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Full Length Research Paper

Do managerial and operational risk factors impact performance of the indirect real estate vehicle? Case of Thai Property Fund

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ABSTRACT

Thai Property Fund as comparably similar vehicle to international REIT has significantly grown and increasingly become more important investment vehicle for the last ten years. With limited number of academic studies, there is little supporting evidence on how Thai indirect real estate vehicle should develop and grow. In this regard, determinants of the property fund' performance should be comprehended, especially qualitative variables where little has been studied, such as managerial and operational risk factors. In this research, qualitative approach of semi – structured interview was conducted to 41 professionals in the Property Fund industry from Jan – Dec 2014. Summative content analysis was thus used for analyzing data. The Property Management Company and sponsor were found to be influential to the performance of the Property Fund, whilst Asset Management Company was not. Although the first sets of findings were consistent to international studies, the latter was found to contradict to those. Since the Asset Management Company of Thai Property Fund tended to have more passive role of monitoring operation rather than managing the property, this finding supported legislative permission for new Thai REIT vehicle to allow the Property Company to be REIT manager because of a significant impact of both Property Management Company and sponsor have to the performance of thai Property Fund.

Keywords: Thai property fund, Managerial and operational risk factors, Corporate governance, Property sponsor

INTRODUCTION

Real Estate Investment Trust (REIT), invented in United States in 1960s is a form of real estate investment asset. Over 50 years of REIT history, 37 countries have employed REIT and REIT-like structures (NAREIT, 2013a). Comparing to international REITs, Property Fund for Public Offering (PFPO) or Property Fund Type I is the most similar structure of indirect real estate vehicle employed in Thailand under the Security Exchange and Security Market Act, 1992 (B.E. 2535). Since the first Property Fund has been initially offered to the public in October 2003, the Property Fund market has continuously grown to be one of the major investment vehicles in the Thai capital market with 51 listed funds with net asset value of 275.800 million Baht (Figure 1).

One of the interesting reasons for the global recognition of such indirect real estate vehicle are their interesting attributes, such as steady dividend from rental cash flow at comparably higher yield than government bond and inflation rate, diversification benefits from their characteristics of low correlation to other asset classes (Block, 2006; Quan and Titman, 1999). For instance, Hong Kong REITs were negatively correlated to U.S. stocks during 2000 to mid of 2008, which might generate diversification benefit for portfolio of the international

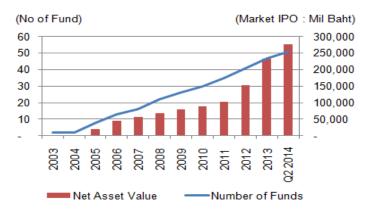


Figure1. Number and Net Asset Value of the Property Fund, 2003 – Q2 2014 **Source:** Securities and Exchange Commission (2014)

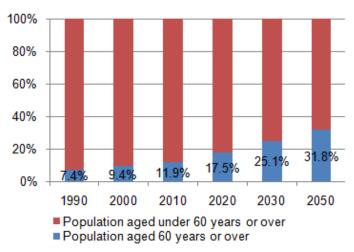
investor (Zhu, 2008). Atchison and Yueng (2014) summarize from their study about investment portfolio allocation that minor portion of REITs in investment portfolio is found to provide higher return with lower volatility than portfolio with only bonds and common stocks for U.S. market over 25 years from 1988 - 2013 (Atchison, and Yueng, 2014). REITs in Dubai and overall Asia Pacific have significantly enhanced portfolio performance of mixed-asset allocation through attributes of inflation hedge, return enhancement and volatility reduction (Moss and Prima, 2014; Nardo and Anderson, 2009). In comparison with traditional real estate, indirect real estate vehicle also helps decrease liquidity risk from allocating investment units to many investors and trading market (Jiamchoatpatanakul the stock and in Tangchitnob, 2014; Li, 2012).

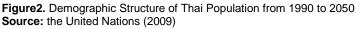
Since many countries are facing or moving toward an aging society, demand for the retiree' saving and investment in the property fund and other investment assets tend to increase. Global population at age over 60 years old will averagely increase to 22% by 2050 or become aged society (United Nations, 2009). After 2020, Thai population will also move to such phase with excess 20% of the retiree to total population (Figure2). In addition, such demographic changes cause Asian pension funds to reassess their investment portfolios by increasing additional portion of real estate asset so as to match portfolios with their future liabilities and diversify overall investment portfolios (Newell, 2010). For instance, the Japanese Government Pension Investment Fund (GPIF) with over USD 1.2 trillion Asset under Management (AUM) announced to review portfolio to increase more allocation in J-REIT and equity to expose more inflation risk so as to increase expected return. The increasing proportion of the retiree to people at working age has greater effect to the financial status of the pension fund than financial crisis in long term (Hinz et al., 2009).

NAREIT (2013b) also mentions that REIT vehicle has been playing an important role as one of the major U.S. economic drivers. Barna and Mura (2010) support that development of the investment asset and capital market is found to relate positively with growth of national economy. Almost one million jobs have been supported through operation and facility using of real estate held by REITs in U.S. (NAREIT, 2013b). In a real estate business sector, the property developers or owners can have additional exit strategy to sell real estate asset to REIT so that they would gain capital to reinvest in the other development projects, which helps increase economic activities.

Having said these, Thai Property Fund have dramatically grown and increasingly become more important investment vehicle regarding attractive asset characteristics, interesting alternative asset class in the aging society, economic growth support and job creation. Compared to the U.S. REIT with over half of century history, there is very limit number of academic studies about Thai Property Fund with only ten - year history. Understandings about the investment performance in capital market is important for further development of the investment asset (NAREIT, 2013b; Buranasiri, 2012; Cheong et al., 2009; Yong et al., 2009). Since there are little academic studies about determinants of the property fund' performance, especially qualitative variables, such as managerial and operational risk factors, this research concentrates on such factors to explain whether they could affect performance of Thai Property Fund and, and The findings might help provide a supporting how. evidence on how Thai indirect real estate vehicle should develop and grow.

In accordance with structure of the property fund (Figure3), the Property and Asset Management Company manage the fund at asset and fund levels respectively. In many cases, the property sponsor who sells the asset to the fund might behave as the Property Management Company because of more understandings about their asset than others. This study explains managerial and operational risk factors in the aspect of these three parties.





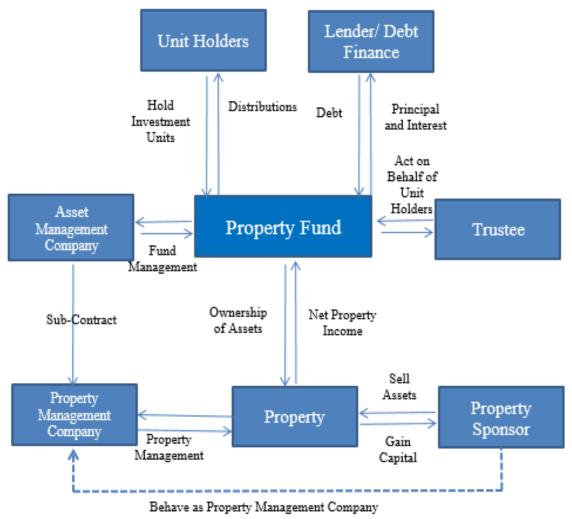


Figure3. The Typical Structure of Property Fund **Source:** Stock Exchange of Thailand (2013)

LITERATURE REVIEW

As the structure, there are three parties which might be influential to the performance of the Property Fund.

Property Management Company

The Property Management Company is typically hired by the Asset Management Company to manage and operate the underlying investment property. Because the indirect real estate vehicle invests in a tangible real estate asset, active property management can help improve its performance and increase its value (Block, 2006; Issac, 1998; Sebastian and Schatz, 2009). Real estate requires operational works to keep in good conditions (Ciochetti et al., 2002; Stevenson and Lee, 2007). In this regard, operation and management is widely recognized as one of the financial risks which plausibly cause loss from inadequate or poor internal processes, people and systems or from external occurrences (Basel Committee, 2011). There are some studies which support a trend of the REIT for professional management in specialized property type rather than in diversified property types because of skill and knowledge development in managing specific property type. Focusing on specific property type, Redman and Manakyan (1995) mention that REIT investment in specific property type is found to be significant in determining REIT performance. Chaudhry et al. (2004) also find that larger REITs are more geographically diversified and also less diversified across property types. In addition, Brady and Conlin (2004) find that property performance of a lodging property is related to its brand and skillful management.

Property Sponsor

The property sponsor or the property owner might dispose the investment property to the Property Fund so as to regain capital. Most of the property sponsors also behave as the Property Management Company after selling the asset to the fund, therefore their reputation might have an influence to the performance of the Property Fund. Loannou and Serafeim (2010) find that Corporate Social Responsibility (CSR) strategies can create value to public - listed company in U.S. markets through the analyst' recommendations, especially from those with more experience and broad CSR awareness. Although strong backing of the property sponsor has been one of the important growth drivers of the Asian REIT markets in the past decade, the interest of both REIT managers and sponsors tend to be significantly aligned with that of other unit holders because of sponsor' significant ownership in most REITs (Moss and Prima, 2014). In addition, the Property sponsor of Thai Property Fund is permitted to have maximum of 1/3 of total ownership or plausibly be the other major shareholders of the fund. There is a positively significant bidirectional relationship between underpricing of Asian REITs and the portion of shares held by the sponsor in IPO (Wong et al., 2013). After announcements of new property acquisition of Singapore and Japan REITs, significant abnormal increase of unit value has been averagely found 0.38% in a five trading days around the event date (Ooi et al., 2011).

Asset Management Company

The Asset Management Company plays an important role in managing overall fund, monitoring operation and management of the Property Management Company, communicating with the shareholder and coordinating with trustee and the regulator. From their mentioned roles, they might have impact on performance of the Property Fund. Regarding management, the potential REIT shareholders generally expects not only stable yield from rental income and high liquidity, but also high transparency and professional management (Wenceslao, 2008). REITs with good governance board of director have provided superior average performance than poorer governance but the effect is significant only for the best and worst boards (Feng et al., 2005). Singapore REITs (S-REITs) with better corporate governance are likely to provide better risk-adjusted returns to the investor but do not increase operational performance (Lecomte and Ooi, 2013). Since the institutional owners of REITs do only act as the monitor, it is necessary for REITs to have good governance (Feng et al., 2010). Moss and Prima (2014) point out that the market expect the REIT manager to acquire reasonable assets to benefit to the unit holder, not just anticipate to increase AUM and consequently management fees. In the matter of dividend payout, there is strongly positive relationship between U.S. REIT dividend payout and entrenchment level of CEO without a nomination committee (Feng et al., 2007). This might imply that CEO might pay higher dividends to avoid sanctions from the shareholder and takeover threat. Bauer et al. (2010) find that firm values of U.S. REITs have significant relationship to governance level with low payout ratios only. The reason is that natures of REITs require high dividend payout and hold little free cash flow for management to cause agency problems. With regard compensation scheme, there has been an to insignificantly positive relationship between post - IPO performance of S-REITs and portion of performance based fee (Ooi, 2009). Feng et al. (2007) find that 136 U.S. REITs in 2001 which pay higher equity - based compensation to their board members with independent nomination committee are associated with higher financial performance. Regarding management, Limpaphayom and Connelly (2004) also discuss about corporate governance and suggest that improved governance practices will help achieve the long - term growth and objectives for the market. In the only available

paper regarding performance of Thai Property Fund of Buranasiri (2012), he mentions about corporate governance as the other potential factor for further study.

RESEARCH METHODOLOGY

Referring to the previous academic studies, the following hypotheses are set:

Hypothesis 1: Property Management Company has influence to performance of the Property Fund.

Hypothesis 2: Asset Management Company has influence to performance of the Property Fund.

Hypothesis 3: Property sponsor have influence to performance of the Property Fund.

To understand whether the operational and managerial risk factors affecting performance of the Property Fund, the qualitative approach of semi-structured interview was conducted from Jan to Dec 2014. In this research, there are 41 professionals in the Property Fund business as the sample: Property Fund Manager, Security Analyst, Institutional and sophisticated retail investor (I) and Real Estate and Financial Professional Consultant Triangulation technique helps increase credibility of scientific knowledge by gaining persuasive evidence to improve consistency and generalizability of the results (Hussein, 2009; Webb et al., 1996). Data triangulation involves gathering data through a variety of information sources to enhance validity of a study (Guion et al. 2002; Denzin, 1970). Afterwards, method of summative content analysis is used for analyzing data (Table1 and Figure4).

RESEARCH FINDINGS

The following issues are supporting reasons whether each party has influence to performance of the Property Fund, and how they affect.

Property Management Company

Corporate governance of the Property Management Company

Majority of the interviewee believe that corporate governance of the Property Management Company might impact performance of the Property Fund. Since they directly operate and manage the property, they might spend inappropriately. However, interviewee no. 15 believes that the property fund manager from Asset Management Company would be in charge of controlling use of cash for any expenses of the property management. Interviewee no. 24 also supports that the Asset Management Company need to explain situation to unit holder, trustee and SEC, thus they try to avoid such governance problem.

Result: Majority agreed

Skills and experience of the Property Management Company

Almost all of the interviewees believe that skills and experience of the Property Management Company might affect performance of the Property Fund. Interviewee no. 6 believes that skills and expertise of the Property Management Company have influence to performance of the property fund. Interviewee no. 10 also supports that different operators would result in dissimilar performance based on skills and experience. Interviewee no.30 deems that the more skills and experience the Property Management Company have, the more potential for them to enhance asset performance. However, interviewee no.22 specifically discusses that skills and experience of the Property Management Company significantly impact to only some property types with short – term agreement e.g. hotel and service apartment. Office and industrial properties with typical lease term of 3 years is less significant to be affected when there is a change in the Property Management.

Result: Agreed

Reputation of the Property Management Company

Many interviewees suggest that reputation of the Propertv Management Company miaht affect performance of the Property Fund. For instance, interviewee no. 8 proposes that reputation of the Property Management is anticipated regarding risk to be unable to generate yield as announced in prospectus. Interviewee no. 4 explains that situation of premium to NAV may happen from over demand because of good reputation of the Property Management Company and sponsor. Interviewee no. 27 supports that the Property Fund with Management Company with good reputation would supports the investor' confidence regarding prospect potential of properties to generate income with high growth.

Result: Agreed

In this regard, all three subcomponents are mostly agreed or agreed by the interviewee. Therefore, hypothesis of "the Property Management Company has influence to performance of the Property Fund" is accepted (Figure 5).

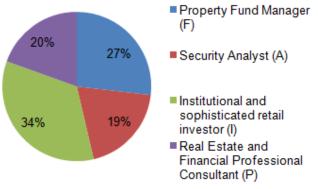
Asset Management Company

The Asset Management Company with commercial bank support

Two of the interviewees suggest benefit of The Asset Management Company with commercial bank support but few disagree. Interviewee no. 4 suggests that the Asset Management with commercial bank support may know more tenants to lease the space or set ATMs on the premises for higher revenue. Interviewee no. 40 mentions

Age			Working Experience		
Min	27	years	Min	3	years
Мах	51	years	Max	25	years
Mean	34	years	Mean	7	years
Average	41	years	Average	8.95	years
Mode	29,36	years	Mode	4	years
Std. Deviation	6.35	years	Std. Deviation	6.16	years

Table1. Descriptive Statistics





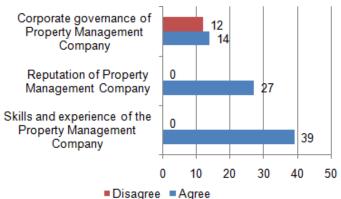


Figure5. Issues about Property Management Company

that such commercial bank support will help access to larger group of the investor. Interviewee no. 32, however, believes that such support cause low effect to increase performance of the property fund significantly. Interviewee no. 15 points out that the Asset Management Company without commercial bank support can allocate investment units to other underwriter to access to larger group of the investor.

Result: Partly agreed

Corporate governance of Asset Management Company

Majority of the interviewee believe that corporate governance of the Asset Management Company might

not affect performance of the Property Fund. Interviewee no. 14 mentions that the Property Fund are legally required to pay 90% dividend of taxable income, so it is low problem about corporate governance because of low amount of available cash for inappropriate use. Interviewee no. 9 also supports that governance prone to be insignificant issue because there are many parties to monitor operation of the property fund, such as trustee, unit holder and SEC. On the contrary, interviewee no. 39 suggest from his international experience that REITs with good corporate governance, such as integrity and credibility of management, transparency in disclosure of financials, avoiding conflict of interest, attract investors, and therefore will all be valued by investors. In this regard, interviewee no. 21 suggest that the Asset

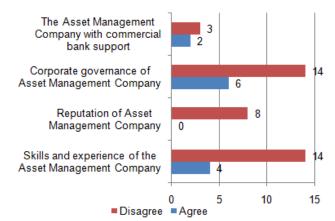


Figure6. Issues about Asset Management Company

Management Company need to manage an issue in case that the sponsor develop new properties to compete with those in the Property Fund, not only increase Asset Under Management (AUM) to gain more management fee.

Result: Partly agreed

Reputation of the Asset Management Company

Some interviewees suggest that corporate governance of the Asset Management Company is insignificant to performance of the Property Fund. For example, interviewee no. 7 believes that each Asset Management Company with a role of fund monitor has comparably the same performance, thus its reputation is insignificant issue from point of view of the investor. Interviewee no. 35 also suggests that reputation of the Asset Management Company is insignificant because they do not directly manage the asset and have less influence to performance of the Property Fund. **Result: Disagreed**

Skills and experience of the Asset Management Company

Majority of the interviewee discuss that skills and experience of the Asset Management Company is insignificant factor to performance of the Property Fund. Interviewee no. 3 claims that the Asset Management Company does not affect performance of the property fund because many of them do not actively manage the property. Hiring property management professionals like CB Richard Ellis, Jones Lang LaSalle, Colliers or property sponsor, they may not have skills and experience to manage the property directly. Interviewee no. 19 also states that change in fund manager insignificantly affect performance of the property fund. Interviewee no. 22 discusses that the Asset Management Company have passive role to monitor property operation rather than manage the property, so their skills is insignificant to impact performance of the Property Fund. On the contrary, interviewee no. 31 suggests that there are requirements of both skills in capital management and property management from both Asset and Property Management Companies. Interviewee no. 22 mentions that the Asset Management Company also determine dissimilar policy which might affect performance of the property fund.

Result: Partly agreed

In this regard, all four subcomponents are partly agreed or disagreed by the interviewee. Therefore, hypothesis of "the Asset Management Company have influence to performance of the Property Fund" is rejected (Figure6).

Property Sponsor

Business growth of the sponsor's company

Some and interviewee no. 16 suggest that the sponsor's company with high business growth in real estate business may sell assets to the fund for regaining capital to fund new project developments, thus the fund is expected to grow as the sponsor's company. Few interviewees includes interviewee no. 34 claimed that poor asset may be sold by well-known sponsor to take capital back.

Result: Mostly agreed

Reputation of the Sponsor

Many interviewees propose that reputation of the sponsor might impact performance of the Property Fund. Interviewee no. 12 mentions that reputation of the sponsor are amongst essential determinant of price and return of the property fund because higher investment demand derives from asset of the sponsor with good reputation. Interviewee no. 32 supports that reputation of the sponsor might lead to premium in market price of the Property Fund. Interviewee no. 11 states that some property funds with good brand reputation like CPNRF may have premium in market price to NAV. From viewpoint of Interviewee no. 16, the property sponsor with good reputation can increase credibility of the asset and

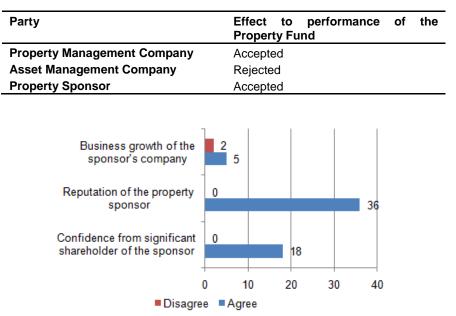


Table2. Summary of the research findings

Figure7. Issues about Asset Management Company

confidence to the investor, lower risk in their perception and be easier to offer to the investor, although their offered price are relatively higher than others. Interviewee no. 39 suggests that the indirect real estate vehicle with good reputation tend to enjoy a premium price because they have a credible and capable management team, sound corporate governance, and a stable earnings and dividends history.

Result: Agreed

Confidence from significant shareholder of the sponsor

Many of the interviewees discuss about significant shareholder of the property sponsor. Interviewee no. 8 proposes that the investor prefers the fund with high ownership portion of the sponsor because they also take the same risk as one of the investors. In this regard, interviewee no. 24 recommend shareholder ownership would increase the investor' confidence, support commitment to maintain as good performance and clarify a question whether sponsor dispose poor quality asset or not. In case that there are significant portion of the sponsor ownership at 20 - 33%, this would increase confidence of the other investors but does not affect the asset' performance.

Result: Agreed

In this regard, all three subcomponents are mostly agreed or agreed by the interviewee. Therefore, hypothesis of "the Property sponsors have influence to performance of the Property Fund" is accepted (Figure7).

RESULTS

As summarised findings in table 2, the Property Management Company and Property Sponsor have the significant impact to performance of the Property Fund but the Asset Management Company does not significantly have effect. The Property Management Company have influence to performance of the Property Fund since each company have dissimilar skills and experience in management, and reputation to support prospect profit growth of the asset. On the contrary, the Asset Management Company have passive role to monitor property operation rather than manage the property. Thus, their skills and experience, reputation and commercial bank support is low to be significant to impact performance of the Property Fund. Regarding corporate governance, the Property Management Company are deemed to affect but the Asset Management Company does not affect performance as their active and management roles respectively. Nevertheless, the property sponsor with good reputation, significant stake as shareholder of the fund and potential growth of their businesses are recognised in terms of goodwill to bring about higher investment demand and price premium.

CONCLUSION

Compared to international studies, the findings of significant influence of the Property Management Company and sponsor were consistent to those but that of insignificant effect of the Asset Management Company was found to contradict. Since the Asset Management Company of Thai Property Fund tended to have more passive role of monitoring property operation rather than managing the property, this finding supported legislative permission for new Thai REIT vehicle to allow the Property Company to be REIT manager because of significant impact of the Property Management Company and sponsor to the performance of Thai Property Fund.

This finding might support the rationale for development of new Thai REIT vehicle to allow not only Asset Management Company but also the property company to be REIT manager since only Property Management Company and sponsor have influence to performance of the property fund. Without Asset Management Company, it might be realized to be riskier because governance issue of the Property Management Company is found significant.

REFERENCES

- Atchison K, Yueng VS (2014). The impact of REITs on Asian economics, working paper.
- Barna,F, Mura P (2010). Capital Market Development and Economic Growth: The Case of Romania. Annals of the University of Petrosani, Economics, 10(2): 31 – 42.
- Basel Committee (2011). Operational Risk Supervisory Guidelines Forth Advanced Measurement Approaches [Online]. Available at: http://www.bis.org/publ/bcbs196.pdf (Accessed: 12 December 2013).
- Bauer R, Eichholtz P, Kok N (2010). Corporate Governance and Performance: The REIT Effect, J. Real Estate Econ, 38(1): 1 – 29.
- Block RL (2006). *Investing in REITs: Real estate investment trusts*, 3rdedn. Bloomberg press: New York.
- Brady PJ, Conlin ME (2004). The Performance of REIT-owned Properties and the Impact of REIT Market Power. J. Real Estate Fin. Econ. 28(1): 81 – 95.
- Buranasiri J, Nittayagasetwat A (2012). Real Estate Investment Performance: the Test of the Impact of Additional Interest Rate Information from CIR Model, *Int. J. Bus. Soc. Sci.* 3(12): 134 – 143.
- Chaudhry MK, Maheshwari S, Webb JR (2004). REITs and idiosyncratic risk, *J. Real Estate Res.* 26(2): 207 222.
- Cheong CS, Wilson PJ, Zurbruegg R (2009). An Analysis of the Long run Impact of Fixed Income and Equity Market Performance on Australian and UK Securitized Property Markets. J. Property Invest. Fin. 27(3): 259 – 276.
- Chung, R., Fung, S. and Hung, S. K. (2012). Institutional Investors and Firm Efficiency of Real Estate Investment Trusts, *J. Real Estate Fin. Econ.* 45(1): 171 – 211.
- Ciochetti BA, Craft TM, Shilling JD (2002). Institutional Investors' Preferences for REIT Stocks, *J. Real Estate Econ.* 30(4): 567 – 594.
- Denzin NK (1970). The Research Act in Sociology. Chicago: Aldine.
- Feng Z, Ghosh C, Sirmans CF (2005). How important is the Board of Directors to REIT Performance?, J. Real Estate Portfolio Manag. 11(3): 281 – 293.
- Feng Z, Ghosh C, Sirmans CF (2007). Director Compensation and CEO Bargaining Power in REITs, J. Real Estate Fin. Econ. 35(3): 225 – 251.
- Feng Z, Ghosh C, Sirmans CF (2010). Institutional Monitoring and REIT CEO Compensation, *J. Real Estate Fin. Econ.* 40(4): 446 479.
- Guion LA, Diehl DC, McDonald D (2002). *Triangulation: Establishing the Validity of Qualitative Studies*, working paper.
- Hinz R, Zviniene A, Biletskyy S, Bogomolova T (2009). The Long Term Impact of the Financial Crisis on Public Pension System Financing, working paper.

- Hussein A (2009). The use of triangulation in social sciences research: Can qualitative and quantitative methods be combined? *J. Comparative Social Work*.1: 1 – 12.
- Jiamchoatpatanakul N, Tangchitnob JN (2014). Does Size matter to Performance and How? Case of Thai Property Fund Market, working paper.
- Ioannou I, Serafeim G (2010). The Impact of Corporate Social Responsibility on Investment Recommendations, working paper.
- Issac D (1998). Property investment, Macmillan Press: London. Li L (2012). The Determinants of REIT Volatility, working paper.
- Limpaphayom P, Connelly JT (2004). Corporate Governance in
- Thailand, working paper. Lecomte P, Ooi J (2013). Corporate Governance and Performance of Externally Managed Singapore REITS, *J. Real Estate Fin. Econ.* 46(4): 664 – 684.
- Moss A, Prima AD (2014). Asia Pacific Listed Real Estate: A Contextual Performance Analysis, working paper.
- Nardo D, Anderson JÁ (2009). Diversification Benefits of Real Estate Investment Trusts in Dubai. 22nd Australasian Finance and Banking Conference.
- NAREIT (2013a). Global Real Estate Investment [Online]. Available at: http://www.reit.com/REIT101/REITFAQs/GlobalRealEstateInvestm ent.aspx (Accessed: 17 October 2014).
- NAREIT (2013b). Number about REITs [Online]. Available at: http://www.reit.com/REIT101/REITbytheNumbers.aspx (Accessed: 17 October 2014).
- Newell G (2010). The Significance of Real Estate in Asian Pension Funds, working paper.
- Ooi JTL (2009). The compensation structure of REIT managers: impact on stock valuation and performance, *J. Property Res.* 26(4): 309 – 328.
- Ooi JTL, Ong SE, Neo PH (2011). The Wealth Effects of Property Acquisitions: Evidence from Japanese and Singaporean REITs, J. Real Estate Econ. 39(3): 487 – 505.
- Quan DC, Titman S (1999). Do Real Estate Prices and Stock Prices Move Together? J. Real Estate Econ., 27(2): 183 – 207.
- Redman A, Manakyan H (1995). A multivariate analysis of REIT performance by financial and real estate asset portfolio characteristics, J. Real Estate Fin. Econ. 10: 169 – 175.
- Sebastian S, Schatz A (2009). Real Estate Equities –Real Estate or Equities: Working paper.
- Securities and Exchange Commission (2014) Capital Market Report [Online]. Available at: http://www.sec.or.th/EN/Pages/CapitalMarketReport.aspx (Accessed: 5 January 2015).
- Stevenson S, Lee SL (2007). The case for REITs in the mixed-asset portfolio in the short and long Run, J. Real Estate Portfolio Manag. 11(1): 55 – 80.
- Stock Exchange of Thailand (2013). *Listing Procedures for Securities in Thailand* [Online]. Available at: http://www.set.or.th/th/products/listing/process_p1.html (Accessed: 22 October2014).
- United Nations (2009). World population ageing 2009, working paper.
- Webb EJ, Campbell DT, Schwartz RD, Sechrest L (1966). Unobtrusive Measures: Nonreactive Measures in the Social Sciences. Chicago: RandMcNally.
- Wenceslao DC (2008). What are the business and regulatory factors for a successful Philippine REIT market? Working paper.
- Wong WC, Ong SE, Ooi JTL (2013). 'Sponsor Backing in Asian REIT IPOs', *J. Real Estate Fin. Econ.* 46(2): 299 320.
- Yong J, Allen DE, Lim LK (2009) 'A Multi-Factor Analysis of A-REIT Returns', Working Paper.
- Zhu H (2008). 'The Diversification benefits of Asian REITs', working paper.

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