

THE SIGNIFICANCE AND PERFORMANCE OF LISTED PROPERTY COMPANIES IN VIETNAM

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ABSTRACT

Vietnam has emerged as a rapidly growing economy in the last few years, with the average growth rate in excess of 8.0% per year before the global financial crisis and 5.3% in 2009. Although Vietnam is located in a region of significant growth in new property developments, details about the Vietnam property market are still not readily available. This paper presents a profile of the Vietnam property market and assesses the significance and performance of listed property companies on the Ho Chi Minh City Stock Exchange (HSX). The risk-adjusted performance analysis and significance of listed property companies in Vietnam is assessed over August 2003 – August 2009, with the ongoing property investment issues highlighted.

Keywords: Vietnam property market, Vietnam listed property companies, Ho Chi Minh City Stock Exchange, risk-adjusted performance analysis.

INTRODUCTION

Foreign investment, in particular property investment, in Vietnam has been increasingly significant in recent years and promising to recover after the downturn of the global financial crisis. In 2008, Vietnam was estimated to have investible commercial property values at US\$8 billion (EPRA, 2010). This trend is seen in the increasing foreign capital flows in all economic areas and the improving business environment in recent years. In turn, it has encouraged the improvement of the domestic sector in all related areas including investment capital flows, business management and competition. This paper presents the profile of property investment in Vietnam, particularly the property securities market in the Ho Chi Minh City Stock Exchange (HSX) and further assesses the significance and performance of property securities before and during the global financial crisis over the six-year period from August 2003 to August 2009.

Previous studies have determined the benefits of including international property in a mixed-asset portfolio (eg: Bardham et al, 2008; Bond et al, 2003; Conover et al, 2002; Eichholtz et al, 1998; Hoesli et al, 2004; Ling and Naranjo, 2002; Wilson and Zurbruegg, 2003; Worzala and Sirmans, 2003). Some researchers further suggest that

diversification benefits are more effective with Asian property markets than with other traditional property markets (Bond et al, 2003), as well as diversification benefits from investing in property securities in several Asian countries (Garvey et al, 2001; Liow and Adair, 2009).

On that trend, recent research papers have paid more attention to examining the various aspects of property performance in Asia (eg: Addae-Dapaah and Loh, 2005; Bond et al, 2003; Gerlach et al, 2006; Jin et al, 2007; Liow, 2007, 2008; Liow and Adair, 2009; Liow and Sim, 2006; Mei and Hu, 2000, Ooi and Liow, 2004; Wilson et al, 2007; Wilson and Zurbruegg, 2004) and in specific Asian countries such as Singapore (Liow, 2000, 2001a, 2001b; Sing and Low, 2000), Hong Kong (Chau et al, 2001, 2003; Newell and Chau, 1996; Newell et al, 2004, 2007; Schwann and Chau, 2003), India (Newell and Kamineni, 2007), China (Newell et al, 2007, 2009). This gives investors and academics an indication on the awareness and understanding of a specific property market with its significance in the mentioned context.

Whilst property research papers have been presented on other property markets in Asia (eg: Japan, Singapore, Hong Kong, China, Malaysia and India), no previous academic papers have been presented on Vietnam. This paper is the first such paper; particularly highlighting the performance of listed property companies on the Ho Chi Minh City Stock Exchange.

ECONOMIC AND INSTITUTIONAL DEVELOPMENT OF VIETNAM

A social and demographic profile of Vietnam is given in Table 1, with Figure 1 highlighting the geographic context of Vietnam. Under the ruling Communist Party, Vietnam's poverty reduction and economic growth achievements in the last 15 years is a major success story in economic development. Vietnam's GDP has on average been in excess of 7% per year during 1995-2003, increasing to in excess of 8% in 2004-2007, dropping to 6.23% in 2008 and 5.3% in 2009, a 10-year low before rising to 6.2 and 7% in 2010 and 2011 respectively (EIU, 2010) due to the current global financial crisis. With a population of over 86 million, Vietnam is a country with high working age proportion at 70% and high rate of literacy at 90% (see Table 1). Vietnam also enters the ranks of middle income countries with income per capita increasing from US\$260 in 1995 to a 2008 level of US\$2,800 purchasing power parity. Its major economic indicators have steadily improved over recent years (see Table 2).

Figure 1: Map of Vietnam



Source: www.cia.gov

Table 1: General profile of Vietnam

Area: 329,560 sq km

Population: 86.9 million (July 2009 est.)

Languages: Vietnamese (official), English (increasingly favored as a second language)

Capital: Hanoi

Major cities: Ha Noi, Ho Chi Minh

Government: Communist state

Literacy: 90.3%

Sources: www.economist.com, www.cia.gov, www.gso.gov.vn

Table 2: Main economic indicators

| | 2008 |
|---|---------|
| Nominal GDP (US\$ billion) | 90.88 |
| GDP per capita | 2,800 |
| Consumer price inflation (average) | 24.5% |
| Trade balance (\$US billion) | -12.284 |
| Exports of goods, (\$US billion) | 62.9 |
| Exports of goods (% change, previous year) | 29.5 |
| Net Foreign direct investment (US billion) | 7.8 |
| US\$/VND Official FXRates | 16,548 |
| Stock market index (end of period, Jul 2000 =100) | 315.6 |
| Stock market index (annual % change) | -66.0 |

Source: IMF Country report April 2009, www.cia.gov

Drivers for growth in Vietnam include the increasing role of the private sector with the decline in manufacturing activity assumed by the state sector decreasing from 52% in 1995 to 25% in 2008. It is attractive for the strong work ethic, social and political stability, lower labor costs, attractive tax incentives and overall government support in the country. The business environment has significantly improved for WTO commitments to be met. Another key factor in Vietnam's favour has been the multinational companies' drive for the so-called "China plus one" scenario, wherein they seek to reduce their excessive dependence on China and to more evenly spread their business risk in Asia. Regarding transparency and corruption, Vietnam is still at the high risk level. Vietnam's real estate transparency index has improved from 4.69 in 2006 to 4.29 in 2008 moving from an opaque classification to a low transparency classification (see Table 3) (JLL, 2008). Foreign trade has been improving and a national plan of reforming state-owned enterprises has also been being performed as WTO commitments are met. The investment rate attained 44.5% of GDP in 2008, ranked #2 in the world. Foreign Direct Investment (FDI) commitments almost doubled compared to the previous year to in excess of \$64 billion. Stock market capitalization stood at 11% of GDP by the end of 2008, a significant drop from 43% of GDP at the end of 2007. Even though market opportunities worsened, Vietnam's ranking in business environment moved up to 65th globally and 15th regionally (Economist Intelligent Unit, 2010).

Table 3: Transparency of real estate* in Asian countries**

Highly transparent:

Australia, USA, Canada, UK, France, Hong Kong, Singapore

Transparent:

Germany, Spain, Italy, Switzerland, Malaysia, Japan

Semi-transparent:

Taiwan, South Korea, Thailand, Philippines, China (Tier 1), India (Tier 1, 2)

Low transparency:

Indonesia, Macau, China (Tier 2, 3), India (Tier 3), **Vietnam**

Opaque:

Cambodia

Source: JLL (2008)

*: 82 countries are assessed for property market transparency

** : includes other selected countries as international benchmarks

Although achieving some success in socio-economic reform, the Vietnam government still have a long road ahead and faces short term issues to overcome for a sustainable outcome, especially in the post-global financial crisis environment. Whilst the low transparency and high corruption have been enhanced recently, Vietnam is still seen as high risk in the region, being ranked #121 out of 180 countries for corruption perception (see Table 4) and #70 over 134 countries in global competitive index (see Table 5). Beside the common issues for economic recovery post-global financial crisis, the issues for Vietnam to address include the socio-environment issues, macro economic regulations and the business environment.

Table 4: Significance of corruption perception* of Asian countries : 2008**

| | | |
|----------------------------------|-------------------|----------------------|
| #1: Denmark, New Zealand, Sweden | #4: Singapore | #5: Switzerland |
| #9: Australia | #12: Hong Kong | #14: Germany |
| #18: Japan, USA | #39: Taiwan | #40: South Korea |
| #47: Malaysia | #72: China | #80: Thailand |
| #85: India | #92: Sri Lanka | #121: Vietnam |
| #126: Indonesia | #141: Philippines | #166: Cambodia |

Source: Transparency International (2008)

*: 180 countries are assessed for corruption perception

** : includes other selected countries as international benchmarks

Table 5: Significance of Asian countries amongst global competitiveness*: 2008**

| | | |
|----------------|---------------------|------------------|
| #1: USA | #2: Switzerland | #5: Singapore |
| #7: Germany | #9: Japan | #11: Hong Kong |
| #12: UK | #13: South Korea | #16: France |
| #17: Taiwan | #18: Australia | #21: Malaysia |
| #30: China | #34: Thailand | #50: India |
| #55: Indonesia | #70: Vietnam | #71: Philippines |
| #77: Sri Lanka | #109: Cambodia | |

Source: World Economic Forum (2008)

*: 134 countries are assessed for global competitiveness

** : includes other selected countries as international benchmarks

DIRECT PROPERTY MARKET IN VIETNAM

The property market in Vietnam has evolved considerably over the last 15 years. The first was in 1993-1995 with the promulgation of the Land Law in 1993, which approved public land trade; this saw the commencement of a national property market. It was also the time of significant foreign capital inflow investing into Vietnam, creating a strong demand for industrial parks, infrastructure, business offices for foreign invested enterprises; seeing a significant increase in land prices. The second property price shock occurred in 2001-2003 when the Vietnam-US bilateral trade agreement was signed; seeing an opening for higher levels of capital to be invested. This saw more money from foreign institutional and individual investors from July 2004. The third period of property increases was when Vietnam joined the WTO in 2007, in addition to the Property Trading Law coming into effect from January 2007. Also from 2007, foreign land users could acquire land for 70 years with unlimited renewals and no foreign shareholding restrictions for Vietnam property companies. From Q4-2007 to Q1-2008, a significant foreign capital flow was directed into property investment. A new money flow from the stock market has also been directed to property, with a strong property investment wave from Asia, including Korea, Japan and Singapore.

The downturn of the property market in Vietnam started from 2008; first with the tight credit policy by the Vietnam government affecting the local players. Many local developers were struggling, especially those that relied heavily on pre-sale and bank loans to finance their developments. As a result, these developers faced difficulties in carrying out projects. This situation paved the way for foreign investors to enter talks with local partners, who had been resistant to their approach before, in a strong position in joint-venture negotiations.

The retail sector has seen Vietnam as a significant developing market due to its location in the emerging region of Asia, the unexplored market with a young

population of 50% aged 35 or under, and with the WTO commitment of 100% FDI in operation from January 2009. Many official luxury brand names have established a presence in Vietnam.

In the office sector, the trade centre of the country, Ho Chi Minh City used to see very few tenants in quality office buildings. In the first half of 2008, demand for Grade A office space for both renewals and new take-ups mainly came from foreign companies. As the impact from the global financial crisis became evident, tenants cut back their capital expenditure and headcount, with fewer new entrants coming to Vietnam.

In the hospitality sector, business travel and tourism growth drives demand in many property markets. Vietnam's unique history, culture and scenery have immense tourist appeal. International arrivals increased significantly from in excess of 2 million in 2003 to in excess of 4 million in 2008. The tourism products being promoted included cruise tourism, golf tourism, meetings, incentives, conferencing, exhibitions (MICE) tourism, gaming and caravan tourism. As one of the demographically youngest countries in the world, Vietnam was an ideal source of talent for the labour-intensive hospitality sector.

The hotel sector saw new investment throughout the country, reflecting its growth in line with the country's economy. The property market has seen major property projects such as the Ho Tram Strip (USD4.2 billion), a multifunctional resort complex in Ba Ria Vung Tau Province, the New City (USD4.2 billion) in Phu Yen Province, the Berjaya International University Town (USD3.5 billion) in HCMC, the Da Phuoc City (USD250 million for the first stage) in Da Nang and a luxury resort (USD276 million) in Lang Co, Thua Thien Hue Province.

Oak Tree, a US based corporation, has proposed the USD5 billion Sunrise resort and Damac Group (the United Arab Emirates) registered for a USD 1 billion resort in Da Nang. Japan's Riviera Group and CSK plan to develop a five star hotel, an office and housing complex, a golf course and a recreation park in Ha Noi, with a total investment of USD 1 billion. Singapore's leading property developer CapitaLand plans to develop luxury apartments, riverside villas and a new urban centre named Saigon Sport City.

In the residential sector, demand for property investment in the Vietnam market is high. According to the Ho Chi Minh City Real Estate Association, the rate of urban residential in Vietnam is currently less than 30% of the population. This figure is expected to increase to 45-50% in the period 2020-2025, providing opportunities for property developers.

The industrial sector is one of the key components driving the economy, with nearly 200 industrial parks in operation employing over 1 million people. Many industrial parks are improving regional infrastructure. Current proposals include new seaports, new international airports, the developing highway system and railway projects.

Overall, Vietnam is already showing signs that it has stabilised post-global financial crisis, with the residential sector offering the greatest potential because prices had fallen sharply since the end of 2007 and the country's growing middle class are active in this property sector.

However, due to low liquidity of the secondary market, combined with an incomplete legal framework and regulatory direction, the market for commercial mortgages is not effectively formed. Without this market, banks always struggle with credit for housing when they need liquidity. Banks are afraid of offering loans to house buyers and thus charge a high short-term interest rate. Furthermore, the general lack of transparency, an underdeveloped legal system and poor administrative efficiency have made investment a challenge for foreign investors.

INDIRECT PROPERTY MARKET IN VIETNAM

Key players in the indirect property market in Vietnam include local companies – pure Vietnamese capital based, foreign invested companies including foreign investment funds and joint ventures. The earlier players were mostly foreign invested capital. Vietnam does not have a REIT market. Similarly, Vietnam does not have pension funds for investment. Beside securities as an advanced investment asset, the typical investments are cash, gold and land/direct property.

There are two official stock exchanges in the Vietnam capital market; the Ho Chi Minh City (HSX) and Ha Noi (HNX) Stock Exchanges, with the former operating since 2000 and trading the high market cap stocks, whereas the latter has operated since 2005 trading small market cap and over-the-counter stocks. Listed property companies are mostly property developers including 25 companies listed on either the HSX or HNX and accounting for 10% of the total market capitalisation of ordinary shares, being significantly smaller than global property investment funds currently operating in Vietnam. Because of their smaller size, their main business areas cover relatively wide business fields such as property development (characterised as acquisition and trading) and property investment (acquisition and management). This includes construction, trading of property and construction material, besides other business activities subject to specific company characteristics. The common characteristic is that most of the property companies were only listed in the last few years; reflecting its infancy, but also growth opportunities in the market.

Both the Ho Chi Minh City and Ha Noi Stock Exchange (HSX and HNX) do not have sector indices. The work of classifying and constructing of sectors is varied depending on the stock companies. As such, the classification of a specific stock is totally up to each stock company viewpoint. Because of the small and immature stock market in Vietnam, this paper discusses the listed property companies on HSX and HNX where they have property construction/investment as one of their business areas and had done at least one project in property development since its listing on the stock market. As such, this sees 25 property companies listed on HSX or HNX. The classification by Macquarie (2009) considers only five pure property companies whilst DataStream considers seven property companies listed on the Vietnam stock markets. The earliest companies to be considered operating in property development saw three companies including Khanh Hoi Import Export Joint Stock Company (KHA), Savimex Corporation and Hanoi P&T Construction (SAV), and Installation Joint Stock Company (HAS), with all three companies listing on the HSX since 2002, and property development is among the company business areas. Their property development is limited, with other major activities surrounding construction and services. The market cap of these three companies is also small in proportion to the listed property companies with less than 0.2% as at August 2009.

In 2006, seven property companies were listed on the HSX seeing a higher level of focusing on property development and more diversified property as asset classes to develop, marking a growth phase for listed property securities in Vietnam. The property development activities include industrial parks (Tan Tao Investment Industry Corporation, Song Da Urban and Industrial Zone Investment And Development Joint Stock Company), infrastructure development (Ho Chi Minh City Infrastructure Investment Joint Stock Company, DIC Investment and Trading Joint Stock Company), and urban residential development (Thu Duc Housing Development Corporation, Hoa Binh Construction and Real Estate Corporation, Lu Gia Mechanical Electric Joint Stock Company), with market cap of the listed property companies in 2006 in excess of 3% total market cap as at August 2009. Listed in 2007 were five property companies on the HSX and two on the HNX with in excess of 4% of total market cap at August 2009. Listed in 2008 were five property companies on the HSX and one on the HNX with more than 4% of market cap at August 2009. Recently listed in 2009 were two property companies on the HSX with in excess of 1% of market cap at August 2009.

Because the HSX Stock Exchange sees high value stocks whereas the HNX Stock Exchange sees lower value stocks, when a stock is considered high value, it is recommended to be listed on HSX. Kinh Bac City Development Share Holding Corporation (KBC) is an example of this. It was listed on the HNX until 2010 when it moved its listing onto the HSX. Leading listed property companies in terms of market cap are:

HAGL Joint Stock Company – HAG (US\$970.82 million; 2.9% market cap at August 2009). HAG sees its major property market sector in high – end apartment and office buildings. HAG is managing three office buildings and three in-progress apartment/residential projects (www.hagl.com.vn).

Vincom Joint Stock Company – VIC (US\$683.61 million; 2% market cap at August 2009). VIC is managing multifunctional buildings (retail, office, and entertainment functions) and office buildings. Its finished and in-progress projects include Nguyen Cong Tru (financial, security center in Ho Chi Minh City, in progress), Vincom Center shopping mall (Ho Chi Minh City, finished), Vincom Hai Phong (center of retail, office, apartment, in progress), Eden Ho Chi Minh (finished), Eco City Ha Noi (in progress project of ecology city in Ha Noi), Royal City (in-progress project combined of hotel, office, retail, school, kindergarten, apartment) (www.vincom.com.vn).

Kinh Bac City Development Share Holding Corporation - KBC (US\$556.38 million; 1.7% market cap at August 2009). KBC sees its major business in development and management of urban, industrial parks. KBC is managing two industrial parks with three in-progress projects of industrial park, urban, and a composite project of office, retail and hotel (www.kinhbaccity.com.vn).

Tan Tao Investment Industry Corporation – ITA (US\$477.98 million, 1.4% market cap at August 2009). ITA focuses on industrial parks and office buildings. It is also shareowner of ITA Power, ITA Tollway, ITA Water, and office buildings besides owning two industrial parks (www.tantaocity.com).

Song Da Urban and Industrial Zone Investment and Development Joint Stock Company – SDU (US\$341.24 million, 1% market cap at August 2009). SDU has done one project with a multifunction of retail, office and apartment. It has a similar project still in-progress and one urban residential project. Four other projects are to be launched including the construction of a new multifunction building and renovation of apartments.

As Vietnam listed property companies are a relatively small sector in the Vietnam stock markets, its position in the regional and the global listed property company market is further significantly low. According to Macquarie Securities (2009) (see Table 6), listed in the Vietnam stock markets are five pure property companies. With these five companies, Vietnam listed property companies account for £0.5 billion in market cap with 0.2% of the Asia market and 0.1% of the global market. As such, it is ranked at #42 in the world. These are pure property companies and thus significantly lower than that level seen on Datastream and the number of broader listed property companies considered in this paper. EPRA (2009) also assesses the size of the Vietnam property market at US\$8 billion as at 2008. All of these data provided by international institutional agencies illustrate the infancy of the listed property

companies in Vietnam in both a local stock market and regional and global real estate markets context. However, there has been increased property investor interest in this small, but potential property market.

Table 6: Significance of property securities markets in Asian countries

| Country | Number of property securities | Market capitalisation | Percentage of Asia market | Percentage of global market | World ranking (by £) |
|---------------------|-------------------------------|-----------------------|---------------------------|-----------------------------|----------------------|
| Hong Kong | 126 | £121B | 41.4% | 18.5% | 2 |
| Japan | 163 | £74B | 25.3% | 11.3% | 3 |
| Singapore | 62 | £27B | 9.2% | 4.1% | 7 |
| China | 78 | £39B | 13.2% | 5.9% | 4 |
| India | 38 | £11B | 3.8% | 1.7% | 10 |
| Taiwan | 47 | £4B | 1.4% | 0.6% | 26 |
| Malaysia | 84 | £6B | 2.1% | 0.9% | 18 |
| Philippines | 35 | £5B | 1.5% | 0.7% | 24 |
| Thailand | 51 | £3B | 0.9% | 0.4% | 29 |
| Indonesia | 40 | £3B | 0.9% | 0.4% | 29 |
| South Korea | 7 | £0.2B | <0.1% | <0.1% | 45 |
| Vietnam | 5 | £0.5B | 0.2% | <0.1% | 42 |
| Sri Lanka | 17 | £0.1B | <0.1% | <0.1% | 52 |
| Total Asia | 753 | £292B | 100.0% | 44.7% | |
| Total Global | 2068 | £653B | | 100.0% | |

Source: Macquarie Securities (2009)

There are more than 60 investment funds from both local and international players in Vietnam, with in excess of 20 focusing on property investment. Active investors include those from Singapore, South Korea, Japan, Malaysia, Russia, the Middle East and the United States. While the current global economic situation has made investors more cautious, interest in high quality, well located assets with strong promoters can still be maintained. This is an attractive market and reflects future expectations from increased living standards, rapid urbanisation and growing foreign investment inflows.

In particular, foreign property funds investing in Vietnam include the USD300 million CapitaLand Fund, which has already invested in more than four residential development projects in HCMC; Prudential Property Investment Management, PruPIM's raising of a second fund portion for Vietnam with a target of USD250 million; Pacific Star's joint venture with the Israeli firm Alony Hetz is in the process of raising USD200 million for the PS Arrow Vietnam Fund; Indochina Land Holdings' USD200 million real estate fund and Dragon Capital's Vietnam Property Fund which was launched in April 2008 having raised USD90 million. Vina Capital's Vinaland which was established in March 2006 has net assets of approximately

USD650 million. It also sort to raise \$350 million in a real estate private equity fund in 2009 with the belief that this local sector has bottomed. The proposed VinaCapital Vietnam Land II fund will focus on residential developments, shopping malls and business hotels.

The impact from the global financial crisis has put 42 funds at risk with NAV and minority shareholders; particularly hedge funds, many of which are real estate funds or have real estate components. This has seen a change in the property market behaviour, with more developers, especially local players, investing in low capital projects.

Another class of players who contribute a significant role in both direct and indirect property investment is the property advisory companies. Beside the property advisory activities included in finance and banking institutions, there are several with world wide expertise in property investment such as Jones Lang LaSalle, CBRE and Savills. Though Savills Vietnam officially started the latest, it has merged with Chesterton Petty Vietnam, who has operated in Vietnam since 1995. CBRE Vietnam commenced its operation in 2003, whereas JLL has seen its presence in the country since 2006. Their presence in the market has reflected the emerging of the country as an increasingly important investment destination for the region and for global institutional investors.

Given these recent developments in the direct and listed property sectors and increased international property investor interest in Vietnam, this paper assesses the risk-adjusted performance of property securities in the Ho Chi Minh Stock Exchange, as well as the portfolio diversification benefits provided by this sector.

DATA SOURCES AND METHODOLOGY

Data sources

The study sample comprises 20 listed property companies in the Ho Chi Minh City Stock Exchange covering all the listed property companies available at August 2009 (see Table 7). The study period starts from August 2003 with 3 property companies listed (HAS, KHA, SAV). The potential bias is that some listed property companies may have other trading activities besides property development and investment. The study period is further divided into two sub-periods: from August 2003 to December 2007 which reflects the growth period of both direct property investment and stock market, and from January 2008 – August 2009 reflecting the high country inflationary period and global financial crisis.

The monthly closing price and stock index are obtained from the HSX, the refinance interest rate is obtained from the State Bank of Vietnam, and 10-year government bond rate from Bloomberg. However, this historical data in Vietnam is not fully

available; in particular, the long-term bond rate is not available until July 2006. The property company index is not available on the HSX. Therefore, the price series of individual property stocks on the HSX is used to construct the Vietnam listed property company index for the HSX. The stock index on the HSX is used as the stockmarket benchmark for analysis. The construction of the property company index was constructed with support from Bloomberg.

The data for the benchmark market series are taken from Datastream, with stock and property securities price index (in local currency) and Treasury bill and bond rates index. No direct property index is available for Vietnam; hence only listed property securities in Vietnam are analysed in this paper.

Methodology

To assess the performance of listed property companies on the Ho Chi Minh City Stock Exchange (HSX), the weighted average price of the listed property companies is constructed, with the list selected by the author. From this price series, the listed property company sector index is calculated. The base value at 100 is from August 2003 with four property stocks. The up-to-date listed property company index constituents include 22 stocks from the listed property companies on HSX; see Table 7.

The resulting monthly index (local currency) is used for analysing and calculating the quantitative ratios including annual mean returns, risk and Sharpe ratio, with the refinance rate used as the benchmark risk-free rate. The efficient frontier is also constructed to assess the property investment possibility for listed property companies in the Vietnam market. The corresponding statistics for three developed markets, namely U.S., U.K. and Australia are also included for comparison.

To assess the impact of global financial crisis, the analysis period is broken down into two periods, from August 2003 to December 2007 and from January 2008 – August 2009.

Table 7: Significance of real estate companies in Vietnamese stock market: August 2009

| Company name | Year listed | Market cap at August 2009 (US\$ million) |
|--|-------------|--|
| Khanh Hoi Import Export Joint Stock Company | 2002 | 21.04 |
| Savimex Corporation | 2002 | 16.66 |
| Ha Noi P&T Construction & Installation Joint Stock Company | 2002 | 8.19 |
| Tan Tao Investment Industry Corporation | 2006 | 477.98 |
| Song Da Urban & Industrial Zone Investment And Development Joint Stock Company | 2006 | 341.24 |
| Hochiminh City Infrastructure Investment Joint Stock Company | 2006 | 119.06 |
| Thu Duc Housing Development Corporation | 2006 | 110.42 |
| Hoa Binh Construction & Real Estate Corporation | 2006 | 29.12 |
| Lu Gia Mechanical Electric Joint Stock Company | 2006 | 15.54 |
| DIC Investment And Trading Joint Stock Company | 2006 | 9.82 |
| Vincom Joint Stock Company | 2007 | 683.61 |
| Tu Liem Urban Development Joint Stock Company | 2007 | 87.86 |
| Construction Joint Stock Copany No 5 | 2007 | 29.23 |
| Ba Ria – Vung Tau House Development Joint Stock Company | 2007 | 25.81 |
| Idico Urban And House Development Joint Stock Company | 2007 | 12.29 |
| Hoang Anh Gia Lai | 2008 | 970.82 |
| Binh Chanh Construction Investment Shareholding Company | 2008 | 164.23 |
| Licogi 16 Joint Stock Company | 2008 | 91.57 |
| NBB Investment Corporation | 2008 | 48.87 |
| Sonadezi Long Thanh | 2008 | 32.49 |
| Development Investment Construction Joint Stock Corporation | 2009 | 319.81 |
| Industrial Urban Development Joint Stock Company No.2 | 2009 | 30.8 |
| Total HSX | | 26,361.27 |
| Kinh Bac City Development Share Holding Corporation | 2007 | 556.38 |
| Cholon Real Estate Joint Stock Company | 2007 | 13.38 |
| Song Da - Thang Long JSC | 2008 | 48.76 |
| Total HNX | | 7,068.23 |
| Total market capitalisation | | 33,429.50 |
| Per cent RE securities vs stock | | 13% |

Source: Author's calculation from Ho Chi Minh City stock exchange, Ha Noi stock exchange, exchange rate 17,823

LISTED PROPERTY COMPANIES: PERFORMANCE ANALYSIS

Risk-adjusted returns

Table 8 presents the risk-adjusted performance analysis for the property companies listed in HSX over the six-year period of August 2003 – August 2009. Returns on property securities over the period of August 2003 – August 2009 underperformed that seen on stocks (6.22% versus 25.09%). Property company risk (72.03%) was also higher than overall stockmarket risk (45.97%). On a risk-adjusted basis, the relationship between shares and property securities remains unchanged. In both risk-adjusted return ratios, property securities underperformed, while bonds were the best performed asset for local investors

Table 8: Risk-adjusted analysis: August 2003 – August 2009

| Vietnam | Cash | Bonds | Shares | Property companies |
|-------------------------|-------|--------|--------|--------------------|
| Annualized mean returns | 7.12% | 10.03% | 25.09% | 6.22% |
| Annualized risk | | 0.68% | 45.97% | 72.03% |
| Return/risk ratio | | 14.69 | 0.55 | 0.09 |
| Sharpe ratio | | 4.27 | 0.39 | -0.01 |

To compare the performance of Vietnam property securities with its benchmarks, Table 9 presents the risk-adjusted returns, bonds for shares and property securities in the stock markets of the US, UK and Australia. Returns on property securities in these three markets are negative (US: -1.85%, UK: -1.38% and Australia: -24.22%) whereas returns on shares are positive. Overall Vietnam property securities outperformed property securities in the markets of the US, UK and Australia over the period of August 2003 – August 2009.

Table 9: Risk-adjusted analysis - benchmark markets: August 2003 – August 2009

| | Cash | Bonds | Shares | Property companies |
|-------------------------|-------|-------|--------|--------------------|
| US | | | | |
| Annualized mean returns | 2.61% | 4.18% | 1.18% | -1.85% |
| Annualized risk | | 0.16% | 15.5% | 29.40% |
| Return/risk ratio | | 25.47 | 0.08 | -0.06 |
| Sharpe ratio | | 9.57 | -0.09 | -0.15 |
| UK | | | | |
| Annualized mean returns | 4.6% | 4.54% | 3.38% | -1.38% |
| Annualized risk | | 0.13% | 14.18% | 26.93% |
| Return/risk ratio | | 34.06 | 0.24 | -0.05 |
| Sharpe ratio | | -0.46 | -0.09 | -0.22 |
| AUSTRALIA | | | | |
| Annualized mean returns | 4.8% | 5.58% | 5.77% | -24.22% |
| Annualized risk | | 0.14% | 14.64% | 83.3% |
| Return/risk ratio | | 39.65 | 0.39 | -0.29 |
| Sharpe ratio | | 5.51 | 0.07 | -0.35 |

Diversification benefits

It is important to assess the diversification benefits of property securities both within country (across asset classes) and from the perspective of developed markets/foreign investors (across markets). Table 10 presents the correlations for property companies with shares and bonds within Vietnam over the period of August 2003 – August 2009. The positive and low correlations of property securities with bonds ($r = 0.04$) and shares ($r = 0.46$) reflect a diversification benefit of including property companies in a diversified investment portfolio for local investors. Lesser diversification benefit is seen for the listed assets of property companies and stocks in Vietnam.

Table 10: Correlation analysis: August 2003 – August 2009

| | Bonds | Shares | Properties companies |
|--------------------|-------|--------|----------------------|
| Bonds | 1.00 | | |
| Shares | -0.10 | 1.00 | |
| Property companies | 0.04 | 0.46 | 1.00 |

Regarding the possibility of diversification benefits across national markets, Table 11 presents the correlations with shares and property securities of the US, UK and Australia markets. Correlations of VN shares and VN property securities are $r = 0.48$, 0.26 with US shares respectively; similarly $r = 0.41$ and 0.07 with US property

securities, $r = 0.40$ and 0.33 with UK shares, $r = 0.34$ and 0.15 with UK property securities, $r = 0.44$ and 0.22 with Australian shares and $r = 0.48$ and 0.29 with Australian property securities. This implies that there is more diversification benefits from adding Vietnam property securities than Vietnam shares into foreign investment portfolios from the perspectives of US, UK and Australian investors. Similarly, there are more diversification benefits for Vietnam property companies with the overall Vietnam stock market ($r = 0.44$) than for US property companies on the US stockmarket ($r = 0.80$), UK property companies on the UK stockmarket ($r = 0.63$) and Australian property companies on the Australian stockmarket ($r = 0.69$).

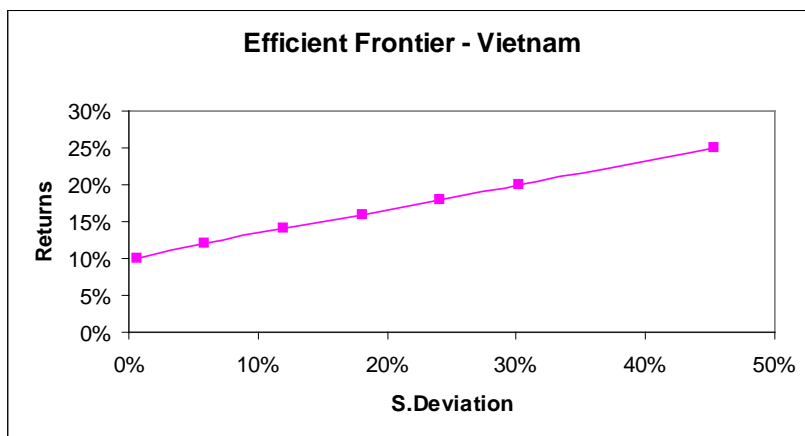
Table 11: Correlation of shares and property securities for international markets with Vietnam

| | VN shares | VN PCs | US shares | US PCs | UK shares | UK PCs | Aust shares | Aust PCs |
|-------------|-----------|--------|-----------|--------|-----------|--------|-------------|----------|
| VN shares | 1.00 | | | | | | | |
| VN PCs | 0.44 | 1.00 | | | | | | |
| US shares | 0.48 | 0.26 | 1.00 | | | | | |
| US PCs | 0.41 | 0.07 | 0.80 | 1.00 | | | | |
| UK shares | 0.40 | 0.33 | 0.86 | 0.61 | 1.00 | | | |
| UK PCs | 0.34 | 0.15 | 0.67 | 0.74 | 0.63 | 1.00 | | |
| Aust shares | 0.44 | 0.22 | 0.87 | 0.60 | 0.88 | 0.55 | 1.00 | |
| Aust PCs | 0.48 | 0.29 | 0.68 | 0.57 | 0.64 | 0.59 | 0.69 | 1.00 |

The efficient frontier and optimal investment portfolios

Figure 2 illustrates the efficient frontier, the possible optimal investment portfolios of bonds, shares and property securities during the considered period. This efficient frontier sees no property securities. This result agrees with the previous analysis in risk-adjusted returns, showing that property securities underperformed shares and bonds on a risk-adjusted basis. This finding is explainable with the characteristics of emerging markets as volatile returns on investment in the Vietnam market.

Figure 2: Efficient frontier: August 2003 – August 2009



The impact of the global financial crisis: sub-period performance analysis

To assess the potential dynamics and the enhancement of property securities and the impact of the changing economic conditions in the national, as well as the regional and global markets over the period of August 2003 – August 2009, Tables 12 and 13 present the performance of each asset class in two sub-periods over Aug. 2003 – Dec. 2007 and Jan. 2008 – Aug. 2009 respectively. Over the first sub-period of Aug. 2003 – Dec. 2007, property securities underperformed stocks with lower returns (1.63% versus 54.00%) and higher risk (70.45% versus 41.16%). On the risk-adjusted basis, both the return/risk and Sharpe ratios see property securities underperformed stocks.

Table 12: Risk-adjusted analysis: August 2003 – December 2007

| Vietnam | Cash | Bonds | Shares | Property companies |
|-------------------------|-------|-------|--------|--------------------|
| Annualized mean returns | 5.98% | 8.49% | 54.00% | 1.63% |
| Annualized risk | | 0.13% | 41.16% | 70.45% |
| Return/risk ratio | | 66.27 | 1.31 | 0.02 |
| Sharpe ratio | | 19.53 | 1.17 | -0.06 |

Table 13: Risk-adjusted analysis: January 2008 – August 2009

| Vietnam | Cash | Bonds | Shares | Property companies |
|-------------------------|--------|--------|---------|--------------------|
| Annualized mean returns | 10.13% | 11.45% | -27.15% | 19.14% |
| Annualized risk | | 0.77% | 55.28% | 77.70% |
| Return/risk ratio | | 14.95 | -0.49 | 0.25 |
| Sharpe ratio | | 1.72 | -0.67 | 0.12 |

However, this performance ranking between property securities and stocks has changed in the second sub-period of Jan. 2008 – Aug. 2009. Whilst stocks saw a major down-turn as an impact of the global financial crisis, with both returns dropping dramatically from 54.00% to -27.15% and risk increasing from 41.16% to 55.28%, property securities improved its returns from 1.63% to 19.14% with risk only modestly increasing from 70.45% to 77.70%. The risk-adjusted returns also determine a significant improvement for property securities, with the return/risk ratio changing from 0.02 to 0.25 and Sharpe ratio increasing from -0.06 to 0.12, whilst stocks performance saw its return/risk ratio decrease from 1.31 to -0.49 and Sharpe ratio from 1.17 to -0.67. The overall risk-adjusted returns see properties securities outperforming stocks, changing performance positions from the first sub-period to the second sub-period, with bonds remain unchanged as the best performed asset class in both the two sub-periods.

To further assess the diversification benefit from including property securities in a portfolio, Tables 14 and 15 present the dynamics of the correlations over the two sub-periods. The correlation of property securities with bonds was stable over the two sub-periods, whereas its correlations with shares increased from 0.40 to 0.60. This sees a reduced benefit in including property securities with shares, whereas the diversification benefit from combining bonds and property securities has been stable.

Table 14: Correlation analysis: August 2003 – December 2007

| | Bonds | Shares | Property companies |
|--------------------|-------|--------|--------------------|
| Bonds | 1.00 | | |
| Shares | 0.26 | 1.00 | |
| Property companies | 0.07 | 0.40 | 1.00 |

Table 15: Correlation analysis: January 2008 – August 2009

| | Bonds | Shares | Property companies |
|--------------------|-------|--------|--------------------|
| Bonds | 1.00 | | |
| Shares | -0.06 | 1.00 | |
| Property companies | 0.04 | 0.60 | 1.00 |

Figures 3 and 4 present the optimal investment portfolios over the two sub-periods. Figure 3 sees the two separate efficient frontiers, with the dominant returns belonging to the frontier without property securities. This reflects the fact that investors who invest in a portfolio with property will receive less returns than when they invest in an optimal portfolio without property securities. Figure 4 sees only one optimal investment frontier with property securities. This fact is due to an enhanced performance of property securities and a downturn in the performance of shares.

Figure 3: Efficient frontier: August 2003 – December 2007

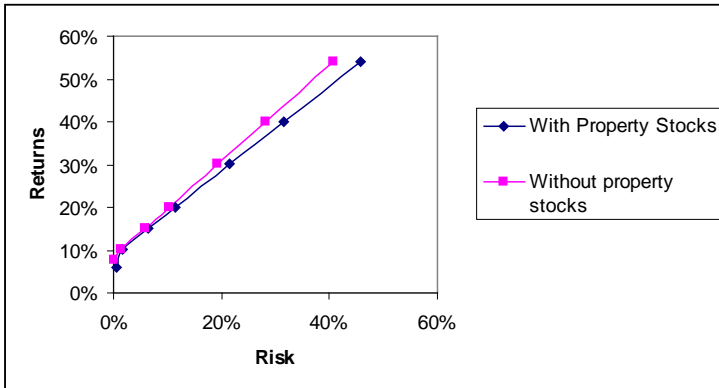
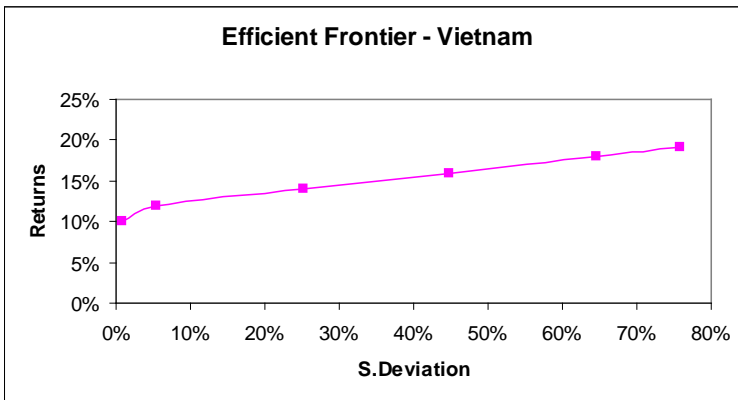


Figure 4: Efficient frontier: January 2008 – August 2009



PROPERTY IMPLICATIONS AND CONCLUSIONS

This paper has presented a profile of the Vietnam property market and further highlighted the significance, risk-adjusted performance and portfolio diversification benefits of the listed property securities in the Vietnam stock market and from the perspectives of US, UK and Australian investors.

The Vietnam property market has supportive factors from its unique characteristics, such as its location in the dynamic region, its geographic features, attraction to the foreign investment and human resources factors; all of which are supportive for a growth in the Vietnam property market. The increasing inflow of FDI, impressive economic development, improved living standards, emerging consumer trends and emerging tourism industry in Vietnam offer foreign property investors significant opportunities, even in the period of the global financial crisis. By quantitative analysis, although a lesser return and enhancement over the six year period from August 2003 to August 2009, property securities in Vietnam have provided a diversification benefit from being included in diversified portfolios. Property securities in Vietnam show a risk-adjusted return higher than the property securities in the global benchmark markets and further, it has improved and outperformed shares even in the global financial crisis where all risky asset classes are negatively affected. Property securities proved to be a diversification benefit by including it in a diversified portfolio in both a local and across country context, with or without shares. From the perspective of foreign investors, there is evidence of benefit from including Vietnam property securities as a foreign opportunistic asset in the portfolio, instead of including a foreign stable asset from a developed market.

The significant implication from this research is also to bring a profile of the significance of the Vietnam property market from the perspective of foreign investors. It is worth noticing that from an economic aspect, Vietnam is highly recognised for its achievements in economic development, in an improved economic environment and conditions, and technological development. This economic growth and political stability have been the key drivers in attracting foreign investors to Vietnam. Multinational companies are withdrawing part of their investments from China and diversifying into neighbouring countries including Vietnam under the “China plus one” model.

In financial aspects, the government has flexible policies in different economic stages to get the stability of financial systems, to improve financial market efficiency and make markets easier to capital flows. The country is gradually improving its legislative system to meet the demands for integration and to create a transparent and fair legal environment for investment. However, there are several major potential constraints to foreign investment. These include the country’s low administrative

efficiency, low transparency, an underdeveloped legal system, as well as its requirements for significant infrastructure improvements.

In line with the regional progress in recent years, property securities in Vietnam have provided enhanced returns, reduced risk and enhanced risk-adjusted returns even during the global financial crisis. More recent years have seen a stronger performance in the linkage between the improved business environment, economic achievement and in particular, property investment and development across the nation. In the longer term, driven by local economic and demographic dynamics and expected international property investor demand, the Vietnam property market promises a significant investment opportunity for both local and global, individual and institutional investors in both the direct and indirect property investment markets in the country.

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