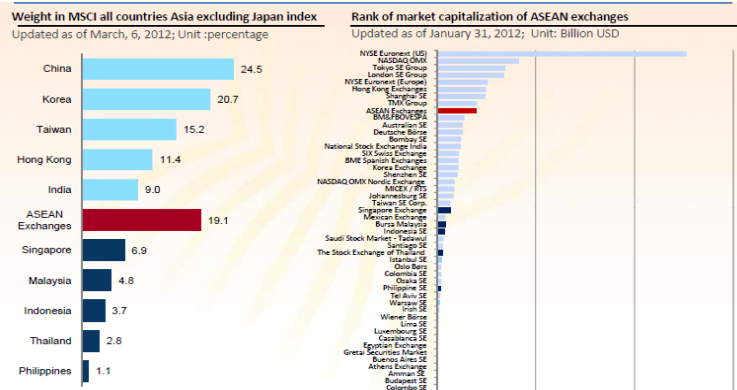
- Lower cost of trading of financial assets (Martin and Rey; 2004)
- Diverse investor portfolios (Errunza and Losq, 1985; Eun and Janakiraman, 1986)
- Lower firm cost of capital (Bekaert and Harvey, 2000; Henry, 2000; Chari and Henry, 2002)
- Improved visibility (Ranjit and Singh; 2009)

Concerns

- Increased comovement and contagion (Hinojales and Park, 2010; Park 2013)
- Positive spill-overs not equally shared among participants (Bekaert and Harvey, 2002)
- Short-term adjustment issues (Ranjit and Singh; 2009)

ASEAN Exchanges Collaboration

- 6 countries, 7 exchanges (2 exchanges from Vietnam),
- 3,613 firms and 2 trillion USD market capitalization



ASEAN exchange initiatives

Two main collaborations among ASEAN Exchanges are as follows;

1. Development of marketing initiatives to promote ASEAN as an asset class
2. Development of exchange infrastructure linkage to ease investors to access ASEAN Exchanges.



ASEAN Stars

- The ASEAN Stars are 180 ASEAN Stocks representing the Most Exciting 30 of each country as selected based on market capitalization and liquidity.
- Partnerships will be formed to provide investment platforms and integrated data feeds of the ASEAN Stars to build the momentum and interest of these large and liquid stocks of ASEAN.



ASEAN linkage

- ASEAN Link is the intra-ASEAN connectivity platform to create greater ASEAN investment mobility amongst intermediaries.
- The first three exchanges to be connected on ASEAN Link are Bursa Malaysia, Singapore Exchange, and the Stock Exchange of Thailand, with Bursa Malaysia and Singapore Exchange going live in June 2012, and the SET in August 2012, shortly after a new trading engine has gone live.



Brokerages

- The six brokers which will be ready to offer trading service via ASEAN trading Link within January 2013 are Asia Plus Securities pcl, Capital Nomura Securities pcl, DBS Vickers Securities (Thailand) Co., Ltd., Kasikorn Securities pcl, OSK Securities (Thailand) pcl, and Tisco Securities Co., Ltd.
- The current nine brokers participating in the ASEAN Trading Link are Country Group Securities pcl, Finansia Syrus Securities pcl, KGI Securities (Thailand) pcl, Krungsri Securities pcl, KT Zmico Securities Co., Ltd., Maybank Kim Eng Securities (Thailand) pcl, Thanachart Securities pcl, SCB Securities Co., Ltd., and UOB Kayhian Securities (Thailand) pcl,

