



Bachelor of Economics  
THAMMASAT UNIVERSITY

## **FN 211 Financial Markets**

# **Class 5: Efficiency of Financial Markets**

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# Today's Outline

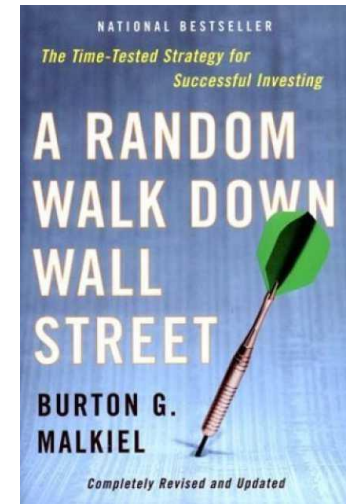
- ❖ **Efficient Capital Markets**
- ❖ **Insider Trading**

# Efficient Capital Markets: The Random Walk Theory

- One popular modern theory regarding the valuation of stocks is the *random walk* theory.
- According to the theory, successive changes in the price of a stock are random fluctuations around that stock's intrinsic value, and these changes are independent of the sequence of price changes that occurred in the past.
- But of course, many analysts still subscribe to *technical analysis*, believing that past price movement can help predict future stock price.

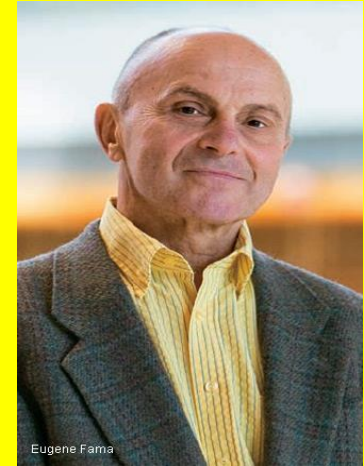
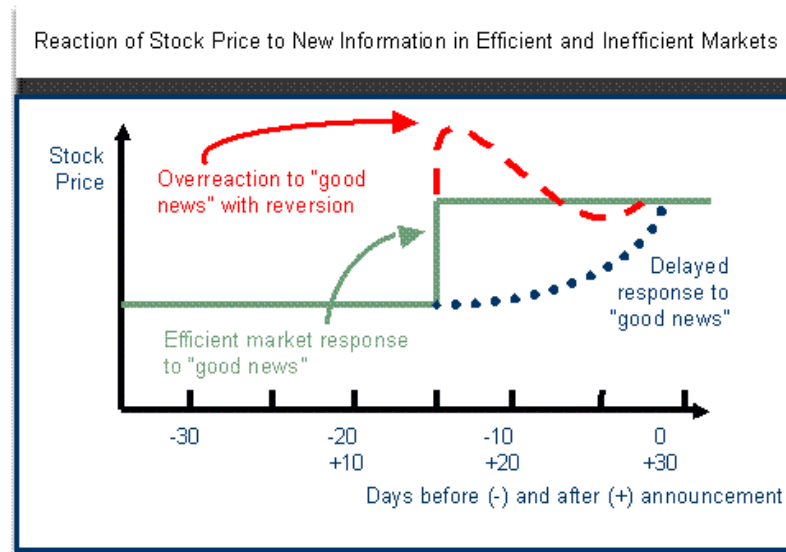
# Efficient Capital Markets: The Random Walk Theory

- **Burton Malkiel**, professor of economics at Princeton, is a leading proponent of the efficient market hypothesis.
- He contends that prices of publicly traded assets reflect all publicly available information.
  - *In other words, a "blindfolded monkey" would have as much luck selecting a portfolio as a pro.*
- Since stock prices cannot be predicted in the short term, investors are better off buying and holding onto index funds than meddling with securities or actively managing mutual funds.



# Efficient Capital Markets: The Random Walk Theory

- The random walk notion is supplemented by the broader *efficient markets hypothesis*.
- In a perfectly efficient market, existing stock prices fully reflect the latest information available on the profitability and risk of business firms.
- Most researchers agree that financial markets are efficient, though they may disagree on the *degree* of efficiency.



**Eugene Fama** is currently a Professor of Finance at the University of Chicago. He is most often thought of as **the father of efficient market hypothesis**, beginning with his Ph.D. thesis

# Efficient Capital Markets: The Weak Form

- **Meaning:** current stock prices reflect all **available security market information**, including historical prices, returns and trading volume.
- **Implication:** Investors cannot make abnormal returns consistently by using past market data or trends to predict future stock prices. **Technical analysis** has no value
- **Empirical research** generally confirms that markets are weak form efficient; successive price changes are generally random and that the correlation between stock prices from one day to the next is virtually zero.

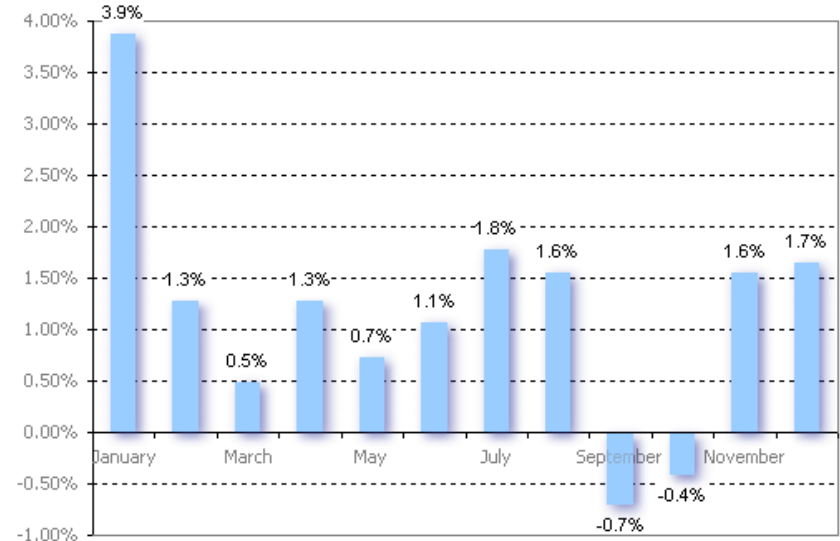
# Efficient Capital Markets: The Semistrong Form

- **Meaning:** stock prices fully reflect **all public information**, including earnings and dividend news, P/E ratios, economic and political news, etc.
- **Implications:** Investors who base their decisions on public information should not earn abnormal return consistently because the security prices already reflects all such new public information. So, **fundamental analysis** has no value.
- **Empirical research:** evidence is mixed.
  - Studies found that investors *do* make abnormal returns from earnings surprises, January Effect, P/E ratios, and small, neglected firms – against semistrong EMH
  - Studies found that investors *don't* make returns from economic and political news, corporate events such as M&A – support semistrong EMH

# Efficient Capital Markets: The Semistrong Form

- *The January effect is a calendar effect wherein stocks, especially small-cap stocks, have historically tended to rise markedly in price during the period starting on the last day of December and ending on the fifth trading day of January.*
- *This effect is owed to year-end selling to create **tax losses**, recognize capital gains, effect portfolio window dressing, or raise holiday cash.*

Returns by Month of the year - 1927 - 2001



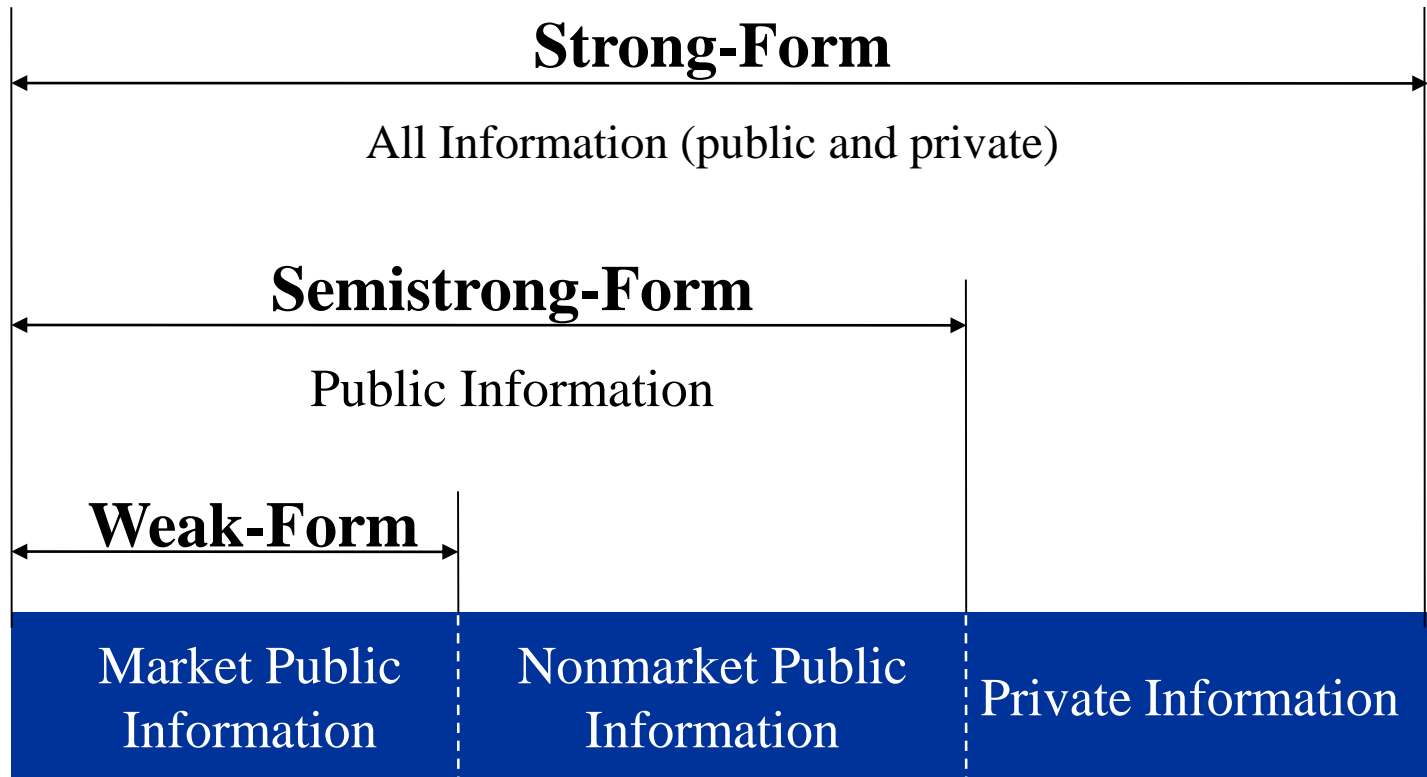
Source: Haugen, R. and J. Lakonishok, *The Incredible January Effect*



# Efficient Capital Markets: The Strong Form

- **Meaning:** Current stock prices fully reflect all information about the firm, **both public and private**.
- **Implication:** Investors cannot make abnormal returns consistently by trading on **inside information**.
- **Empirical research:**
  - Studies found that insiders (directors, officers, etc.) *do* earn abnormal returns from trading – **against** strong EMH
  - Studies found that fund managers *don't* make abnormal returns consistently. They cannot outperform a buy-and-hold strategy - **support** strong EMH.

# Efficient Capital Markets: Summary



# Today's Outline

- ❖ **Efficient Capital Markets**

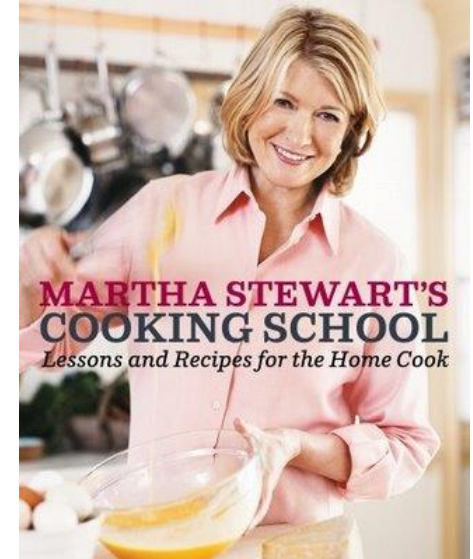
- ❖ **Insider Trading**

# Insider Trading

- Inside Information** is defined as information about a company that is both material and nonpublic.
- **Material** means the information has a substantial impact on the prices of securities.
    - Examples: *takeovers, forthcoming press coverage, earnings surprises, issuance or denial of patents, substantial mineral finds, approvals of a product*
  - **Nonpublic** means it has not been generally disclosed to the marketplace.

# Insider Trading: Famous Cases

- Style guru and media magnate **Martha Stewart** was convicted of selling ImClone stock after finding out regulators had rejected an application for the company's new cancer drug , Erbitux.
- She was sentenced to 10 months, split between prison and home confinement, and fined \$30,000. Her stock broker, Peter Bacanovic, was also convicted.



- **Steven A. Cohen**, founder of SAC Capital, is one of the most successful hedge fund manager. He has an estimated net worth of \$8.8b, ranked by Forbes as the 106th richest man in the world.
- In 2012, he began to be implicated in a large criminal insider trading scandal; bought shares of two drug companies involved in the clinical trial, and then bet on the companies' shares to fall when learned of negative news. The hedge funds reaped \$276 million in profits and losses avoided based on that information.

# Insider Trading: A Case Study

- On a Saturday afternoon, **Bruce Winslow**, a fund manager of Kramer Asset Management, is walking back home when he comes across a briefcase on the sidewalk.
- The street is deserted. He picks up the briefcase, takes it home with him, opens it, and finds that the owner is **Tom Harcourt**, his former classmate and rival at business school.
- Tom is now a senior analyst at Lamont, a major investment banking firm.

# Insider Trading: A Case Study

- Bruce also finds flash drive. He connects it with his home computer and starts looking through files.
- He finds spreadsheets of various financial statements and scenarios for a **takeover** of VitaLife by Paramex Medical. He copies all these files into his computer.
- On Monday morning, Bruce returns Harcourt's briefcase, wrapped in plain brown paper, without any indication of where the parcel has come from.

# Insider Trading: A Case Study

- Bruce then puts in orders to buy shares of VitaLife for the accounts of his wife and his mother-in-law.
- A week later, Paramex announces a takeover of VitaLife, and the share price of VitaLife increases by 30% in one day.

## Solutions:

- This is clearly a use of inside information because it is both material and nonpublic.
- Bruce used it with the intention of self-gain. That is not only unethical, but can also be illegal in most countries.

# Insider Trading: A Thai Case Study



- *The Securities and Exchange Commission on December 23, 2010, fined Sinsathien Aimpoolsub and Somphit Phuphiewngern for **use of inside information** for the trading on Professional Waste Technology (1999) Co Ltd.*
- *The SEC said Sinsathien, managing director and CEO of the company, bought PRO's shares through Somphit's account during January 11 - 31, 2007 while the company was under a joint venture negotiation with EnviroHub Holding. Sinsathien represented PRO in the negotiation, which was then not yet disclosed to the public.*
- *The watchdog viewed that Sinsathien violated the Securities and Exchange Act's Article 241, while Somphit was fined as an accomplice. Both agreed to the penalty: Bt500,000 imposed on Sinsathien and Bt333,333 on Somphit.*

# Insider Trading: A Thai Case Study

