



**Demystification of Stock Markets:
The Economic and Social Benefits?
The Case of Thailand**

A Research Paper presented by:
Pataraporn Laowong
(Thailand)

in partial fulfillment of the requirements for obtaining the degree of
MASTER OF ARTS IN DEVELOPMENT STUDIES

Major:
Social Policy for Development
(SPD)

Members of the Examining Committee:

Dr. Howard Nicholas
Dr. Andrew Fischer

The Hague, The Netherlands
December 2014

Disclaimer:

This document represents part of the author's study programme while at the Institute of Social Studies. The views stated therein are those of the author and not necessarily those of the Institute.

Inquiries:

Postal address:

Institute of Social Studies
P.O. Box 29776
2502 LT The Hague
The Netherlands

Location:

Kortenaerkade 12
2518 AX The Hague
The Netherlands

Telephone: +31 70 426 0460

Fax: +31 70 426 0799

Acknowledgement

First of all, I would like to thank Nuffic for giving me an opportunity to begin this invaluable journey.

To make this research paper happen, I owe a great debt to my beloved supervisor, teacher, role model – all bound up in one- Howard Nicholas. He provides me not only with the wisdom he accumulated over decades but also devotes scores of hours of his precious time discussing and reading successive drafts and points the way to improvements for this research. And most importantly, he is an inspiration. He is the first one who enlightened me on how much the teacher can do for his students. I can only dream of becoming someone like him in the future and help others who need it.

Thank you for my second reader as well, Andrew Fischer, for the kind support and constructive comments. Without him, I may have forgotten to bring in the social aspect of my research. Many thanks also to all of my discussants both official and unofficial. Especially thanks to the ones who got it started- Prarthana Rao, Min Jee Park, and Vo Tran Trung Nhan who were my first group of discussants, especially Prarthana who edited and reshaped my question so that I could communicate with my supervisor. Thanks to Kohei Yamada and Zanele Silo who patiently read my long first draft for the seminar. Thanks to Wo Ping Wong, the friend who kept suggesting several related materials to me after he knew that I was going to do research on stock markets.

Thanks to the lovely community at ISS that gave me the chance to have a journey with myself and the world. I would like to deeply thank all of my professors and friends for giving me the precious experience.

I am also grateful to my lovely senior, Ronnatit Tangtronchitt, who elucidated many angles about stock markets. I also benefited from the assistance of Suchawadee Jongchotchatchawal, an old friend from my undergraduate who was very generous to share with me accounting knowledge for my financial analysis part. Thanks to Pearl Suphannada Lowhachai for providing valuable inputs on the analysis of national account.

Thanks to Kanokkarn Tevapitak who helped edit a portion of my draft in terms of language and my beloved Thai friend Apiradee Thammanomai who went through a large part of the RP and made suggestions about its readability. Thanks to Wittawat Prayookwong for his detailed comments on the whole RP which made it a better draft before sending the final one to my supervisor.

Prarthana, Min and Kohei, I think you guys know how much you mean to me. You made my life here not too lonely and made me realize the meaning of true friendship.

Thanks to the ‘NESDB Gang’ for the consistent care, especially Sukit Sivanunsakul who has always been there to help me when I need it.

Lastly, thank you to my family who always give me unlimited love.

Contents

<i>List of Appendices</i>	<i>v</i>
<i>List of Tables</i>	<i>v</i>
<i>List of Figures</i>	<i>vi</i>
<i>List of Acronyms</i>	<i>vii</i>
<i>Abstract</i>	<i>viii</i>
Chapter 1 Introduction	1
1.1 Background	1
1.2 Research Objective and Questions	5
1.3 Hypotheses	5
1.4 Scope and Limitation	5
1.5 Approach/Methodology	6
Chapter 2 Literature Review: What Do Stock Markets Do?	9
2.1 Introduction	9
2.2 The Basics about Stock Markets	10
2.3 The Stock Market as a Source of Investment Finance	10
2.4 An View on the Source of Income from the Stock Market	16
2.5 Concluding Remarks	19
Chapter 3 Thailand Stock Market in brief	21
3.1 Thai Economy in Brief	21
3.2 The Development of the Financial Markets	22
3.3 The Evolution of Thailand Stock Market and Related Policies	23
3.4 The Stock Market and the Production Economy	28
3.5 Microstructure in the Thai Stock Market	30
3.6 Concluding Remarks	34
Chapter 4 The Benefit to fixed capital formation of a firm: Result Analysis	35
4.1 A Source of Investment Finance in Thailand	35
4.2 Firm-Level Analysis	36
4.3 Concluding Remarks	40
Chapter 5 The Thai stock market as a source of institutional income	41
5.1 Pension System in Thailand	41
5.2 The Dilemmas of the Thai Pension System	43
5.3 The Participation of Pension Funds in the Thai Stock Market: the Justification	46

5.4 Concluding Remarks	50
Chapter 6 Conclusion	51
References	53

List of Appendices

Appendix A: The Second Capital Market Development Masterplan Plan 2010-2014	59
Appendix B: Thailand Pension System- the Five Pillars	60
Appendix C: Example of Asset Allocation and Returns of RMF	62

List of Tables

Table 2.1: Financing of corporate growth, 1980-90	14
Table 2.2: Unweighted average net financing of nonfinancial enterprises, 1970-85	14
Table 2.3: Retail investors' returns in USA, 1991-1996	19
Table 3.1: Shares of each financial markets, 2002-2007	22
Table 3.2: Chronology of Thailand stock market	25
Table 3.3: Summary of major stock market ratios, 2002-2013	27
Table 4.1: Sources of funds for capital expenditure, 2000-2013	38
Table 4.2: Sources of funds by sectors	39
Table 4.3: Sources of funds of the industrial sector by size	40
Table 5.1: The normalization value between SET and time deposit at different years of investing, ended in 2013	47

List of Figures

Figure 2.1: The taxonomy of the stock market	10
Figure 2.2: Numbers and values of IPOs of OECD and Non-OECD, 1993-2011	15
Figure 2.3: Fund raising through the secondary market compared to market capitalization, 2005-2008	15
Figure 3.1: Thailand GDP and GDP growth, 1975-2012	21
Figure 3.2: Organization chart of Thai stock market	24
Figure 3.3: The amount of the new issuance by security types, 1992-2013	25
Figure 3.4: Major numbers about Thailand stock market	27
Figure 3.5: Thai stock market in comparison with others in the region	28
Figure 3.6: Thailand stock indices, 1975 – 2014	28
Figure 3.7: Value of outstanding securities and stocks to GDP, 1993-2012	29
Figure 3.8: GDP and SET index growth in comparison	29
Figure 3.9: Correlated movement between foreign bholding and SET index	31
Figure 3.10: Total selling transactions by types of investors, 1993-2014	31
Figure 3.11: The composition of retail investors by the trading value, Jan.-Sep. 2009, monthly	31
Figure 3.12: Selling volume by each type of investors	32
Figure 4.1: Thailand GDP and gross fixed capital formation, 1990-2012	35
Figure 4.2: New stock issuance to non-residential gross fixed capital formation	36
Figure 4.3: The contribution of shares to total fixed capital formation	37
Figure 4.4: Fund raised in the secondary market by purposes, 2000- June 2009	37
Figure 4.5: Number of newly listed companies, 2000-2013	38
Figure 4.6: A comparison of cash-flow from operation and stock market issuance	39
Figure 5.1: Retirement fund value by providers, as of August 2014	42
Figure 5.2: NAV of Retirement Savings to GDP, 2003-2013	42
Figure 5.3: Compound annual rate of nominal return by types of assets	44
Figure 5.4: Types of RMF by value and numbers of funds	45
Figure 5.5: The examples of 10 year NAV of flexible and equity RMFs (SCBRM3 and SCBRM4)	46
Figure 5.6: SET index, October 2004 – July 2014	46
Figure 5.7: SET index for different time spans	46
Figure 5.8: The NAV and SET index of KEQRMF (equity RMF)	48
Figure 5.9: The performance of flexible and equity RMFs, 3 months – 1 year	49

List of Acronyms

AIMC	Association of Investment Management Companies
BBLAM	BBL Asset Management
BEX	Bond Electronic Exchange
BOT	Bank of Thailand
FPO	Fiscal Policy Office
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GPF	Government Pension Fund
LDCs	Less developed countries
LTF	Long Term Equity Fund
MAI	Market for Alternative Investment
NESDB	Office of the National Economic and Social Development Board
OECD	The Organisation for Economic Co-operation and Development
RMF	Retirement Mutual Fund
SEC	The Securities and Exchange Commission
SET	The Stock Exchange of Thailand
SSF	Social Security Fund
TFEX	Thailand Future Exchange
TSI	Thailand Securities Institute
THB	Thai Baht (currency)
USD	US dollar (currency)
WB	The World Bank

Abstract

This paper examines two functions of the stock market- a source of investment finance to businesses and a source of supplementary income to individuals concentrating on equity pension funds. The main finding is that the long-standing premise about the role of the stock market as of the orthodox economists seems untrue for Thailand. The evidence presented suggests that the stock market provides at most about 10% of gross fixed capital formation and 15% of long-term capital expenditure of companies. In fact, and reinforcing findings in the literature, companies appear to rely much more on the internal source (retained earnings). The findings do point to the stock market having a greater role in investment financing in the post-financial crisis period, but this is still a limited role.

Second, the literature reviews undermine the efficient and rational market assumed by neoclassical economists. Therefore, involving pension funds with equity comes with conditions on sufficient knowledge and disciplines to get updated about the market so that the right type of funds is selected at the right time.

Relevance to Development Studies

Capitalism has evolved all the time. In the contemporary capitalist economy, it is inevitable to talk about the development of finance. The production in factories has no longer the solely cast of characters in the capitalist system anymore. On the other hand, the world of finance has become ubiquitous discourse, and a stock market is one of the key performers in this financial world.

The development of the stock market is postulated as a good deed for economic and social wellbeing. For the economy, it is the channel for financing business investment which subsequent boosts the overall economy. On the social side, it is the alternative mode of saving and investing as a supplementary income for ordinary people. This paper, therefore, aims to unravel these core hegemonic notions about the stock market focusing on the function in investment finance as well as political economy of income generation and the effect to retirement security. Thailand would be a good case study as it has fully adopted these dominated doctrines with very less research endorsement. So it is timely to conduct an examination on the actual roles of the stock market. The findings can help all related agents to truly understand the function and the nature of the stock market before stepping inside its arena with a consequence in their own wellbeing.

Keywords

Stock market, Investment Financing, Supplementary/Alternative Income, Retirement Security, Pension Fund, Retirement Mutual Fund, Thailand

Chapter 1

Introduction

1.1 Background

The dynamic of capitalism evolves all the time. In the last three decades, three main forces are the main characters shaping the world of capitalist economy-neoliberalism, globalization and financialization¹. The latter one, specifically, has taken an increasingly dominant role (Foster 2007: 1). There had been a drastic shift of the stock of global financial assets to global Gross Domestic Product (GDP), which grew from 109% in 1980 to 316% in 2005 (Ingham 2011: 147); around one-third was in stock markets which is about 90% of the GDP. And this proportion is still maintained until the present day² (Roxburgh 2011: 2 and World DataBank 2014). So, what is the effect of this phenomenon to the economy? The exploration to find an answer, however, concentrates only on the stock markets as the main interest.³

The mainstream economists have long been advocated the role of the stock market as the place to facilitate capital movement between those who have money to invest and those who need them which consequently brings an economic growth for all (Bibow 2012: 209). The framework stated since the late 19th century early done by Walras in 1874 following with Lavington in 1913 and other neoclassical economists (Raines and Leathers 2000: 36-40). The more advantageous of the stock market compared to the bank-based system was advocated by Cho (1968) as the more efficient fund allocator, especially the risky firms, due to ‘the free from adverse selection and moral hazard effects while debt finances is subject to them in the presence of asymmetric information’ (197).

This notion is supported by the empirical evidences from econometric analysis mainly on confirming the linkage between the development of the stock market and the economic growth. Yet, there are other contrasting evidences (e.g. Singh 1995) on the financial structure of long term investment suggest that they do not find the confirmed relationship between stock issuance and investment finance in all countries and all periods. Moreover, Sweezy notified the new era of the capitalist system that is hardly found the connection between finance and economy based on ‘production system’ since 1970s (1995: 1). The real motivation behind an independent growth of the financial sector is due to an interest of certain group as he quoted that ‘corporations and their

¹ Financialization is ‘the process whereby financial markets, financial institutions, and financial elites gain greater influence over economic policy and economic outcomes’ (Palley 2007:2).

² The latest calculation is in 2010.

³ Financial markets are money market (banks), stock markets, bond markets, derivative markets, foreign exchange markets and insurance markets.

shareholders are doing well and, as always, are eager to expand their capital' (Ibid.: 1).

Nonetheless, it is intriguing that the stock exchange executives and many policy makers have held a strong belief on the orthodox economics. The benefit on funding to newly public companies is echoed the same voice from the New York Stock Exchange webpage emphasizing fundraising as one of the main benefit as well as Japan Stock Exchange (2014) with the powerful statement that:

To leverage the presence of Japan's capital market, contribute to Asian growth, and benefit from its dynamism, we must construct *an attractive market that draws on the abundant funds* in Japan and *nurtures an entrepreneurial spirit* (Atsushi Saito, Director & Representative Executive Officer, Japan Exchange Group 2014).

Moreover, the stock market is also portrayed as an additional income for individuals. Cutler et al. (1978: 96) stated the 'dual character' of equities that besides 'means for raising capital', they also 'represent an entitlement to receive a certain category of income'. But this notion is interpreted in slightly different angles by scholars in terms of who get the benefits. The mainstream belief is that the higher return can be accessed by everybody equally with the underlying assumption of the efficient and rational markets.

On the other hand, Sweezy (1995: 1) stated that the financial market is just another inventive zone for concentrated capitalists to create more wealth. The latter argument goes in the same direction as the fact that in 2007 38% of all stocks are owned by only Top 1% and the top quintile held 91% (Wolff 2010: 31). This is consonant with the recent census from UBS (2013) indicated the world billionaires put 35% of their net worth (USD6.5 trillion) in stocks (21). In addition, this game of capitalist is added up with fraudulent and unethical practices as well as an advantage in terms of knowledge and technology of certain groups to the others as argued by many so that it is hard to believe that the stock exchange is the game that is fair and is the place for all.

Therefore, the one-side positive presentation of the stock market has gradually undermined. Even worse, the creation of financial markets hurt company performance and overall economy and rather than support growth. Keynes (1936: 150-151) pointed out that a phenomenon of a separation between ownership and management 'sometimes facilitates investment but sometimes adds greatly to the stability of the system'. In relation to this notion, Foster (2007:1) mentioned the 'shift from production to finance' in that 'Rather than advancing in the fundamental way, capital is trapped in the seemingly endless cycle of stagnation and financial explosion'. Lazonick and O'Sullivan (2000:18) indicated the possibility that management was pressurized by stock investors to valorize company stock's price rather than take a good care of the organic growth based on investment as the shift from 'retain and reinvest' to 'downsize and distribute'. Orhangazi (2009:128) also argued on the divergence the financial market move a corporation away from the original

purpose as the unit for production and investment to the new economy based on securities trading as he termed ‘coupon pool capitalism’.

To the larger extent, the activity in the financial/stock market is not confined only each country’s realm, but interconnects with the exchanges around the world and makes the smaller economies prone to volatility. In the period of Greenspan-Bernanke from 2002, the low interest rate in the US caused the hot money to flow to the emerging market. This is not to mention the Quantitative Easing (QE) since 2008 that massively increase the money supply for the US banks (around USD85 billion per month in 2013) to spend in both their own domestic financial market and outside. But instead of lending as the original purpose, banks use this money to buy assets and increase their own stock prices. An ounce of gold price were more than doubled, rising from USD869.75 to USD1,895 between 2008 and 2011 and the Dow rose 24% in 2013 (Amadeo 2014).

The dilemma is not only the volatility from the hot money outflow creating bubbles in other countries but also the pull back when the burst happens in their own country, like in the case of the sharp reflux of money back to the US during the subprime crisis in 2007-8 (McKinnon 2014: 4). This is tough and scary to imagine the doom of economies when this money printing engine stops. The concern has long pointed out as suggested in Keynes (1936: 159) that:

Speculators may do no harm as bubbles on a steady stream of enterprise [...] a serious situation can develop [...] when enterprise becomes the bubble on a whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done... It is usually agreed that casinos should, in the public interest, be inaccessible and expensive. And perhaps the same is true of Stock Exchanges.

So, what is the actual story of the stock market? Moreover, taking additional consideration that it is so complex as described above, how the stock market fits it as an alternative income for ordinary people? What is more, the empirical evidences have been diverged according to countries and timing. Therefore, this research chooses Thailand stock market as the case study in the back drop of four decades of the stock market development experienced both booms and busts. Also, the discourse around the stock market as the investment finance for business never changes as put in the Sustainability report of the Stock Exchange of Thailand (SET) that ‘The bourse is the center of securities trading and long-term fund-raising activities of the businesses’ (2013b: 4). But no research clearly examines this notion yet. The available ones had been done at the aggregate level by showing the total volume of fund raised in the stock market (Charoenphol 2007: 6) or rationing fund mobilization in a capital market (but not specifically investigate on the stock market) with the national gross fixed capital (e.g. Vichyanond 2002: 11).

Turning to the aspect of supplement income, the discourses on the notion of 'high risk high return (wealth)' has prevailed for decades. The promotion was done extensively after an establishment of Thailand Securities Institute in 2000. Moreover, by recognizing the importance of retirement income to the economic stability of the nation, from the late 1980s, The Thai governments have enacted regulations and policies to facilitated and promoted savings for retirement through institutional investors- the Social Security Fund (SSF), the Government Provident Fund (GPF) and the provident funds as the mandatory and voluntary channels contributed by employers. Moreover, the Retirement Mutual Fund was launched in 2001 as a personal retirement management track.

All of these pensions are allocated their assets in equity in various degrees, normally at 15% of total asset except the RMFs that have the equity allocation from 0-100%. Nonetheless, the aggregate level in stocks has been increased for more than a decade. Also, in 2007, the Securities and Exchange Commission relaxed the ceiling in equity allocation through the 'employee's choice' scheme. This means that the pension fund especially an equity pension fund can invest in stocks more than 65%. The GPF has a new ceiling at 65% instead of 40% maximum from the old act. Besides, all of these pensions are entitled for the tax exemption upto THB500,000 (around USD15,600) of the purchasing value each year but not more than 15% of income.

More recently, the premise on income has been bridged to retirement and financial freedom as its 2014 strategic plan stated by SET that will:

Educate Thai people about building *financial freedom* through investing in financial assets with potentially higher return, especially *equity investment in mutual fund and provident fund*, in a longer term. [...] and promote Employee's Choice⁴ scheme that allows them to increase their equity allocation to benefit from higher return from equity investment. (SET 2013a: 60).

On the whole together with an outperformance of the SET index in the past five years, inevitably, these attract more people to participate in the stock market both as a direct investor and a buyer of mutual funds. But again, the decision about risky versus safe financial asset poses the conundrum between high risk high returns with shorter saving time and lower returns that take longer to achieve the desired level, and the guarantee that principally asked from pension.

The contradictory frameworks, claims and evidences about the nature and benefit of the stock market to businesses and ordinary people make it interesting in uncovering the facts behind it.

⁴ The scheme allows an employee to choose types of funds from riskless funds investing in fixed income to risky funds allocating more than 65% in equity.

1.2 Research Objective and Questions

This paper aims to investigate the real function of the stock market to uncover the paths of benefits. The first path that this paper would like to reveal is the relationship between money in the stock market and business investment finance. The second part is to investigate the conduit of benefit placing an attention to the political economy in the market through players and their natures. The final aspiration is to use the result to justify on the equity pension fund attaching so closely with the stock market.

The research questions are:

1. What are the roles of a stock market?
 - 1.1 For businesses, does the stock market provide investment finance, if so, at what extent?
 - 1.2 For individuals, does the stock market benefit people? If so, to whom and how?
 - Who are the main players in the stock market and how they operate?
2. How and to what extent the stock markets affect the equity pension fund and retirement income security?

1.3 Hypotheses

- The stock market does not have an extensive role to provide business investment finance
- The players in the stock market are equipped with difference resources. Hence, the benefit of the stock market to ordinary people is unequal and is concentrated to certain groups.
- The stream of income under the equity pension fund is uncertain to guarantee the sound financial wellbeing (especially in annuities) for the retirees.

1.4 Scope and Limitation

All aspects of analysis about the stock market cannot be completely analyzed. Rather, the paper confines an investigation mainly in participants' behaviours, both firms and individuals, to present the big picture of what actually happen in the stock market. Thus, this is not the place for the extensive empirical examination on other issues such as stock price determinants, (bubble) state of the market and long run returns. The examination in reasons behind certain financing structure used by firms is also beyond the capacity of this paper.

The analysis of equity pension fund is the only stepping stone of the judgment linking with the stock market. However, this cannot cover the issue

of appropriate asset allocation. Moreover, planning the pension fund system is quite extensive which need multilateral analysis together with other social security and related policies to get an integrated view before implementing certain measures.

Last but not least, other empirical studies could be done to uncover on other mechanisms inside the stock market such as the flow of fund in the stock market, the factors and amount of success and failure among retail investors in the stock market to see how sustainable and affluent the individuals can actually gain from the stock market. Nonetheless, this is much beyond the scope of this paper.

1.5 Approach/Methodology

This paper aims to understand the nature of the stock market as the two main functions: funding for business investment and supplementary income for ordinary people focusing on equity pension fund. Thailand is selected to reflect the story due to an outstanding characteristics as one of the important emerging markets whom had been through economic booms and busts for many decades. Also, it is the obvious case of the mainstream economic. SET and the government hold the strong belief in the role of business funding and good returns to bolster people's wealth. Moreover, measurements and policies are steered to more involvement in the stock market.

This paper adopts the mixed methods research by using both qualitative and quantitative methods. It starts with the literature review to shed light different theoretical concepts and evidences. The literature encompasses many kinds of discourses such as research papers, books, reports, newspapers and multimedia. The analysis is supplemented with primary and secondary data analysis with the following details:

Approaches for the investment financing analysis

The analysis makes at both aggregated national level and company level. For the macro level, the proportion of stock issuance to Gross Fixed Capital Formation (GFCF) is evaluated.

For the company level, the ration between stock issuance and company's fix capital formation is investigated. For an interpretation of the fixed capital formation or investment finance at the company level, the money invested in property, plant and equipment account, intangible assets, investment in subsidiary firms and other long term investments are bundled as the representative of the 'fixed capital formation' that affect the company's growth. The first two items are the basic components of capital expenditure (CAPEX). However, as the present way of doing business is not purely operated from the company per se, but it integrates its operation with subsidiaries and related companies. Therefore, besides CAPEX, the study is also included the last two items for the analysis. And this composition is used as the representative investment item that crucially involve with the future growth.

Furthermore, the company flow of fund analysis is complemented as suggested in Corbett and Jenkinson (1996) about the advantage of the flow concept instead of static financial data to see the financing activity. The matching between the inflows and outflows of cash in each period is examined. Nonetheless, this approach can provide only the overview of the stock contribution to fixed capital formation. Due to the data limitation, it is difficult to match the exact sources and uses for the long term funding. As a result, to evaluate the maximum magnitude of stock attribution, the 'stock priority' is assumed. That is if there is a stock issuance, it will be firstly matched with the fixed capital formation figure following with debenture issuance, and other internal sources respectively.

For the purpose to cover the width of companies and the availability of the data as well as the startup of Thailand Securities Institute (TSI) in 2000 that is considered to be a major transition in terms of investment knowledge, the study on the source of fund is tracked from 2000 to 2013, still, the starting point of time maybe later for some companies depends on the availability of data. However, the overall performance and key facts about SET are backed up with numbers since 1993 to see the transition before and after the financial crisis that hit the market quite hard.

Lastly, to show the clearer patterns of the use and source of productive financing, the non-financial companies are selected. 63 companies are in the industrial sector⁵ with additionally 9 companies from the property and construction in SET100⁶ as the previous research from Vichyanond (2002: 11) stated the higher incidence of fund allocation in capital markets in this sector. Lastly, 8 companies from Market for Alternative Investment (MAI)⁷ are included in the analysis to characterize small and medium enterprises' investment finance. Nevertheless, due to time limitation, the research cannot cover all companies for the detailed analysis and it could be worth to carry an extensive version but with another research.

Approaches for the supplementary income analysis

To shed light on the stock market as supplementary income specifically from equity pension funds, the flexible and the equity Retirement Mutual Fund (RMF) which involves more than 40% in equity allocation is used for an analysis with the reason that it is the same level limited by law for default investment option in other mandatory and compulsory pension funds.

⁵ The total companies in this sector is 82.

⁶ SET100 is the stock index of the selected 100 listed companies that have high and stable trading liquidity as well as continuous growth and good fundamental factors. Also, the companies have to be in the top 200 in terms of market capitalization. The composition of the companies will be revised every 6 months.

⁷ MAI started to operate in 2001 as the channel to raise fund for small and medium enterprises through stocks.

Structure of the paper

The paper is organized as follows. Chapter 2 provides the literature review of the conceptual theories and frameworks related to the beneficiaries in the stock market namely businesses and ordinary people. The first part deconstructs the mainstream view that has portrayed the ideological role of the stock market to provide investment fund for businesses. The result from this supplements the idea about the function of the stock market in the second part of the investigation in the benefit to ordinary people through players in the market in general and assumptions behind the mechanism. Chapter 3 provides the brief of the development of Thailand stock market and characters before showing the empirical findings of the financing patterns in the case of Thailand in Chapter 4. Chapter 5 brings back to role of the stock market as the alternative income by focusing only on the equity pension fund that consequently affects income stability and livelihood of people during their retirement with the concise summary of the pension schemes in Thailand and the justification in the involvement with the stock market. The last section concludes.

Chapter 2 Literature Review: What Do Stock Markets Do?

“Theory alone was empty, while empirical investigations without theory were suspect; hence only the interweaving of theory and evidence constituted ‘economics proper’.”

(Marshall quotation as appeared in Sutton 2000:13).

2.1 Introduction

Stocks have been mentioned since the 16th century as the channel to raise large amount equity capital to serve heavily required capital projects. This image was handed down to the theories about the role of the stock market from the end of the 19th century with the birth of the neoclassical economics that provides the stronghold of rational and efficient market which characterize the nature of the market. The roles of the stock market are claimed to be not only a source of finance for businesses but also a source of individuals for the higher returns as the compensatory rewards in investing in higher risk assets.

This notion is inevitably debatable is undermined both from theoretical aspect and empirical evidences. The rational and efficient market hypotheses are barely operated in reality with speculation and manipulation prevailing. It makes the role of financial markets as income supplement doubtful and as the tool of wealth accumulation for some, but not to all.

Nonetheless, it seems that the presumed relationship of stocks and business investment as well as income booster are continually advocated by various entities both from governments and stock exchanges in order to support the financial market development, which should in turns creates economic growth as appeared in many statements of regional and central banks e.g. the speech by Haruhiko Kuroda, ADB President, at the 15th ASEAN Finance Ministers Meeting that:

We know the primary role of finance is to efficiently channel savings into productive investment. [...] It (an efficient financial system) allows new market entrants, particularly small and medium enterprises- which are proving to be the main drivers of better-balanced growth- to obtain easier funding at lower costs (Kuroda 2011)

The similar claims have been seen in many speeches and reports of other central banks and stock exchanges. It is clear that they have taken only benign sides of the stock market and sweep the callous games of manipulation and malfeasance under the rug. Therefore, this chapter will explore the theories and evidences on these aforementioned issues. It starts with the basics about the stock market then the literature review on the role in investment finance. Next, the notion of stocks as an alternative income is magnified together with an

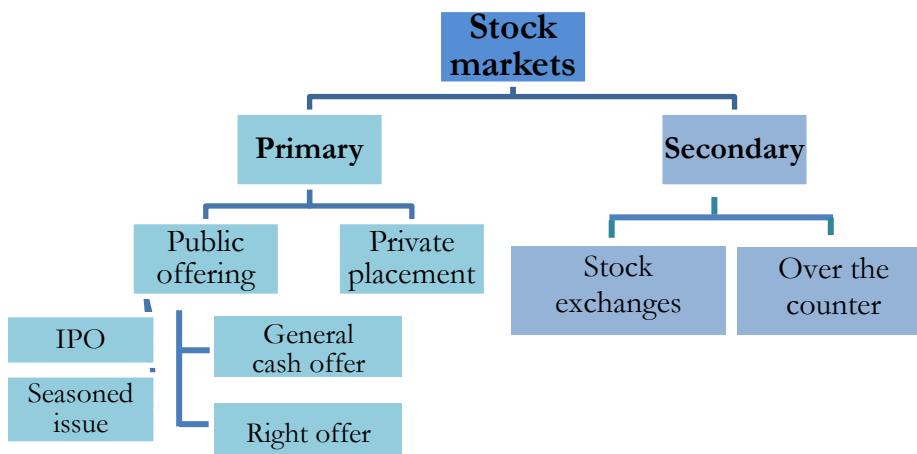
examination in the nature of the stock market to shed light of different gains among investors.

2.2 The Basics about Stock Markets

Many people tend to think that a stock market is the same as a stock exchange, when, in fact, the stock exchange is just part of the stock market. It is important to recognize and comprehend the basic elements in mechanism of stock before the discussion on the theoretical framework.

The stock market can be divided into two main markets: the primary and the secondary markets. In the primary market, the newly issued stocks will be traded with two alternatives selling approaches, private placement and/or public offering. The first time stock offering to public is called ‘initial public offering’ (IPO). This is in contrast with the seasoned equity issues (or secondary equity offering) which happen when companies want to mobilize fund again after the IPO. Both types of the public offerings can be sold to general public so-called ‘general cash offer’ or to the existing shareholders, which is called ‘rights offer’. Thereafter, the stocks from the public offering have to be registered with the stock exchange commission in order to be traded in the secondary markets which can be conducted in the organized places (stock exchanges) or informal exchange through networks of dealers (over the counter exchanges e.g. a penny or unlisted stocks).

Figure 2.1: The taxonomy of the stock market



Source: author.

2.3 The Stock Market as a Source of Investment Finance

The mainstream views

The function of the stock market as a source of investment finance was introduced based on the neo-classical concept of economic arena- the market, but in this case, it is the market for capital. Walras’s work in 1874 (cited in

Raines and Leathers 2000: 40) postulated the stock exchange as ‘the market for new capital goods’.

Lavington (1913) gave the similar view that the benefit of the market is to channel capital between savers and entrepreneurs ‘[...] which enables the business man into whose hands it passes to adopt roundabout processes, and set up the factories and machines which constitute capital proper’ (36). Additionally, he added a role of the stock exchange as to facilitate the transfer of existing capital; therefore, the cost of waiting and uncertainty are reduced so that attracted people who do not want to hold securities in the long term to participate in the market. Also, Hick (1969) supported the role as for long term investment but a slight different ideological framework. While Lavington stated on the aversion of long term commitment, Hick pointed out that an industrial revolution was a product of willingness of people to put large amount of money for the long-term yield backed up with a well-developed financial market (144).

Additionally, Cho (1968: 197) favored the role of the stock market in the aspect that it opens opportunities to riskier businesses, which may fail to obtain credit from banks or government due to the adverse selection.

In short, the orthodox economists view the stock market as a tool to tap money from individuals to support the business investment which therefore bringing growth to the overall economy. Also, setting up the stock exchange positively facilitates this funding activity as it attracts the less long term committed group.

Many empirical researches supported the aforementioned argument. The early work tried to find the association between financial developments in general with economic growth. Goldsmith (1969) found a positive correlation between new issuance of financial instruments of nonfinancial sector and Gross National Product, but it did not conform in all countries (381) and in much longer time span (382). The later generation of researchers has advocated the claim using regression analysis between financial development and economic growth. The works from King and Levine (1993), De Gregorio and Guidotti (1995) and Calderón and Liu (2003) verified the positive relationship by employing the cross-country econometric analysis among many proxies related to financial development. However, the results must be viewed with cautions because the proxies in financial development in these researches only represented credit market⁸.

Nonetheless, other regression studies have proved the linkage of the stock market with economic growth, consisting of cross-country and single country econometric analysis cover several periods of time, confirmed the statistical significant of the positive relationship between economic growth

⁸ De Gregorio and Guidotti (1995:438) argued that ‘it is likely that the two forms of financial development- i.e., bank and non-bank, are positively correlated’.

variables (e.g. GDP) and stock market development variables (e.g. market capitalization) (Levine and Zervos 1996 for the study of 24 countries both in developed and developing economies, Shahbaz et al. 2008 for the case of Pakistan, Antonios 2010 for Germany)⁹. Nieuwerburgh (2006) supported the overall association between the market capitalization and GDP growth for Belgium during 1830-2000, and also showed the different degree of relationship in certain periods due to laws and regulations and the political economic factors.

The critics

The proposition on the stock market as the place for individuals to put their saving for business funding has been rebutted from various angles. Firstly, Raines and Leathers (2000) hinted the weak rationale from the theory itself. They pointed that the mainstream conceptual frame poses some challenges for the neoclassical economists to perceive the stock market as the capital market due to an ambiguous and non-unanimity among themselves about the definition of capital, juggling between real capital (in production) and money capital (fund available for loans). Therefore, *'the relationship between stock market transactions and the accumulation and allocation of real capital (capital goods) often seems more assumed than actually explained in economic theory'* (Ibid.: 38). They also quoted the observation from Machlup who indicated that:

Studies of the stock market are usually of the nature of more factual descriptions, and refrain from theoretical speculation about underlying relationships between stock-exchange speculation and the capital structure (production structure) of the economy (Ibid.: 38).

The second stance challenged the definition and the degree of saving. Prayookwong (2013) illustrated the dubious definition of saving that is presumably associated to individual saving only. He argued that the neoclassical links this notion from the national account which includes the saving from business (profit). Therefore, the claim of external financing omitted the important fact that investment could be funded from the internal source as well. Furthermore, even there are significant amounts of individual saving, Mott (2012) argued that the saving may not always allocated to in the stock market. He stated that 'A change in the willingness of the community to supply capital, that is, to save, would thus only change the level of physical investment if it also changed the level of financial investment in securities' (209). Nevertheless, this have not considered that even the saving goes to the stock market, an increment in the volume of securities can be pooled either to the new issuance or the existing issued stocks which creates a different economic significance (Cutler et al. 1978: 97). Moreover, the new issuances may not contribute to investment expansion, but merely the privatization and

⁹Levine and Zervos (1996) analyzed on 41 countries for 1976-1993 period, Shahbaz et al. (2008) run the time series from 1971-2006 for Pakistan case, Antonios (2010) proved the relationship of the Germany case from 1965-2007.

restructuring purposes (Henwood 1998: 3). Röell (1996: 1073) provided the evidences from Ransley and Pagano et al. that most of new finances were used for acquisitions rather than for new investments.

Thirdly, the investigations have critiqued on the technique of cross-country econometric analysis that can mislead a country result by generalizing the correlation between the development of stock market and the economic growth on the average basis (Arestis and Demetriades 1997). They also cited the work of Evans and Lee et al. on the problem of 'heterogeneity of slope coefficient across countries and 'asymptotic bias' (784). Arestis et al. (2001) provided the different regression analysis of five individual countries (US, Germany, UK, Japan and France) during 1972-1998. For Japan, France and Germany, the positive impact of financial development on economy can be drawn, but more significant contributions were from the banking system (despite there was a financial liberalization in France). The weak form of association was concluded for the UK and the US.

Finally, the regressions show their own limitations that cannot fully support the neoclassical theory. The empirical relationship can only present the benefit of the stock market in general, but it could not suggest the specific functions¹⁰. Thus, the positive correlation can be derived from other reasons besides on the savings mobilization. Lastly, the regression study cannot disclose the numerical contribution from stocks to physical capital investment that we are interested in this study.

The empirical evidence

The other stances intend to investigate on the exact role of stocks in investment finance rather explore at the relationship as such done by the mainstream. The empirical studies on patterns of business financing show the divergence on the role of stocks, varying from countries and time intervals. For the biggest stock marketization like the US, Henwood (1998: 72) demonstrated the small role of stocks for capital expenditure of nonfinancial business from 1952-1997 with an average contribute only around 8% in contrast to 92% which came from internal finance. He also indicated that the activity in the stock market was related with the existing stocks rather than the new issued ones. In 1997, there was USD100 billion newly issued stocks, but this amount accounted for only three weeks of the value trading in the New York Stock Exchange (4).

Singh (1995) depicted the financing behaviors of ten cases of the less developed countries (LDCs) of top50 manufacturing corporations during 1980s. The result indicated that five countries relied on external funds more

¹⁰ As Levine and Zervos (1996) summarized five main reasons that a stock market can lead to economic growth: liquidity (to induce individual to participate in the market¹⁰), risk diversification (to shift investment into higher growth projects), information seeking about firms, as well as corporate control (to allocate asset efficiently) and savings mobilization (to finance business investment).

than internal funds with the extensive dependence of 77%-87% for Korea, Mexico and Turkey. However, this pattern did not occur in Pakistan and India. This is also contrast with the case of developed countries shown in table 2.2 which had much lower reliance on shares for their financing. It is interesting that the result for Pakistan from the capital structure view contradicts with the econometric analysis studied by Shahbaz et al. (2008) mentioned in the last section.

Table 2.1: Financing of corporate growth, 1980-90

Country	Internal finance (%)	External finance Equity (%)	External finance Long term debt (%)
Rep. of Korea	15.8	46.9	30.4
Pakistan	67.5	5.2	23.9
Jordan	54.8	25.5	5.8
Thailand	14.7	NA	NA
Mexico	23.1	64.7	1.0
India	38.1	16.3	38.9
Turkey	13.4	66.6	16.9
Malaysia	29.7	48.0	12.0
Zimbabwe	57.0	43.5	0.0
Brazil	46.0	37.2	5.6
Average of all	32.0	41.1	16.0

Source: Modified from Singh (1995).

Table 2.2: Unweighted average net financing of nonfinancial enterprises, 1970-85

	Canada	Finland	France	Germany	Italy	Japan	United Kingdom	United States
Retentions	76.4	64.4	61.4	70.9	51.9	57.9	102.4	85.9
Capital Transfers	.0	.2	2.0	8.6	7.7	.0	4.1	.0
Short term securities	-8	3.7	-1	-1	-1.3	NA	1.7	.4
Loans	15.2	28.1	37.3	12.1	27.7	50.4	7.6	24.4
Trade credit	-4.4	-1.4	-6	-2.1	.0	-11.2	-1.1	-1.4
Bonds	8.5	2.8	1.6	-1.0	1.6	2.1	-1.1	11.6
Shares	2.5	-1	6.3	.6	8.2	4.6	-3.3	1.1
Other	1.3	7.4	-1.4	10.9	1.0	-3.8	3.2	-16.9
Statistical Adjustment	1.2	-5.0	-6.4	.0	3.2	NA	-13.4	-5.1
Total	99.9	100.1	100.1	99.9	100.0	100.0	100.1	100.0

Source: OECD Financial Statistics, cited in Singh (1995).

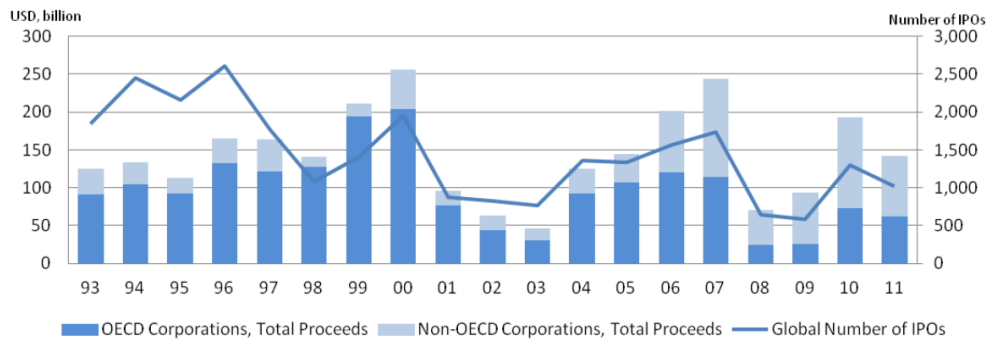
This dissimilarity also pointed out by Shirai (2004) that the share of finance from retained earnings in developing countries are still low (because of the low profitability) compared to some developed countries, 13% in Malaysia and 20% in Thailand, but more than 70% contribution in Germany, Japan and the United States. She also found that although there are more developments in the capital markets to widen a channel for a high quality firms to finance through bond issuance, there is still limited to certain firms (e.g. large size). Overall, banks are still the major sources of finance in India (Ibid.: 33).

Moreover, there is an institutional factor that defines the importance of stock market as the source of finance, which could vary from countries to countries depending on the magnitude of the relationship between industrial

firms and banks (e.g. the importance of the stock market was higher in the US and Britain than in Germany, France and Japan) (Cutler et al. 1978: 98).

Also, the numbers of IPOs in the OECD countries dropped dramatically after 1996 (figure 2.2). This implies that the contribution of stocks to fund raising played smaller role in developed countries (but show an increasing trend in Non-OECD). Nonetheless, the literatures on the financing pattern after 1990 are rare. So the actual role of stocks as the investment funds for companies are hardly unified in the equivalent comparison for each period.

Figure 2.2: Numbers and values of IPOs of OECD and Non-OECD, 1993-2011

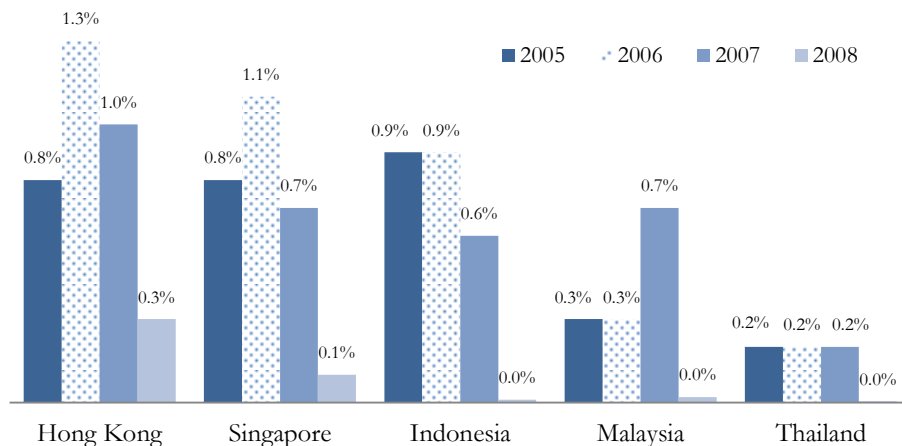


Note: Data excludes investment funds, REITs, banks, insurance companies and other financial sector corporations. Covers a total number of 29,490 IPOs from 87 different countries.

Source: OECD (2013) calculations, based on data from Thomson Reuters, Datastream, stock exchanges' and companies' websites.

In addition, the fund raised through the exchanges around the world is so slight compared to the total market capitalization, mostly less than 1% of the market capitalization. This indicates that after listing, the role of stock market as the channel for funding is so small.

Figure 2.3: Fund raising through the secondary market compared to market capitalization, 2005-2008



Source: Bloomberg quoted in Lacharaj et al. (2009).

Lastly, besides the counter argument that directly attack on the weak claim between stocks and business investment and certain different institutional environment, there are reasons under theories of finance that may influence a corporate financial behavior on borrowing, e.g. pecking order theory¹¹ or the oppositional Modigliani-Miller theorem¹² that may affect the decision to involve in the stock market. However, scope of this paper limits principally to the big picture on the degree of the stock market contribution as the business investment fund together with another jigsaw from section 2.4 that will give a clearer function of the stock market. Also, with the ‘dissensus’ in empirical evidences that needs an individual finding, Thailand is the case study for this research.

2.4 An View on the Source of Income from the Stock Market

The mainstream view

The source of income from the stock market is depended on how we portray the nature of the market. The mainstream theorizes the stock market based on the mixture of the orthodox assumption of ‘rational market theory’ and the ‘efficient market hypothesis (EMH)’ (that also has the assumption of rationality underlying in it). The first theory is based on the framework that prices are rational which are evaluated based on their real values according to capacity of earnings of firms like what Raines and Leather (2000: 49) cited Fisher statement that:

[...] every stock price represents a discounted value of the future dividends and earnings of the stock [...].

The arbitrage can happen if the real value has not recognized yet but it is eventually captured by a diligent investor who will then bring the price to the equilibrium based on the fundamental value (Ibid. :5). The second composition is the view under EMH prosed by Fama in 1970 (383) that:

[...] investors can choose among the securities that represent ownership of firms’ activities under the assumption that security prices at any time “fully reflect” all information.

Thus, for the mainstreams ‘the collective wisdom of “the market” is treated as if it were omniscient’ (Henwood 1998: 163) on the basis that no one holds

¹¹ The pecking order theory suggests that firms will use retain earnings as the first source of funds following by debt and lastly stock issuing based on cost of funds due to asymmetric information (Singh 1993: 8-9). Henwood (1998: 149) also explained on this phenomenon that the using an internal funds does not require any expected demand (from lenders and shareholders).

¹²The cost of capital is not related to firm’s debt-equity, but the firm will be evaluated based on expected earnings (Singh 1993).

superior information than the others as in the ultimate form of the efficient market¹³.

The critics

The notion above is hotly argued by other schools of thought from the aspects of the behaviors of investors and the symmetry of information in the market. For the first argument, the actual behavior in the market is more or less a speculation- expecting the movement of price in the near future (Raines and Leathers 2000: 5). Keynes (1936: 148) stated that in practice, investors would not rely their analysis on the long-term perspective of businesses which is ‘very uncertain’; rather they depend on their confidence in a relevant situation. Also, if there is such a group who would base on the long term fundamental analysis, they are ‘the minority that their behaviour does not govern the market’ (150). This makes the equity community composed of ‘persons who do not manage and have no special knowledge of the circumstances, either actual or prospective, of the business in question’ (Ibid.: 153). As a result, the market tends to move by ‘fluctuation of opinion’ (Ibid: 154).

Raines and Leathers (2000) also saw the pattern of ‘speculative mania’ after observed the markets for a while (107). Also, the behavioural finance pointed out on the irrational behaviours of the participants which are composed of ‘noise traders’¹⁴ who tends to move price away from the fundamental values (Hayes 2012: 159).

Nonetheless, the neoclassical economists admit an existence of speculation but they inferred to the ‘good’ speculation that benefits society¹⁵. And they just leave an issue of manipulation as a myth. Importantly, this ‘good’ speculation is based on information (Ibid.: 49-53).

Turning to an institutional investor who is projected with superior knowledge and reliable decision, however, Keynes (1936: 154-155) also indicated the short term procession ‘ahead of the general public’, rather from the better long term prediction according to what market will think adding that:

The actual, private object of most skilled investment today is to ‘beat the gun...’ This battle of wits to anticipate the basis of conventional valuation a few months hence, rather than the prospective yield of an investment over a long term of years, does not even require gulls

¹³ The market can be efficient in three forms- the weak form that reflect on the historical data, the semi-strong which response to new information simultaneously and the strong form which no one has a privilege access to information (Fama 1991: 1576).

¹⁴ Investors who trade on the basis of ‘non-news’ or ‘pricing models’ with no rational foundation (Hayes 2012: 159).

¹⁵ e.g. Walras who treated speculation as the tool to classify between risk and riskier investment, Marshall who talked about speculators as the one who gain benefits from the correct prediction, and Fisher who argued that bad speculators as unwise and unequipped who end up with damage Raines and Leathers (2000).

amongst the public to feed the maws of the professional; it can be played by professionals amongst themselves (Ibid.: 155).

Besides, the rationality of fund managers may be hard in practice due to the pressure of short term evaluation so that they may have to adopt the similar decision based on group thinking rather than adhere to their rational analysis (Henwood 1998: 170).

Furthermore, the market is vulnerable to foreign players. Richards (1996) referred to Williamson who indicated that ‘foreigners may tend to show herdlike behavior in their investment decisions and that bubbles in asset prices in emerging market may develop’ (462). In addition, the movement of foreign fund can be sudden from the uncontrolled factor as happened during US during the subprime crisis in 2007-8 mentioned by McKinnon (2014: 4) in the introduction.

Finally, (Shiller 1981: 422) controverted this efficient market by showing the volatility of stock prices that move too much beyond a dividend which is an indicator of firms’ performance. Also, other behavioural finance researchers who showed the overreaction and underreaction in stock markets (Ngugi et al. 2005: 104 referred to Thaler, Daniel and Titman).

The second argumentation criticizes on the assumption of the efficient market that cannot stand in reality due to massive manipulation happening in reality from the South Sea Bubble in 1720, short-lived super high gain of various Ponzi schemes¹⁶ from 1882 up until now, the unreal public communication of Beverage Creations in 2008. The studies by many researchers showed many forms of manipulations that exist in both developed and the Less Developed Countries (LDCs) (Wu 2004) cited in Jiang et al. 1995, Khawaja and Mian 2005, Davidson 2012 and Bouraoui 2013).

Sarna (2010) illustrated the continuous frauds in financial markets which always stay with humanity no matter how histories tell but are usually repeated from greed of people who try to always addict to easy money either by making up the supply and demand or taking an advantage of the inside information that have not yet reflected. Bernstein (2010: 127) also cautioned on the use of brokers because of conflict of interest between companies focusing on their earnings and shareholders rather than their customers.

Furthermore, people are not equipped with the equal resources to evaluate the true value of the firms. Lewis (2014: 19) points out some advantages of the high frequency trader (HFT) who have superior technology that let them trade faster than regular groups by moving their positions in and out in milliseconds or nanoseconds. From 2006 to 2008, high frequency traders’ share of total U.S. stock market went from 26% to 52%. In addition, if the HFTers can pervade to the black pool which is the trading place for big

¹⁶ Ponzi scheme is using new investors’ money to pay a high yield for existing investors to attract people of easy money.

institutional investors like pension funds, asset managers and fund companies, it is likely that millions of ordinary people who are the customers of these big institutions are exposed to the unjust occurrence in the stock markets too.

To put it in a nutshell, all participants never have the same level playing field. And at last, with winners there always losers; sadly that the losing position tentatively goes to ordinary people as inferred by (Raines and Leathers 2000: 36) that,

While modern securities markets benefit from more comprehensive regulation than at any time in history, a perception exists that highly intelligent, global speculators (for example, the notorious billionaire currency speculator George Soros) have the technology and financial knowledge to affect security prices and profit from the ‘inexperienced persons who invariable lose’.

The empirical study from Barber and Odean (2000: 791) showed that American investors can earn the good returns from equity at 18.2% gross and 16.7% net, but there were winners but also losers. The cross section data of 62,439 households from 1991-1996 performed very differently from 19.46% to 48.53% for the gross monthly return.

Table 2.3: Retail investors’ returns in USA, 1991-1996

	Gross Monthly Market-Adjusted Return (%)	Net Monthly Market-Adjusted Return (%)
Minimum	-19.46	-20.85
1 st percentile	-4.32	-4.86
5 th percentile	-2.12	-2.45
10 th percentile	-1.34	-1.60
25 th percentile	-0.57	-0.73
Median	-0.01	-0.14
75 th percentile	0.66	0.50
90 th percentile	1.62	1.40
95 th percentile	2.41	2.15
99 th percentile	4.86	4.44
Maximum	48.53	48.35

Source: Adapted from Barber and Odean (2000: 791)

2.5 Concluding Remarks

The direct causation between stocks and investment finance for business is contestable. Besides the unclear theoretical framework, the supported evidences from regression analysis show the relationship but not the actual role. On the contrary, the study on the source of funds portrays inconformity of shares as the source of investment fund. The empirics on capital structure also show the vast variation from country to country and over different period of time. Therefore, the role in financing fund for business should not be generalized and needs to be studied in specific case by case.

For the role of the income generation, it depends on how theorists portray their world. The rational world from the mainstream gives the fair playing field among the rational participants who are able to process the information fully available in the market so that they can make their judicious decision about the real value of the company and get dividends in return as a supplementary income.

However, this proposition is undermined by prevalent evidences on speculative and manipulative behaviours of the players both inside and outside the market (foreign investors). Nothing much about the fundamental valuation but an inventive zone programmed by the players who have more in money, data, knowledge, and power that consequently lead them to advantageous income. Therefore, the market lacking of nuts and bolts to grasp on is extremely hard to predict what can happen next.

Chapter 3

Thailand Stock Market in Brief

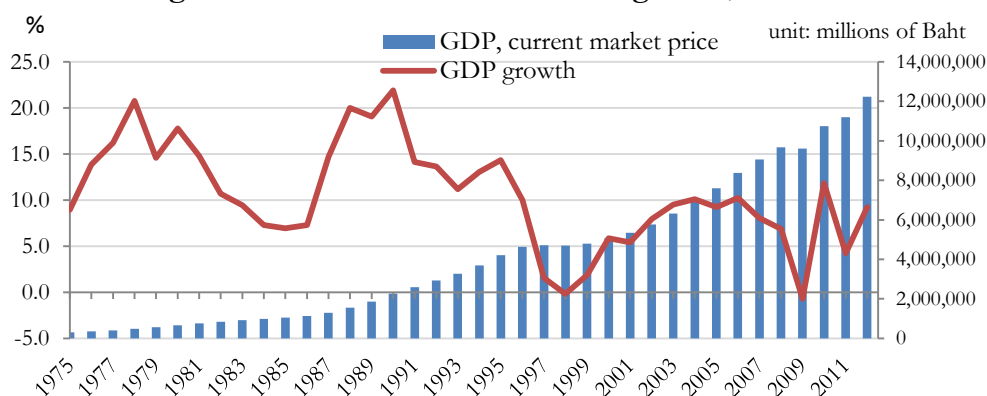
The previous section presented the related theoretical framework and empirical evidences on the role of the stock market in general. This chapter specifically delves into a characteristic of the Thai stock market. The first part provides the background of Thai economy and the development of the financial markets. The latter part characterizes the Thai stock market juxtaposing with an economic performance and its own personality so that a reader can understand the nature and related policies that have shaped this trading arena.

3.1 Thai Economy in Brief

The development of the Thai economy can be classified into main epochs divided by the three prime crises- The Black Monday in 1987, the Financial Crisis in 1997 and the Hamburger Crisis in 2008 together with its own internal unrest from politics with the close down of the main airport in 2008 as well as the worst flood in 2011. The economic changed a gear after the 1997 crisis- it keeps growing but has not experienced the high rate of growth like before.

The trace of growth before 1997 was attributable to the industrialization from two principal policies- Import Substitution Industrialization (ISI) in the late 1950s and Export-Oriented Industrialization (EOI) from the mid-80s. (Hewison 1999: 23). These transformations generated more than 10% growth annually before slowed down during 1983-86 but thrived again after 1987 before plummeted in 1997. However, within short time, it could rebound but never hit a double-digit rate again (except in 2010). Also, HSBC projected the moderate growth of 3-5% annually for the nation and categorized Thailand in the second tier of the Top100 world economy standing at 23rd largest world economy in 2050 (but the ranking in GDP per capital is predicted to drop from 61st to 68th ranking) (Ward 2012).

Figure 3.1: Thailand GDP and GDP growth, 1975-2012



Source: Office of the National Economic and Social Development Board (NESDB), GDP 1996 and National Account of Thailand 2012.

3.2 The Development of the Financial Markets

The shift of the economy and emergence of new institutions have shaped the political economy in the Thai financial market. The financial market has long dominated by domestic bankers who were the significant funders for businesses relating with powerful royals, the Chinese, a domestic capitalist class and small groups of foreigners. The bankers were more powerful after the World War II that gave a way for the Thai banks due to a decline of westerner providers and became the main domestic source of fund (Hewison 1999: 25).

However, the growth of businesses after the 1960s generated a huge profit and became another source of funds. Moreover, there was an increase in foreign capital and the establishment of the Bangkok Stock Exchange in 1963 under the private management (and later developed to the Securities Exchange of Thailand¹⁷ in 1974). This, as a result, overshadowed the predominant role of big domestic banks as the major fund providers (Hewison 1999: 25-26).

The country also adopted the financial liberalization in the late 1980s that allowed overseas loans and extensive establishment of financing business. Moreover, an additional innovation in the capital market had been developed. The bond market (Bond Dealers' Club) was developed in 1994 before upgraded to the Bond Electronic Exchange (BEX) in 2003. Next, the Thai Rating Information Service Co. Ltd. (TRIS) was established to evaluate bond and share issuers. Banks are allowed to do the bond underwriting business from 1993. Market for Alternative Investment (MAI) was set up in 1999 as the new funding channel for small and medium enterprises (Vichyanond 2002: 3). Nevertheless, the share of equity market is still minimal at around 6.2% averagely during 2002-2007.

Table 3.1: Shares of each financial markets, 2002-2007

	2002	2003	2004	2005	2006	2007	Average
FX Market	44.2	47.8	27.1	28.4	29.6	21.3	33.1
Money Market¹	48.2	40.6	57.4	59.4	59.9	61.7	54.5
Bond Market	3.9	4.1	5.7	5.9	5.5	12.1	6.2
Equity Market	3.7	7.5	9.8	6.2	5.1	4.9	6.2
Total	100	100	100	100	100	100	

Note: 1/ Inclusive of Interbank Clean Loan, BOT Repo, Private Repo, Bilateral Repo (during 2004-2007), and Sell and Buy Back transactions.

Source: Bank of Thailand (2014) which gathered data from Bank of Thailand (BOT), the Stock Exchange of Thailand (SET), the Thai Bond Market Association (ThaiBMA)

The developments of the institutes in each period have been inferred to the role as the source of fund. Nonetheless, the contribution of each player in the financial market to business funding and the economic growth requires more detailed investigation which this paper concentrates an

¹⁷ The name was changed to the Stock Exchange of Thailand (SET) in 1991.

examination on the stock market. Table 3.1 also excludes the insightful roles of internal funding. And such funding amount must be qualified in light of purposes of funding because not all that assign to investment finance. Prayookwong (2013: 33) found no relationship between the level of Gross Fixed Capital Formation (GFCF) and the credit giving to manufacturing sector. Also profit is the main sponsor in GFCF with the little contribution from a long-term loan both at aggregate national level and company level (Ibid.: 35-36).

3.3 The Evolution of Thailand Stock Market and Related Policies

The birth of the Thailand stock market happened during an early era of the prosperous growth in Thai economy. In 1974, the government stepped in with an objective to set up an orderly securities market to *mobilize funds* for businesses according to the Second National Economic and Social Development Plan (1967-1971)¹⁸. Likewise, private sectors perceived the stock market as a new source of funds so they did not have to rely only on banks (Hewison 1999: 26).

However, the beginning period after the establishment was quite a hard work to push SET. Also, the image of the market as a source of fund was undermined with several cases of speculation and manipulation, for example, the case of Racha Trust Co.,Ltd. in 1979 whose stock was speculated from 275 Baht to 2,420 Baht before the bubble was exploded. The government had to step in by establishing THB5 billion fund¹⁹ in 1987 together with THB10 billion fund supported by 40 security companies to sustain in the liquidity in the market in 1992 (Chutipat 2012). Another slump was from the 20 under qualified trust companies in the mid-80s that were disqualified and withdrew the licenses from operating in the market.

During 1990s, the development was aim to enlarge the market and boost creditability. The rolls of social security acts were inaugurated. The Provident Fund Act started earlier than the others in 1987 following with the Social Security Fund Act in 1991 and the Government Provident Fund Act in 1997 which are the biggest mandatory pensions in the country now. These funds increased a transaction in the stock market with about 15% allocation in stocks (gathered from many sources by the author).

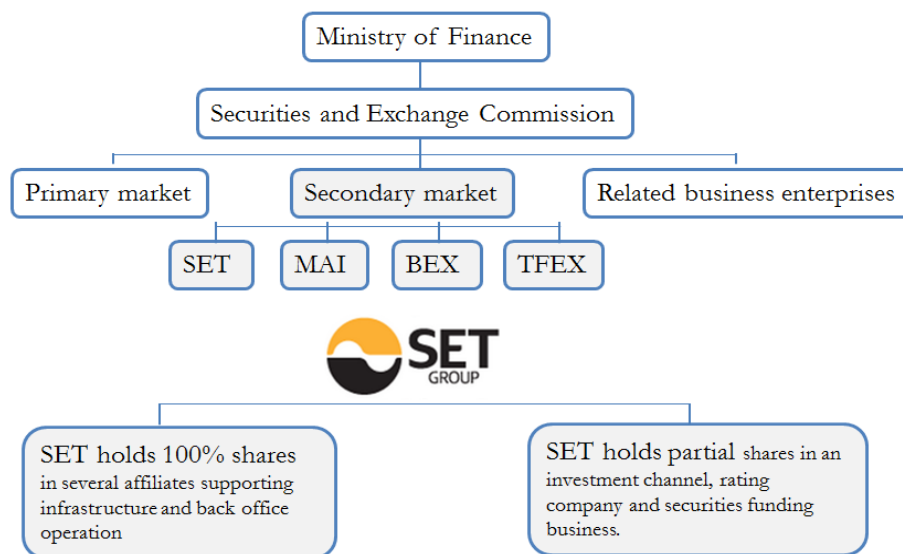
Moreover, the aforementioned credit rating agency was initiated in 1993. In 1999, the stock market for small and medium enterprises- MAI was formed. Furthermore, from 2000 was the period of intensive promotion to

¹⁸ At the beginning, the stock market was administered under the private management namely The Bangkok Stock Exchange in 1963. But it was unpopular with the small trading volume only around THB28-160 million (USD0.87 - 5 million) per year.

¹⁹ This is the second fund from the government injection. The first one was formed in 1987 during the Black Monday crisis.

expand investor base and develop efficient infrastructure according to the first Capital Market Development Masterplan 2002. Earlier in 2000, the plan to enlarge customer's base was reinforced with the foothold in providing financial literacy through TSI. Interestingly that besides having several affiliates to support infrastructure and operation, SET also has elements to govern the overall investment discourse by holding 50% share in the leading investment channel and having the TSI as an arm to generate investment knowledge to ordinary people.

Figure 3.2: Organization chart of Thai stock market



Source: SET, organized by author.

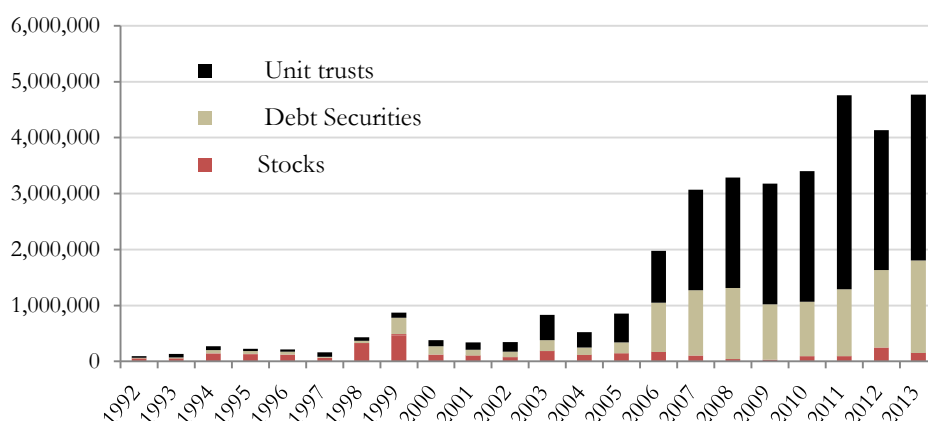
In addition, this stage of the development turned the limelight to promote an institutional investment by facilitating an establishment of new mutual fund companies in the early 2000 in the backdrop of the low interest rate (SEC 2003: 13). Moreover, two prominent types of mutual funds were introduced with tax incentives. The first one is the Retirement Mutual Fund (RMF) commenced in 2001²⁰. Three years after, the Long Term Equity Funds (LTF) was additionally promoted in 2004. Both are entitled to tax shelter upto THB500,000 (USD15,600) or not more than 15% of income per year each²¹.

The result is the numbers of new unit trusts (mutual funds) have continuously escalated since 2003. These funds put about 15% of their assets in stocks (2006-2010 data from Nathaphan 2010: 5).

²⁰ People have to buy RMF at least every other year until the age of 55. The extensive discussion is in chapter 5; whereas LTF requires only five year holding period without the requirement of consistent purchase.

²¹ The amount of RMF is calculated together with other types of provident funds and government retirement fund to get the maximum income tax deduction at THB500,000 or 15% of income.

Figure 3.3: The amount of the new issuance by security types, 1992-2013



Source: Bank of Thailand (BOT), FM_CM_002 : New Issuances of Securities.

Additionally, after 2007 SEC allowed pension funds like the provident fund and the government provident fund (GPF) to have more than one scheme so that the members can choose dubbed the ‘employee’s choice’ with the new investment proposition ranged from riskless fund to risky fund like the equity fund which is allowed to invest more than 65% in stocks.

On the whole, the investment through institutions becomes an anchor of investment in Thai society together with the long established promotion of ‘high risk high return (wealth)’ that consistently advocated by SET including the 2014 strategic plan mentioned in the background that set to promote ‘*equity investment in mutual fund and provident fund*’ (SET 2013a: 60).

Moreover, the second Capital Market Development Masterplan 2010-2014 set a higher aim to be enlarged in both domestic and international arena with the following vision:

“The engine of domestic growth and preferred destination and linkage for global investment” (FPO 2012).

The missions in the master plan retain the function of the stock market as the business funding and the place of individuals’ investment. Furthermore, the roadmap engaged the new issues such as venture capital as well as merger and acquisition promotion. Aside from an enhancing infrastructure in business funding support, the second master plan also instilled the measurements on the institutional investment through the National Savings Fund whose act was already approved but not yet implemented. Other details are attached in the Appendix A.

Table 3.2: Chronology of Thailand stock market

Year	Event
1963	The Bangkok Stock Exchange was founded.
1974	The Securities Exchange of Thailand (SET) was formed.
1979	Racha Trust Crisis
1980s	The adoption of financial liberalization in the late 1980s that allowed overseas loans and extensive financing business establishment
1993	The Thai Rating Information Service Co. Ltd. (TRIS) was established

Year	Event
	to evaluate bond and share issuers
1999	Market for Alternative Investment (MAI) was set up for small and medium enterprise
2000	SET modified listing criteria and settlement system to be more flexible
	Brokerage fees were liberalized.
2001	Thailand Securities Institute (TSI) was set up to provide financial literacy and investment knowledge to people.
	SET launched the regulations on internet trading.
2003	The Retirement Mutual Funds (RMF) were began to encourage people to save for retirement with tax benefit.
	TRIS started to launch the governance rating scores.
2004	SEC year of expanding investors through institutional investors by allowing all financial institutions to operate mutual fund business.
2005 – 2014	The Long Term Equity Funds (LTF) was approved to encourage an investment in an equity fund with tax benefit.
2007	180 SET Corners have been started to provide investment materials across Thailand.
2008	SEC allowed pension funds to have various investment plans for members to choose so called ‘employee’s choice’. This includes an equity pension fund which can allocate more than 65% in stocks.
2013 – 2014	The government appointed the Thai Capital Market Development Supervisory Committee to formulate the capital market development plan.
	7 SET Investment Centers in major cities in Thailand have been formed to be the education centers about investment.

Source: Vichyanond (2002: 19-21), www.set.or.th.

Up until now, considering only from the securities side, the value of Thai stock has become the major securities in the domestic market with the share nearly 50% with the growing portion of aforementioned mutual funds at 10% (BOT, financial statistics). 496 companies are listed in SET and 105 companies in MAI (as of 22 October 2014) with the continuous increase in turnover in both market (around 12 trillion Baht in 2013).

Nevertheless, big companies govern an overall investment climate in the market. According to market capitalization in SET, 80% belongs to SET100²². The finance sector holds the biggest share following with resources and property & construction sectors. SET dominates the trading activity that the turnover volume in MAI is still far behind. However, the valuation investors give for MAI market is much higher than in SET with the average P/E of 37.6, compared with 13.1 of SET. When comparing these numbers within the region, the size of Thailand stock market is quite smaller and cheaper than other markets in the region, and even farther compared to the US exchange which more than 5,000 listed company with more than USD19,000 billion market capitalization.

²² The companies in SET100 have to be in the Top200 in terms of market capitalization.

Figure 3.4: Major numbers about Thailand stock market

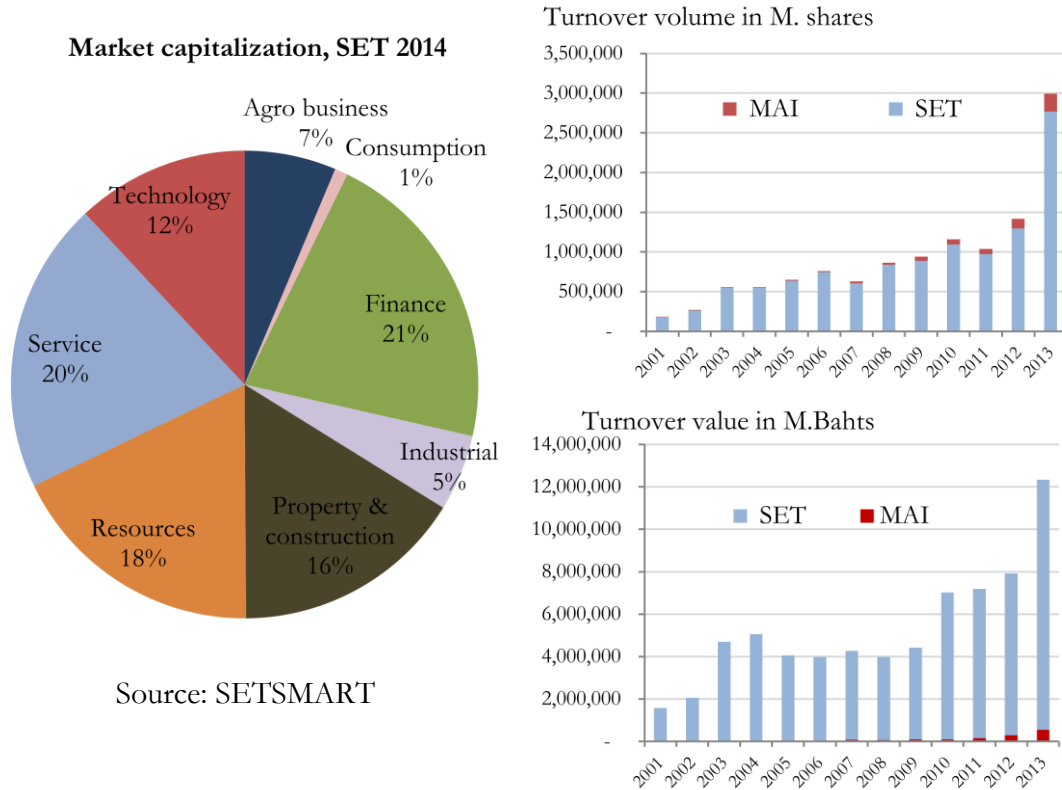


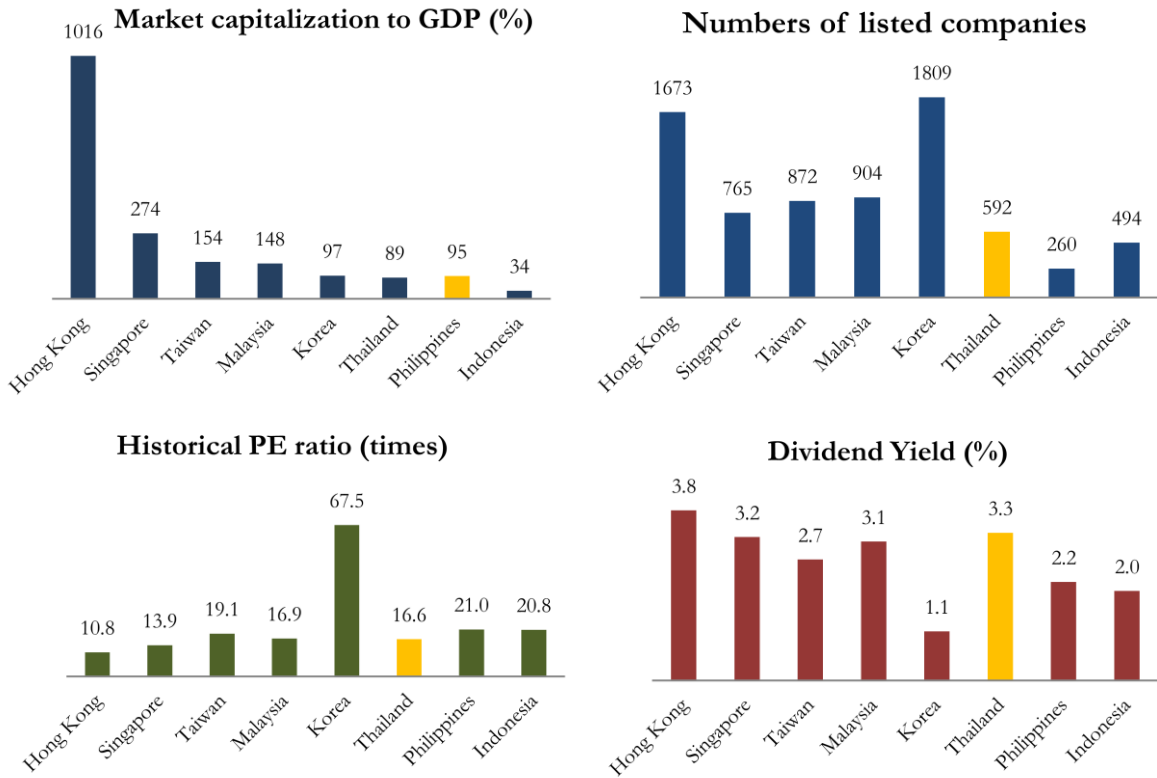
Table 3.3: Summary of major stock market ratios, 2002-2013

	2002-2005	2006-2009	2010-2013	Average
P/E				
-SET	10.5	13.5	15.3	13.1
-MAI	78.0	13.5	21.5	37.6
P/BV				
-SET	1.9	1.6	2.0	1.9
-MAI	2.0	1.7	2.6	2.1
Dividend yield (%)				
-SET	2.9	4.3	3.4	3.5
-MAI	2.8	5.1	2.7	3.5

Note: the numbers are calculated by averaging monthly figures to represent as yearly figures.

Source: SET, calculated by author.

Figure 3.5: Thai stock market in comparison with others in the region

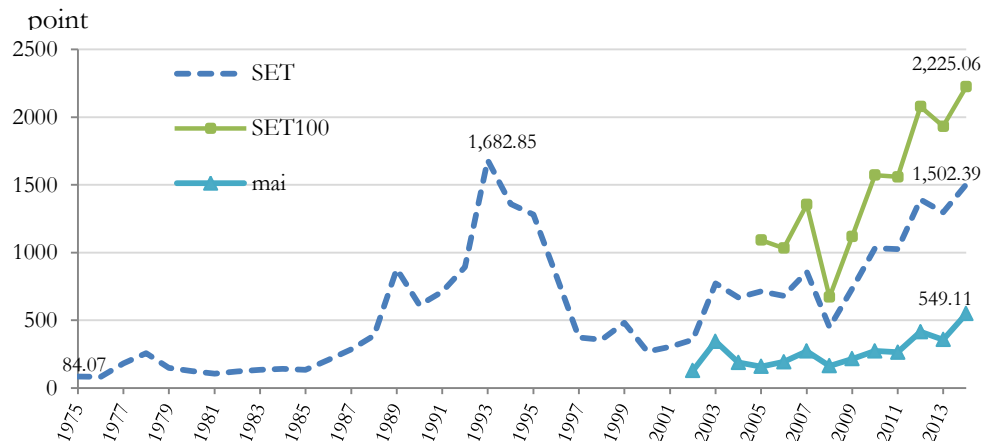


Source: Bloomberg gathered by SET (2014: 4-9).

3.4 The Stock Market and the Production Economy

The economic environment and main events as discussed in the previous section are the reasons underlying the movement of the SET indices. The overall progress of the stock market seems to align with the production economy considering from the similar growth during 1990s and the big drops due to three main economic crises as mentioned before.

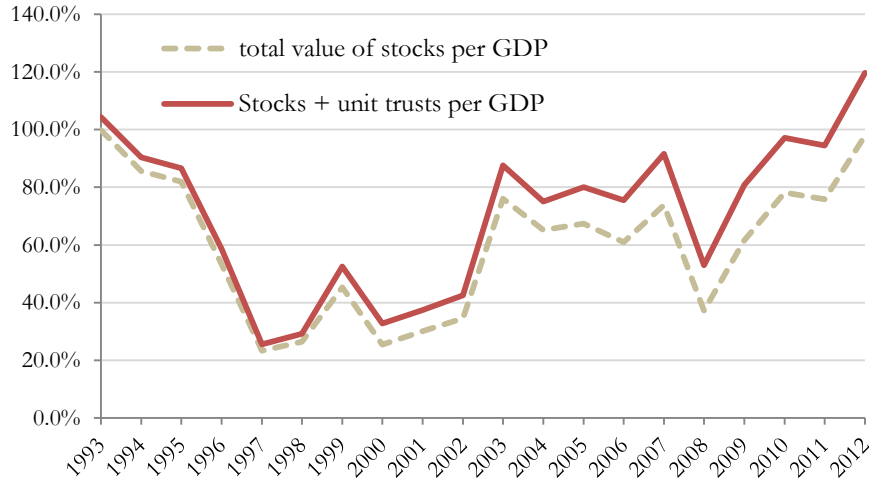
Figure 3.6: Thailand stock indices, 1975 – 2014



Source: SET.

However, the stock market also reflects its own character deviated far from the economic conditions. Whereas the average economic growth after 2008 cannot return to the same previous glorious period with the double-digit performance, the overall SET index has been catching up the zenith in 1993 so that the value of stocks and mutual funds outstripped the 1993 level and posed even more than GDP in 2012 (figure 3.7).

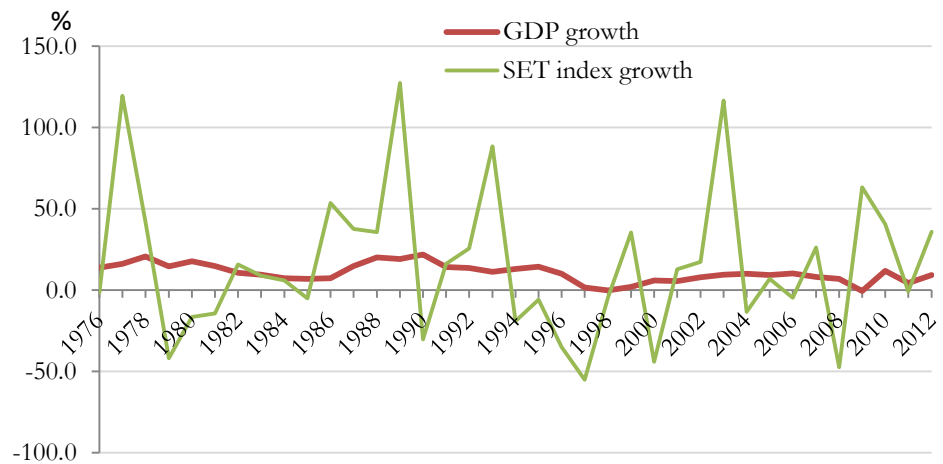
Figure 3.7: Value of outstanding securities and stocks to GDP, 1993-2012



Source: BOT for the outstanding securities and stocks, NESDB for GDP data.

Lastly, the fluctuation in the stock market is much more than the swing of the production economy as shown in figure 3.8. This behavior is explicable with microstructure analysis discuss in the next section.

Figure 3.8: Growth of GDP and SET index in comparison



Source: SET for SET index and NESDB for current market GDP, calculated by author.

3.5 Microstructure in the Thai Stock Market

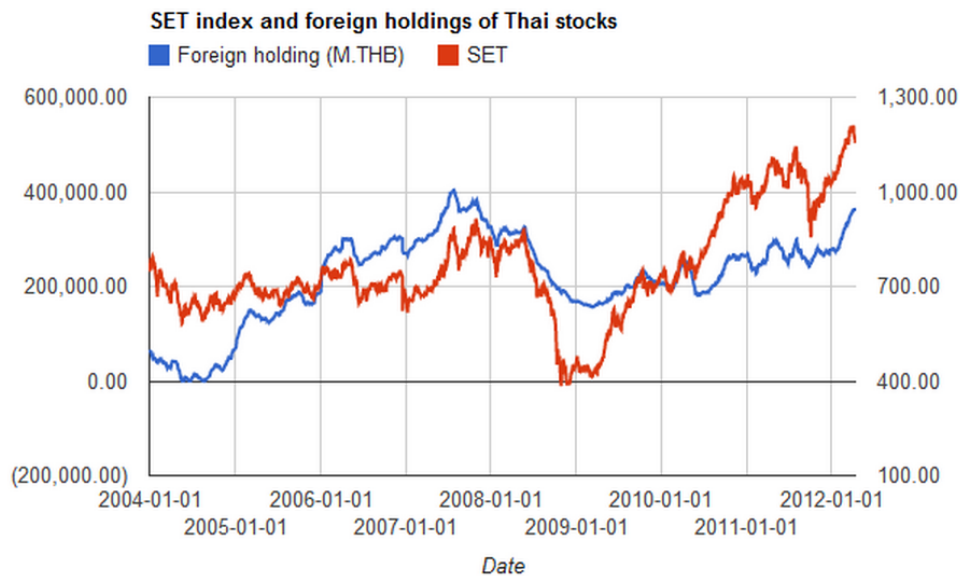
This section sheds light on an organic activity inside the market comprising of variety of players and their natures to complement with the overall features of the stock market explored in the previous parts.

Main players

Three main groups are basically in the markets: retail investors, institutional investors and foreign investors. Retail investors are people who hold 100 shares to million shares. Institutional investors are players with big volume managed by expertise. Another type of institutional investors can be a proprietary trader using the bank's own capital to trade financial assets for the sake of the banks (Loizou 2012).

In Thailand, foreign investors own the most share but not the main traders. Companies sell part of their shares to public namely 'free float', which is around 40%. From this amount, 60% or THB3.6 trillion are hold by foreign investors whereas local retail investors, local institutions and proprietary own 20%, 18% and 2% respectively (Pongpanich 2014: 22). In addition, foreign investors changed gear in their trading volume in 2003. The buying and selling volumes doubled compared to the previous year and never go down up until now. The holding of foreigners also correlates with the SET index movement as shown below.

Figure 3.9: Correlated movement between foreign holding and SET index

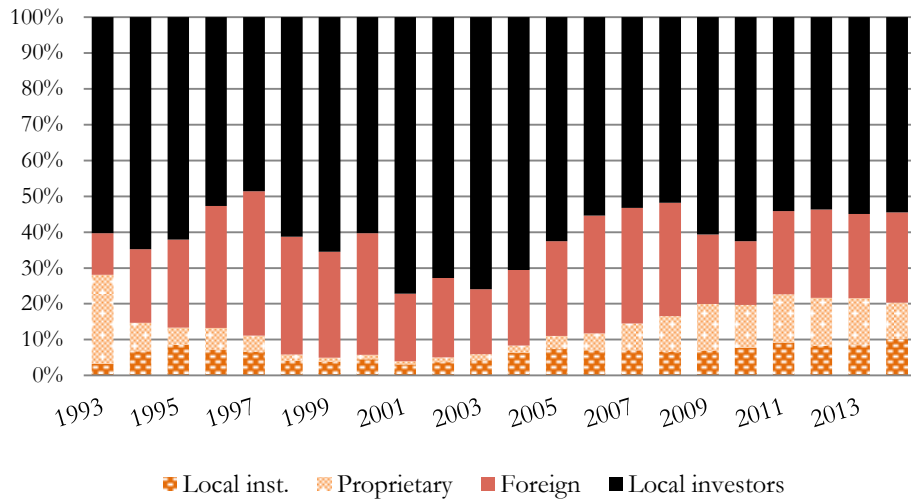


Source: http://thailandstockinvestment.blogspot.nl/2012/04/blog-post_15.html.

Nonetheless, it is interestingly that the transactions in the market are governed by the local investors which have the selling and buying position around 60.7% of the total transactions, following with foreign investors (25.7%), proprietary investors (7.3%) and local institutions (6.4%). This reinforced the notion that the behaviors of foreign investors and institutional investors hold securities in a long period (turnover 1.5 year per round, and

invest more than 95% in SET100) whereas the retail investors trade stocks more than 10 rounds per year (Pongpanich 2014: 23). This consonant with the observation given by one of the leading newspaper that considered retail investors like traders rather than investors (Manager Online 2011).

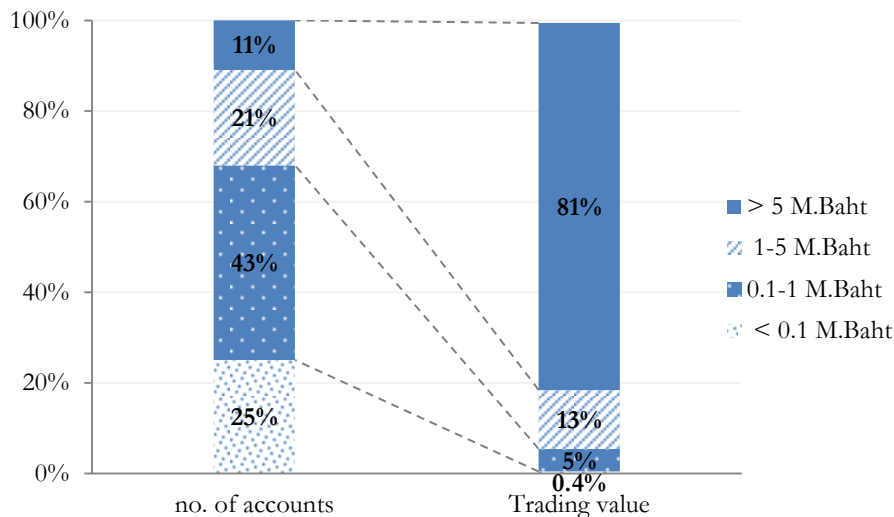
Figure 3.10: Total selling transactions by types of investors, 1993-2014



Source: SETSMART

Within their own group (retail investors), most of transactions are engaged by the class with more capital. Limpakarnvej and Thaicharoen (2009: 3) indicated the trading concentration of big retail local investors²³ whose number of accounts share 11% but did 81% of the trading.

Figure 3.11: The composition of retail investors by the trading value, Jan.-Sep. 2009, monthly

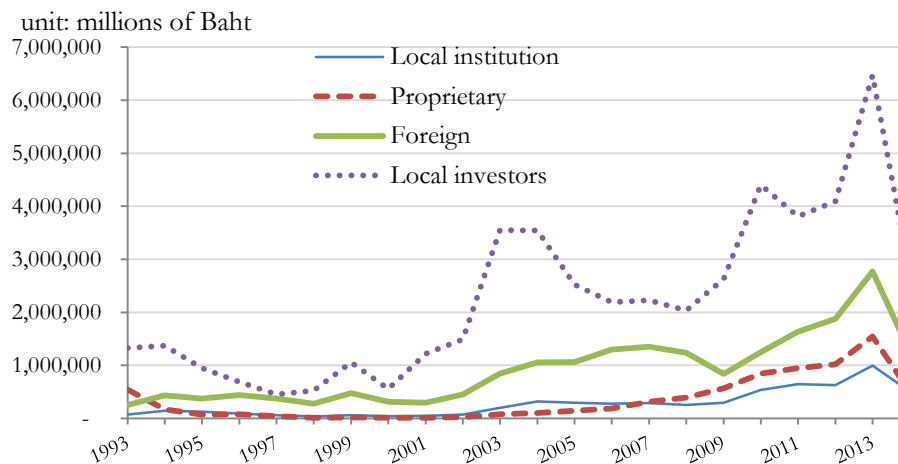


Source: Limpakarnvej and Thaicharoen (2009: 3).

²³ A big retail investor trades more than THB5 million per month.

The further investigation relates to trading style of big investors that undermines the main assumption of the neoclassical economists about the efficient market. Manager Online (2011) revealed the tactics of big retail investors by using the power of money they have to manipulate the price and volume in the marketplace. On the whole, the subsequence is reflected in the wide fluctuation incorporated in pattern of selling and buying as in figure 3.12.

Figure 3.12: Selling volume by each type of investors



Source: SETSMART

On the institutional investors' side, the share of transaction has gradually risen since 2003 which is in accordance with the information in section 3.3 that the policies from 2000 bolster the numbers of mutual funds. The skill and knowledge of them are known, nonetheless, they also cannot escape from the arena of manipulation. The same source (Manager Online 2011) also indicated that politicians had been interfering in stock selection in public pension funds. Also, that there is a prevailing conspiracy among business owners, deal makers and market makers²⁴ to create half-true news and misleading information to increase the stock price until it meet their target level and then sell their shares to the market. The source also revealed that their main target was big lot buyers, such as institutional investors.

And surprisingly, the trading behavior of institutional investors is not so rational as they are depicted in the fund management industry. Laoniramai (2012) pointed out that the behaviour of institutional investors 'are trend traders because they trade shared following the market' (42). From the study of Phansatan et al. (2012) on the behaviours of each type of investors during 1999-2004 of SET50 weekly transactions showed that the institutional and proprietary investors are inferior in stock selection whereas the individual

²⁴ A deal maker is an investment banker who manages the sale of stocks for a company. A Market maker is the brokerage firms who take certain trading positions to facilitate liquidity for certain securities.

investors are herdlike who possess a better decision in stock selection but poorly in timing (22).

The initial gains

- The first gain after IPO to the initial shareholders

It is not only a share buyer who expects to get a return from a public offering process, this procedure can also generate spontaneous wealth to an existing shareholder. When a private company is transformed into a public company, a portion of shares (a free float) is sold to the public at an IPO price that is normally more than a par value. As of August 2014, the difference in value between the IPO price and a par value from IPO shares is around THB39 trillion (USD1.2 trillion) (SETSMART, calculated by author). However, this does not mean that the whole amount goes to business expansion to later bring overall growth both for firms and economy.

Wattana Stock page (2014) explained how wealth can be passed to the initial shareholders from this IPO process by calling attention to the initial public offering of the MK restaurant. The company sold around 20% of the total shares to public at THB49 (par value at THB1) that made approximately THB9 billion in cash. However, only about THB1.2 billion of the total funds raised went to restaurant's expansion. The informant suspected that the leftover money (THB7.8 billion) will be cleverly returned back to all shareholders, including the initial shareholders who do not have to pay a single baht from the IPO, in form of dividends as the normal practice.

This reflects very much on Keynes' view (1936: 151) on the function of stock markets as:

...through they are primarily made to facilitate transfers of old investments between one individual and another, inevitable exert a decisive influence on the rate of current investments. For there is no sense in building up a new enterprise at cost greater than that at which a similar existing enterprise can be purchased; whilst there is an inducement to spend on a new project what may seem an extravagant sum, if it can be floated off on the Stock Exchange at an immediate profit.

- The manipulation and insider trading

Hewison (1999:26) stated that 'Manipulation was not unusual' in the Thai stock market environment. Not many cases of frauds and manipulation have been reported but the practice is well known in the market such as aforementioned cases about the stock bubble and manipulation of Racha Trust Co.,Ltd. in 1979 and the Bangkok Bank of Commerce in 1992.

In a policy perspective, the Securities and Exchange Commission (SEC) as an independent public agency with the mission to 'supervise and develop the Thai capital market to ensure efficiency, fairness, transparency and integrity'²⁵ has put these malpractices in the agenda as well. From 2010-2014, there were only 76 cases with the total fine of merely around THB373 million

²⁵ Source: www.sec.or.th

(USD11 million) were prosecuted, though there were likely many more occurrences. The biggest manipulation scandal in recent times was TPI Polene Public Company Limited (TPIPL) in 2007, that was fined THB6,900 billion, the highest fine in history, but the case was dismissed in 2011. Moreover, SEC is in the process to amend some regulations, including a clause to reward 30% of the fine to the one who gives the information about insider trading and manipulative actions (Bangkokbiznews, 10 July 2014). Nonetheless, SEC was criticized for the double standard that neglected to inspect abnormal price movements of some companies (Manager online 2006).

Table 3.4: Cases of stock manipulation that have been prosecuted, 2010-2014

	2014*	2013	2012	2011	2010	Total
Market manipulation through news	0	0	0	1	0	1
Price manipulation	21	0	6	22	2	51
Insider trading	5	10	1	5	3	24
	26	10	7	28	5	76

* as of October 31, 2014

Source: SEC, Criminal Sanction - annual statistics (2014).

Moreover, Laoniramai (2012) investigated the abnormal return from insider trading during 2000-2008. She found the 2.86% cumulative average abnormal return (CAAR) for 30 day time horizon after the transaction date of insider buying, 1% significant (34). Besides she pointed out that good news lead to buying but bad news does not trigger selling (Ibid.: 63). In sum, all of these make the assumption of rational and efficient market in question.

3.6 Concluding Remarks

The image of the stock market was recognized as a new source and opportunity for lending which was previously dominated by domestic banks; however, it is also painted with its microstructure showing the speculation spirit in the backdrop of the domination and manipulation of the big retail investors who mainly govern the trading activity as well as influences from foreign investor from time to time. Even the institutional investors can endanger to the skillful manipulation and the interference from politicians. As a result, the movement of the index depicts the volatility that beyond the explanation based on economic fundamental factors and manifests its own behavior moving far from a rational and efficient market.

Nonetheless, the policy side continuously supports the participation in the market. Mutual fund investments, including pension funds, became the prominent feature since the late 1980. Furthermore, the image of the stock exchange still adheres to the notion of ‘engine of domestic growth’ as the ongoing policy. Thus, the next chapter examines in the latter notion based on an empirical analysis following with a justification on the role as the supplementary income specifically from equity pension fund in the milieu of the stock market as such in chapter 5.

Chapter 4

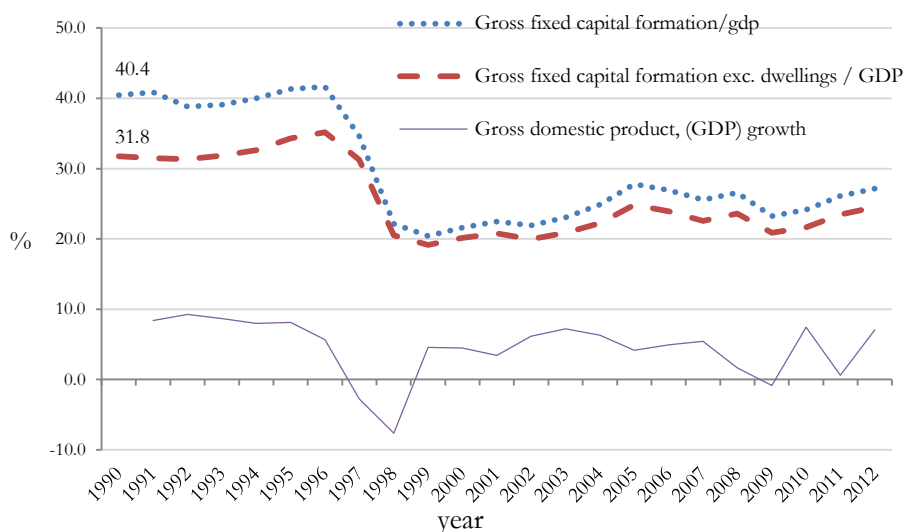
The Benefit to Fixed Capital Formation of a Firm: Result Analysis

This chapter provides the empirical evidence to demystify the orthodox notion that advocates the stock market as the source for investment finance in the case of Thailand. The first part gives an aggregate analysis at the country level following with the findings at a company level in the last section.

4.1 A Source of Investment Finance in Thailand

The path of national physical capital accumulation moves along with the overall economic growth and was interrupted by the financial crisis in 1997. After the crisis the gross fixed capital formation (GFCF) to GDP never been back to the previous level. It was around 40% during 1990-1996 before dropped to 24% averagely in 1998-2012. In addition, the graph below suggests the positive correlation between GFCF²⁶ and GDP growth except a sharp contradiction in 2011 due to the renovation and new construction after the severe floods in 2010.

Figure 4.1: Thailand GDP and gross fixed capital formation, 1990-2012



Note: GDP based year is 2002

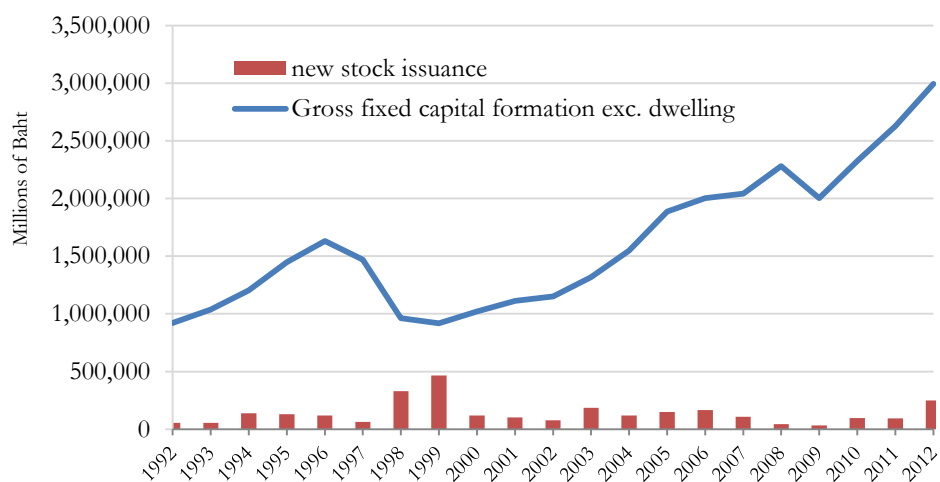
Source: NESDB, National Income Account.

²⁶ More than 90% of gross domestic capital formation is gross fixed capital formation (GFCF). The rest 10% is changes in inventories.

From the aggregate fixed capital formation, this paper next explores the attribution of stock to the formation. The result shows the slight contribution of new stock issuance to non-residential GFCF, which averaged only 10.4% from 1992-2012. Nonetheless, it must be mentioned that the degree of contribution dramatically increased after the economic crisis during 1998-1999 (figure 4.2) as the capital market emerged as an important channel to resurrect many businesses and banks during the struggle to find a source of finance during the crisis (Pongpanich 2014:28, Vichyanond 2002: 6). Moreover, Pongpanich (2014:28) indicated the central role of the stock market during the early 1990s as the main factor driving the transformation of small and medium size Thai companies into the big ones. However, the statistics do not support this notion.

In conclusion, the overall contribution of the new stock issuance shares only slightly in the process of acquiring fixed capital of the country. These are anomalous occurrences, thus the generalization of stock as investment finance is quite fallacious as such claim has only happened a few times in two decades.

Figure 4.2: New stock issuance to non-residential gross fixed capital formation



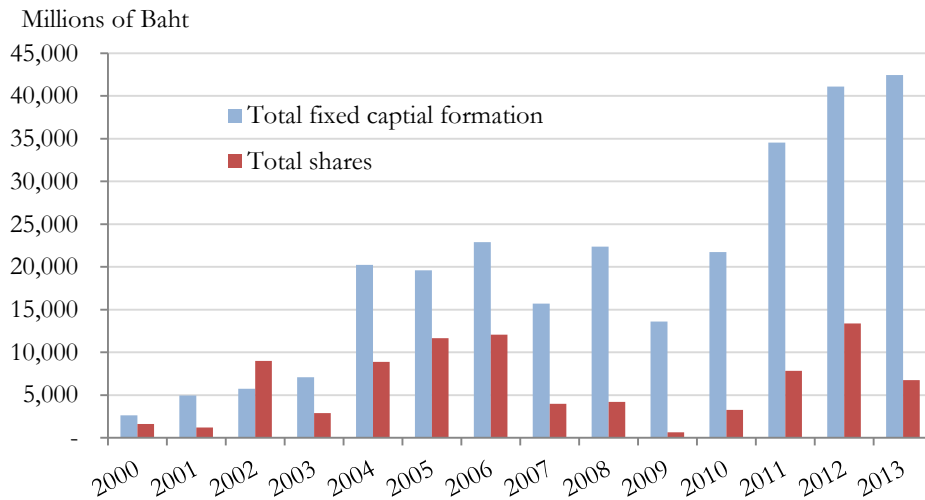
Source: NESDB and the Bank of Thailand (BOT).

4.2 Firm-Level Analysis

This section details the primary data analysis of the 80 sample firms in the stock market during 2000-2013. The finding shows that while the fixed capital formation has expanded in general, the value of the new stock issuance has fluctuated (figure 4.3). The ratio of the new stock issuance to the total fixed capital formation is exceptionally high in 2002; the new issuance surpassed even the total fixed investment. However, this should not be inferred as a general behavior because the drastic increase was from only one company, TSTH, whose issuance accounted for 85% of total stocks that year. Interestingly, the company did not invest that year but the issuance was to support the negative cash flow. Therefore, although the average proportion of

new issuance to fixed capital formation is 41.1%, removing the outlier TSTH reduces the proportion by almost 10%, to only 32.2% in 2002.

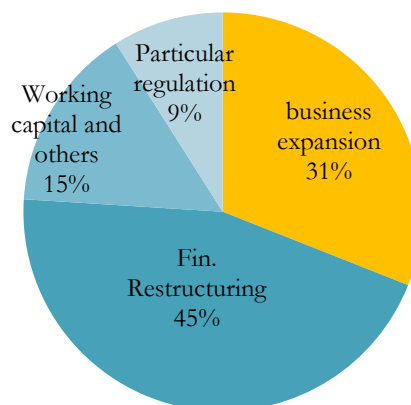
Figure 4.3: The contribution of shares to total fixed capital formation



Source: calculated by author

Moreover, the high level of shares to fixed capital formation has to be interpreted with caution because the pattern of exceeding stock issuance to the demand in investment appears prevailing in the sample group. This can mean that a firm may reserve the funding from stock issuance for the investment in the next few years or it indicates that the issuance is not only to supply investment finance. The SET survey on the purposes of issuing new stocks after IPO of the listed companies during 2000 – Jun 2009 showed that the money from selling stocks were used to expand businesses only 31%. On the other hand, most of the stock offering had been used for companies' restructure (45%) (Lacharoj et al. (2009: 6).

Figure 4.4: Fund raised in the secondary market by purposes, 2000- June 2009



Source: SET quoted in Lacharoj et al. (2009: 6)

Therefore, the large number in stock issuance does not always connect directly with business investment that subsequently brings growth to firm and the overall economy. Hence, in an attempt to determine the approximate contribution of stocks to investment, this paper investigates further by analyzing the source and the usage of funds for the long term projects²⁷ from the statements of cash flow of 80 companies²⁸. The long term cash inflows were matched with the cash outflows for long term investment items²⁹. The result in table 4.2 shows that companies use retained earnings to fund their long term projects. The stock issuance takes this role only around 15%. However, the proportions are varied for different periods. During 2004-2008, raising funds through shares are quite significant than other periods at 22.6-24.9% since there were many IPOs in that period.

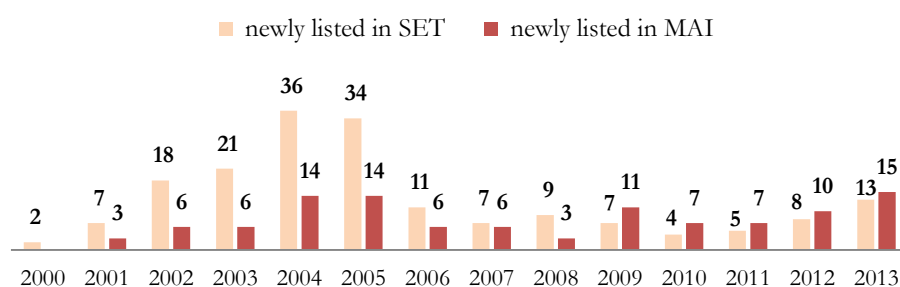
Table 4.1: Sources of funds for capital expenditure, 2000-2013.

Source of funds (all 80 companies)	2000-2002	2003-2005	2006-2008	2009-2011	2012-2013	Average
Retained earning	77.6	55.8	47.8	76.3	70.5	65.2
long term borrowing from financial institutions	11.6	22.6	24.9	7.9	7.2	15.4
long term borrowing from related parties	4.0	0.7	2.9	1.6	1.9	2.2
long term borrowing from other parties (net)	0.4	0.0	0.0	0.9	1.6	0.5
Debenture and debt instruments	0.4	0.6	1.2	3.5	3.3	1.7
Shares	6.0	20.3	23.2	9.8	15.6	15.0
Total	100.0	100.0	100.0	100.0	100.7	100.0

Note: the numbers were calculated according to the available data of each company.

Source: calculated by author.

Figure 4.5: Number of newly listed companies, 2000-2013



Source: SETSMART

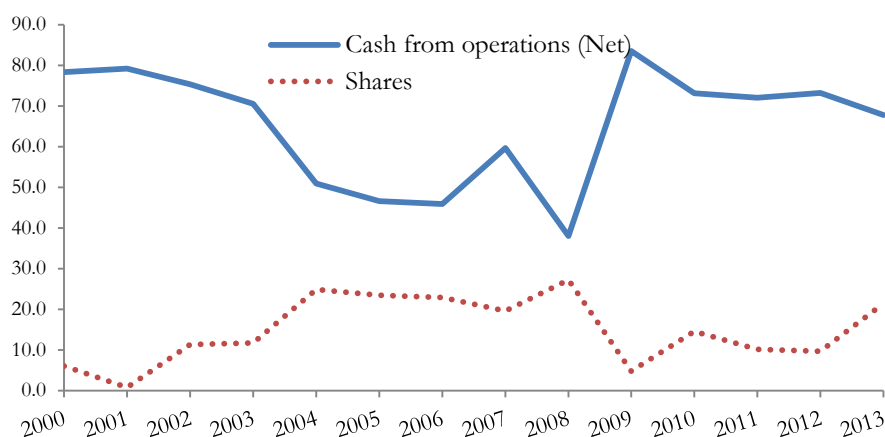
²⁷ For the long term projects, we include CAPEX, investment in subsidiaries and other long term investment for the analysis as presently, many companies do business through cooperating with other or their own subsidiary rather than do all by themselves. Therefore, it is not only CAPEX that we are interested to determine how much companies invest for the future growth.

²⁸ 63 companies in the industrial, 9 from construction and property in the SET and 8 companies of MAI.

²⁹ To see the maximum impact of stock issuance, we assume that the companies will firstly use it as the first source, then debentures, long term borrowing from related/other companies, long term financial institutions, and lastly from the money left from the operations.

And the cash flow from operations (internal funding) and the value of share issuance are negatively associated. When the companies have more cash from operations, they tend to have low level of stock issuance.

Figure 4.6: A comparison of cash-flow from operation and stock market issues



Source: calculated by author.

Moreover, the contribution of stocks is varied from industries. The contribution of stocks is higher contribution in property and construction sector as well as in MAI companies at 17%-21% compared to only 7% in the industrial sector. The intensity in stock issuance in property and construction sector is consistent with the study from Vichyanond (2002: 11).

Table 4.2: Sources of funds by sectors

Source of funds (by sectors)	Industrials	Property and Construction	MAI
Profit	70.8	59.6	65.4
long term borrowing from financial institutions	17.6	13.3	15.2
long term borrowing from related parties	1.5	2.9	2.3
long term borrowing from other parties (net)	1.2	0.0	0.2
Debenture and debt instruments	1.5	3.6	0.0
Shares	7.4	20.7	16.8
Total	100.0	100.0	100.0

Source: calculated by author.

Lastly, sizes of firms seem to be insensitive with the level of stock contribution; however, it influence on the borrowing from financial institutions. Table 4.3 shows that the larger companies tend to use more long-term fund from financial institutions than the smaller ones while having the similar level of issuing stocks.

Table 4.3: Sources of funds of the industrial sector by size

Source of funds (only industrial sector)	1 st tertiles	2 nd tertiles	3 rd tertiles	Average
Profit	61.5	77.0	73.8	70.8
long term borrowing from financial institutions	24.2	12.9	15.9	17.6
long term borrowing from related parties	3.5	1.1	0.0	1.5
long term borrowing from other parties (net)	1.8	1.0	0.8	1.2
Debenture and debt instruments	1.5	1.4	1.4	1.5
Shares	7.5	6.6	8.1	7.4
Total	100.0	100.0	100.0	100.0

Note: sizes of firms are categorized by market capitalization at IPO

Source: calculated by author.

4.3 Concluding Remarks

The analysis at the national and company level reveal that stocks have not had a significant role in investment finance which is contrary to the mainstream view. The evidence presented suggested that it provides at most about 10% of national gross fixed capital formation and 15% of long term capital expenditure of companies. In fact, and reinforcing findings in the literature, companies appear to rely much more on the internal source (retained earnings). The findings do point to the stock market having a greater role in investment financing in the post-financial crisis period, but this is still a limited role.

Chapter 5

The Thai Stock Market as a Source of Institutional Income

“Profits on the exchange are the treasures of goblins. At one time they may be carbuncle stones, then coals, then diamonds, the flint-stones, then morning dew, then tears.”

- Joseph de la Vega cited in Treynor and Mazuy (1966: 136).

This chapter analyses the role of the stock market as supplementary income. The focus is the equity pension fund that attached to the market at various scales. The first part is an overview of Thai pension system. An interesting recent feature is that certain funds are allowed to invest more in equity via the so called ‘employee’s choice’ with the claim of high return that will bring more wealth for pensioners. The analysis is conducted using the flexible and the equity Retirement Mutual Funds (RMF) as the representative of the pension scheme that evolve closely with the stock market as they put more than 40% of asset in equity; and also show the consonant movement with the stock index, so that the analysis of the nature of the stock market in the previous chapters can be imparted. The argument on alternative income for retirees is presented in the section 5.3.

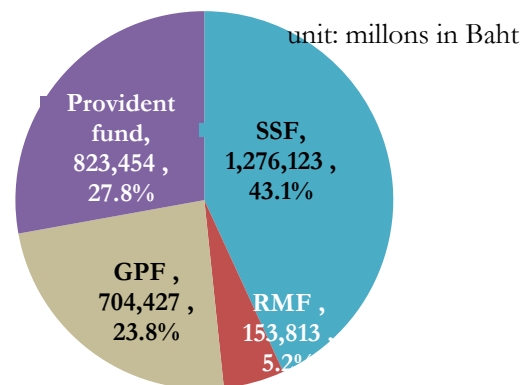
5.1 Pension System in Thailand

The first pension act was introduced in 1951 to provide civil servants a fully funded pension scheme using the government budget. This prevailed until a wave of reform by the World Bank because of concern about the fiscal burden in the backdrop of aging population. The pension coverage was expanded from only civil servants to other career areas. In 1987, the provident fund act was promoted as a voluntary path for companies to provide pensions for their employees under a contributory plan. This means that both employees and employers are obliged to contribute to the fund, with tax incentives for both parties. In 1990 the Social Security Fund (SSF) was set up as the mandatory scheme for all employees in formal sectors. The Government Provident Fund (GPF) followed in 1997 as the new pension administrator for civil servants (detailed in the Appendix B). Another option for pension management, which is beyond the scope of this paper, is that individuals can manage their own pension through an insurance plan. Hence, the late 1980s to 90s was the era of the modification of Thailand pension system.

More recently, the government has promotes the Retirement Mutual Fund (RMF) as a new channel to encourage people to save for their retirement,

beginning in 2001. The RMF is also part of the ‘retirement tax exemption package’³⁰. But with the shorter life of the introduction, the RMF is still the small part at 5.2% share with 492,446 accounts). SSF is the largest with 12.83 million members, 43.1% of the total value. The second and the third largest are the provident fund and GPF with 2.72 million and 1.2 million members respectively (FPO 2014, Association of Investment Management Companies (AIMC) 2014).

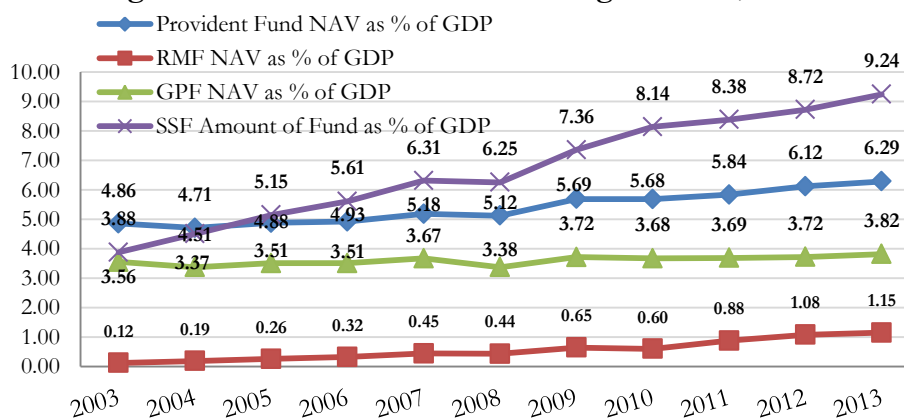
Figure 5.1: Retirement fund value by providers, as of August 2014



Source: Fiscal Policy Office (2014)

The whole retirement saving fund has grown continuously from 12.4% in 2003 to 20.5% of GDP in 2013. However, this amount is still far from the developed countries such as the US, the UK and the Netherlands whose pensions are more than GDP (Towers Watson 2014: 6). Nonetheless, these funds put around 15% of their asset in stocks; therefore, the amount of equity involvement is also increased in general.

Figure 5.2: NAV of Retirement Savings to GDP, 2003-2013



Source: Association of Investment Management Companies (AIMC) (2014), NAV of Retirement Savings to GDP.

³⁰ Insurance with over 10 year plan gets a maximum THB100,000 for the tax reduction and the retirement insurance for THB200,000 maximum but not more than THB500,000 (but not more than 15% of income) including GPF, RMF and provident funds. The SSF gets the tax exemption at the maximum of THB9,000.

5.2 The Dilemmas of the Thai Pension System

Social security can cover many aspects of wellbeing of the people by the government, and pension is one specific to financial wellbeing. Pension has two main purposes: first, to smooth consumption and second, to insure income for the whole period of a person's life (Barr and Diamond 2006). In consideration of the goal to fulfill individuals' financial wellbeing, the current system faces challenges of quantity and quality.

First, pension currently covers only half of the working population. The compulsory and voluntary provident funds can cover only 16.78 workers of the total 38.44 working population³¹ (NESDB 2014, labour structure). Moreover, the package that provides the assured long-term comfortable retirement through annuity scheme is available only to civil servants having at least 25 years of service whom will get 50-70% of last five year average monthly salary as the annuity. In comparison, the prime group of pensioners in SSF receive 20% maximum of THB15,000 wage rate, or THB3,000 (USD90), which can only cover the minimum food expense. Besides, the income sufficiency for the provident funds depends on the amount of money employers and

employees put in the funds, as the number of years of employment, and also the performance of the portfolio they are holding.³² Therefore, an individual's retirement security relies on number of years worked, salary, careers and a policy from employers to get certain types and amounts of pension.

In addition, the current system is quite rigid so it is difficult to transfer the savings from one fund to another when there is a career change. This makes the other voluntary channels in the pension system like insurance and RMF crucial to fulfilling each worker's retirement goal. However, the minimum saving requirement of RMF is less than the insurance premium, THB5,000 (USD156 per year) so RMF is the less burdensome to start saving.

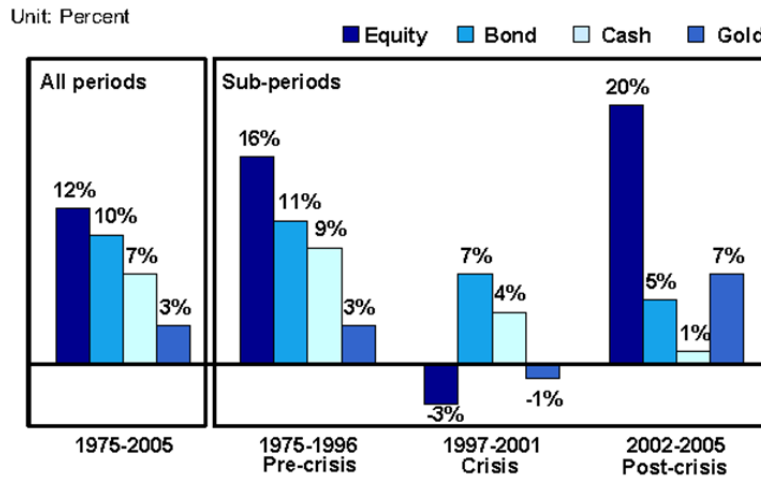
Another important feature in the Thai pension fund is connection pension with the concept of 'higher risk, higher wealth' that prevails in the dialogue on SET/asset management websites, leaflets and in many investment books. SET presents a great deal of discourse detailing the much higher returns in stocks and the effect of saving duration. Chareonphol (2006: 9) exhibited 12% annual return compared to 10% in bond, 7% in deposit and 3% in gold during 1975-2005. Furthermore, in his research in the next year showed that by putting money only in a bank deposit can cover nine years after retirement Chareonphol (2007: 6). But if allocating money into the stocks to bank for 50-50 before retirement and 30-70 after retirement, the retirees can enjoy

³¹Although the National Saving Fund act is already endorsed to enlarge the pension coverage to the informal sector as another voluntary source, it has not yet been implemented.

³²The latter amount depends on a regulation of each company who will identify the minimum years of working entitle for this amount.

twenty years of the sound financial income in their retirement (start saving from the age of 25)³³.

Figure 5.3: Compound annual rate of nominal return by types of assets



Source: Charoenphol (2006: 9)

In the Happy Retirement Guide the author suggests that ‘investing in stocks is risky but the long-term (20-40 years) investment of the provident fund will reduce the overall risk while get higher returns’ (Huawanich 2012: 38-39, translated by author).

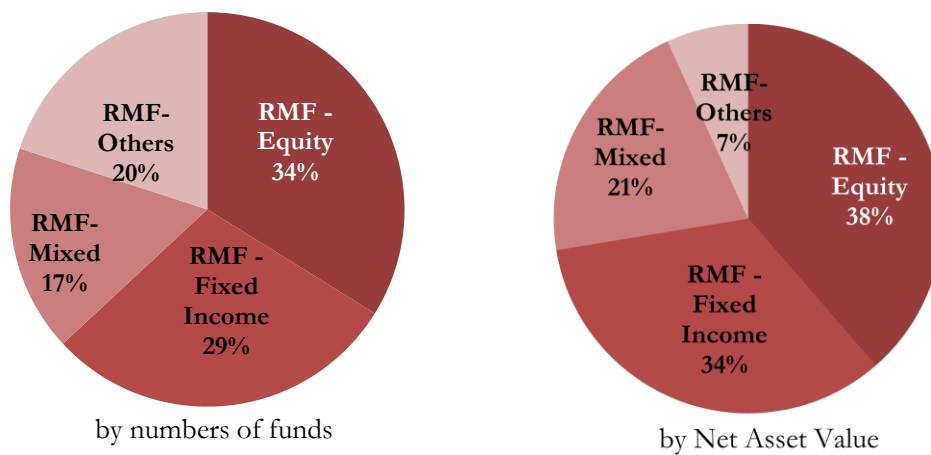
The performance of equity RMFs also bolsters the premise of “higher risk higher wealth”. The equity RMFs generate astronomical returns of up to 25% annually compared to the 3% in fixed income RMFs for the five-year average yield. (Morningstarthailand 2014) (an example of the asset allocation in RMF can be found in the Appendix C)

Additionally, after 2007 SEC allowed pension funds like the provident fund and GPF to have more schemes besides the default one dubbed the ‘employee’s choice’. So the members can choose funds according to their risk preference. The provident fund was first adopted in 2007, and was followed by the GPF in 2010. After the employee’s choice scheme, the GPF was designed in 2013 with more exposure in the stock market called the ‘life cycle fund’ that allocates assets according to ages with the maximum investment in equity at 65%. This moves the practice of the conservative policy in equity investment for both GPF and the provident funds from about 15% (40% according to laws) to the new ceiling of 65% for GPF and more than 65% for the equity provident fund.

³³ Under other assumption that 1) will retire at the age of 60 2) the starting salary is THB20,000 with 4% increase 3) put 15% of income annually for retirement account 4) The expected consumption expense is 73% of the last year salary (3.5% inflation) 5) the deposit rate is 5% and a return in the capital market is 10%.

Nonetheless, participation in equity retirement fund is still low. Only 3,600 GPF members joined the life cycle fund in 2013. And currently, around THB2,235 million (from THB800 billion total provident fund value) is in the pooled equity provident fund (AIMC). However, the portion in stocks is quite significant in RMF. Around one-third is in equity funds and around 20% is in the mixed fund. Also, RMF has grown exponentially from 42 funds in 2002 to 130 funds in 2014 with the total asset increment from THB2.84 billion to THB155.7 billion (Ibid.).

Figure 5.4: Types of RMF by value and numbers of funds



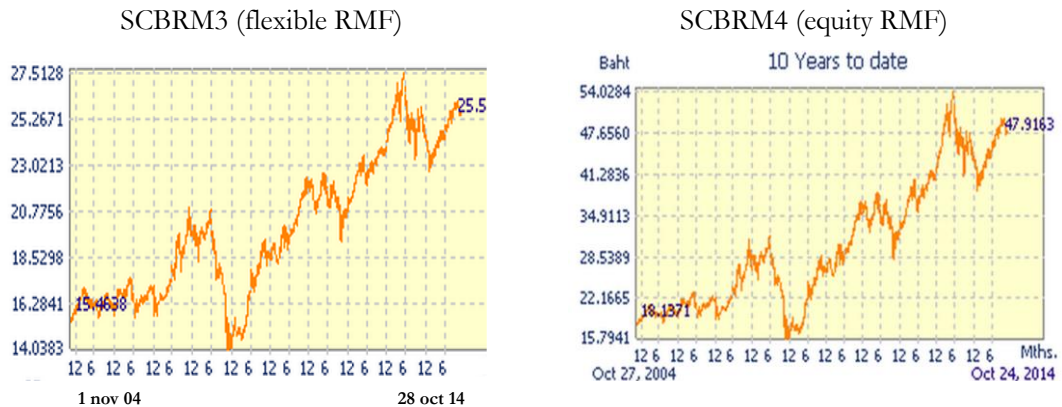
Source: AIMC (2014), Retirement Mutual Fund as of September 2014.

In conclusion, the portion of the pension fund investing is rising, also the greater amount of equity allocation. In 2014, the total investment in equity is THB130 billion (USD4.1 billion) from provident funds, THB123 billion (USD3.8 billion) from SSF and THB58 billion (USD1.8 billion) from GPF³⁴. Moreover, in the future if Thailand implements the National Saving Fund, the total size of the pension will be much bigger, with increased involvement in the stock market. Therefore, it is vital to understand how the stock market can influence the outcome for Thai peoples' retirements which is analyzed in the next section. However, the analysis is limited to connect with the nature of the stock market that has been detailed in the previous chapters.

The evaluation uses a flexible and equity RMF as a representative of funds which invest more than 40% in stocks, the threshold for the main fund in GPF and provident funds, according to the law. Also, the management of each pension fund is similar in that all of them are managed under a professional team from various asset management companies. In addition, the funds follow the index in performance, even the flexible fund that has a stake in equity of only 45%, detailed below.

³⁴ Data of provident funds and GPF as of August 2014 from thaipvd.com and gpf.or.th. Data of SSF is as of September 2014 from sso.go.th.

Figure 5.5: The examples of 10 year NAV of flexible and equity RMFs (SCBRM3 and SCBRM4)



Note: SCBRM3 allocate 45% in equity while 97% for SCBRM4.
Source: SCB Asset Management.

Figure 5.6: SET index, October 2004 – July 2014



Source: SET, market index

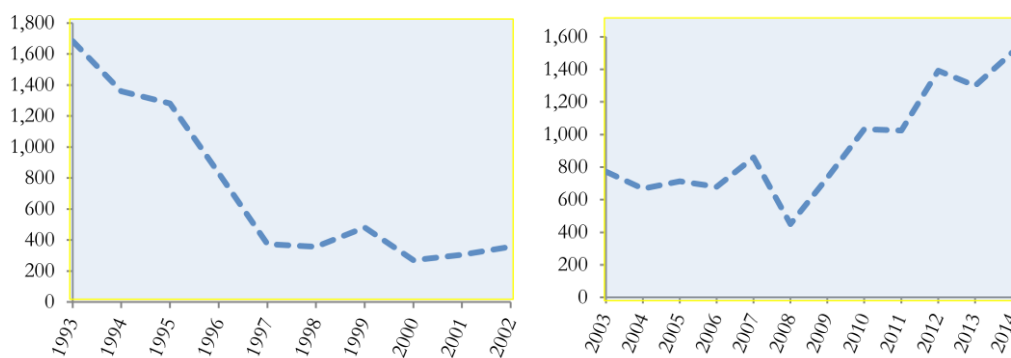
5.3 The Participation of Pension Funds in the Thai Stock Market: the Justification

The question of what is a suitable degree of participation in stock markets has always been discussed among researchers and policy makers, and by individuals who have to choose between high risk high returns with shorter saving time and lower returns that take longer to achieve the desired level of pension. In the case of pension, Taylor (2011) argued from the perspective of certainty on obligation versus fiscal burden. First, choosing certainty can come with price of the lower return and longer time to achieve the desirable level of pension. For example, in the case of the US security fund, he stated that switching 40% of a portfolio to 6.4% real expected return in stocks can lessen the budget deficit by one third. However, if the obligation for the payment to pensioner is certain (or if a pensioner demands certainty), it would be inappropriate to risk the pension funds in a risky field like the stock market. Nonetheless, the section limits the focus only on the implication to individuals. A numbers of analyses

are discussed from aspects of the nature of the stock market, timing and skills in fund management.

First, no one can predict future recession in the stock market that will subsequently affect the value of the funds. The magnificent index growth in the past 5 years conveys the same message of the growing return in the stock investment. But the performance can illustrate a different picture in the different time span. For example, the if only 2009-2014 market performance is used it projects remarkable performance; the 10 year span during 1993-2002 would predict continuous plummet; while using the 20 past years to predict the future one would expect flat performance.

Figure 5.7: SET index for different time spans



Source: SET

More importantly, the date investing starts influences the overall result. Investing in 1993 when the index was skyrocketing results in a totally different outcome than buying stocks in 1997 where the index sat at nearly the lowest point. If the investment commences in 1993, the value of an initial amount of 100 in stocks will be only 77.2 at the end of 2013, while the value of the time deposit is continuously accumulates to be 245.5. But if investing began four years later in 1997, the stock investment accumulates to 348.5. Thus, education about timing of investment and knowledge of swap source of saving are indispensable to investment planning.

Table 5.1: The normalization value between SET and time deposit at different years of investing, ended in 2013

	start investing in	
	1993	1997
SET Index (points)	1,682	372
Time deposit rate (12 month) (%)	8.29	10.4
Compound SET index	77.2	348.5
Compound Time deposit	245.5	167.2

Note: the based value is 100, starting in the year of investing.

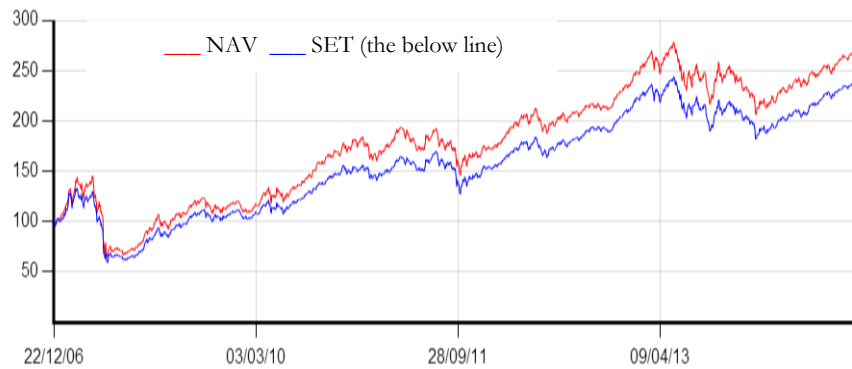
Source: SET and Bank of Thailand, calculated by author

Third, immense returns are not for everyone. Empirically, the RMFs do perform outstandingly, especially in the long term. The Net Asset Value (NAV) return for five years ranges from 24.6-160.5% for the flexible RMFs to

88.3-186.2% for the equity RMFs. However, these figures cannot fully reflect the real return of all investors and have to be interpreted with care. These huge returns are measured based on the original NAV at THB10, but the RMFs are open-ended funds which allows customers to buy at any time. Thus, this means that not all RMF investors get the same amount of returns and no one knows what NAV may be at the point when retirees need their money, so there is a possibility that net value of RMF will be lower than the cost of getting it.

Other arguments are about the fund managers' capability and timing. First, a review of the literature shows that the professionals can be poor at stock selection (Phansatan et al. (2012), as discussed in chapter 3. Therefore, even for the professionals who are trained and equipped with tools for analysis, the stock market is a difficult playing field. Nonetheless, this notion is not always true for the Thai pension fund. Figure 5.1 shows that the performance of the equity RMF can outperform SET index.

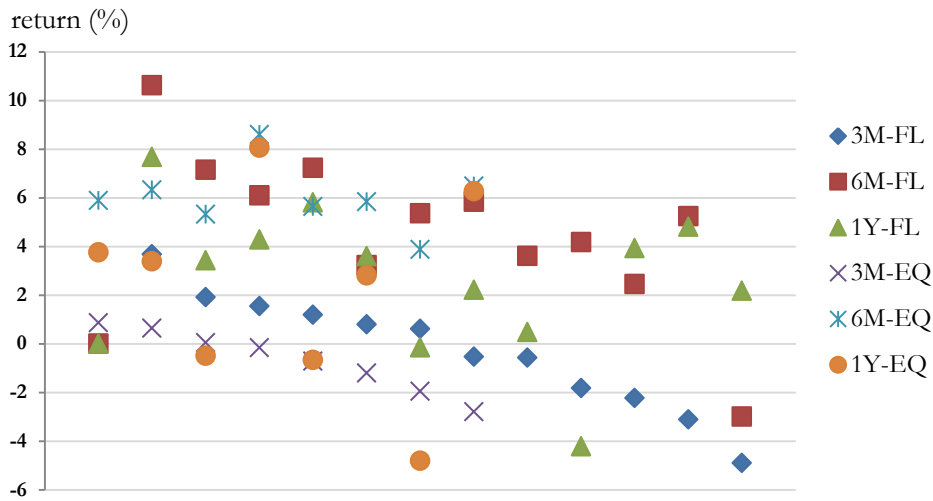
Figure 5.8: The NAV and SET index of KEQRMF (equity RMF)



Source: Kasikorn Asset Management

Nonetheless, there is difference in skills of fund managers that leads to different performances (Brown et al. 1997). The database from thaimutualfund (2014) exhibited the variation in returns of flexible and equity RMFs under different asset management companies.

Figure 5.9: The performance of flexible and equity RMFs, 3 months – 1 year



Note: 3M = 3 months 6M = 6 months 1Y = 1 year
 FL = flexible RMFs EQ= Equity RMFs

Source: Thaimutualfund (2014)

Another important aspect in timing is related to the cost in acquiring stocks. Although the overall P/E for Thai market is quite low compared to the other countries (figure 3.5), pension fund managers usually invest in the blue-chip companies, mostly in SET100, and some of them are no longer inexpensive. For instance, the P/E of CPALL is 40.5, BLA is 30.8, BJC is 34.9, AOT is 21.5. (SET, data as of 22 October 2014). All these stocks are in the portfolio of BBL Asset Management Company, the second biggest company for RMF products. As a result, the NAV may not yield a very high return in the short-term due to the high acquiring cost, although the economic outlook is projected in the long run.

Last but not least is governance. Much western literature discussed the conflict of interest between security firms and their customers' benefit (e.g. Bernstein 2010: 127, Lewis 2014: 19); however, this still gains little attention in the Thai context. Only the intervention in SSF from politicians ordering some stock purchase and the malfeasance of the top management of GPF on insider trading was found (Manager Online 2006, 2011; Matichon 2009). The extensive investigation from another research is thus needed.

5.4 Concluding Remarks

Achieving financial wellbeing for retirement is determined by systematic management of the schemes provided by the state and by the individual. However, reaching a secure retirement in the present pension system in Thailand depends on career area, salary, number of years worked and the desired target amount. The latter is reinforced with the notion of 'high risk high wealth' combined with the shift in policy to the mutual fund culture examined in chapter 3. Although it is proven that stocks gains more return than other less risky assets, the gain comes with caveats from the whimsical, inefficient and volatile nature of the stock market this paper explored that will affect the core principle of pension to ease consumption and insure income after the retirement.

Some risk may be reduced by using a professional fund manager, who has knowledge and familiarity with the market, to invest on your behalf. Still, there is the research showing the inferior skill of fund managers in selecting stocks (Phansatan et al. (2012: 22) and evidently the performance of each fund is variable. Moreover, timing of investment is a big factor in determining results, as shown in table 5.2. The market timing also affects the cost of stock purchase. Therefore, an ability to choose and swap funds is the indispensable to individuals who decide to jump into this field. There must also be flexible infrastructure to support the switching process. Furthermore, the investment needs regular inspection to stay updated with the market dynamics. This leaves the issue of governance in the mutual fund turf and in the pension arena to be investigated in later research.

The notion of stocks as a supplementary income and the far-reaching concept of 'high risk high wealth' in the equity-bound retirement funds as contributions to the retirement security may not apply to everybody. Lastly, these concepts must be conveyed to the public with a lot of caution so that the diamonds will not turn into tears due to the uncertainty inherent in investing in the stock market.

Chapter 6

Conclusion

The paper aims to explain the fundamental functions of the Thai stock market by investigating two main uses of the stock market, first as a source of investment finance and second, as a source of supplementary income. The first notion adheres to the purpose of establishing the Thai stock market in the early days. It shares the identical view with the premise from the orthodox economists that bolsters the stock market as a source of fund for businesses. However, the construction of the concept seems to be taken for granted rather than based on solid theoretical framework. The empirical evidence is also contentious with this long-held dogma. In the case of Thailand, it reveals that the new stock issuance contributes only at 10% to the national gross fixed capital formation and 15% to the long term investment at the company level. The abnormal figure occurred in the post financial crisis period, but this is still a limited role. Moreover, the result reinforces the notion that companies rely much more on retain earnings.

The modest role of stocks as the investment finance leads to an investigation on the activity inside the stock market and the claim as a source of alternative income for individuals. The mainstream theorized this premise with the underlying assumptions of efficient and rational market. The stock market is, therefore, an equal playing field with the omniscient spirit of the stock market. It has been controverted with the prevalence of speculation and manipulation. Also, individuals have different levels of skill, knowledge and power, so that it is hard that the rational and efficient market can stand in reality.

Still, the policy in Thailand has been set in accordance with the tenet of a source of income and also the concept of 'high risk high return' which directs stock investment. Interestingly, the current tone of the policy bears a distinctive feature- instead of promoting people to invest in the stock market directly (like Margaret Thatcher wished for the Britain to become the nation of shareholder (Sunderland 2013)), Thailand gears to develop a nation of mutual fund holders with an empirical upsurge of the unit trusts (mutual funds). The advantage of employing professionals to invest on your behalf is widely accepted but it is vital to recognize that the performances among them are heterogeneous. And most importantly, that the market is arbitrarily unpredictable derived from both internal and external factors. Moreover, gaining the source of supplementary earnings comes with conditions that require the ones who decide to play this field to possess discipline and sufficient knowledge about the market as discussed in chapter 5. Hence, superior returns from stocks are not for all people and for all intervals of time. This applies the same to those who want the retirement security attached to the stock market.

Last but not least, any economic activity should fundamentally support the core process to make the real sector strong unless it will get stuck into a

vicious cycle that could hurt the society overall, as warned by Henwood (1998: 306):

Individuals may be able to set aside money for the future, but not a society as a whole; a society guarantees its future only by real physical and social investments. But the financial markets are demanding cutbacks in both public and private investment in the name of “financial prudence”.

This is worthwhile to investigate; however, this needs another intensive analysis to complete in the series of the stock market.

References

- Association of Investment Management Companies (AIMC) (2014) 'Fund Information'. Accessed 24 October 2014 <http://oldweb.aimc.or.th/en/20_infostats_index.php>.
- Amadeo, K. (2014) 'What is Quantitative Easing?: How the Fed Reserve Created Massive Amounts of Money'. Accessed 15 October 2014 <<http://useconomy.about.com/od/glossary/g/Quantitative-Easing.htm>>.
- Antonios, A. (2010) 'Stock Market and Economic Growth: An Empirical Analysis for Germany', *Business and Economics Journal* 2010: 1-12.
- Arestis, P. and P. Demetriades (1997) 'Financial Development and Economic Growth: Assessing the Evidence', *The Economic Journal* 107(442): 783-799.
- Arestis P., P. Demetriades and K.B. Luintel (2001) 'Financial Development and Economic Growth: The Role of Stock Markets', *Journal of Money, Credit, and Banking* 33(1): 16-41.
- Bank of Thailand (BOT) (2014) 'Financial Market Statistic: Capital Market'. Accessed 20 August 2014 <<http://www.bot.or.th/English/Statistics/FinancialMarkets/CapitalMarket/Pages/StatCapitalMarket.aspx>>.
- Bank of Thailand (BOT) (2014) 'Thailand at Glance'. Accessed 22 October 2014 <http://www.bot.or.th/English/EconomicConditions/Thai/genecon/Pages/Thailand_Glance.aspx>.
- Bangkokbiznews (2014) 'ก.ล.ด. ให้รางวัล 30% แจ้งเบาะแสหุ้นหุ้น (SEC gives 30% for providing information on insider trading and manipulation)'. Accessed 3 September 2014 <<http://bit.ly/U59J9o>>.
- Barber, B.M. and T. Odean (2000) 'Trading is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors', *The Journal of Finance* 55(2): 773-806.
- Barr, N. and P. Diamond (2006) 'The Economics of Pensions', *Oxford Review of Economic Policy* 22(1): 15-39.
- Bernstein, W. (2010) *The Investor's Manifesto Preparing for Prosperity, Armageddon, and Everything in Between*. New Jersey: John Wiley & Sons, Inc.
- Bibow, J. (2012) 'Financial Markets', in J.E. King (ed) *The Elgar Companion to Post Keynesian Economics* (2nd edn), pp. 207-212. Cheltenham, UK, Northampton, MA, USA: Edward Elgar.
- Bouraoui, T., M. Mehannaoui and B. Bahli (2013) 'Stock Spams: Another Kind of Stock Prices Manipulation', *Journal of Applied Business Research* 29 (1): 79-90.
- Brown, G., P. Draper and E. McKenzie (1997) 'Consistency of UK Pension Fund Investment Performance', *Journal of Business Finance & Accounting* 24(2): 155-178.
- Bualuang Fund (2014) *Fund Data*. Bangkok: BBL Asset Management.
- Calderón, C. and L. Liu (2003) 'The Direction of Causality between Financial Development and Economic Growth', *Journal of Development Economics* 72(1): 321-334.

- Charoenphol, V. (2006) '30 ปี ลงทุนสินทรัพย์ไทย ประเภทใดให้ผลตอบแทนสูงสุด' (30 years in Investing in Thai Assets: Which One Gain Most?), SET Note 5/2006. Bangkok: SET Research Institute.
- Charoenphol, V. (2007) 'ตลาดหุ้นและบทบาทหน้าที่สำคัญเพื่อการระดมทุน (The Stock Market: an Important Role in Fund Raising)', SET Note 3/2007. Bangkok: SET Research Institute.
- Cho, Y.J. (1986) 'Inefficiencies from Financial Liberalization in the Absence of Well-Functioning Equity Markets', *Journal of Money, credit and Banking* 18(2):191-199.
- Chutipat, W. (2012) 'บทเรียนวิกฤตของตลาดหุ้นไทย ตอนที่ 2 (Lesson from the Stock Market Crisis, Episode 2)'. Accessed 4 November 2014 <<http://www.doctorwe.com/variety/20120526>>.
- Corbett, J. and T. Jenkinson (1996) 'The Financing of Industry, 1970–1989: An International Comparison', *Journal of the Japanese and International Economies* 10(1): 71-96.
- Cutler, A., B. Hindess, P. Hirst and A. Hussain (1978) *Marx's 'Capital' and Capitalism Today: Volume Two*. London, Henley and Boston: Routledge & Kegan Paul.
- Davidson, A. (2012) *The Money Myth: A Classic Introduction to the Modern World of Finance and Investing*. Harlow: Pearson.
- De Gregorio, J. and P.E. Guidotti (1995) 'Financial Development and Economic Growth', *World Development* 23(3): 433-448.
- Fama, E.F. (1970) 'Efficient Capital Markets: A Review of Theory and Empirical Work', *The journal of Finance* 25(2): 383-417.
- Fama, E.F. (1991) 'Efficient Capital Markets: II', *The Journal of Finance* XLVI (5): 1575-1617.
- Fiscal Policy Office (FPO) (2012) 'Thai Capital Market Development Committee Meeting 1/2555'. Presentation document on 12 April 2012. Bangkok: Fiscal Policy Office.
- Fiscal Policy Office (FPO) (2014) 'Saving Indicators (September 2014)'. Bureau of Savings and Investment Policy. Bangkok: Fiscal Policy Office.
- Foster, J.B. (2007) 'The Financialization of Capitalism', *Monthly Review* 58(11): 1-14.
- Goldsmith, R.W. (1969) *Financial Structure and Development*. New Haven and London: Yale university press.
- Hayes, M. (2012) 'Efficient Markets Hypothesis', in J.E. King (ed) *The Elgar Companion to Post Keynesian Economics* (2nd edn), pp. 207-212. Cheltenham, UK, Northampton, MA, USA: Edward Elgar.
- Henwood, D. (1998) *Wall Street* (updated edition). New York: Verso.
- Hewison, K. (1999) 'Thailand's Capitalism: The Impact of Economic Crisis', UNEAC Asia Paper No.1. Armidale, NSW: The University of New England.
- Hicks, John (1969) *A Theory of Economic History*. Oxford: Clarendon Press.

- Holzmann R., R. P. Hinz and M. Dorfman (2008) 'Pension Systems and Reform Conceptual Framework', SP Discussion Paper No. 0824. Washington DC: Social Protection & Labor, The World Bank.
- Huawanich, A. (2012) 'Happy Retirement Guide'. Thailand Securities Institute. Bangkok: The Stock Exchange of Thailand.
- Ingham, G. (2011) *Capitalism*. Cambridge: Polity.
- Japan Exchange Group (2014) 'Group CEO Message'. Accessed 18 May 2014 <<http://www.jpx.co.jp/en/investor-relations/management-information/top-message.html>>.
- Jiang, G., P. G. Mahoney and J. Mei (2005) 'Market Manipulation: A Comprehensive Study of Stock Pools', *Journal of Financial Economics* 77: 147-170.
- Keynes, J.M. (1936) *The General Theory of Employment, Interest and Money* (reprinted in 1964). London: Macmillan & Co Ltd.
- Khawaja A. I. and A. Mian (2005) 'Unchecked Intermediaries: Price Manipulation in an Emerging Stock Market', *Journal of Financial Economics* 78: 203-241.
- King, R.G. and R. Levine (1993) 'Finance and Growth: Schumpeter Might be Right', *Quarterly Journal of Economics* 108: 717-738.
- Kuroda, H. (2011) 'Financial Development for Sustained Growth: Outlook, Risks and Policy Priorities for ASEAN'. Accessed 10 October 2014 <<http://www.adb.org/news/speeches/financial-development-sustained-growth-outlook-risks-and-policy-priorities-asean>>.
- Lacharaj, T., Y. Thaicharoen. and W. Veerakul (2009) 'แนวทางการเพิ่มประสิทธิภาพการลงทุนในตลาดรองของบริษัทจดทะเบียนไทย (Guidelines of Effective Fund Raising for Thai Listed Companies in the Secondary Markets)', Research Paper 2/2009. Bangkok: Capital Market Research Institute, The Stock Exchange of Thailand.
- Laoniramai, W. (2012) 'Insider Trading Behaviour and News Announcement: Evidence from the Stock Exchange of Thailand', M.M. (Finance) Thesis. Bangkok: College of Management, Mahidol University.
- Lavington, F. (1913) 'The Social Interest in Speculation on the Stock Exchange', *The Economic Journal*, 23(89): 36-52.
- Lazonick, W, and M. O'Sullivan (2000) 'Maximising Shareholder Value: A New Ideology for Corporate Governance', *Economy and Society*, 29 (1):13-36.
- Levine, R. and S. Zervos (1996) 'Stock Market Development and Long-Run Growth', *The World Bank Economic Review* 10(2): 323-339.
- Lewis, M. (2014) *Flashboys: Cracking the Money Code*. Great Britain: Allen Lane.
- Limpakarnvej, S. and Y. Thaicharoen (2009) 'มองนักลงทุนไทยผ่านพฤติกรรมการซื้อขายหลักทรัพย์ (Looking at Thai Investors Through the Trading Behaviours)'. Bangkok: The Capital Market Institute, SET.
- Loizou, A. (2012) *The Devil's Deal: An Insider's Tale of How Money is Made*. Harlow: Pearson.
- Manager Online (2006) 'เจาะลึกขบวนการปั่นหุ้น สิงคโปร์แหล่งพักหุ้นร้อน! “ฝรั่งหิวคำ” ตัวการใหญ่ (Demystify Manipulation Scheme- Singapore the Place for Hot Stocks!,'

- “Dark Hair Foreigners” the Prime Manipulators’). Accessed 12 September 2014 <<http://www.manager.co.th/iBizchannel/ViewNews.aspx?NewsID=9490000075076>>.
- Manager Online (2011) ‘กลยุทธ์แก๊งค์ปั่นหุ้นใหม่ พิชิต 'ขาใหญ่'เคล็ดลับเล่นหุ้นรวย! (Tactics in the stock manipulation to be rich of the new players that kill ‘the big retail investors)’. Manager 360° Weekly, published on 19 May 2011. Accessed 10 September 2014 <<http://www.manager.co.th/mgrweekly/viewnews.aspx?NewsID=9540000060965>>.
- Matichon (2009) ‘GPF Loss is Minor Compared to Management Malpractice: Task to be Corrected for Regaining Faith and Preventing Political Intervention’, *Matichon Newspaper* 1 June 2009 32(11405).
- McKinnon, R. (2014) ‘The Unloved World Dollar Standard: Greenspan-Bernanke Bubbles in the Global Economy’, Working No. 497. California: Stanford Center for International Development.
- Mott, T. (2012) ‘Investment’, in J.E. King (ed) *The Elgar Companion to Post Keynesian Economics* (2nd edn), pp 315-320. Cheltenham, UK, Northampton, MA, USA: Edward Elgar.
- Morningstarthailand (2014) ‘RMF Equity Fund Performance’. Accessed 23 October 2014 <<http://tools.morningstarthailand.com/th/fundquickrank/default.aspx?Site=th&LanguageId=en-TH>>.
- Nathaphan, S. (2010) ‘Thai Mutual Fund Industry: Challenge and Opportunity in the Next Decade’, Research Paper 4/2553. Bangkok: Capital Market Institute, the Stock Exchange of Thailand.
- New York Stock Exchange (2014) ‘IPO Advantages’. Accessed 19 May 2014 <<http://usequities.nyx.com/listings/ipo-advantages>>.
- Ngugi, R.W., V. Murinde and C.J. Green (2005) ‘Stock Development: What have we Learned?, in C.J. Green, C.H. Kirkpatrick and V. Murinde (eds) *Finance and Development: Surveys of Theory, Evidence and Policy*, pp. 90-153. Cheltenham, UK and Northampton, MA, USA: Edward Elgar.
- Nieuwerburgh, S.V., F. Buelens and L. Cuyvers (2006) ‘Stock Market Development and Economic Growth in Belgium’, *Explorations in Economic History* 43(1): 13-38.
- Office of the National Economic and Social Development Board (NESDB) (2014) ‘Labour Structure’. Accessed 28 October 2014 <http://social.nesdb.go.th/SocialStat/StatReport_Final.aspx?reportid=536&template=1R2C&yeartype=M&subcatid=6>.
- Office of the National Economic and Social Development Board (NESDB) (2014) ‘National Account of Thailand 2012’. Accessed 20 July 2014 <<http://www.nesdb.go.th/Default.aspx?tabid=94>>.
- Ohangazi, O. (2009) ‘Did Financialization Increase Macroeconomic Fragility?: An Analysis of the US Nonfinancial Corporate Sector’, in J.P. Goldstein and M. G. Hillard (eds) *Heterodox Macroeconomics: Keynes, Marx and Globalization*. Oxon: Routledge.
- Palley, T.I. (2007) ‘Financialization: What It Is and Why It Matters, Working papers No. 525. The Levy Economics Institute.

- Phansatan, S., J.G. Powell, S. Tanthanongsakkun and S. Treepongkaruna (2012) 'Investor Type Trading Behavior and Trade Performance: Evidence from the Thai Stock Market', *Pacific-Basin Finance Journal* 20(1): 1-23.
- Pongpanich, B. (2014) *บรรมณเฑาะพ (Written by Banyong)*. Bangkok: Open World.
- Prayookwong, W. (2013) 'Myths and Realities of Investment Financing: the Case of Thailand', MA Research Paper. The Hague: Institute of Social Studies.
- Raines J.P. and C.G. Leathers (2000) *Economists and the Stock Market: Speculative Theories of Stock Market Flucuations*. Cheltenham, UK and Northampton MA, USA: Edward Elgar.
- Richards, A.J. (1996) 'Volatility and Predictability in National Stock Markets: How do Emerging and Mature Markets Differ?', *Staff Papers - International Monetary Fund* 43(3): 461-501.
- Röell, A. (1996) 'The Decision to Go Public: An Overview', *European Economic Review* 40(3): 1071-1081.
- Roxburgh, C., S. Lund and J. Piotrowski (2011) 'Mapping Global Capital Market 2011'. McKinsey Global Institute.
- Sarna, D. E. Y. (2010). *History of Greed*. New Jersey: John Wiley & Sons, Inc.
- SCB Asset Management (2014) '10 Year NAV of Selected RMF'. Accessed 23 October 2014 <<http://www.scbam.com/v2/app/popupfund.asp?l=th&port=SCBRM3>>.
- Shahbaz, M., N. Ahmed and L. Ali (2008) 'Stock Market Development and Economic Growth: Ardl Causality in Pakistan'. *International Research Journal of Finance and Economics* 14(1): 182-195.
- Shiller, R.J. (1981) 'Do Stock Prices Move Too Much to be Justified by Subsequent Changes in Dividends?', *American Economic Review* 71(3): 421-36.
- Shirai, S. (2004) 'Impact of Financial and Capital Market on Corporate Finance in India', *Asia-Pacific Development Journal* 11(2): 33-52.
- Singh, A. (1993) 'The Stock Market and Economic Development: Should Developing Countries Encourage Stock Market?', UNCTAD Review 4: 1-28.
- Singh, A. (1995) 'Corporate Financial Patterns in Industrializing Economics: A Comparative International Study', Technical Paper No 2. Washington DC: International Finance Corporation, The World Bank.
- Sunderland, R. (2013) 'What did Maggie do for investors? Privatisation revolution saw Sid turn a tasty profit but left a mixed legacy'. Accessed 15 May 2014 <<http://www.thisismoney.co.uk/money/markets/article2305884/Margaret-Thatchers-mixed-legacy-investors.html>>.
- Sutton, J. (2000) *What Can Economists Know?*. Cambridge, Mass. And London: MIT Press.
- Sweezy, P.M. (1995) 'Economic Reminiscences', *Monthly Review-New York* 47(1): 1.
- Taylor, T. (2011) 'If Public Pension Funds are in the Stock Market, Why Not Social Security?'. Accessed 10 October 2014 <<http://conversableeconomist.blogspot.nl/2011/05/if-public-pension-funds-are-in-stock.html>>.

- Thaimutualfund (2014) 'Historical Returns'. Accessed 22 October 2014 <<http://www.thaimutualfund.com/AIMC/FundPerformance.jsp?query=navDaily>>.
- Thai Provident Fund (2014) 'Employee's Choices Data'. Accessed 7 November 2014 <http://www.thaipvd.com/content_th.php?content_id=00100>.
- The Organisation for Economic Co-operation and Development (OECD) (2013) 'The Role of Banks, Equity Markets and Institutional Investors in Long Term Financing for Growth and Development: Report for G20 Leaders'.
- The Securities and Exchange Commission (2014) 'Criminal Sanction - Annual Statistics'. Accessed 31 August 2014 <<http://www.sec.or.th/EN/Enforcement/Pages/yearlystatistic.aspx>>.
- The Stock Exchange of Thailand (SET) (2013a) 'Annual Report 2013: Matching Your Right Financial Opportunity'. Bangkok: SET.
- The Stock Exchange of Thailand (SET) (2013b) 'Sustainability Report 2013: Matching for Sustainable Growth'. Bangkok: SET.
- The Stock Exchange of Thailand (SET) (2014) 'ภาพรวมตลาดทุนไทยเชิงเปรียบเทียบ (The Comparative Analysis of Thai Capital Market)', presentation document. Bangkok: Research Department, SET.
- The World Bank (WB) (2014) 'World DataBank: World Development Indicators'. Accessed 10 October 2014 <<http://databank.worldbank.org/data/views/reports/tableview.aspx?isshared=true>>.
- Towers Watson (2014) 'Global Pension Assets Study 2014'. Towers Watson.
- Treynor, J. and K. Mazuy (1966) 'Can Mutual Funds Outguess the Market', *Harvard business review* 44(4): 131-136.
- UBS (2013) 'Wealth-X and Billionaire Census 2013'. UBS.
- Vichyanond P. (2002) 'Capital Market Development in Thailand', Research Paper Presented to the 2002 AT10 Research Meeting at Nomura Research Institute. Tokyo.
- Ward, K. (2012) 'The World in 2050: From the Top30 to the Top100'. Global Economic, January. HSBC Global Research.
- Wattana Stock page (2014) 'MK Suki (M): the Stock that Meets the Demand of the Financial Adviser'. Accessed on 22 October 2014 <<https://www.facebook.com/wattanastock/posts/1420300298203245>>.
- Wolff, E. (2010) 'Recent Trend in Household Wealth in the United States: Rising Debt and the Middle Class Squeeze- An Update to 2007', Working Paper no. 589. New York: Levy Economics Institute of Bard College.

Appendix A: The second Capital Market Development Masterplan Plan 2010-2014

Vision:

“The engine of domestic growth and preferred destination and linkage for global investment” (FPO 2012).

This five-year plan composed of missions to build the low cost for business through efficient channel with the efficient infrastructure of the market; the quality products and services had to be increased. Besides, investors shall be educated and protected with the right mechanism. The competitiveness of the Thai capital market in ASEAN and global market system is the last pursuit.

In terms of actions, 8 main measurements were proposed as below:

1. Abolish the monopoly of SET from the solely entity to operate the exchange business and open for other providers.
2. Liberalize securities business and deregulate commission to reduce costs.
3. Legal reform to promote venture capital as well as merger and acquisition activity and law enforcement.
4. Streamline tax system for better incentives to participate in the market. For example, abolish capital gain tax for foreign trading board and debt instruments.
5. Develop new products. The infrastructure fund is the latest result from this.
6. Establish the National Savings Fund to become major source of saving and investment. This act was approved, but not yet implemented.
7. Develop a culture of savings and investments.
8. Develop the domestic bond market, especially for government’s cash management.

In addition, there are other missions such as broaden foreign investor base, widen access for retail investors such as launch the purchasing bond channel via ATM machines, internet or post offices (SET 2009 and FPO 2012).

Appendix B: Thailand Pension System- the Five Pillar

Pension can be arranged in many ways depends on sources of money and contributors to provide the pension dubbed ‘pillar’ according to the World Bank (WB). WB recommends each state to combine and balance among the five pillar concept starting with the zero pillar to provide the minimal level of the poverty protection to the elderly; it can be in the forms of a demogrant³⁵ or other social assistance. Subsequently, the first and the second pillars are aim to compensate for a certain of amount of wage after retirement. The third pillar is the voluntary path and the fourth pillar is the personal endowment and other state entitlement to support the good lives. This involves with informal support (e.g. from family) and other social programs such as health and housing as well as other individual assets. By adoption the five pillar framework from The World Bank (WB), Thai pension system can be presented briefly as follows.

The five pillar pension in Thailand

	Zero pillar	First pillar	Second pillar	Third pillar	Fourth pillar
Characteristics	Basic / social pension	Public pension plan / state- run	- Occupational / personal pension plan - Recipients and employers pay into the fund		Informal support, other social programs, other individual assets (e.g. homeownership)
Participation	Universal/residual	Mandated	Mandated	voluntary	voluntary
Scheme	Defined benefit	Defined benefit	Defined benefit/defined contribution ³⁶		-
Money input from workforce	non-contributory	non-contributory	Contributory		contributory
Types of fund	Survival grant for the elderly (THB 600-1000 per month).	The old civil pension scheme	GPF, SSF	Provident fund, insurance, RMF	
Provided/Managed by	Local governments	Central government	GPF and The Social Security Office	Companies, insurance/asset management fund.	Private and/or the state

³⁵ A demogrant is the same as a universal flat benefit, where individuals receive an amount of money based solely on age and residency.

³⁶ Defined benefit plan has the plan sponsor to guarantee the certain amount of money to the members. So, the sponsor bears the risk if the investment return does not cover the benefit that has to be paid to the members. In contrast, the benefits of defined contribution plan are tied up with the performance of the investment portfolio. So the risk is solely borne to the members.

Note: GPF = Government Pension Fund SSF = Social Security Fund
 RMF = Retirement Mutual Fund

Source: Adapted from Holzmann et al. (2008) with the Thailand input from the author (in the grey area).

The zero pillar is for an old-age group whose entitles for the THB600-1,000 per month depends on ages. The first pillar is the free provision from the government to the civil servants with the old scheme system. The second is for the new batch of civil servants under the management of the Committee of the Government Pension Fund and employees in formal sector under the Social Security Fund (SSF). Next for the voluntary channel in the third pillar, people can voluntarily join the company provident funds³⁷ or make contracts with insurance or asset management fund companies to supplement from the mandatory their target desired pension. It also includes the purchase of retirement mutual funds (RMF).

³⁷ Employees can put the money more in provident funds at 2-15% of their salaries compared to 3% in GPF with the equal amount supported by employers.

Appendix C: Example of Asset Allocation and Returns of RMF

RMFs under the management of BBLAM, asset allocation and performance

Name	MMRMF	BFRMF	BFLRMF	B25RMF	BERMF	IN-RMF	BSIRIMF	B-SM RMF	BGOLD RMF
Major asset allocation	money market	fixed income	flexible	25% equity	equity	Infra	good governance companies	SMALL CAP RMF	gold
Asset allocation (% of NAV)									
Equity	0	0	82.28	22.72	91.79	91.39	96.52	93.77	96.68
fixed income	107.01	99.36	17.24	77.04	7.98	8.50	3.77	6.46	3.32
Others	-7.01	0.64	0.49	0.24	0.24	0.11	-0.29	-0.23	0
NAV at 27 jun. 14	11.03	13.44	55.54	13.89	84.13	22.37	9.55	11.30	10.36
Performance (%)									
1 year	2.14	3.67	5.33	3.46	6.23	-0.68	-0.14	3.84	12.47
3 year	2.43	3.26	80.98	24.6	89	82.48	-	-	-11.17
5 year	1.87	2.67	185.71	44.42	211.58	143.81	-	-	

Source: Bualuang Fund (2014), BBL Asset Management Company Limited (BBLAM).