



JOURNAL OF VALUATION AND PROPERTY SERVICES

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(Special Edition)*

Global Perspectives On Property Benchmarking

• *Professor Graeme Newell*

Regenerating Brownfields: Innovative Financing And Risk Sharing Vehicles

• *Professor Alastair Adair & Martin Haran*

Competitive Intelligence And The Real Estate Professionals

• *Professor Salleh Buang*

Sustainable Cities, Real Estate Market Dynamics And The Challenge Of Ecological Modernisation

• *Professor Munir Morad*

The Future Of Real Estate Market In Dubai: How Sustainable Is The Bubble?

• *Professor Ali Parsa*

Unlisted Property Funds: Supplying Capital To Developing Property Markets

• *Professor Andrew Baum*

Announcement

Notes To Contributors



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Aims and Scope

The Journal of Valuation and Property Services is a publication specially intended for property professionals to keep abreast with developments in the property industry as well as the real estate profession.

This Special Edition consists of papers presented during International Real Estate Research Symposium (IRERS) 2008, held in Kuala Lumpur on 28-30 April, 2008. The theme of symposium was 'Benchmarking, Innovating and Sustaining Real Estate Market Dynamics'.

This journal serves as a platform for the exchange of information and ideas on property issues. It seeks to:

- address areas of major interest and practical relevance to the real estate profession
- create awareness of new theories, techniques and applications as well as related concepts relevant to the real estate profession
- discuss policy issues and regulations and their implications on the property market

We therefore welcome articles with theoretical and practical relevance to the real estate industry and profession, property valuation, property management, property investment and market.

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CONTENTS	PAGE
Global Perspectives On Property Benchmarking	1
• Professor Graeme Newell	
Regenerating Brownfields : Innovative Financing And Risk Sharing Vehicles	13
• Professor Alastair Adair & Martin Haran	
Competitive Intelligence And The Real Estate Professionals	25
• Professor Salleh Buang	
Sustainable Cities, Real Estate Markets Dynamics And The Challenge Of Ecological Modernisation	35
• Professor Munir Morad	
The Future Of Real Estate Market In Dubai : How Sustainable Is The Bubble?	47
• Professor Ali Parsa	
Unlisted Property Funds : Supplying Capital To Developing Markets	65
• Professor Andrew Baum	
Announcement	79
Notes To Contributors	80

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GLOBAL PERSPECTIVES ON PROPERTY BENCHMARKING

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ABSTRACT

The recent increase in international property investment has seen an increased need for global property benchmarking to ensure more informed property investment decision-making. This paper will review a range of global property benchmarks in both the direct and indirect property sectors. Given the increasing focus on property investment in Asia, the need for more extensive and relevant property benchmarks for Asia is discussed, with priority areas for new Asia property benchmarks identified.

Keywords: Property benchmarking, international, direct property, indirect property, Asia

INTRODUCTION

With global investible property estimated to be over \$17 trillion, there has been increased emphasis on international property investment in recent years. Key indicators of this increased global property context include:

- of the \$759 billion in global commercial property transactions in 2007, 46% were cross-border; an increase of 21% on 2006 cross-border levels (JLL, 2008)
- significant growth in global REIT markets; this saw over 490 REITs with a market cap of £323 billion at January 2008 (AME Capital, 2008)
- over 250 global property securities funds with over \$81 billion in funds under management
- major property players with increasingly global mandates; eg: ING (\$115 billion), Prudential (\$62 billion), RREEF (\$44 billion)
- significant growth in pension fund assets (>\$10.4 trillion); eg: Government Pension Investment (Japan) @ \$936 billion, Government Pension (Norway) @ \$294 billion, ABP (Netherlands) @ \$274 billion
- significant growth in funds under management (>\$64 trillion); eg: UBS (\$2.5 trillion), Barclay (\$1.8 trillion), State Street (\$1.7 trillion)
- expanding role by sovereign wealth funds; eg: Abu Dhabi Investment Authority, GIC (Singapore), Government Petroleum Fund (Norway).

Importantly, Asia has taken on a more significant role amongst international property investors. This

reflects issues including portfolio diversification, lack of local opportunities, growth in funds, potential higher returns and under-performance in local mature markets. Key indicators of this increasing Asia focus include:

- Asia accounting for 20% of the world's investible property
- expanding range of property investment vehicles in Asia, including listed property companies, REITs, unlisted funds, property securities funds, hybrid funds
- development of professional associations in Asia representing listed property (Asian Public Real Estate Association: APREA) and unlisted property (Asian Real Estate Association: AREA)
- improved property market transparency in Asia
- rapid growth in Asia REIT market, with over 100 Asia REITs now available, with the major REIT markets in Japan, Singapore, Hong Kong and Malaysia etc accounting for 11% of global REIT market cap
- rapid growth in Asia listed property company market, with over 757 listed Asia property companies, accounting for 45% of global market cap; similarly, listed property companies in the emerging Asia countries account for 14% of this global market cap
- Asia accounting for 28% of the FTSE EPRA/NAREIT global property securities index, compared to US (37%), Australia (13%) and UK (8%)
- recent research showing the added-value benefits of Asia property investment and different dynamics compared to the traditional mature markets (eg: US, UK).

With this increased focus on international property investment, the availability of global property benchmarks is essential for more informed property investment decision-making. This sees investors able to compare the performance of property investments with other asset classes, compare the performance of property across countries, examine investment performance (eg: risk, portfolio diversification) and trends, optimise performance of property portfolios and market funds to potential investors (eg: pension funds).

This paper will review the range of global property benchmarks in both the direct and indirect property sectors. Given the increased focus on property investment in Asia, the need for more extensive and relevant property benchmarks for Asia is discussed, with priority areas for new Asia property benchmarks identified.

DIRECT PROPERTY BENCHMARKS

Property Performance

A number of direct property performance benchmarks are now available; largely produced by IPD, with NCREIF producing the US index (see Table 1). In particular, this sees direct property benchmarks produced for over 22 individual countries, as well as regional benchmark indices (Nordic, Pan-European, global) (see Table 2).

Key factors in these direct property benchmarks are:

- short timeframe for most direct property benchmarks, compared to other asset classes in these countries
- varying frequency of reporting, ranging from monthly, quarterly, six-monthly and annual; most are annual
- typically 2-4 month lag before release
- valuation-based performance, with potential impact on performance analysis; eg: market lags, appraisal-smoothing

- varying levels of market coverage; eg: UK (42%), Australia (39%), France (59%), Sweden (34%), Germany (21%), Japan (19%)
- specialist property benchmarks also available in some countries; eg: farmland, timberland, residential, regeneration
- significant under-representation in Asia, with only Japan (2002*) and Korea (2007*) included; this largely reflects market size, investor concentration, development-focus, lack of longer-term institutional investor involvement in these Asian markets
- use of these direct property benchmarks in property derivative products; eg: UK, US, Australia, Japan.

Table 1: International direct property benchmarks

Country	Start date	Number of Properties	Capital Value
US	1978	5,711	\$309B
UK	1971	12,137	€285B
Australia	1984	749	€ 56B
Austria	2004	908	€ 8B
Belgium	2005	227	€ 5B
Canada	1986	2,050	€ 48B
Denmark	2000	1,222	€ 12B
Finland	1998	2,830	€ 17B
France	1998	7,518	€100B
Germany	1996	2,938	€ 54B
Italy	2004	840	€ 14B
Ireland	1984	325	€ 6B
Japan	2002	1,048	€ 28B
Korea	2007	70	€ 2B
Netherlands	1995	5,669	€ 45B
New Zealand	1989	292	€ 4B
Norway	2000	497	€ 11B
Portugal	2001	587	€ 8B
South Africa	1995	2,478	€ 12B
Spain	2001	549	€ 16B
Sweden	1997	1,027	€ 22B
Switzerland	2002	3,478	€ 29B

Source: IPD (www.ipindex.co.uk), NCREIF (www.ncreif.com)

Table 2: Regional direct property benchmarks

Region	Start date	Number of Properties	Capital Value
Nordic	2000	5,576	\$ 62B
Pan-European	2001	40,234	€625B
Global	2001	52,493	€964B

Source: IPD (www.ipindex.co.uk)

Property Market Transparency

Assessing property market transparency is important in the broader investment context for international property investors. The Jones Lang LaSalle Real Estate Transparency Index assesses property market transparency across 56 countries, based on availability of investment performance indices, availability of market fundamentals data, listed vehicle financial disclosure and governance, regulatory and legal factors, and professional and ethical standards.

The resulting property market transparency index (scored 1 to 5) comprises the five categories of:

- highly transparent: 1.00 to 1.49 (10 countries)
- transparent: 1.50 to 2.49 (14 countries)
- semi-transparent: 2.50 to 3.49 (17 countries)
- low transparency: 3.50 to 4.24 (10 countries)
- opaque: 4.25 to 5.00 (3 countries).

Table 3 presents the property market transparency index for the 56 countries assessed. Australia is the world's most transparent property market, with significant improvements in transparency evident for many countries in Asia. In particular, Hong Kong (#6) and Singapore (#10) are now classified as highly transparent property markets, partly reflecting the recent introduction of REIT markets in Hong Kong and Singapore. Similarly, Malaysia, Japan, Taiwan, Korea and India all improved their property market transparency. Several of the emerging property markets in Asia still have low levels of property market transparency, including China and Indonesia (low transparency) and Vietnam (opaque).

Table 3: JLL global real estate transparency index

Highly transparent:

Australia, US, New Zealand, Canada, UK, Hong Kong, Netherlands, Sweden, France, Singapore

Transparent:

Finland, Germany, South Africa, Denmark, Austria, Ireland, Belgium, Spain, Switzerland, Norway, Italy, Malaysia, Japan, Portugal

Semi-transparent:

Mexico, Czech Republic, Hungary, Poland, Israel, Taiwan, South Korea, Slovakia, Chile, Greece, Russia, Philippines, Brazil, Slovenia, Thailand, Argentina, India

Low transparency:

China, Macau, UAE, Costa Rica, Indonesia, Turkey, Peru, Romania, Colombia, Uruguay, Saudi Arabia, Panama

Opaque:

Egypt, Venezuela, Vietnam

Source: JLL (2006)

LISTED PROPERTY BENCHMARKS

The ready availability of REIT and listed property company performance information sees a wide range of listed property benchmarks, both at a local and global level. These include:

- US REITs: NAREIT
- Australian LPTs: UBS
- European REITs: EPRA,

with global REIT benchmarking reports also produced by S&P and AME Capital. In particular, AME Capital produce a monthly global REIT report, with detailed performance analyses done at a local, regional and global level; see Table 4. Equivalent monthly reports are also produced by AME Capital for global property companies (see Table 5) and global property securities funds, with sophisticated benchmarking analytics available (see Table 6).

(investment phase, mature phase, wind-down phase) and gearing level (low @ < 50% NAV, medium @ 50-150% NAV, high @ > 150% NAV) are available.

Similarly, IPD produce a quarterly UK pooled property fund index, based on 62 property funds with NAV of £39 billion at December 2007.

With the growth in unlisted property funds in Asia (currently 170 funds with \$93 billion in assets), the establishment of the Asian Real Estate Association in 2005 will see the future development of unlisted property fund performance benchmarks for Asia.

SUSTAINABILITY BENCHMARKS

Sustainability has taken on increased importance in recent years within the property industry; eg: property companies. With the development of a range of international sustainability performance measures, many property companies are international leaders in sustainability and have been included in these international sustainability benchmarks to highlight their strong leadership role in the sustainability agenda at a global level.

These international sustainability benchmarks include:

FTSE4Good Index

710 companies are included in the FTSE4Good index, of which 46 are property companies (6.5% of companies included). These property companies are largely UK (50%), Australia (14%) and US (14%). 11% are Asian property companies, comprising:

- Japan (4): Aeon Land, Mitsubishi Estate, Mitsui Fudosan, Tokyo Land
- Singapore (1): CapitaMall Trust

Dow Jones World Sustainability Index

316 companies are included in the DJWSI, of which 13 are property companies (4.1% of companies included). These property companies are largely from Australia (38%) and UK (31%); only Mitsubishi Estate (Japan) is included from

amongst the Asian property companies. Land Securities (UK property company/REIT) is the property sub-sector leader, as well as being the financial services sector leader.

Global 100

4 property companies are included in the 2007 most sustainable corporations globally; UK (2), France (1) and Australia (1). No property companies from Asia are included in the Global 100.

Carbon Disclosure Project "Climate Leadership" Index

The Carbon Disclosure Project (CDP) assesses corporations regarding climate change. Companies provide on-line data on climate change strategies, greenhouse gas emissions levels and management, and climate change governance. The CDP Climate Leadership Index represents the top third of companies regarding their responses. Regional CDP reports are prepared (eg: Australia, UK, Japan, India, Asia ex-Japan). Australian LPTs are well presented in the Australia CDP report, comprising 4 out of the 20 companies (20%) in the CDP Climate Leadership benchmark for Australia. Asian property companies (Malaysia, Singapore, Hong Kong) were not well presented in the CDP Asia report.

OTHER PROPERTY BENCHMARKS

In addition to the various quantitative benchmarks for property performance, a range of qualitative benchmarks are also available; particularly concerning international best practice in various aspects of property and the investment rating of property funds.

Best Practice Benchmarks

The European Public Real Estate Association (EPRA) produces best practices policy recommendations for listed property companies in the areas of:

- general items
- accounting and valuation principles
- presentation of accounts
- disclosure
- performance reporting
- NAV and EPS calculations.

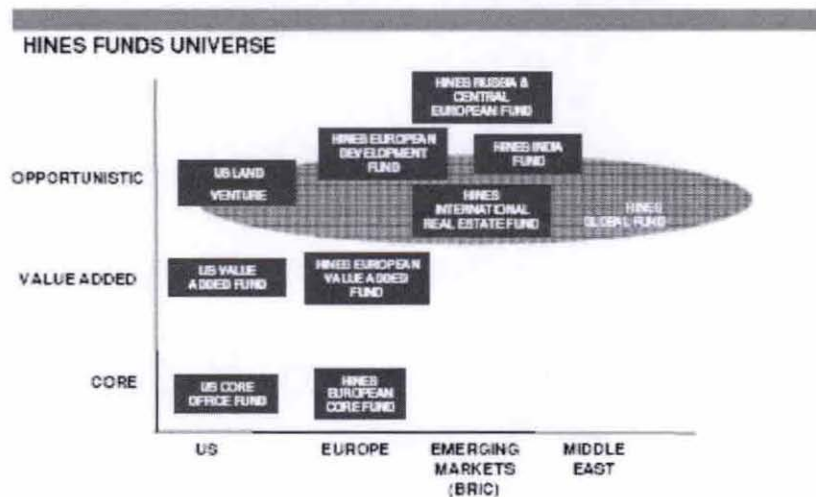
International. This includes Hines Canada (27 staff), Hines Europe/MENA (236), Hines Eurasia (276), Hines Asia (296), Hines South America (132), and Hines Mexico and Central America (192). Hines focuses on applying Western best practice on a global scale, and cites construction techniques, accounting standards, operating partner transparency and sustainability as the key issues. Citing expected world population growth as a key driver of business development strategy, Hines has put a lot of effort into accessing emerging markets, with operations in Mexico, Brazil, Abu Dhabi, India, Russia, Turkey, Ukraine, Poland and China.

The Hines preferred model for accessing new markets is to operate as a for-fee property manager and asset manager, and (possibly later) a development manager. These activities enable

Hines to grow a significant local staff base before offering development and asset management expertise to joint venture partners and/or launching a private fund. Only very rarely does Hines use family capital to enter a new market through speculative development, preferring (as in Abu Dhabi) to be invited in by a prospective partner requiring development expertise.

New funds are now launched regularly across the risk spectrum and across the globe. Hines co-investment capital is strictly restricted and 10% is a likely maximum equity provision by the company. The Hines funds universe is shown in Figure 8. It is notable that the funds are mostly in the higher return range, and are closed ended structures. The initial equity capital was provided by US investors familiar with the US business, but has since extended to European capital.

Figure 8: the Hines funds universe



Hines

Corruption

To assess corruption in the various countries, the Transparency International Corruption Perception Index is available (TI, 2007). This corruption index is assessed annually for 163 countries by TI on a 1 to 10 basis.

The TI corruption ratings for selected countries were:

#1: Finland	#5: Singapore
#6: Sweden	#9: Australia
#11: UK	#15: Hong Kong
#16: Germany	#17: Japan
#18: France	#20: US
#44: Malaysia	#63: Thailand
#70: China	#111: Vietnam
#121: Russia	#130: Indonesia.

EXPANDED PROPERTY BENCHMARKING IN ASIA

The increased role of international property investment has seen the need for more relevant and comprehensive property benchmarks in Asia. This sees the need for:

- direct property benchmarks for developed markets in Asia, including Hong Kong and Singapore; eventually expanding to other major Asia property markets such as Kuala Lumpur. These would be important additions to the IPD portfolio of global property indices
- indirect property benchmarks for REIT markets in Asia, including Hong Kong, Singapore and Malaysia. This will include the future development of specialist REIT benchmark indices, such as Islamic REITs in Malaysia and pan-Asia REITs
- an expanded role by the professional property associations in Asia, including APREA (Asian Public Real Estate Association; www.aprea.biz) and AREA (Asian Real Estate Association; www.asian-real-estate.org). This will see

expanded performance information available for Asia comparable to that seen produced by NAREIT, EPRA and INREV

- "value-added" analysis of Asian REIT markets with advanced analytics and investment ratings by local players; equivalent to that currently done by AME Capital (UK) and PIR (Australia).

All of the above benchmarking initiatives will further improve the depth and quality of the information available to local and international property investors to enhance their decision-making regarding investing in the property markets in Asia.

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NAREIT: www.nareit.com

NCREIF: www.ncreif.com

REGENERATING BROWNFIELDS: INNOVATIVE FINANCING AND RISK SHARING VEHICLES

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ABSTRACT

This paper reviews the current challenges for the financing of urban regeneration in the light of the global credit crunch and the recent downturn in commercial property markets. At an international level governments are increasingly seeking to ensure greater involvement of the private sector in the financing and delivery of regeneration in urban areas.

The need to bring in more private sector funding at each stage of the regeneration process comprising remediation, development and investment phases, is witnessing the emergence of new funding vehicles crossing the traditional asset classes. The institutional asset classes represent potential funding opportunities for each of the regeneration phases. In addition there is increasing institutional appetite at a global level for investment in infrastructure which is a key component of the regeneration process.

The analysis of investment performance highlights that investment in regeneration does not significantly disadvantage an institutional portfolio. The levels of risk to which investors are exposed are not significantly greater in regeneration properties while returns achieved in regeneration areas over the last ten years across all property types have surpassed those achieved in the mainstream property market.

The potential for the application of UK REIT vehicles to the regeneration property market is considered somewhat limited given the current legislative obligations, particularly during the remediation and infrastructure and development stages of the regeneration process.

Keywords: regeneration financing vehicles, institutional asset classes, investment performance, REITs

1.0 Introduction

Around the world governments are increasingly seeking to ensure greater involvement of the private sector in the financing and delivery of regeneration in urban areas. In the UK regeneration is a government priority in terms of ensuring greater input of the private sector in

the financing and delivery of regeneration and sustainable community targets. However, the scale of institutional capital targeted towards the regeneration process has been limited. This is a particular concern where major regeneration schemes such as Thames Gateway and many others will manifestly require enhanced participation by institutional investors.

This paper reviews the current challenges for the financing of urban regeneration in the light of the global credit crunch and the recent downturn in commercial property markets. The slowdown in residential property markets at a global level also has significant adverse implications for regeneration as so many large scale renewal projects incorporate housing components.

The need to bring in more private sector funding at each stage of the regeneration process comprising remediation, development and investment phases, is witnessing the emergence of new funding vehicles crossing the traditional asset classes. The institutional asset classes represent potential funding opportunities for each of the regeneration phases. In addition there is increasing institutional appetite at a global level for investment in infrastructure which is a key component of the regeneration process.

It is now recognised that regeneration offers significant investment opportunities, findings which challenge preconceived notions and suggest that opinions of low investment returns in such areas are incorrect. Hence, there is a need to reconsider strategies regarding the investment potential of real estate within regeneration/urban renewal areas (McGreal et al, 2006).

The next section of the paper addresses regeneration and prime property investment in the current phase of the market cycle. Following sections include an overview of the regeneration process and the characteristics of funding vehicles (section 3.0), current and emerging models of regeneration financing (section 4.0), analysis of regeneration performance (section 5.0), potential for a regeneration REIT (section 6.0) and conclusions (section 7.0).

2.0 Regeneration & Investment in the Current Property Cycle

The global credit crunch and recent downturn in the commercial property market in the UK represent a significant challenge for urban regeneration in terms of attracting private sector investment.

Ironically, the downturn in the property market comes at a time when a growing acceptance of the opportunities and potential of regeneration property had begun to emerge among major institutional investors following the creation of the urban regeneration index (IPD, 2007).

The level of investment currently being channeled into property has already begun to recede in response to the adverse market conditions. The Association of Real Estate Funds (AREF) reported outflows in the unlisted property funds sector of £939 million in the third quarter of 2007, more than five times the withdrawals for the same period in 2006. Over the quarter £800 million was invested in the unlisted fund sector but this equates to less than half the amount invested in the third quarter of 2006 and meant that capital flows within the unlisted property funds sector were negative for the first time since March 2003 (AREF, 2007).

Given the sea change in property market conditions the following key questions need to be addressed:

- Will regeneration property prevail in the current market downturn and continue to provide an attractive investment option for investors?
- Will regeneration schemes attract the required levels of private sector investment to sustain the urban renaissance?
- What new vehicles are likely to attract a wider range of private sector funding into regeneration?

Traditionally, the prime property market is considered to offer the most resilient investment option for property investors during a market downturn, with location and tenant covenants among the factors contributing to the robustness of prime properties. Prevailing market conditions will adversely impact upon the performance of all properties but unlike the prime property market which is highly dependent on the investment market in terms of income generation regeneration properties offer investors the opportunity to add value at the asset level through processes of remediation and development.

Previous research (Adair et al, 2004) highlighted that regeneration property could potentially shelter investors from a downturn in the market. The last time the UK property market experienced a downturn was in the three-year period 1990-1992. The IPD all property index posted returns of -8.4% (1990), -3.1% (1991) and -1.6% (1992). In the same time period property in areas undergoing regeneration continued to achieve positive rates of return, 3.4% (1990), 6.7% (1991) and 4.2% (1992) respectively. Over the three year period only the office sector within regeneration areas (1990) recorded negative returns. The office sector, due to the extent of oversupply was most adversely affected by the correction in the market, the IPD mainstream office index posted returns of -10%, -10.8% and -7.2% over the three year timeframe.

The positive returns achieved in regeneration areas in the previous downward cycle must be contextualised. Regeneration property in the early 1990s benefited from extensive levels of subsidisation. The subsidisation in many ways had a cushioning effect on the regeneration property market enabling it to achieve positive returns during the property market downturn. The levels of subsidisation available in the early 1990s is not available in today's regeneration property markets, nonetheless a number of the major regeneration projects being undertaken in the UK are public-private partnerships and involve substantial land and capital commitments on behalf of the public sector bodies. Land acquisition is the major initial expenditure of the property development process but in regeneration partnerships, the public sector partner is very often the existing landowner of the sites being brought forward for development. Land and buildings often represent the contribution of the public sector partner to the regeneration partnerships but the fact that land acquisition costs are significantly reduced or eliminated completely mean that regeneration should continue to provide investors and developers with a potential cushion from prevailing market conditions, indeed such schemes may even seem more attractive in the current climate than they had during the sustained period of growth with schemes providing gap funding likely to generate most interest.

The private sector has traditionally looked to the public sector to provide economic viability and reduce risk in periods of uncertainty, and from that perspective the economic downturn could well mean that major regeneration schemes undertaken in partnership with public sector bodies could benefit from enhanced levels of investment. Regeneration provides investment opportunities across the remediation/infrastructure, development and investment stages and increasingly the public sector is seeking new models for sharing risk and return thereby attracting new sources of private sector funding.

3.0 Regeneration Process Characteristics of Funding Vehicles

Regeneration is considered as a process consisting of three distinct but overlapping phases: remediation/infrastructure provision, development and investment (Adair et al, 2006). The phases mirror the wider urban land development model however there is added complexity within regeneration arising from the location of sites, primarily in inner city areas, the secondary nature of sites from a property market perspective, the perceived adverse impacts of neighbouring land uses and associated social and environmental problems.

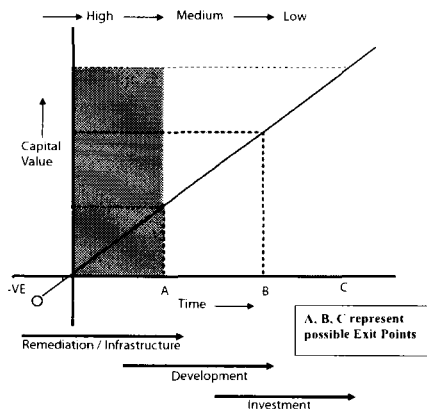
The initial phase of the regeneration process comprises the assembly of the site, remediation of the land, if necessary, together with the provision of infrastructure to facilitate the proposed land use. While the remediation process has seen considerable technological innovation with the availability of tax credits for site cleanup the provision of infrastructure continues to raise major challenges in terms of financing. Often infrastructure is a critical component in releasing sites with development potential, but high initial upfront expenditure can deter private sector involvement. This phase of regeneration has attracted certain, though limited, institutional investment through bond issues.

The second phase involves the development of the property asset. The skills base for the management

of this process lies within the development community, which is often identified as the short-term risk-taker within regeneration. This part of the process, in common with any development project, is traditionally debt-financed through banks and lending institutions with decisions made on the basis of finely-tuned appraisal models.

The third phase of the urban land development model concerns the sale of the asset to the investment community which can occur at differing times depending upon the strategy of the developer. Traditionally, this phase has been the point of entry for institutions holding property as an investment asset with added diversification benefits. For regeneration property, the extent of institutional involvement has been noticeably low due to perceptions of risk and return. However, in recent years there has been an increasing weight of institutional investment entering regeneration as part of the allocation of investment capital to capital property asset class.

Figure 1: Regeneration phases and risk profiles



Investment

Each phase of the regeneration process has distinct characteristics within the overall risk-return continuum (Figure 1), from the remediation/infrastructure phase, characterised by high levels of risk but with the opportunities for high returns, to the investment phase at the other end characterised by lower risk and corresponding lower levels of return, with secure revenue streams and more predictable capital values resulting from the occupied development entering the property market. Intermediate points

include the potential risk of an unfinished building through to the completed building remaining unlet, lacking an income stream, having uncertain capital values and not being taken into the established investment market. In compensation for these risks, the developer expects higher returns. Over time the liquidity of the regeneration property asset increases (Figure 1) with exit points based on predetermined valuation dates or market driven.

The institutional asset classes, as a source of finance, represent potential funding options for each of the regeneration phases, which are characterised by a spectrum of low to high risk/return profiles, capital and dividend returns and holding periods matching those of the regeneration phases. Traditionally what has been sourced has originated from the institutions' property allocations. However such investment is increasingly being recognised as matching the demands of quasi-private equity. In addition there has been some limited investment through bond issues at the infrastructure stage whereas the investment phase is the typical entry point for institutional investors into regeneration.

4.0 Current and Emerging Models of Regeneration Financing

There are a number of recognised regeneration property investment vehicles operating currently in the UK. The Igloo Fund provides the prospect of the superior returns that regeneration can offer illustrating that over time, genuine SRI investment may outperform traditional market returns.

The Igloo Regeneration Fund (Igloo) is a UK Limited Partnership managed by Morley with Igloo Regeneration Limited as the development manager. The objective of Igloo is to deliver long-term social, economic and environmental revitalisation by investing in the physical regeneration of the top 20 cities across the UK. Investment is focussed on areas achieving European Regional Development Fund objective 1 and 2 status, UK Assisted (Tier 2) Areas, European URBAN Programme Areas and other UK Urban Priority Areas.

Igloo currently has over 20 regeneration projects across its direct development and partnership portfolios with a completed development value of £2.5bn. The projects when complete will bring back into use over 250 acres of brownfield land and create over 8,500 new homes and 10,000 jobs. The Igloo fund is due to be wound up in 2016 although does have an option to break in 2011, but this is unlikely to be exercised. At the end of September 2007 the fund had capital commitments of circa £130 billion. Investor returns for the fund are forecast at 12% IRR per annum over the life time of the fund.

A more recent example of recognised good practice is Blueprint, an innovative public private partnership comprising East Midlands Development Agency and English Partnerships together with Morley Fund Management's Igloo Partnership's Igloo Regeneration Partnership.

Blueprint is a 50:50 public-private partnership created to develop new solutions for regeneration in the East Midlands. The partnership comprises East Midlands Development Agency (EMDA) and English Partnerships (EP) from the public sector along with Igloo Regeneration from the private sector. Blueprint has equity commitments of circa £25 million; divided evenly between the private and public sectors. Private sector partner Igloo has invested 50% (£12.5 million) of the initial equity, with East Midlands Development Agency (EMDA) and English Partnerships both investing £6.25 million. Blueprint has the potential to combine its £25 million of equity with a further £25 million of bank debt.

The Blueprint property portfolio, purchased from EMDA and EP includes around £30m worth of land and buildings. The buildings are located throughout the east midlands. The land is in three (Derby, Leicester, Nottingham) of the six (the others are Corby, Northampton and Lincoln) urban priority areas within the Urban Action Plan for the east midlands. The initial regeneration portfolio has a completed development value of around £500m. Blueprints first project – the Nottingham Science Park is due to complete later this year.

Current evidence suggests a widening of instruments used within regeneration with opportunities comprising large mixed used developments frequently involving joint ventures. In addition a number of institutions are increasing their exposure to urban infrastructure such as toll roads and bridges as part of their alternative investment strategy. In spite of long gestation periods and a significant exposure to risk the potential returns are significantly greater than comparable fixed-income products. Transferring this arrangement to regeneration creates the opportunity to structure a long-term investment vehicle that would reward early stage investors in the infrastructure and development stages of regeneration.

Research undertaken by Newell (2008) confirms an increasing institutional interest in the strong inter-relationship between infrastructure quality and global competitiveness. The US and UK currently rank 12th and 14th in the world respectively in terms of infrastructure provision with Germany the top ranking country in terms of infrastructure quality followed by Switzerland and Hong Kong (Newell and Peng, 2008). The investment gap in both the developed and developing countries has created a significant investment gap with governments increasingly looking at alternative ways to fund infrastructure, development and maintenance. The alternative private funding options for private infrastructure have largely included public private partnerships (PPPs), private sector entrepreneurial projects and private finance initiative schemes (Newell and Peng, 2008)

Figures published by the World Bank (2006) calculate that over \$30 trillion will be required to fund global infrastructure to 2030 creating significant investment opportunities. This has led to the emergence of infrastructure as separate asset class for institutional capital providing investors with distinctive characteristics and attractive features. Over 25 new unlisted infrastructure funds were established in 2004-2006 (average fund size \$700 million) incorporating both local and international infrastructure portfolios in established markets (Europe, Australia, Canada) as well as in

emerging markets (Korea, Eastern Europe, Latin America, South America). Typically pension funds utilise unlisted property funds to secure exposure to a range of infrastructure projects both local and global (Newell and Peng, 2008).

The two main global listed infrastructure performance series are the UBS Global Infrastructure and Utilities Index and the Macquarie Global Infrastructure Index. At the end of 2006 the UBS index comprised 242 companies/funds with a market capitalisation of \$1.7 trillion. Funds investing in US infrastructure posted annualised returns of -0.4% over seven year period 2000-2006. Funds investing in global infrastructure funds achieved an average annual return of 18.15%. The contrast in performance levels was attributed to the maturity of the European (particularly toll roads) and Australian infrastructure markets while the US infrastructure market is at the development stage. Direct US real estate achieved 11.94% over the same period with REITs achieving annualised returns of 22.27%. Annualised returns for stocks and bond were 1.11% and 6.79% respectively over the seven year time frame (Newell and Peng, 2008).

The consensus industry view is that infrastructure should be treated as a separate asset class from real estate. While they similar investment characteristics and infrastructure is real estate related they have significant differences and should therefore be treated as separate asset classes RREEF, 2005, Hopkins, 2007). The correlation analysis suggested that US infrastructure provides potential diversification benefits within a real estate, real estate related and mixed asset portfolio. Investment correlation between US infrastructure and US real estate ($r=0.28$) or US REITs ($r=0.23$) was not significant suggesting potential diversification benefits. Also of significance is that US pension funds investing in infrastructure can still realise diversification benefits be investing in infrastructure in Australia and Europe.

The UK Government has stressed the public sector commitment to regeneration through a projected investment of £9 billion of cross-government funding to the regeneration of the Thames gateway alone over the next three years. In addition,

new funding vehicles are being developed such as the Community Infrastructure Levy (CIL), Supplementary Business Rate (SBR) and Local Asset Backed Vehicles (LABV) which will provide local authorities with revenue generating streams to fund infrastructure provision and contributing to the economic viability of regeneration schemes.

The Community Infrastructure Levy (CIL) legislation is currently being passed through parliament as part of the Planning Reform Bill. The CIL will enable local councils to apply a levy on new developments in their areas to support infrastructure delivery including the provision of schools, leisure facilities, health centers, flood defenses as well as transport and strategic infrastructure. It is intended that the CIL will be applied on both residential and commercial development as this will ensure that all developments which impact upon infrastructure contribute towards the cost of its provision. The CIL will be a standard charge decided by designated charging authorities with liability likely to be attached to the landowner at the point of commencement of development.

Existing standard charging regimes use a variety of different bases for determining the contribution. These include floor and site area; number of dwellings; or number of bedrooms. The Planning Reform Bill will set out what bases could be used for the CIL to allow local planning authorities sufficient flexibility to tailor their charging regime to suit their local are and is expected to follow the principles set by the Milton Keynes Tariff. The Milton Keynes Tariff was accepted by Government in December 2005 as an approach to fund the infrastructure needed for the next phase of growth for Milton Keynes to 2016. The tariff requires a contribution of £18,500 per residential dwelling and £260,000 per hectare of employment space from developers to pay for a share in the local and strategic infrastructure required to support this growth. The tariff is forecast to raise £310 million up to 2016 with additional funding being required to cover the full cost of growth.

The introduction of a Supplementary Business Rate (SBR) was proposed by the Lyons Inquiry in their final report into the future role, function and

financing of local government published in March 2007. The Inquiry recommended that Government should consider giving local councils the power to raise a supplement on top of the business rate to fund specific, local economic development projects. The report commented that the time was not right for a re-localisation of business rates, highlighting that this would also be technically difficult and suggested that the introduction of a SBR would enable local authorities to have more control over how to raise new local revenues to invest in local infrastructure and economic growth.

The Government White Paper: Business Rate Supplements (October 2007) outlines the proposed model for Business Rate Supplements and the protection offered to businesses. Fundamentally local businesses will have a strong say in the decision to raise a supplement, and how it should be spent. There is also a requirement for accountability at local authority level to ensure that levies raised are spent on economic development in addition to existing plans within the local area. Government proposals also include the introduction of a national upper limit of 2p in the pound to ensure effective use of the additional revenues available to the local authorities as well as providing reassurance to businesses about the scale of potential costs. Smaller business will be protected from disproportionate burdens, with properties liable for business rates with a rateable value of £50,000 or less exempt from paying the supplement. Government will legislate to enable local authorities to levy the first supplements by April 2010. SBR shares many characteristics with the already established levies applied to businesses within Business Improvement Districts (BIDs). The SBR proposals have however received strong opposition from among others RICS, the British Chambers of Commerce and the Federation of Small Businesses.

The creation of Local Asset Backed Vehicles (LABVs) will enable local authorities to use their assets (usually land) to lever investment from the private sector to finance the delivery of major regeneration projects. LABVs are designed to deliver regeneration in a more strategic manner by

pooling the assets, project expertise and planning powers of the public sector with investment, financial expertise and asset management skills from the private sector into a corporate structure that ensures an acceptable balance of risk and return for all partners.

There is no set format for the design of an LABV. Local authorities have varying capacities, assets and ambitions, therefore the LABV must be tailored to meet the specific needs of the local authority. In the initial instance local authorities and other public bodies should collaborate to identify a portfolio of assets and a pipeline of regeneration projects that require funding. This collaboration is then formalised into one company with a single governance structure – the LABV. Summary details of the portfolio, together with an outline business plan for each individual asset and regeneration project are circulated to potential investors. It is important that the portfolio comprises an asset mix that is likely to appeal to the investor grouping being targeted. Outline bids for the portfolio are then received and once investors have been secured a hands-on management team is formed to oversee the running of the company.

The LABV structure has the potential to create a self sustaining cycle of regeneration funding. Packaging assets and developing them sequentially allows for the establishment of revenue streams that support development over time. Asset backed vehicles provide returns to both the private and public sector partners, with a share of the profits being reinvested in future regeneration programmes. The asset backed structure is already operating successfully at regional level, the Blueprint model in the East Midlands is one of the most high profile examples, while a number of local authorities including Croydon, Hull, Liverpool and Newcastle-Gateshead are actively investigating the creation of asset backed vehicles.

5.0 Regeneration Performance Analysis

This section of the paper analyses the risk-return characteristics of regeneration property in the UK, benchmarking the performance of the IPD regeneration index against the IPD UK annual property index (IPD, 2007). Total return is used as the performance benchmark with standard deviation in total return used to assess risk. The correlation between regeneration property and the other major asset classes is also examined to discover if regeneration property could provide diversification benefits within a multi-asset investment portfolio.

In the ten period 1997-2006 total returns for all property in regeneration areas have outperformed the IPD all property index (Appendix 1). Annualised ten year returns for all property in regeneration areas is 13.8%, the IPD all property index achieved annualised returns of 13.6% over the same time period. Annualised returns for all property types over five year period 2002-2006 also demonstrate the robustness of regeneration properties as an investment option, annualised returns for all property types in regeneration were 16.7% over the five years, the IPD all property index posted annualised returns of 15.2% over the five year period.

Offices were the best performing sector within regeneration areas in the period 1997-2006 (14.2%), outperforming the IPD office index by 1.3% over the ten year time frame. Retail properties in regeneration areas (13.9%) underperformed the IPD retail index which posted 10 year annualised returns of 14.1%. The underperformance of retail sector property within regeneration areas is significant given that retail properties comprise 75% of the index by capital value (Table 1). The underperformance is marginal however, (0.2%) over ten years and includes the period pre-regeneration. Retail properties in regeneration areas have in fact outperformed their respective benchmark in six of the last ten years with retail warehousing and shopping centres in regeneration areas delivering particularly strong rates of return over the last three years. The outlook for retail property in regeneration areas over the long-

term remains good as successful regeneration substantially increases local population incomes and improves the quality of retail catchments. The industrial sector within regeneration areas delivered 10-year annualised returns of 14.1%, marginally underperforming the IPD industrial sector index which posted annualised returns of 14.4% over the 10 years.

Five year annualised returns show that regeneration areas outperformed the main IPD indices across all three sectors of the property market in the period 2002-2006. The greatest level of out performance was again in the office sector with offices in regeneration areas achieving annualised returns of 17.1% over the five years. The IPD office index posted annualised returns of 13% over the same timeframe. Retail and industrial properties in areas undergoing regeneration achieved marginal out performance of their respective IPD benchmarks, 0.1% for retail and 0.4% for industrial over the five year timeframe.

Risk, measured as the standard deviation in total return over the ten year timeframe was not found to be significantly greater in regeneration areas. The standard deviation in total return for all property types within regeneration areas over the ten year timeframe was 4.7%. The standard deviation of all property types in the IPD annual property index was 4.3%. Analysis of the retail and industrial sectors over the ten years showed that the volatility in returns for regeneration properties were not significantly greater than those experienced in the mainstream property market while within the office sector, regeneration properties actually offered a less volatile investment option than the mainstream office market.

Regeneration property can provide potential diversification within a property investment portfolio. The correlation between the IPD mainstream office index and regeneration office index (0.175) is highly significant and suggests that there are diversification benefits to be realised, something that maybe of particular interest to investors investing exclusively in the office sector. Within a multi-asset investment portfolio the

diversification benefits of investing in regeneration property are similar to that achieved by investing in the prime property market. The strong correlation (0.826) between the prime property market and the regeneration property market for all property types mean that little additional diversification benefits are likely to be realised within a mixed asset portfolio that already includes a diverse prime property asset mix.

The analysis highlights that investment in regeneration does not significantly disadvantage an investment portfolio. The levels of risk to which investors are exposed are not significantly greater in regeneration properties while returns achieved in regeneration areas over the last ten years across all property types have surpassed those achieved in the mainstream property market. The office sector in particular offers investors an attractive investment from both a diversification and performance perspective. Returns for offices in regeneration shown marked out-performance of their respective benchmark over both five and ten year timeframes. Only in recent years (2004-2006) have offices in regeneration areas not outperformed their respective IPD benchmark and this has been a result of the exceptionally strong performance of the London office market in the last three years. Over the long term regeneration offices have outperformed their peer group comparator (excluding London) with returns less volatile than the UK average.

Table 1: Property Sector Weightings (December 2006).

Sector	IPD UK Annual Property	IPD Regeneration Index
Retail	47.2%	75%
Office	34.6%	9%
Industrial	14.8%	13.5%
Other	0.4%	2.5%
Total	100	100

- Weightings expressed as a percentage and based on Capital Value

IPD Annual Index – based on 12,137 properties with capital value of £191.7 billion (49% of the total assets of UK institutions and listed property companies).

6.0 Potential for a Regeneration REIT

REITs were introduced in the UK on 1st January 2007 following recommendations in the Barker report on housing supply (Barker, 2004). At the end of December 2007, 18 companies, with a market capitalisation of circa £26.3 billion (www.reita.org) had adopted REIT status. The UK Treasury received circa £1 billion in the form of conversion charges, a one of payment, paid as corporation tax and based on 2% of the gross market value of a company's assets when they adopted REIT status. The total property market value of the UK REITs at the end of December 2007 was £62.5 billion. The portfolios of British Land (£15.9 billion) and Land Securities (£14.8 billion) equated to almost 50% of the total property market value.

The performance of REITs in their first year has been adversely affected by the uncertainty within global investment markets. The credit crunch combined with the downturn in the UK property market in the third and fourth quarters of 2007 ensured that returns for the UK REIT sector in the first 12 months were negative. The EPRA/NAREIT/UK index, set up to measure and track the performance of UK REITs posted annual returns of -34.8% for 2007. REITs have also been affected by the unsustainable levels of return within the listed property sector in the period leading up to their introduction. Referred to as the "REIT bubble" the returns achieved within the property equities market in the period 2004 - 2006 (43%, 23.3% 41.3%) were unsustainable, and resulted in a correction in market values in 2007.

The performance of REITs in the first year of trading should not detract from their credibility as a viable investment option. REITs must be judged over the long term, the structure will improve accessibility and liquidity within the property investment industry and therefore to dismiss REITs after twelve months would be premature. The introduction of REITs has the potential to attract substantive levels of new investment into the property sector both nationally and internationally but will the development of REITs attract substantive levels of investment into regeneration property?

The potential application of the REIT structure to regeneration is somewhat restricted by current legislation. The restrictions are not bourn out in one specific element of REIT legislation but in a combination of parameters that govern REIT activities and portfolio characteristics. This is most apparent in the remediation and infrastructure and development stages of the regeneration process. Regeneration properties tend to suffer from a lack of income stream in the first two stages of the regeneration process, if an income stream is available this is generally retained often to service loans rather than distributed to investors something which is inconsistent with current REIT legislation. In addition the current restrictions on development activity combined with the parameters on portfolio composition and asset valuation mean that REITs, or at least the "qualifying" element of the companies are unlikely to be actively investing in regeneration at the remediation and infrastructure or development stages of the regeneration process. REITs do however have the potential to offer an attractive exit route for developers and specialist regeneration providers at the investment stage of the regeneration process.

7.0 Conclusions

Governments are increasingly seeking to ensure greater involvement of the private sector in the financing and delivery of regeneration in urban areas however it is widely recognised that the scale of institutional capital targeted towards the regeneration process has been limited. The fact that major regeneration schemes in the UK such as Thames Gateway will manifestly require enhanced participation by institutional investors poses significant challenges to policy makers and practitioners in their attempts to lever in enhanced private sector investment into regeneration areas.

In order to attract greater institutional investment into regeneration stronger linkages need to be built with the property asset class in terms of existing institutional regeneration funding vehicles ranging from single scheme vehicles to those financing portfolios of schemes. A greater understanding is required by policy makers and practitioners

of property as a 'hybrid' investment possessing the return characteristics of both equities and bonds but on the downside suffering from risks of illiquidity, capital depreciation and high transaction costs.

There are a number of recognised regeneration property investment vehicles operating currently in the UK for example, the Igloo Fund and Blueprint provide the prospect of the superior returns that regeneration can offer illustrating that over time, genuine SRI investment may outperform traditional market returns. The growth of hybrid vehicles spanning the asset classes indicates the investment opportunities that regeneration affords to institutional investors.

The analysis of investment performance highlights that investment in regeneration does not significantly disadvantage an institutional portfolio. The levels of risk to which investors are exposed are not significantly greater in regeneration properties while returns achieved in regeneration areas over the last ten years across all property types have surpassed those achieved in the mainstream property market.

The potential for the application of UK REIT vehicles to the regeneration property market is considered somewhat limited given the current legislative obligations, particularly during the remediation and infrastructure and development stages of the regeneration process. The lack of income stream in the first two stages of the regeneration process coupled with the restrictions on development activity mean that REITs would be unable to invest in regeneration schemes until the investment stage or at the earliest the latter stages of the development process. Nevertheless it is considered that potential opportunities may be found as REITs become more established in the UK property market.

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www.reita.org/databank

APPENDIX 1: Asset Class Returns 1997-2006

Year	IPD Direct - All Property	IPD Direct - Retail	IPD Direct - Office	IPD Direct - Industrial	IPD Regen All Property	IPD Regen Retail	IPD Regen Office	IPD Regen Industrial	Equities - All Share	UK Bonds	Property Shares FTSE	HSBC Pooled Property Funds*
1977	26.4	29.7	23.4	34.8					48.6	44.8	81.4	25.8
1978	25.6	31.5	22.8	28.7					8.6	-1.8	12.5	19.9
1979	22.8	25.2	20.4	27.5					11.5	4.1	21.5	23.1
1980	17.5	19.4	16.9	17.1					34.8	20.9	44.4	18.7
1981	15.0	17.3	15.1	12.1					13.6	1.8	4.8	16.3
1982	7.5	10.4	6.7	5.7					28.5	51.3	-5.2	8.3
1983	7.6	12.3	5.5	6.1					28.8	15.9	35.1	8.4
1984	8.8	13.9	6.9	6.0					31.6	6.8	23.5	9.9
1985	8.3	12.7	7.8	3.5					20.2	11.0	8.4	9.8
1986	11.3	11.8	12.2	9.3					27.3	11.0	24.8	8.5
1987	26.0	20.9	30.8	25.2					8.0	16.3	23.7	16.2
1988	29.5	24.9	31.2	39.5					11.5	9.4	27.8	30.5
1989	15.4	9.9	16.6	28.8					36.1	5.9	5.3	15.5
1990	-8.4	-8.3	-10.0	-3.5					-9.7	5.6	-18.1	-9.6
1991	-3.1	3.2	-10.8	9.1					20.7	18.9	-13.5	-2.1
1992	-1.6	3.5	-7.2	1.3					20.5	18.4	-12.6	-2.2
1993	20.2	20.8	19.4	21.3					28.4	28.8	89.1	15.5
1994	11.9	13.0	10.7	11.8					-5.9	-11.3	-18.6	13.9
1995	3.6	4.1	3.0	2.8					23.8	19.0	6.9	10.7
1996	10.0	11.8	7.6	10.3					16.7	7.7	28.0	8.6
1997	16.8	18.7	14.6	16.5	16.4	17.8	8.6	16.4	23.5	15.0	24.6	15.8
1998	11.8	11.5	11.6	13.3	11.3	11.8	8.5	11.3	13.8	19.4	-19.9	13.2
1999	14.5	14.1	14.4	17.7	14.7	14.4	15.5	17.2	24.2	-3.2	16.5	15.0
2000	10.5	6.6	15.5	13.8	6.7	5.9	10.8	11.6	-5.9	9.8	19.0	2.8
2001	6.8	5.5	7.6	8.2	5.8	4.8	12.7	8.1	-13.3	3.9	-6.0	6.6
2002	9.6	14.1	3.3	10.8	13.2	13.3	15.7	11.3	-22.7	10.3	-2.1	8.8
2003	10.9	15.5	3.2	11.2	16.0	16.8	15.3	12.4	20.9	1.8	30.6	11.8
2004	18.3	20.5	15.2	16.9	20.4	21.0	20.3	17.3	12.8	6.6	43.0	19.8
2005	19.1	18.9	20.3	18.4	17.7	17.5	17.1	19.4	22.0	7.4	23.3	20.5
2006	18.1	15.2	23	17.7	16.2	16.0	17.3	16.4	16.8	-0.1	41.3	20.6
Annualised Over												
3 Year	18.5	18.2	19.5	17.7	18.1	18.2	18.2	17.7	17.2	4.6	35.9	20.3
5 Year	15.2	16.8	13.0	15.0	16.7	16.9	17.1	15.4	10.0	5.2	27.2	16.3
10 Year	13.6	14.1	12.9	14.4	13.8	13.9	14.2	14.1	9.2	7.1	17.0	14.5
15 Year	12.0	12.9	10.8	12.8	-	-	-	-	11.7	8.9	17.5	12.8
20 Year	12.0	12.2	11.0	14.6	-	-	-	-	12.1	9.5	14.4	12.1
25 Year	13.3	12.2	10.4	12.9	-	-	-	-	15.1	11.4	15.0	11.5
30 Year	13.0	14.3	11.9	14.7	-	-	-	-	16.5	11.8	18.0	13.0
Standard Deviation:												
5 Year	4.6	2.7	9.3	3.7	2.6	2.8	2.0	3.4	18.6	4.3	18.3	5.6
10 Year	4.3	5.0	6.6	3.5	4.7	5.2	3.9	3.6	16.9	6.9	20.6	4.8
15 Year	6.1	5.8	8.0	5.7	-	-	-	-	15.8	10.2	28.5	5.9
20 Year	9.4	8.0	11.8	9.7	-	-	-	-	15.6	9.3	26.9	9.0
25 Year	8.5	7.1	10.6	9.3	-	-	-	-	15.3	11.8	24.8	8.1
30 Year	8.8	8.3	10.4	10.1	-	-	-	-	15.7	12.9	26.2	8.3

* UBS to 1989

** Source IPD/AREF

*** FTSE/EPRA/NAREIT UK Index - UK REITs Total Return for 2007 (-34.8)

COMPETITIVE INTELLIGENCE & THE REAL ESTATE PROFESSIONALS

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ABSTRACT

This paper looks at the essence of competitive intelligence and its place in the business landscape generally, and in particular its impact on the several actors and players within the real estate industry and profession. It explains the processes as well as the end-result (objectives) of a competitive intelligence exercise as well as the need to have a full-fledge competitive intelligence unit in one's own organization. Finally, it considers the relationship (if any) between competitive intelligence and the Blue Ocean strategy.

Keywords: Competitive intelligence, legal and ethical, expanding one's business horizon.

INTRODUCTION

In 500 BC, the great Chinese military strategist, Sun Tzu wrote (in his treatise on the Art of War)¹ – "If you are ignorant of both your enemy and yourself, then you are a fool and certain to be defeated in every battle. If you know yourself, but not your enemy, for every battle won, you will suffer a loss. If you know your enemy and yourself, you will win every battle."

In the (modern) business context, "the enemy" is the competition. But who (or what) exactly is the competition? A short answer is "any person, body, organization or corporation, offering the same product or service now, or in the future (which you are also offering), or who could remove the need for such product or service in the future."²

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For the last 15 years, he has been the Senior Adviser of a locally-established company specializing in competitive intelligence. He now lives in Kedah, but commutes once every month to Universiti Teknologi Malaysia, Johor Baru where he is currently engaged as a Visiting Professor.

¹For an excellent introduction to the subject, see http://en.wikipedia.org/wiki/The_Art_of_War.

²The Merriam-Webster Online Dictionary defines "competition" as "(1) the act or process of competing or rivalry as a: the effort of two or more parties acting independently to secure the business of a third party by offering the most favorable terms b: active demand by two or more organisms or kinds of organisms for some environmental resource in short supply. (2) a contest between rivals." Other terms we can use, as probably having the same meaning, include "competitor, contender, contestant, opponent, rival".

WHAT IS COMPETITIVE INTELLIGENCE (CI)?

Competitive Intelligence (CI) has been defined as a "a process - using legal and ethical means - for discovering, developing, and delivering timely, relevant intelligence needed by decision-makers wanting to make their organization more competitive - in the eyes of the customer. It is used for assisting in strategic decisions, such as product development, mergers, acquisitions and alliances, as well as tactical initiatives, such as anticipating and preempting likely moves by customers, competitors, or regulators."³ The Society of Competitive Intelligence Professionals (SCIP) describes CI as "the process of monitoring the competitive environment. CI enables senior managers in companies of all sizes to make informed decisions about everything from marketing, R&D, and investing tactics to long-term business strategies. Effective CI is a continuous process involving the legal and ethical collection of information, analysis that doesn't avoid unwelcome conclusions, and controlled dissemination of actionable intelligence to decision-makers."⁴

Actually, CI is both a process as well as a product. The process of CI is the action of gathering, analyzing, and applying information about products, services, customers, trading partners, and competitors for the short-term and long-term planning needs of an organization. The product of CI is the actionable output ("the intelligence") which organization needs to have in its possession in order to chart its future course of action.⁵ In plain English, CI is knowing what the competition is doing now, what it is planning to do in the future, how it is going to do it, why it is doing it, when it will be doing it, how well will it be doing it, why it is doing it and with whom it is being done.⁶ The ultimate aim of CI is to have a competitive edge over the competition. According to Jack Welch, CEO of General Electric, "If you don't have a competitive advantage, don't compete".⁷

The three critical elements of CI can therefore be summarized as follows –

- (1) It is a legal and ethical practice; it is not industrial or economic espionage;
- (2) It is focused on the external business environment.
- (3) It is information gathering, analyzing and converting it into intelligence, and then making use of it for your decision making. (CI makes "sense" out of "nonsense").

THE CI PROCESS

The CI process contains 4 phases –

- (1) Collection phase – know what to collect, where, how, etc;
- (2) Conversion phase – converting raw data (information) into intelligence, by using the "CIA" approach, namely collate and catalogue, integrate with other pieces of information, analyse and interpret it;
- (3) Communication phase – communicating it to the proper party (who needs the intelligence to prepare and execute its next course of action);
- (4) Countering phase – countering any negative or adverse actions by the competition; in other words, using the intelligence effectively.⁸

³Adrian Farell, "Competitive Intelligence Basics", at <http://www.worksys.com/ci101.htm>.

⁴Ibid.

⁵<http://en.wikipedia.org/wiki/Competitiveintelligence>.

⁶In the on-going war between Toshiba and Sony (between HD-DVD and Blu Ray. respectively) Samsung, relying on its own competitive intelligence, has come out with its dual-format device. See "Competitive Intelligence" by Aric Johnson, at <http://www.aurorawdc.com/ci/000344.html>.

⁷Adrian Farell, "Competitive Intelligence Basics", at <http://www.worksys.com/ci101.htm>.

⁸<http://www.aurorawdc.com/ci/000344.html>.

The above scenario shows that when raw data is organized, it becomes information. When information is analyzed, it becomes intelligence. Intelligence gathered should be "actionable" (effectively acted upon). If intelligence cannot (or will not) be used by the decision-maker, the entire CI exercise⁹ will be irrelevant and is practically worthless.¹⁰

EARLY HISTORY

CI began in the United States in the 70s. The first definitive work on the subject was published by Michael Porter in 1980, titled "Competitive-Strategy: Techniques for Analyzing Industries and Competitors". After the Cold War, many ex-intelligence officers (spooks) entered the industry. One of these, Frederick Rustmann, Jr. founded his own company (CTC International Group), with its core business of supplying "competitive intelligence."¹¹ He also published his classic work – "CIA, Inc: Espionage & the Craft of Business Intelligence."

In 1986, a professional body for CI operatives was formed, known as the Society of Competitive Intelligence Professionals (SCIP). Its membership now stands at more than 6,000 worldwide.¹² CI training institutions were soon established in several European countries, including France and Germany. In 2004, the Institute for Competitive Intelligence¹³ was established, providing post-graduate study in CI. In Asia, Japan is amongst the earliest nation having its own economic intelligence agency, JETRO.¹⁴ It was founded by the Ministry of International Trade and Industry (MITI) in 1958.

As industry leaders subsequently realized the importance of CI, major multinational corporations (including General Motors, Eastman Kodak, and British Petroleum) set up their own internal CI units. These corporations conduct CI activities not only as a protective safeguard measure against "external threats", but also as a method for "finding new opportunities" and "understanding new trends and challenges" (expanding its sphere of influence).

CI IS LEGAL AND ETHICAL

CI research is not industrial espionage or economic espionage. CI practitioners observe legal and ethical constraints.¹⁵ They conform to a strict code of ethics laid down by the Society of Competitive Intelligence Professionals (SCIP).

For example, CI professionals diligently observe and comply with all laws and regulations enforced by the authorities. Objectionable/criminal activities such as bugging or bribery are regarded as serious breaches of their ethical code. CI professionals are also required to disclose all relevant information (eg one's identity and organization) prior to all interviews. This ensures that primary research is conducted ethically without misrepresentation. It is, however, not a requirement to disclose the identity of one's ultimate client.

SOURCES OF INTELLIGENCE – OSINT, HUMINT

A CI professional has a wide range of sources from where he can obtain raw data (information)

⁹An effective CI exercise can only be carried out by properly trained CI operatives. These CI operatives are now members of their own professional body, SCIP (Society of Competitive Intelligence Professionals). See further at (<http://www.scip.org/>).

¹⁰For a classic example of how good CI exercise enables a company to take pre-emptive steps against a competitor, see the case of Johnson & Johnson's (maker of No. 1 painkiller drug Tylenol) strategies against Bristol-Myers (who planned to launch its own drug Datriil) in the USA.

¹¹Visit its official website at <http://www.ctcintl.com/>.

¹²Visit its official website at <http://www.scip.org/>. It held its International Annual Conference recently, on 14-17 April 2008.

¹³<http://www.institute-for-competitive-intelligence.com/>.

¹⁴<http://www.jetro.go.jp/>.

¹⁵Linda Klebe Trevino & Gary Weaver, "Ethical Issues in CI Practice – Consensus, Conflict and Challenges", *Competitive Intelligence Review*, Vol 8 No. 1, Spring 1997, available online at [http://www.scip.org/Library/8\(1\)ethics.pdf](http://www.scip.org/Library/8(1)ethics.pdf).

– which he can ultimately analyse and turn into actionable intelligence. A good example is Open Source Intelligence (OSINT), a term used to refer to information freely available in the public domain, as opposed to secret or classified sources. The term has nothing to do with open source software.

OSINT includes –

- (1) Media (print and electronic) e.g., newspapers, magazines, radio, television, and computer-based information.
- (2) Public data – various official reports and miscellaneous data such as budgets, hearings, legislative debates, press conferences, speeches, safety warnings, environmental impact statements, contract awards etc.
- (3) Observation and reporting - The availability of worldwide satellite photography, often of high resolution, on the Web (e.g., Google Earth) has expanded open source capabilities into areas formerly available only to major intelligence services.
- (4) Professional and academic - conferences, symposia, professional associations, academic papers, studies by expert groups etc.¹⁶

Unlike OSINT, HUMINT (which refers to information derived directly from human sources, hence the term “human intelligence”) may include overt, sensitive and clandestine activities. Overt activities are performed openly without concealment eg direct interview of subjects to elicit information. Such activities are ethical and legal, whilst the other two activities may be questionable.¹⁷

Both types of sources have their own limitations. A good example is the time lag between collection, verifying, analyzing and the action to be carried out in consequence of such intelligence, a factor which may adversely affect the accuracy of the information. Another issue is the reliability of the source of information. With HUMINT, there is always the risk of deception, misinformation or willful disinformation by the target interviewee.

CI COMPARED WITH OTHER ACTIVITIES

Is CI the same as BI (Business Intelligence)? Whilst a CI exercise may occasionally involve the analysis of some quantitative data, it is generally focused on qualitative information rather than quantitative market research data. CI is primarily concerned with the scanning and tracking of market and competitive news and information through open sources and primary interviewing.

In contrast, BI (Business Intelligence) is usually focused on collecting, storing and analyzing customer data and in-depth analysis of business statistics – in short, it is usually a quantitative exercise. Is CI somehow connected to Knowledge Management? The popular view is that CI is a “sub-set” of Knowledge Management. The mountain of data which a CI specialist usually must study and analyse (before he can turn it into meaningful intelligence) means that he must have good Knowledge Management system.¹⁸ Is CI the same thing as Market Research? Although CI and Market Research¹⁹ do at times overlap, the latter’s emphasis is on gathering and analyzing consumer-centric information – usually through surveys and relying on statistical analysis software. However, many Market Research departments are also responsible for competitive intelligence, so the two disciplines go hand-in-hand.

¹⁶For an introduction on the subject, see http://en.wikipedia.org/wiki/Open_Source_Intelligence. For other examples of open source intelligence, see the online article “Open Source Intelligence” by Felix Stalder and Jesse Hirsch at http://www.firstmonday.org/issues/issue7_6/stalder/.

¹⁷See further “Sources of Intelligence” at <http://www.fas.org/irp/doddir/usaf/afpam14-210/part16.htm>. a USAF Intelligence Targeting Guide.

¹⁸For a good introduction to the subject, see http://en.wikipedia.org/wiki/Knowledge_Management_System.

¹⁹To know the various types or techniques of market research, see http://en.wikipedia.org/wiki/Marketing_research.

Finally, is CI the same thing as economic espionage?²⁰ The answer is a definite NO – because CI must be a legal and ethical “gathering of non-proprietary, open source data through secondary and primary collection techniques”.²¹

ECONOMIC / INDUSTRIAL / CORPORATE ESPIONAGE

A legally (and ethically) conducted CI exercise focuses on open sources of intelligence, which include (amongst others) corporate publications, company websites, patent filings, etc. In contrast, economic / industrial / corporate espionage involves criminal or unethical activities such as theft of trade secrets, bribery, blackmail or surreptitious / technological surveillance techniques.

Apart from corporate targets, economic espionage can be targeted at governments as well. Unethical CI activities are conducted, for example, to find out the terms of a tender for government contracts, so that a competitor (local or foreign) can make a better (lower) bid and thus secure the contract.

Practitioners of economic and industrial espionage use various kinds of equipments and contraptions to gain information from their victims (targets), combining the legal with illegal, the traditional with the more innovative methods. They use binoculars to read lips, voice-activated bugs, electronic imaging devices, computer taps, electromagnetic detectors, acoustic stethoscopes, fiber optic scopes, laser mikes that can decipher and amplify voice-activated vibrations of windows, and many other “James Bond gear”. They use agents and volunteers, gain surreptitious entry to premises, commit theft and wrongful computer intrusions. At times, if the options are available, they pursue legal methods (such as joint ventures, take in foreign students, make scientific exchanges), mergers and acquisitions, visits to targets’ facilities etc.²²

According to the American Society for Industrial Security (ASIS)²³, economic espionage cases involving US companies have grown 260% since 1985. In 1991, the ASIS Standing Committee for Safeguarding Proprietary Information conducted a survey of 165 companies to determine the frequency of economic espionage. It discovered that more than one-third (37%) of the companies reported that they had suffered theft of proprietary information within the year. A subsequent study (in 1992) showed that almost half (49%) of 246 companies surveyed had suffered the same experience. Of the companies which had become victims of theft of information, the average occurrence of these thefts were ten incidents per month.²⁴

SOME ECONOMIC ESPIONAGE CASES

In April 1999, two Taiwan executives and a Taiwan company were convicted of theft of trade secrets under the Economic Espionage Act of 1996. Pin Yen Yan, president of Four Pillars Company, and his daughter Hwei Chen “Sally” Yang were accused of stealing Avery Dennison adhesive formulas and innovations with the help of an Avery Dennison employee. The maximum penalty under the law (for theft of trade secrets) is 10 years in prison or \$250,000 in fines (or both), whilst the maximum penalty for the company or organization is a fine of \$5 million.²⁵ The maximum penalty for economic espionage is higher – 15 years prison term or \$500,000 in fines (or both) and for the company or organization a fine of \$10 million.²⁶

In another case in the same year, Hsu Kai-Lo, technical director of the Yuen Foong Paper

²⁰See <http://www.econometricspionage.com/>.

²¹http://www.cipher-sys.com/what_is_competitive_intelligence.htm

²²“Are you a target?”, article available online at <http://www.fas.org/irp/ops/ci/docs/fy99.htm>.

²⁴Glen Moule, “A study of security countermeasures to reduce economic espionage in the US from 1975 to 1996”, available online at http://www.spybusters.com/Economic_Espionage.html.

²⁵The Economic Espionage Act 1996 criminalizes two activities – theft of trade secrets to benefit foreign powers, and theft for commercial or economic purposes; for a short summary of the Act, see http://en.wikipedia.org/wiki/Economic_Espionage_Act_of_1996.

²⁶See sections 1831 and 1832 of the Act, at <http://www.econometricspionage.com/EEA.html>.

Company of Taiwan, pleaded guilty to one count of conspiracy to acquire a trade secret. Hsu attempted to steal the formula for Taxol, a cancer drug patented and licensed by the Bristol-Myers Squibb Company.²⁷

Between 1986 and 1990, Dr. Ronald Hoffman (rocket scientist and lead researcher for Science Applications International Corporation) sold company-developed and export-restricted technology to four foreign companies. The technology consisted of computer codes developed for the U.S. Air Force (for defence purposes), but also had commercial applications which were then not available anywhere else in the world. Press reports stated that these companies (years behind U.S. firms) had since gained significant ground in their development of space technology as a result of this incident.²⁸

In December 2001, Intel employee Say Lye Ow (Malaysian) was convicted for the crime of illicitly copying computer files containing advanced designs of Intel's Merced (Itanium) microprocessor. He was sentenced to jail for 24 months. The successful conclusion of the case was a result of collaborative efforts between FBI's High-tech Squad and the US Attorney's Office CHIP (Computer Hacking and Intellectual Property) unit.²⁹

Many economic espionage victims do not lodge reports with the authorities for several reasons – including fear that such disclosure might affect adversely shareholder and consumer confidence, loss of employment, inviting copycats as a result of revealing vulnerabilities, apart from the risk that competitors may take advantage of victim's negative publicity.

BETTER DECISION MAKING

CI enhances better "decision-making". Decision-making becomes better when it is made on the basis of reliable, comprehensive and accurate intelligence. With the necessary intelligence, a CEO does not have to "fly blind".

As the market place is inherently changeable, a "market research" (which is essentially a static body of knowledge) becomes quickly out of date. On the other hand, CI (which is a dynamic tool) can provide contemporaneous and real-time intelligence necessary for the decision maker.

Good CI demands more than just the information-gathering system. Beyond that, it needs critical thinking, professional (ethical and legal) research skills, tenacity and analysis than can convert raw data (information) into intelligence, forming the basis for action.

THE CYCLE OF COMPETITIVE INTELLIGENCE

The US Central Intelligence Agency (CIA) describes the intelligence cycle as "the process by which raw information is acquired, gathered, transmitted, evaluated, analyzed and made available as finished intelligence for policymakers to use in decision-making and action."

According to this definition, a CI exercise therefore goes through 5 distinct stages –

- (1) planning and direction;
- (2) collection and research;
- (3) processing and storage;
- (4) analysis and production;
- (5) dissemination and delivery.

To do a good job, A CI professional needs to ask himself the following questions –

- (1) What do I need to know?
- (2) What do I already know?
- (3) Why do I need to know it?
- (4) When do I need to know it?
- (5) What will I do with the intelligence once I have it?

²⁷"Are you a target"? at <http://www.fas.org/irp/ops/ci/docs/fy99.htm>.

²⁸House Judiciary Committee Hearing on Economic Espionage, May 1996, at http://www.fas.org/irp/congress/1996_hr/h960509f.htm.

²⁹<http://samvak.tripod.com/pp144.html>.

- (6) What will it cost me to get it?
- (7) What could it cost me not to get it?³⁰

The finished product of the CI cycle is "evaluated information" or "intelligence"³¹, packaged to meet the needs of the "customer" of the intelligence – i.e. the decision-maker. Intelligence obtained must therefore be actionable.

In practice, the intelligence is neither perfect nor complete. No one can accurately predict the future until the event has taken place – by then it will be too late. CI's real value is to provide the decision-maker the necessary tool to learn what the competition will probably do (and then act accordingly), not what it has already done.

THE 80:20 RULE IN INFORMATION GATHERING

An effective CI exercise goes through a 2-stage process at information gathering (collecting information) –

- (1) Phase 1, secondary research (80% volume, 20% time);
- (2) Phase 2, primary research (20% volume, 80% time).

Phase 1 (secondary research) leads to Phase 2 (primary research). Secondary research consists of press releases, analyst reports, regulatory filings, trade journals, transcripts of speeches, conference papers, and other published sources of information. Once the CI professional has sifted through this information overload, he goes to Phase 2, to look out for "golden nuggets" of more contemporary and real-time information in face-to-face encounter with decision makers.

The rule is therefore to spend less time in information gathering (through secondary research) and spend more time in analyzing and

refining it through primary research. Secondary research is easier because the source is in the public domain.³² Primary research is more difficult and challenging, because the CI professional is virtually on a detective hunt, looking for loose ends.

REAL ESTATE PROFESSIONAL

For the purpose of this Paper, the term "real estate professional" is given its widest meaning. It includes not only persons who are members of professional bodies (such as valuers, appraisers, real estate agents³³ and brokers) but also any person who is involved directly or indirectly in real estate development or transactions. Following this, the term "real estate professional" is this wide context includes also (but not limited to) real estate owners, developers³⁴, investors, financiers, advisers, consultants and analysts.

GLOBALISATION OF THE PROPERTY MARKET

A local daily said in early 2007 that "Real estate players, including developers and property consultants, are benefiting from the growing globalisation of the property market with a free flow of investment and a boost in building opportunities."³⁵ It went on to state that "Real estate has played a big role in spurring the economic growth of vibrant cities in China, India, Vietnam and the Middle East. It is increasingly accepted as a popular investment tool and asset by many international investors, including Malaysians who have invested in real estate overseas".

³²Matt Evans, "Competitive Intelligence" at <http://www.exinfrm.com/training/pdfs/course12-1.pdf>.

³³As of April 2007, there are approximately 1,900 agents registered with the Board of Valuers, Appraisers and Estate Agents in Malaysia – see "Who Are Estate Agents?", *The Star*, April 5, 2007.

³⁴For a comprehensive list of developers in Malaysia, see <http://www.iproperty.com.my/property/developers.asp>.

³⁵"Real estate developers and investors eyeing property markets overseas" – *The Star*, May 28, 2007.

³⁰"What is competitive intelligence", at <http://www.aurorawdc.com/whatisci.htm>.

³¹Also called as "foreknowledge", the term used by Sun Tzu.

The report concluded "It is no wonder that Malaysian developers and consultants are making a beeline offshore to get a piece of the action in the robust regional property markets and, in the process, shoring up their image as international players."

The gist of that news report (long before Malaysians heard disturbing news of the US mortgage meltdown) can be summarized as follows –

- (1) Malaysian real estate professionals (developers, investors and consultants) must be prepared to spread their wings beyond our shores;
- (2) Real estate development has a substantive role in spurring economic growth; it is a popular investment tool and asset;
- (3) There is a robust regional property market out there, and you should be there early before it is too late.

As at the date of that news report, the list of Malaysian real estate players in foreign lands include familiar names such as IGB Corp Bhd, IJM Corp Bhd, Sunway City Bhd and Mulpha International Bhd. Closer to home, the much-publicised Sentosa Cove development project had also attracted notable local players such as YTL Corp Bhd and IOI Properties Bhd.

According to Ireka Corp Bhd executive director Lai Voon Hon, although Malaysia (with its growing global status) is still a good market for his company, there is a higher growth potential in countries like Vietnam, China and India which Malaysian companies should not miss.

Sharing the same sentiment, S.K. Brothers Realty CEO Charlie Chan said Malaysians have over the years become more affluent. With fatter wallets, they are now searching for properties with good returns in foreign lands. Amongst the popular destinations are Singapore, Australia, New Zealand and Britain.

Equally upbeat is Global Link Properties chief administrative officer (overseas properties) Norman Sia. He was quoted as saying that his company had introduced over 500 projects in Australia and New Zealand to Malaysian investors and property hunters over the last decade. Another local real estate player, Dijaya Corp Bhd, with interests in the Klang Valley (Tropicana and Bandar Utama), Penang and Johor, has plans to go to Vietnam and Hyderabad, India.

Interest in Vietnam had deepened over the years. Real estate analysts say that Vietnam is Asia's second fastest growing economy after China, recording an 8.4% growth in 2007. Given its booming real estate and property sector, Malaysian investors are advised to tap early this growing market – which has been forecast to grow more than 50% per year in the next 10 years.³⁵

In 2007, Vietnam attracted USD71 billion (RM231 billion) in foreign direct investment. Malaysia was ranked amongst the top 10 investors. Excluding the US\$10 billion (invested by Berjaya) and US\$2 billion by Gamuda, there are now more than 230 projects by Malaysian companies in Vietnam valued at USD1.86 billion (RM6.06 billion).

BOOMING INTEREST LOCALLY

But for the real estate professionals in Malaysia, global business flows both ways – outwards and inwards. The outward flow is bringing (encouraging) Malaysian individuals and corporations to look for properties (for purchase, investment or development) in foreign lands; the inward flow is to bring in foreign players into this country for long-term substantial investments.

One recent example is German real estate investment company's foray into the local development scene. According to Business Times, the massive RM439.32 million by Union

³⁵<http://www.iproperty.com.my/news/realestatenews.asp?nid=203>.

Investment Real Estate AG (UIRE) is the first major investment ever made in the Malaysian real estate sector, signifying an important foreign investors' continued confidence in the economy.³⁷ UIRE is a major property investment player in Germany with funds and assets estimated at €13.8 billion (about RM45 billion). It has interest in a dozen countries, including Japan, Singapore, South Korea, Hungary, the Czech Republic, Mexico and Chile.

Under that historic deal, Bandar Raya Development Berhad (through its subsidiary Capital Square Sdn Bhd) disposed its 41-storey tower block in its CapSquare project to UIRE. The latter's spokesman Steffen Wolf was quoted as saying "In line with our expanding business, we have been looking for opportunities to invest in Malaysia as the country's real estate market is very attractive and we believe that the future of the Malaysian commercial real estate market is very bright."

The trend of executing block sales to foreign investors continues. One example is the sale of the 80-unit super luxury condominium "Sunway Pallazio" in Sri Hartamas by the owners (Sunway City Bhd) to Middle Eastern investors for RM220 millions – a deal which works out to about RM750 per sq feet. The project is due for completion in 2010.

This deal reflected an earlier transaction executed by Sunway with another buyer, a South Korean investor, in December 2007. Under that transaction, Sunway South Quay (a 249-unit luxury condominium) was sold for RM170 million to Luxury Court Sdn Bhd, a joint venture between property developer CI Korea and Daol Fund.

SUMMING UP: UNDERSTANDING THE BLUE OCEAN STRATEGY

Put simply, the blue ocean strategy is "winning by not competing", but by finding/creating your own ocean (market place).

Since the dawn of the industrial age, companies have engaged in head-to-head competition in search of sustained, profitable growth. They have fought for competitive advantage, battled over market share, and struggled for differentiation. Yet these hallmarks of competitive strategy are not the way to create profitable growth in the future, said the experts.

In the book titled "Blue Ocean Strategy", its authors³⁸ challenge everything you thought you knew about the requirements for strategic success. They argue that cut-throat competition results in nothing but a bloody red ocean of rivals fighting over a shrinking profit pool.

Based on a study of 150 strategic moves spanning more than a hundred years and thirty industries, the authors argue that lasting success comes not from battling competitors, but from creating "blue oceans" – i.e. untapped new market spaces ripe for growth. Such strategic moves – which the authors call "value innovation" – create powerful leaps in value that often render rivals obsolete for more than a decade.

The Blue Ocean Strategy thus presents a systematic approach to making the competition irrelevant and outlines principles and tools any company can use to create and capture blue oceans.

In the "old world" where real estate professionals operate in "red ocean mode", an effective CI unit in their organizations should be able to place them well ahead of the competition – in the company of 20% of the players enjoying 80% of the fruits

³⁷Business Times Online, dateline January 27, 2008 at http://www.btimes.com.my/Current_News/BTIMES/Tuesday/Frontpage/bandaro.xml/1.

³⁸W. Chan Kim and Renee Mauborgne; the book is published by Harvard Business School Press and is available in the local bookshops at RM119.00

of success. In the “new world” where real estate professionals are encouraged to operate in “blue ocean mode”, a good CI operation should locate for your organizations plenty of as-yet uncharted blue oceans in the horizon.³⁹

One final word. A local outfit, hosted in a local website called “Redbase”⁴⁰, had published a short but interesting piece titled “Blue Ocean Strategies in Real Estate”. Adopting blue ocean strategies taught by western gurus, the article writer urged local real estate professionals not to merely “out-perform the competition in the existing industry”, but instead “create new market space or a blue ocean, thereby making the competition irrelevant.”

He added that what local real estate professionals ought to do is to **“Stop benchmarking the competition”**. His rationale is that “The more you benchmark your competitors, the more you tend to look like them. That makes you a me-too organization, which is the opposite of what you want to achieve.”⁴¹

³⁹See <http://www.1000wattblog.com/2007/12/the-blue-ocean.html> for or a thought-provoking material “The Blue Ocean of Real Estate” by Davison. See also “Blue Oceans: How To Combat a Cut-throat Industry” by Mollie W. Wasserman, available at http://realtimes.com/rtpages/20070830_blueocean.htm, and “Bleeding is not good for your business’ health”, by the same author at http://www.theconsultingtimes.com/agent/archives/2007/06/26/bleeding_is_not_good_for_your_3.html.

⁴⁰<http://www.redbase.com.my/index.php>.

⁴¹http://www.redbase.com.my/index.php?option=com_content&task=view&id=68&Itemid=7.

SUSTAINABLE CITIES, REAL ESTATE MARKET DYNAMICS AND THE CHALLENGE OF ECOLOGICAL MODERNISATION

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ABSTRACT

The theme adopted by IRERS 2008 'Benchmarking, Innovating and Sustaining Real Estate Market Dynamics' provides a timely focus on the importance of benchmarking and innovative solutions, in order to address the challenges faced by the real estate markets globally. These challenges have been exacerbated by the recent global credit crisis triggered by the subprime market in the United States and elsewhere. The credit crisis has generated anxieties that prompted an apparent flight from commercial mortgage-backed securities, and could therefore exert price pressures on the global real estate sector for a period of time.

The ensuing adjustments in the investment patterns that have accompanied the recent credit crisis come at a time when the real estate markets have had to engage with another compelling dynamic, in the form of environmental sustainability. Environmental responsiveness is vital, if the real estate markets are to have a future. Urban planning policies, property legislation and financial agendas, coupled with pressures from owners and tenants, make it crucial that real estate researchers and practitioners have greater appreciation of the issues and solutions that will shape the future of real estate as a sustainable industry.

Keywords: Real Estate Dynamics, Environment, Ecological Modernisation

INTRODUCTION

As the Worldwatch Institute's State of the World 2008 report indicates, there has been a sea change in business attitudes toward the environment over the last few years, across all sectors of commerce, manufacturing and real estate development. The change in attitude has been prompted by recognition that the environment is more than the need to comply with regulations, cost analysis and risk management. Waste management, pollution control and environmental planning provide

significant market opportunities furnished by the availability of substantial public and corporate funds aimed at mitigating environmental degradation (so called 'cleantech' opportunities) and reducing eco-liabilities (including carbon quota trading). With the costs of hydrocarbon fuels at a record high, the adoption of cleaner, environmentally sustainable energy saving measures now make a great deal of sense to raise profitability margins.

The *State of the World 2008* also highlights an important policy shift in recent years focused

on innovation as the key to environmental and economic sustainability. Technological breakthroughs and new energy auditing systems herald a new trajectory of business innovation, through private-sector investment guided by sensitively planned market and tax incentives. The new directions will involve tying the burden of environmental mitigation to tax credit and rebate regimes so that businesses have an incentive to think about opportunities for progress. Naturally, regional, national and local public agencies must be involved in this important process too, primarily in the form of facilitating and enforcing a pricing mechanism for costing environmental degradation and remediation measures, to help cut down on non-renewable resource use and reward energy saving schemes.

Recognising the crucial importance of incentivising businesses, the Foreword piece of the Wordwatch report makes the following observation:

“Venture capitalists do not blink at the prospect of only 1 project in 10 paying off. That kind of success ratio in government would be entirely unacceptable. In addition, the business community is in a better position to reward success in a way that will draw the most talented people into the quest for environmental solutions. Entrepreneurs who recognize the opportunity for a big payday put in long hours and motivate a team of people to put in extra effort.”

An innovative approach to environmental policy is emerging from the opportunities presented by information and remote/reconnaissance technologies. In our digital age, remote data collection technologies provide unprecedented opportunities to estimate the size and source of environmentally wasteful and inefficient processes and practices. It is now relatively easy to calculate and establish the source of emissions and resource use in a more accurate manner. Opportunities presented by the trade in carbon quotas are made possible predominantly through reconnaissance analysis of emissions across regions. As real estates contributes nearly half the energy costs of most advanced economies, the scale of this

sector's involvement in this process is bound to be very high.

The move towards market-based environmental solutions, away from centralised regulation, should see real estate businesses and their customers figure out ways to reduce environmental cleaning costs. The shift toward a 'Polluter Pays' model offers the prospect of raising the incentive at every level in the business hierarchy for energy conservation, improved life cycles and process innovation.

The principle of making the environment a central component of corporate strategy is very good business, because no industry today, including the real estate sector, can disregard growing energy costs, pollution damage, and other environmental challenges such as growing flood risks associated with global warming. Ignoring the environment places real estate businesses at competitive disadvantage. Of course, progress in environmental planning and management necessitate well-informed public policies, as aligning economic activities along sustainable trajectories can only be expedited through clear economic incentives for the sector.

ECOLOGICAL MODERNISATION

In a research article contrasting US and Northern European experiences in the area of ecological modernisation, Cohen (2006:530) observes:

“There is considerable evidence to suggest that Europe's environmental vanguard.. has achieved a weak form of ecological modernization over the past decade.. Within these nations, there has been a pronounced emphasis on supplanting remedial environmental management with innovative technologies capable of achieving stringent sustainability standards. Consistent with the tenets of ecological modernization, this is not a matter of ensuring superior performance based on narrow environmental criteria; rather it entails the full integration of

environmental considerations into product design and process organization. Such a shift becomes an important source of comparative economic advantage.

These observations are significant, both because they confirm that EM is gaining a foothold in European economies, and also because Cohen identifies a shift from constricted environmental criteria. The emphasis now lies in achieving greater integration between principles and processes, rather than mere projections of end goals and aspirations. The environment is steadily evolving as a mainstream, strategic business concern, as well as a context for city economies. This level of assimilation between environmental issues, commerce, and city economies is unprecedented, and is fundamentally altering the dynamics of Real Estate markets. Although primarily the result of necessity, the ensuing serendipity appears to be benefiting the aspiration to maintain reasonable standards of living as well as a healthy environment in which city communities can thrive.

According to ecological modernisation (EM) proponents, it is possible to develop economically and socially and - at the same time - conserve the environment. In a nutshell, and at the risk of oversimplification, EM equates pollution with inefficiency, which could be overcome through technological advances and sound policies. Restated with specific reference to pollution management in urban settings, the following two statements sum up the evolution of EM:

- Pre EM: Dilution is the solution to pollution
- Post EM: Through efficient processing and technical process compatibility, it is possible to achieve a non-polluting economy

Ecological modernisation scholarship has followed a reasonably evolutionary path, from the initial period (in the early 1980s) where the emphasis was placed on the primacy of new technologies in the battle to modernise environmental management. What distinguishes EM from other forms of environmentalism is that ecological modernisers

attempt to provide an 'enterprise-friendly' set of environmental reforms.

The theoretical approaches adopted by EM specialists have included analyses identifying how modern societies construct the environment; how social and economic change influences the environment and environmental relations; and understanding the social and economic institutions that promote or resist environmental sustainability. Many ecological modernisation advocates believe that, as economic development continues, a point can be reached where the quality of the environment will subordinate other considerations based on production and consumption factors alone. More specifically, they argue that ecological rationality is compatible with forces of production and moderate consumption, especially where technology, economic and policy measures incorporate substantive environmental considerations (Mol 2000). More recently, EM researchers have broadened their analysis to include the role of consumption as a driver of such reforms (Carolan 2004). According to this view, ecological modernisation is an environment-induced social change, set against a background where environmental crises provided the impetus for change at a social level.

At a more practical level, ecological modernisation, seeks to develop models for eco-efficiency, through emissions and waste reduction, resource substitution and the minimisation of resource inputs in industrial processes and services. Typically this entails taking externalities from one production process or service and using them as material inputs for another. Examples of management practices representative of ecological modernisation include strategic environmental management, technical process compatibility, life cycle analysis, and environmental quality assessment systems such as ISO 14001. Much of the analytical work of ecological modernisation has been of particular relevance to the local (principally urban) economies of Europe. Such work reflects the fact that European cities have been at the forefront of developing rational environmental practices to cope with such issues as energy consumption (through energy saving

technologies), air pollution, waste recycling and disposal, and transport (through the development and promotion of cleaner modes of transport).

However, ecological modernisers have been criticised for their technological optimism, seen by sceptics as ignoring the dynamics of power which can subvert environmental reform; and for seemingly underplaying the nature and scale of social changes required to move to more sustainable forms of development (Gibbs 2000). Earlier, Christoff (1996: 497) had reflected the views of the more sceptical critics of ecological modernisation that it "may serve to legitimise the continuing instrumental domination and destruction of the environment, and the promotion of less democratic forms of government, foregrounding modernity's industrial and technocratic discourse over its more recent, resistant and critical ecological components."

Christoff's pessimistic assessment of the potential of ecological modernisation is not widely shared even by groups traditionally falling outside capitalist terms of reference, as the following excerpt from a speech by John Prescott to the Fabian Society/ SERA Conference (2003) indicates:

"There is a widespread view that environmental damage is the price we have to pay for economic progress.. Modern environmentalism recognises that...an efficient, clean economy will mean more, not less economic growth and prosperity.. Treating the environment with respect will not impede economic progress, it will help identify areas of inefficiency and waste and so unleash whole new forces of innovation."

Indeed, aspects of ecological modernisation have found their way into UK budget statements in recent years, as the following comments from the March 2003 Budget Statement to the House of Commons, by the Chancellor of the Exchequer Gordon Brown, pointed out:

"So to help British companies commercialise new environmental technologies, we are

today setting aside an initial sum of £20 million as seedcorn finance for the first enterprise capital fund for the environment. The energy used in buildings accounts for nearly half UK carbon emissions. So our third ambition is for Britain's homes and businesses to be the most energy efficient in the world."

Naturally, New Labour's apparent enthusiasm for ecological modernisation has been received by EM proponents with a degree of caution. As Barry and Paterson (2004:767) observed:

"New Labour's discourse of globalisation acts to create opportunities for EM in some policy arenas and hinder them in others.. the analysis reveals the potential, but also the limits, of this approach, which attempts to ignore the deep political questions raised by environmental degradation."

Barry and Paterson's point about the risks of subordinating political questions to the economic growth imperative had also been picked up by one of the main proponents of ecological modernisation. Writing in a chapter for the book *The Emergence of Ecological Modernisation: Integrating the Environment and the Economy*, Jänicke et al. (2000:149) make the following observation:

"ecologically-beneficial economic change tends to be neutralised by high growth... The industrialised countries will not be able to afford the luxury of high growth rates for much longer. They will have to become accustomed to solving universal problems not by economic growth, but by political action, as in matters of distribution."

Broadly speaking, the implementation of ecological modernisation falls into two categories: techniques and policies. There is a wide range of techniques and technical innovations, referred to in Huber's original work (1982) as 'super-industrialisation'. These include technological advances to reduce the consumption of resources and thus increasing 'eco-efficiency', as well as pollution prevention and

waste minimisation measures. As stated earlier, typically such techniques entail taking externalities from one production process or service and using them as material inputs for another. On the policies front, strategic environmental management, industrial life cycle analysis and the adoption of environmental quality assessment systems (such as ISO 14001) are the main characteristic items.

There follows an outline of the policies, codes of practice and audit systems that fit into the ecological modernisation framework, beginning with SEM (strategic environmental management). SEM involves helping business to take advantage of environmental challenges, and attempts to make these challenges into profit-making opportunities rather than threats that curtail business operations and prospects. The basic economic premise of SEM is that it can 'pay for itself.' (Buchholz et al. 1992).

There are a number of essential operational and practical steps that could be followed to establish a strategic environmental management:

- Cut back on environmentally unsafe operations and waste.
- Develop and expand environmental cleanup.
- Adopt environmental cleanup, recycling and reuse services.
- Purchase and run environmentally safe businesses.
- Adopt 'triple bottom line' accounting procedures, adding social and environmental performance to the traditional financial bottom line.
- Promote new production and service delivery technologies, with eco-efficient equipment and vehicles.
- Find alternative uses for wastes (reduce, reuse, recycle).
- Research the market for environmentally friendly products and services and generate consumer desire for these, but avoid being exposed for unsubstantiated claims!
- Take out business continuity insurance against climate-induced damage.

Wever (1996) proposed a system of integrating ISO 14000 compliance into existing environmental management systems. The system involved applying the techniques of total quality management to environmental management, which was labelled as TQEM. The ISO 14000 environmental management standards have been set up to help organisations minimise how their operations and services negatively affect the environment. ISO 14000 is similar to the quality management system ISO 9000, in that both standards focus on how a product or service is delivered, rather than the product itself. As with ISO 9000, certification is performed by third-party organisations rather than being awarded by ISO directly.

ISO 14001 is the most widely used standard within the ISO 14000 band, providing the requirements against which organisations are assessed; and it is flexible enough to apply to most organisations engaged in product or service delivery. ISO 14001 specifies requirements for:

- Environmental policy.
- Environmental impacts of products, activities or services.
- Planning environmental objectives and measurable targets.
- Implementation of programmes to meet objectives and targets.
- Checking and corrective action, and management review.

The audit procedure followed for ISO 14001 compliance is based on ISO 19011 which provides the audit protocol for both ISO 14000 (environmental management) and ISO 9000 (quality management) standards series together, identifying how to ascertain if intended regulatory tools have been successfully implemented. Typically, the conferment of ISO 14001 certification follows a number of predefined steps:

1. Gap Analysis (identifying, documenting and measuring the variance between ISO 14001 requirements and current situation)
2. Planning phase (scoping the compliance project)

3. Procedures phase (outlining an action plan)
4. Implementation (including training) phase
5. Internal audit, revision, and taking corrective action

Another important audit system connected with ecological modernisation is life cycle analysis. Developed in the UK as part of ISO 14001, the 1997-launched ISO 14040 (Lifecycle assessment - principals and frameworks) was subsequently strengthened, in the following year, through the introduction of ISO 14041 (Goal and scope definition). In the context of the operations of energy-intensive industry, life cycle analysis refers to the holistic approach of including all tangible and some intangible costs of production from the initial project conception to the final stage of delivering the product or service. Examples of tangible costs include energy consumption levels associated with pre-production, production, distribution, use, and disposal. Intangible costs may include estimates of cost of unusually long licensing processes or administrative hurdles confronting the introduction of new method of energy production.

It is worth noting that the British Standard BS8555 (published in April 2003) links environmental management systems ISO 14001 with the environmental performance evaluation ISO 14031. BS8555 encompasses the six phase achievement criteria used in the IEMA (Institute of Environmental Management and Assessment) Acorn Scheme. This standard can be used as a route towards ISO14001, and its inclusion of ISO 14031 allows the development of tasks focusing on indicators relevant to the needs of individual firms (IEMA 2006).

A TALE OF TWO CITIES: LONDON AND NEW YORK

Chapter 1 (Preamble) of the United Nations (2003) Habitat II agenda explicitly highlights the fundamental role of cities in any sustainability agenda:

"Cities and towns have been engines of growth and incubators of civilization and have facilitated the evolution of knowledge, culture and tradition, as well as of industry and commerce. Urban settlements, properly planned and managed, hold the promise for human development and the protection of the world's natural resources through their ability to support large numbers of people while limiting their impact on the natural environment. The growth of cities and towns causes social, economic and environmental changes that go beyond city boundaries."

The debate surrounding the concept of sustainable cities has often been the source of considerable controversy. In a paper by Portney (2002:364), the author usefully summed up the debate thus:

"Sceptics suggest that there is little that a single city can do to achieve, or even contribute to, sustainability. Advocates, however, suggest that cities are among the more important building-blocks necessary to help construct a foundation on which sustainable development can occur. Ultimately, this is an empirical argument ... The conceptual foundations of sustainable cities inevitably prescribe a very long-term process, perhaps taking decades to achieve substantial results."

Portney's study has provided a useful matrix of "elements" that can be used to assess the sustainability of a city. Although developed to examine the sustainability of a number of US cities, the table below can indeed serve as a useful (albeit broad-based) empirical template for any modern city. The debate that will follow will aim to use this table as a general frame of reference.

As Portney further observed (2002:371): "If it is possible to imagine that cities can take sustainability seriously and if it is also possible that cities can vary in the extent to which they do so, it is also possible to contemplate why some cities are more serious about pursuing sustainability than others." This statement is especially relevant in the context

of global cities, and their attempt at highlighting the need for setting benchmarks identifying their comparative strengths on the sustainability front. One such important comparative benchmarking exercise is the 'London New York Study' in which this author is a member of its project team. In January 2008, the research team commissioned a report examining, among other issues, the prospects of sustainability in these two major global cities.

There follow a number of interim conclusions of the London – New York Study:

- World cities with particularly 'green' credentials which London and New York could seek to emulate include Vancouver, where 90% of energy comes from renewable sources, mainly hydro-electricity. Vancouver also has a 100-year plan with far-reaching strategies that will enable the city to embrace emerging energy-efficient technologies. Moreover, the coastal city is seeking to take advantage of a broader range of renewable energy sources, including solar, wind, wave and tidal.
- London is increasingly thought of as a 'greener' city than New York, in particular since the introduction of its congestion charge scheme and the UK's ratification of the Kyoto Protocol. However, Mayor Bloomberg's new PlanNYC will address New York's environmental issues head on. However both cities could learn much from other, more environmentally sustainable world cities. A report published by the London Climate Change Partnership entitled 'Lessons for London' highlights the lessons that can be learnt from, for example, how Melbourne is managing its water resources efficiently, and how Shanghai and Philadelphia are adapting to city heat waves.
- Sydney, among other major global cities, has also embraced eco-friendly energy usage on a daily basis. In February 2003, Earth Power, a green waste generator, opened in the city and today restaurants and supermarkets deposit 2,100 tons a day of leftover food there. The facility turns waste into gas through anaerobic digestion, a combustion-free process, and produces 3.2 MW of electricity each day.
- A 2005 study by the Climate Group showed that many global cities had been more successful in reducing their carbon footprints than either New York or London. The most notable examples are Seattle, which achieved a 48% reduction in emissions between 1990 and 2000, and Toronto, which saved \$102 million in energy cost savings through building retrofits.
- London and New York have both stepped up their efforts to combat climate change in recent years. Whilst London made the earlier moves towards creating a "green" capital, in April of 2007 year Michael Bloomberg has redoubled New York's efforts by releasing PLANYC: an aggressive program to vastly improve New York City's environmental sustainability by 2030.

The elements of 'Taking Sustainable Cities Seriously' (after Portney, 2002)

Sustainable indicators project

1. Indicators project active in past five years
2. Indicators progress report in past five years
3. Does indicators project include 'action plan' of policies/programmes?

'Smart Growth' activities

4. Eco-industrial park development
5. Cluster or targeted economic development
6. Eco-village project or programme
7. Brownfield redevelopment (project or pilot project)

Land-use planning programmes, policies and zoning

8. Zoning used to delineate environmentally sensitive growth areas
9. Comprehensive land-use plan that includes environmental issues
10. Tax incentives for environmentally friendly development

Transport planning programmes and policies

11. Operation of public transit (buses and/or trains)
12. Limits on downtown parking spaces
13. Car pool lanes (diamond lanes)
14. Alternatively fuelled city vehicle programme
15. Bicycle ridership programme

Pollution prevention and reduction efforts

16. Household solid waste recycling
17. Industrial recycling
18. Hazardous waste recycling
19. Air pollution reduction programme
20. Recycled product purchasing by city government
21. Superfund site remediation
22. Asbestos abatement programme
23. Lead paint abatement programme

Energy and resource conservation/efficiency initiatives

24. Green building programme
25. Renewable energy use by city government
26. Energy conservation effort (other than green building programme)
27. Alternative energy offered to consumers (solar, wind, biogas, etc.)
28. Water conservation programme

Organisation/administration/management/co-ordination/governance

29. Single government/non-profit agency responsible for sustainability
30. Part of a city-wide comprehensive plan
31. Involvement of city/county/metropolitan council
32. Involvement of mayor or chief executive officer
33. Involvement of the business community (e.g. Chamber of Commerce)
34. General public involvement in sustainable cities initiative

- London's congestion charge is the city's biggest contribution to tackling climate change, and has been very successful; Mayor Ken Livingstone claims that London is the only large city in the world that has achieved a major shift in transport from car to bus. Four years ago, 38% of people used their cars daily in London, its now 19%; there has been a 72% increase in cycling over four years and there will be a 70% decrease in bus emissions as 500 buses are converted to run on hybrid electric-diesel motors; there are 20% more pedestrian crossings and 48% fewer people died on the roads last year compared with 2000.

I should note that developments in Malaysia echoes what is happening elsewhere among major developing economies in the world on the sustainability front. As the publications of the United Nations Development Programme – Malaysia indicate:

"Malaysia has seriously considered and integrated the environment as an important element in its planning processes, placing importance on environmental sustainability in its national policies and development plans. Malaysia is also a party to several Multilateral Environment Agreements such as the United Nations Framework Convention on Climate Change (UNFCCC) and is a member of the Like-Minded Group of Megadiverse Countries. Serious efforts to ensure environmental sustainability started with the enactment of the Environment Quality Act (EQA) in 1974 which provides the legal basis for the protection and control of environmental pollution and the enhancement of environmental quality. Since then, environmental sustainability has been consistently addressed in Malaysia's development plans. Starting from the Third Malaysia Plan (1976-1980) up to the present Eight Malaysia Plan (2001-2005), including the Outline Perspective Plan (OPP2 (1991-2000) and OPP3 (2001-2010)."

ASSESSMENT OF SUSTAINABILITY PROSPECTS FOR REAL ESTATE

According PRNewswire (February 12, 2008), a recent global survey of 1,254 senior business executives (including more than 300 CEOs) revealed that "energy efficiency is one of the top three sustainability priorities named by corporate officers of major companies worldwide." The survey showed that energy efficiency was a key consideration in corporate sustainability efforts, with serious implications for how corporate businesses manage their real estate. More than half of all respondents named energy efficiency as one of their sustainability priorities, a goal that can only be meaningfully addressed through real estate strategies.

The survey, conducted by the Economist Intelligence Unit (EIU), was co-sponsored by global real estate services firm Jones Lang LaSalle and seven other leading companies from different industries: A T Kearney, Bank of America, ExxonMobil, Orange, PricewaterhouseCoopers, SAP and SunGard.

The findings of the report shed light on the growing importance of corporate sustainability in enabling companies to compete and attract business. Although the survey did not initially focus on real estate topics, nearly half of all respondents selected one of three real estate strategies as the number-one sustainability priority from a list of 10 possible priorities. According to Dan Probst, Chairman of Global Environmental Sustainability Board at Jones Lang LaSalle:

"CEOs and other corporate officers are very focused on improving sustainability, but they may not realize the major impact their real estate departments can make in achieving their goals," said. "As this study shows, the path to sustainability often starts with real estate and facility strategies."

In particular, the survey reported the following conclusions:

- 33 percent of senior executives ranked "improving energy efficiency across global operations" as a major priority, and 19 percent ranked it as the leading priority.
- 36 percent ranked "improving the local environment around operating facilities" as a major priority, and 14 percent ranked it as the leading priority.
- 26 percent ranked "reducing greenhouse gas emissions and/or waste/pollutants as a major priority, and 13 percent ranked it as the top priority. Buildings are responsible for nearly three quarters of a company's total GHG emissions, excluding manufacturing.
- 37 percent ranked "communicating performance on sustainability to investors and stakeholders" as a major priority, and 24 percent ranked it as the leading priority.
- 36 percent of CEOs view "difficulty in developing targets, measures and controls required to entrench sustainable priorities within the organization" as a leading barrier to progress in sustainability.

The study also highlighted why sustainability makes good business sense, as global companies that have delivered strong share price growth over the past three years are found to be more proactive on corporate sustainability issues than those that have seen their share price stagnate or decline. A majority of executives (57 percent) reported that the benefits of adopting sustainability outweigh the costs, and believed that sustainable practices can reduce costs (particularly in the form of energy savings), open up new markets and improve firms' reputation.

As stated earlier in this paper, the ensuing adjustments in the investment patterns of the Real Estate sector that have accompanied the recent credit crisis come at a time when the real estate markets have had to engage with another

compelling dynamic, in the form of environmental sustainability. Environmental responsiveness is vital, if the real estate markets are to have a future. Urban planning policies, property legislation and financial agendas, coupled with pressures from owners and tenants, make it crucial that real estate researchers and practitioners have greater appreciation of the issues and solutions that will shape the future of real estate as a sustainable industry.

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THE FUTURE OF REAL ESTATES MARKET IN DUBAI: HOW SUSTAINABLE IS THE BUBBLE?

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ABSTRACT

Dubai's development has been subject of much media attention in terms of image promotion, development of mega projects, glitzy and fantasy real estate projects. Much of the research on Dubai has tended to focus the emergence of a global city built on the back of petro dollars. In terms of real estate however, there has been a severe lack of academic scrutiny. This paper will discuss the development of the real estate market in Dubai and analyses the levels of maturity of the market against a set of criteria for mature markets. Amongst factors considered are institutional framework, property ownership, legal framework, professionalization and transparency of the real estate market.

Introduction

Dubai is located on the Persian Gulf coast in the northern part of the United Arab Emirates. Dubai is one of the emirates that makes up the United Arab Emirates. The growth of Dubai began in the early part of the Nineteenth Century when members of the Bani Yas Tribe led by Sheikh Maktoum Bin Butti left Abu Dhabi and moved north to found an independent Sheikhdom in the area now known as Dubai. When a maritime truce agreement was later signed with the British, the area became known as the Trucial Coast. Dubai quickly came to be regarded as the principal port on the Trucial Coast and established itself as the main center for trade, attracting traders from India, Europe and neighbouring Arab countries. The souks in Dubai became legendary and Dubai was quickly established as a leading center for the trade of gold and pearls. "The British remained in the area in a protective capacity (mainly to protect the merchant vessels from piracy) until 1968.

Following the withdrawal of the British moves began (led by Sheikh Zayed bin Sultan Al

Nahayan of Abu Dhabi and the late Sheikh Rashid bin Saeed Al Maktoum of Dubai) to bring the individual Sheikhdoms (then known as the Trucial States) together into a single federation. This was achieved in 1971 when the Sheikhdoms of Abu Dhabi, Dubai, Sharjah, Ajman, Umm Al Quwain and Fujairah came together to form the United Arab Emirates. The Sheikhdom of Ras Al Khaimah joined a year later.

The city of Dubai is home to more than 1.48 million people today and it is one of the world's most rapidly growing cities. Not long ago, Dubai was considered a small fishing and pearl diving village, but its rapid expansion has turned Dubai into a modern metropolis. Dubai's development has more than any city in the MENA region been shaped by forces of regional and global events including trade and conflict. Rulers of Dubai have been particularly aggressive in enticing entrepreneurs and human capital from surrounding countries for more than a century. Dubai's development has been based on the partnership between the rulers and the merchant class (public-private ties)

The institutional approach

The institutional approach has gained importance for analyzing the diversity of economic formations in different localities in recent years. New institutionalism emphasized collective decisions in economic processes as compared to simply focusing on economic explanations. It analyses the existence and importance of political, legal and social institutions, which govern human behavior within the "bounded rationality" of agents' decisions (D'Arcy and Keogh, 1996; Healey, 1999; Hodgson, 1998; North, 1990; Powell and DiMaggio, 1991). To North (1990), institutions are "rules of the game" in a society. Organizations, whether political, economic or social, behave and perform within a framework defined by institutions, which are regarded as both formal and informal rules. Formal rules are laws and regulations while the informal rules are norms, conventions, traditions and customs. Institutions were seen to be the principles found in acknowledged norms, rules of behavior (Healey, 1999; Powell and DiMaggio, 1991). Thus, the institutionalist's viewpoint is that economic, social and political decisions cannot be explained merely as expressed in the decisions of individual actors operating independently. Decisions and actions are "structured" by their interactions with others, their social obligations and networks and their frames of reference (Healey, 1999; Powell and DiMaggio, 1991).

The emphasis is on "embeddness", that is, economic action and outcomes are affected by actors' dyadic relations and by the structure of overall network of relations (Grabher, 1993). The institutional approach emphasized the importance of seeing economic action as social action, of understanding networks which function between markets and hierarchies on a semi-permanent basis, and of tracking the processes of institution-building (Granovetter, 1985). Amin and Thrift (1994) postulated the idea that the performance of local economies in a globalizing world is critically dependent upon their "institutional thickness". This concept is elaborated as a strong institutional presence—"a plethora of institutions of different kinds (including firms; financial institutions; local chambers of commerce; training agencies; trade

associations; local authorities; development agencies; innovation centers; clerical bodies; unions; government agencies providing premises, land and infrastructure; business service organizations; marketing boards) to provide the basis for the growth of particular local practices and collective representations" (Amin and Thrift, 1994, p 14).

In addition to the first factor, they added three further factors identified by Powell and DiMaggio (1991). These are as follows:

1. High levels of interaction amongst the institutions in a local area. Institutions must actively interact with each other—high levels of contact, cooperation, and information exchange, which may lead, in time, to a degree of isomorphism. Contacts and exchanges are often embodied in shared rules, conventions, and knowledge, which serve to constitute the "social atmosphere" of a particular place or locality.
2. Development of well-defined structures of domination and/or patterns of coalition resulting in the collective representation of what are normally sectional and individual interests and serving to socialize costs or to control rogue behavior.
3. Development amongst participants in the set of institutions of a mutual awareness that they are involved in a common enterprise, that is a commonly held industrial agenda which the collection of institutions both depends on and develops.

This "thickness", which both establishes legitimacy and trust will continue to encourage and foster entrepreneurship and consolidate the local embeddedness of industry. Thus, the institutional approach does not only emphasize on the presence of institutions per se but also the process of institutionalization i.e., the institutionalizing processes that both encourage and support

diffused entrepreneurship i.e., a recognized set of conduct, supports, and practices. The "right" institutional mix is also important; it is only through the construction of adaptable institutional mixes that places can hold down the global (Amin and Thrift, 1994, p 260)

Studies on Dubai as a global city

In comparison to other cities, the cities of UAE or the greater Middle East for that matter have been subject to practically zero studies from the global cities perspective until early twenty first century. The only exception to this was a study by Parsa and Keivani (2002) on urban flows and networks between the three main UAE cities and Iran, examining the potential for a growth corridor based on cities around the Straits of Hormuz in the two countries. In addition another recent study by Stanley (2001) considers the role of Middle Eastern and North African cities, including Dubai, as part of the greater globalisation debate. Finally, there is also mentions of Dubai and Abu Dhabi in the 1999 study by Beaverstock et al on a roster of world cities and in a study by Shin and Timberlake (2000) on world cities in Asia in terms of air travel and urban connectivity.

In respect of their urban hierarchy and functions both Parsa and Kievani (2002) and Stanley (2001) identify UAE cities, particularly Dubai, as having significant regional functions which can be used as a basis for enhancing their global positions and empowerment. The former focuses on their potential for HQ and producer services while the latter emphasises Dubai's potential in the creative and cultural industries as well as leisure tourism. In comparison to other regions, however, UAE cities as well as other major cities in the greater Middle East make a very poor showing in terms of their functions in the global economic system. In their study of the ranking of world cities Beaverstock et al (1999) show that only Abu Dhabi and Dubai exhibit some evidence of world city formation in terms of their provision of corporate service functions with a score of 2. This compares to Alpha world cities with a score 10-12, Beta world cities with a score of 7-9 and Gamma world cities with a

score of 4-6. Nevertheless, an important positive outcome from this study and others mentioned is the continuously improving position of UAE cities. As noted by Stanley (2001, p7) the fact that "Dubai was not on the global map in 1992 but by 2000 was linked by 78 airlines directly with 125 other cities and handling 12m passengers/year" is indicative of how temporary any ranking is.

However, recently there has been a number of studies on different aspects of Dubai's development. Pacione (2005) identifies key forces and process underlying the economic, social and physical transformation of Dubai as well as examining major developments in city's urban structure considering future directions for urban growth. By analysing Dubai's strategy of marketing and promotion of iconic projects Bagaeen (2007) argues that the catalyst for much of development has been the emirate's decision to allow non-nationals to purchase freehold property therefore placing the property market on the world stage. Other studies have also focused on the role of Dubai in the regional hierarchy of cities and city networks in the MENA region, city networks and globalisation (Stanley 2005, Sassen 2002, Parsa and Keivani 2002, 2003).

Grant et al (2007) provide a review of the business conduct and modern state in Dubai examining economic conditions, regional conflicts, the investment climate and the regulatory environment. Commenting on the investment climate in Dubai, Grant et al argue that this has been positively influenced by the property boom in Dubai which began in 2002 when sales were opened for foreign investors. Davis (2005) analyses Dubai's real estate and economic boom noting that Dubai after Shanghai is the world's biggest building site: an emerging dream-world of conspicuous consumption and what locals dub "supreme life-styles (Davis 2005 cited in Bagaen 2007). By contrast (Davis 2006) examines the "gigantism" and "fantasy" driven aspects of Dubai's development comparing the city's vision and characteristics with other world cities calling Dubai the "Miami of the Persian Gulf". Furthermore, he attributes much of Dubai's economic boom and FDI largely due to the Islamic Revolution in Iran and flight of wealthy

Iranians who use the city more like Hong Kong than Miami as a base for trade and bi-national life-styles owning as much as 30 per cent of Dubai's current real estate development.

Other studies have also focused on the relationship between the ruling families and the merchant classes and its impact on shaping Dubai's development in the past century. In his "historical institutionalist" analysis of Dubai's development and transformation Hvidt (2007) argues that "a critical juncture took place in early twentieth century when the ruler of Dubai chose to provide economic incentives to the Persian-based merchant class to relocate to Dubai. It instituted an extreme pro-business path on which Dubai has based its subsequent development. Due to the success of including the merchant class from Persia and other successful state interventions in the economy, the belief that the state (in early days the ruler) not only could but also should influence the future development of the emirate through being pro-active became dominant". Hvidt (2007) divides Dubai's transformation into four periods;

The Relocation of Trade (1870sc-1925)

In late 19th century, the city of Langeh in Persia was the dominating harbour in the Persian Gulf region functioning as the major entry point for most goods into the Gulf. Furthermore, Langeh was the undisputed centre for the Gulf pearling trade. At the end of 19th century the Persian government imposed taxes on the Al Qassemi run governorate of Langeh and eventually in 1887 after years of repeated tax rises, the business community looked for more suitable places to do business. Learning about this situation, the ruler of Dubai, Sheikh Maktoum, took the decision to do whatever was necessary to persuade the merchants of Langeh to move to Dubai. By 1901, there were some 500 Persians and 52 Banians (British-Indian subjects) in Dubai. According to Hvidt (2007), the Persian merchants had made significant contribution to Dubai's prosperity, and by deciding to remain they cemented Dubai's commercial pre-eminence. As such, business skills, entrepreneurship, and trading links with Asia and Africa were effectively transferred from Iran to Dubai.

In order to entice the Persian merchants to move to Dubai the Ruler implemented the following;

- Firstly, Dubai was declared a free trade port and all import and export tariffs were abolished
- Secondly, in 1901 the ruler and his trusted men made personal contact with key businessmen in Langeh offering free land and other benefits in return for a commitment to set up in Dubai.
- Thirdly, the ruler offered the business community guarantees of protection and
- Fourthly, he demanded that all who resided in Dubai or used it as a trading post were tolerant of each other, thereby signalling that tribal, ethnic or religious issues would not influence the individual merchants' social standing.

The Pre-oil Era (1926-1968)

This period was characterised by consolidation and expansion of Dubai's entrepreneurial and commercial focus. In the pre-war years due to the introduction of cultured pearls by Japan Dubai suffered economic downturn as the pearling industry collapsed. Dredging of Dubai Creek in the 1950s was made possible with securing £500,000 loan from Emir of Kuwait and issuance of Creek Bonds for dredging of the Creek between 1958-1960. Another important decision was the launch of Dubai International Airport in 1960 to ensure a stable flow of tourism. The commencement of construction of Port Rashid in 1966 also facilitated the expansion of trade and re-exporting to other Gulf countries.

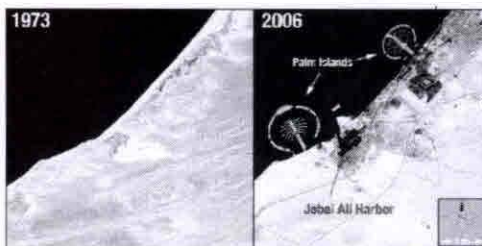
The Oil Era (1969-1980)

Unlike Abu Dhabi, Kuwait, Qatar and Saudi Arabia Dubai did not benefit from oil revenues due to limited and poor quality oil supplies. This was a major factor influencing the direction of Dubai's economic diversification away from reliance on oil towards production, tourism and trade. Inauguration of Port Rashid in 1971 and opening of Dubai Dry Docks in 1976 further cemented this

policy. Commencement of Jebel Ali in 1976 and its completion in 1983 as the largest free port in the world further expanded trade. A new wave of Persian merchants moved to Dubai in 1970s due to the Iranian revolution and conflict. Imposition of gold trade duties by India resulted in relocation of businesses to Dubai. Once again Dubai benefitted from its liberal economic policies by attracting capital and expertise from other countries.

The Globalised Era (1981-present)

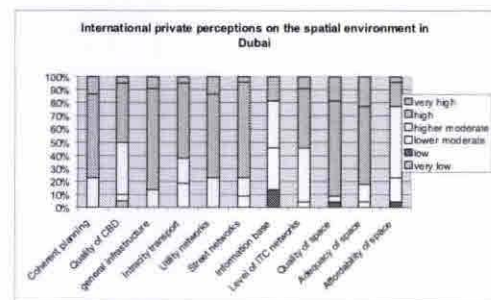
Dubai's aim has been implementation of strategies to take full advantage of globalisation with the key aim to attract private investment from regional and international firms. The Iran-Iraq War in the 1980s facilitated the expansion of trade between with Iran and relocation of capital from Iran to Dubai. The Gulf War in 1991 provided further opportunities for attraction of capital from Iraq and re-export of the 9/11 terrorist attack and relocation of Middle Eastern capital from the US and Europe to Dubai. According to United Nations Conference on Trade and Development (UNCTAD) foreign direct investments reached \$840m in 2004 whilst the Financial Times Business estimates FDI at around \$2 billion per year. Subsequently, there was a sharp rise in FDI from 14% of GDP in 2004 to 50% in 2005. By 2000, the non-oil contributions to Dubai's GDP amounted to 94% indicating that the diversification strategy was well underway. In 2005 Dubai won an fDi magazine award as the Middle Eastern City of the Future due to its investment friendly climate (Hvdt M, 2007).



Southern Dubai in 1973 (left) and in 2006 (right). The famous manmade Palm Islands are easily discernible on the Landsat 7 2006 image.
Source: NASA <http://landsat.gsfc.nasa.gov/images/archive/c0009.html>

PLANNING AND INSTITUTIONAL PERSPECTIVES

Dubai has changed dramatically over the last three decades, becoming a major business centre with a more dynamic and diversified economy. The need to meet the future challenges adequately and make Dubai an International business and investment centre, has required a 'Development Vision' and 'Strategic Plan' which covers the Emirates's development and growth impulses. Parsa et al (2003) in their survey of international firms analysed their perception of Dubai's development vision.



The discussion considered the views of the international respondents on policies implemented at the city level for encouraging more coherent urban development. The following figure indicates that international private respondents have a very high view of urban planning in Dubai as reflected in all respondents giving a higher moderate to very high ranking.

Similarly, while Dubai was considered a polycentric city with no single definable CBD some 90% of the respondents have very positive views of the quality of its polycentric CBD with several areas of the city identified as established high quality centres for financial and commercial activities. Furthermore, the respondents had a very high view of Dubai capacities in terms of its spatial development and infrastructural capacities for supporting international business activity in general and their own activities in particular.

To address the rapid urban development, a number of strategic vision plans and development plans were commissioned from early pre-independence to most recent years.

Year	City	Consultant(s)	Population ¹	Main targets
1962 (1969)*	AD	Scot, Wilson, Kirkpatrick & Partners along with Sir William Halcrow & Partners (= Abu Dhabi Consultants)	20.000	• Demolish of old buildings (compensation for residents), creation of new housing areas • Main roads in straight lines (gridiron), use of roundabouts. • Providing all necessary facilities (administrative buildings, industrial & commercial complexes)
1961	D	John Harris	50.000	• Provision of a road system • Zoning of town areas suitable for industry, commerce, schools, public buildings • New residential areas • Sites for schools, open spaces & local centres within new residential quarters • Creation of a town centre
1963 (1969)*	S	Sir Halcrow & Partners	4.000	• Dividing city into Residential-, Industrial- and Business districts • Providing road system (gridiron) • Water, electricity supply, sewage system

Source: Development Plans of the GCC States 1962-1995. ¹estimated data, * adaptation

Source: cited in Samarai 2006

Dubai Municipality was established in 1940s with total staff of three operating out of a single room. However, it was officially launched in 1965. today Dubai Municipality has a staff of 10,171 with 31 organisational units (Samarai and Qudah 2007). The first attempt at modern town planning was in the shape of a zoning plan prepared by the British Consultant John Harris in 1961. Dubai's population at the time was 50,000. The 1961 Master Plan laid out the foundation of the urban road network and the system of municipal services.

Pacione (2005) identifies four major phases of urban development in Dubai

- 1900-1955: A period of slow growth and limited physical expansion due to constrained economic growth and managerial increase in population.
- 1956-1970: A period of compact growth based on a 1960 master plan,
- 1971-1980: a period of planned suburban growth
- 1980-present: a period of rapid urban expansion, in terms of both the scale and diversity of development projects and physical spread of the city

The 1990s Dubai Urban Area Strategic Plan 1993-2012 was commissioned to guide the economic

and physical development of the city into the twenty-first century. The Strategic plan also represented an effort to provide an explicit spatial framework for urban growth to

- encourage co-operation between private sector companies and government agencies in undertaking development of mega projects
- encourage expatriates to reinvest capital and profits in local enterprises
- develop an inter-departmental planning framework capable of implementing the Structure Plan
- devise a regulatory environment capable of operating within a strong market economy and incorporating the needs and interests of a large number of agencies and organisations (Pacione 2005).

In a rapidly urbanising context, as early as the 1950s, Meyerson and Banfield (1955) argued that planning practice was different from the theory of planning. This has particularly proved to be true in rapidly urbanizing societies where future plans need to be continuously modified to cope with development pressure and subtle contextual changes, so that theory always lags behind practice. Confirming as claimed by municipality

officials in April 2005, Raheem et al (2005) stated that in the city of Dubai, the city plan was changing by the day. However, adoption of such an approach might complicate the situation both in losing the sight of strategic issues and misrepresentation of data to serve the interest of the more powerful stakeholders (Ouf, 2007).

The Real Estate Market

The development of the Real Estate Market in Dubai has been based on different scale, different principles, different rules and different benchmarks. However, the analysis of the real estate market in Dubai requires a "reality check" against other more mature markets. Whereas Singapore's real estate market is based on clear cut and transparent rules and market practices, Dubai's market has developed based on "find as you go legal framework". This is best observed by Davis (2006)

"As the plane slowly banks toward the desert mainland, you gasp at the even more improbable vision ahead. Out of a chrome forest of skyscrapers soars a new Tower of Babel. It is an impossible half-mile high: taller than the Empire State building stacked on top of itself. You are still rubbing your eyes with wonderment as the plane lands and you are welcomed into an airport shopping emporium where seductive goods entice: Gucci bags, Cartier watches and one-kilogram bars of solid gold Friends had recommended the Armani Inn in the 170 storey tower, or the 7 star hotel with an atrium so huge that the rooms come with personal butlers; but instead you have opted to fulfil a childhood fantasy. You always have wanted to play Captain Nemo in Twenty Thousand Leagues Under the Sea" (Davis M, 2006).

Major Real Estate Projects in Dubai

Name	Description
Internet City	Provides infrastructure and environment enabling ICT enterprises to operate locally, regionally and internationally Media City Locates studios and offices of major media organizations including CNN and the Reuters News Agency
Festival City	A private sector development comprising fifteen residential communities with a complementary world class environment of entertainment, shopping and leisure facilities
Dubailand	- The world's most ambitious tourism, leisure and entertainment project, designed to catalyze the position of Dubai as an international hub of family tourism covering an area of 3 billion square feet - The DUBAILAND™ venture is estimated at AED 235 billion
Dubai Marina	The world's first intelligent city which will accommodate 35,000 residents in 10 districts of upmarket apartments with advanced IT systems as standard in every house
International City	An 800 hectare mixed use development comprising 21,000 residences for 60,000 people, a 21 hectare central business district, an international exhibition centre and hotels and a range of tourist facilities.
Dubai International Financial Centre	With a 50-story headquarters building and 14 other towers DIFC is intended to become the financial centre for a region encompassing the countries of GCC, the Indian sub-continent, Caspian states, Levant and East Africa.

Name	Description
Burj Dubai	A planned office and hotel complex capturing the distinction to be the world's tallest building
Dubai Mall	Planned to be the largest shopping mall in the world, and is expected to attract 35 million visitors in the first year of operation.
Dubai World Central (DWC)	By the size of 140 km ² , designed to support Dubai's aviation, tourism, commercial and logistic requirements.
Dubai World Central International Airport	Planned to become the largest in the world, eclipsing the current record holder –Atlanta– by 50%, with its current value of US \$33billion

Dubai Real Estate Market must be evaluated against a set of criteria that has been applied to the analysis of other merging and mature markets. Institutional analysis in terms of role of actors and agents provides a suitable framework. Market Maturity Paradigm developed by Keigh and Armitage (1995) can be a useful tool in evaluating the characteristics of the real estate market in Dubai.

Keigh and Armitage (1995) and D'Arcy and Keigh (1996) applied the Market Maturity Paradigm to analysis of Asian and European real estate markets. They identify six major characteristics that indicate a mature market. These include the ability to accommodate a full range of use and investment objectives, flexible market adjustment, a sophisticated property profession, extensive information flows, market openness, standardisation of property rights.

In this context Dubai's policy was dictated by exogenous factors rather than an outcome of a long term vision. This unprecedented move towards land market policy has been introduced during the last 5 years. It targeted real estate as one of the sectors of the economy which attracts

investments in order to enhance accumulation of capitals in the local banks (Ben-Hamouche et al 2006). The following sections will discuss the different conceptual frameworks that are pertinent for the analysis of the real estate market.

Structure of the urban land market

Whilst there have been many studies on land and property development issues in capitalist countries (for example, Adams et al., 1997; Gore and Nicholson, 1985, 1991; Healey, 1991; Healey and Barrett 1990), the amount of similar research on land development in rapidly changing societies is considerably less. The most widely used models of the development process in developed capitalist economies include: the neo-classical models, emphasising that development decisions are made individually within a market framework (Healey, 1991); event sequence models, identifying the various stages of the development process using the 'development pipeline' concept describing the flow of development schemes (Gore and Nicholson, 1985); agency models, focusing on various actors such as land-owners, developers, planners and financiers in the development process, their roles and the interests that guide their strategies and the interrelationships between them (Healey, 1991); structural models, based on theoretical understandings of the structural dynamics of land development with a deep root in Marxist economics and urban political economy (Adams et al., 1997; Healey, 1991); and structure and agency theory developed by Healey and Barrett (1990), suggesting that a thorough understanding of the development process can be achieved only by linking the strategies, interests and actions of various actors with the context of broader social, economic and political processes.

Based on a critical review of previous research, Gore and Nicholson (1991) conclude that it is futile to search for a 'generally applicable model' of the development process. Among the four categories of approaches reviewed are sequential or descriptive approaches, behavioural or decision-making approaches, production-based approaches and structures-of-provision

approaches, which accordingly correspond to four of the models stated above, i.e. event sequence models, agency models, structural models, and structure and agency theory. It is recognised that the development process is so complicated that it cannot be fully understood by a single model. Gore and Nicholson (1991) suggest that the principles of the structures-of-provision approach are more useful in understanding the development process. Also, while advocating their structure and agency approach, Healey and Barrett (1990, p. 99) indicate that "no one piece of research could address this substantial agenda" for the study of the development process. As Healey (1994) indicates property development and investment activity exploit the specific qualities of cities and locations to create development opportunities and extract value as rent or development gain (Healey, 1994, p. 177). Therefore, to analyse the structure of urban land and property markets it is pertinent to ask four important questions: Who? Why? How and where? The first question is who owns land and property. Owners of land and property may be companies with their interests at various spatial levels, individuals, governments, public and private institutions and charitable organisations. The second question concerns the motivation and incentives for land and property ownership. There may be a variety of reasons. As Cameron et al. point out:

Major owners of urban land appear to utilise their land holdings in a variety of ways. In both the public and private sectors, some seek to maximise revenue by active participation in the land market releasing and buying surplus land as appropriate conditions arise. Others hold excess land as a measure of coping with future growth without the accompanying need for future land acquisition or relocation of production elsewhere. And others appear to have no explicit policy for their surplus land (Cameron et al., 1988, pp. 124–125); cited in Adams et al., 1996, p. 1).

Depending on the methodological framework, the role of land-owner can be examined in different ways. In the neo-classical model of the development process, for example, the land-owner is viewed as a profit maximiser "to supply enough land to meet demand by responding rapidly to any changes signalled from the market" (Adams et al., 1997, p. 22). Thirdly, how land and property are owned needs to be examined.

The prerequisite to property ownership is the existence of a legislative framework outlining legal rights of ownership, regulating transactions in land and property and providing for a clear register of ownership. Property ownership may be subject to leases or licences, land held in trust, land subject to restrictive covenants, multiple ownership and ownership subject to easements (Adams et al., 1997). Land and property may be owned for own-occupation, used for investment or made available to others on a charitable and non-profit basis. Finally, location of land is a major determinant of price and income. The value of locations may increase or change as urban areas expand or are transformed (Ball, 1983). Healey (1994, p171) argues that the demand for land and property in turn arises, in part, from factors internal to a local economy, but also increasingly from the strategies of companies, both within and beyond a locality, for whom a specific local economy offers particular attractions at a point in time. This is particularly important when international investors view location as the most important factor in their investment decisions. According to Harvey (1985), particular locations are key factors to attract finance capital into particular property developments which provides the highest international returns compared with other types of investment.

The analysis of the structure of the real estate market in Dubai requires an understanding of the role of different actors and agents involved in the development of the emerging real estate market. In the light of the brief theoretical discussions above, it is pertinent to deploy the structure and agency theory by Healey and Barrett (1990) as a methodological framework for the examination of the real estate market in Dubai. The theory

provides a general approach to analysis of the real estate market rather than one confined within a specific socio-political context.

The following analysis is not intended to include all actors in the real estate market, but focuses on how the state, land-owners (the ruling family and semi-public and private firms) and urban land users are related with one another under the existing condition. To simplify our analysis, other actors such as financiers and intermediate agents are briefly looked at. Urban planning is legally a prerequisite for any land and property transaction and its role and problems are discussed.

Land ownership

Land tenure system influenced in Dubai and other city states in the Persian Gulf is based on tribal structure, Islamic values and traditional economy. In Bedouin societies, land was held under collective ownership and had no economic value in itself but was regarded as sacred. Gradually, the collective ownership passed to the hands of the ruler (Ben Hamouche et al 2006). In the nineteenth century, the British introduced new systems of tenure and private tenure gave the right of ownership to individuals, regardless of their tribe or family. Public tenure was another system that was introduced in order to obtain access for municipal authorities to land. The old tenure, in the hands of the ruler, was redefined as the Crown land. However, most of the land remains in the hands of the ruler but it is often given free to citizens. Crown land is different from the ruling family land that is considered private land and it is subdivided among members of the ruling family according to the Islamic inheritance law. In their analysis of the land market in the Gulf countries, Ben Hamouche et al (2006) assert that "Accordingly, modern cities in the Gulf had mostly grown away from the land market mechanisms and were a direct consequence of the public action that is often summed up in the ruler's directives. This could explain to a large extent their striking characteristics such as the domination of towers and free standing buildings, the excessive width of roads and the perfect geometry of their urban structures that are mostly based on the grid network and roundabouts".

In Dubai however, the government made a considerable impact on urban land development by first of all, adding to the city of Dubai a stock of land through preparing desert and hilly land with building potential. Second, a substantial number of land tracts have been prepared and vested for various residential, commercial, industrial and leisure development. Third, the policy has attracted local, regional and foreign investors with high potential of housing and service development without putting pressure on the government budget. Fourth, Dubai government policy has also adopted a mass production method of housing construction as advised by international consultants and applied in various countries with different levels of success (Gray S, 2005).

Emergence of land and property market

In 2002, Dubai government allowed the sale of property to foreign investors through government owned developers such as Nakheel Properties, EMAAR Properties and Dubai Properties (Bagaeen 2007). However, ownership of such property was still blurred. The Dubai Law No 7 of 2006 declared that all nationalities could purchase freehold ownership, a 99 year lease or usufruct in certain locations marketed by leading developers, such as the Palms, Jumeriah Islands, Emirates Hills, the Meadows, etc. Under the old land regime, real estate in Dubai could only be owned by UAE nationals and to some extent by GCC nationals (Ben Hamouche et al 2006). The following diagrams indicate the extent of ownership by different nationals from GCC, Europe, Middle East and Asia.

The buyers are tempted by life-style concepts, glitzy and iconic developments promoted through sophisticated marketing and promotion by developers. This is further influenced in most cases forced relocation of their capital due to unstable political environment to the perceived safety of Dubai. Rahman (2006) points out that some 13,000 families had already moved into freehold homes and that another 7000 had been expected to move by the end of 2006 (cited in Bagaeen 2007). As stated above, these properties

had been purchased indirectly via contacts with government owned property developers prior to the introduction of the March 2006 legitimizing property ownership by foreigners.

The introduction of foreign property ownership by leasehold and freehold methods has provided the right investment climate for commercial property. As a consequence, a number of locally based and foreign origin dedicated funds have been set up to invest in commercial property in Dubai.

Real estate profession

Despite the fact that much of the development of Dubai and other city states in the Persian Gulf has been on real estate development, the real estate profession has been severely underdeveloped. Surveying and allied disciplines have been non-existence until recently. No formal university based real estate education was on offer in any of the rapidly developing states in the Persian Gulf. The establishment of Dubai Real Estate Institute (DREI) a privately owned organisation in early 2007 has seen the introduction of short executive courses in collaboration with a number of international universities.

The unethical practice by a number of locally owned real estate firms has resulted in a large number of conflicts whereby foreign investors have been duped in purchasing properties with unclear ownership and titles. A number of international real estate consultants have established local offices often involved with marketing of major commercial and residential developments. Due to unclear ownership regulation governing conflict resolution, only short term leases are offered for commercial property. Even in 2005-6 leases in excess of one year were rare.

Transparency issues

Jones Lang LaSalle's 2006 Real Estate Transparency Index defines real estate transparency as "any open and clearly organized real estate market operating in a legal and regulatory framework

that is characterized by a consistent approach to the enforcement of rules and regulations and that respects private property rights". The same report also refers to the fact that some experts equate "low transparency" with "corruption". However it state that Jones Lang La Salle view a highly transparent market as being fairly free from corruption with readily available information operating in a fair and consistent manner. The same report ranks although not mentioning Dubai, ranks UAE 45 with a score of 4 in 2006 showing a slight improvement compared with 2005. This denotes a low transparency score but achieving a 3 star mark indicating significant improvement in transparency. The following news item appeared in local press in April 2008 reporting the arrest of the CEO of Dubai's second largest property developer DEYAAR.

Dubai: The CEO of Deyaar, Dubai's second-largest property developer by market value, has been detained and is under investigation for alleged financial irregularities, the company and Dubai authorities said. Deyaar said in a statement that Chief Executive Officer Zack Shahin had resigned. An official at the Dubai Public Prosecution confirmed Shahin had been detained and was under investigation (AME April 17, 2008)

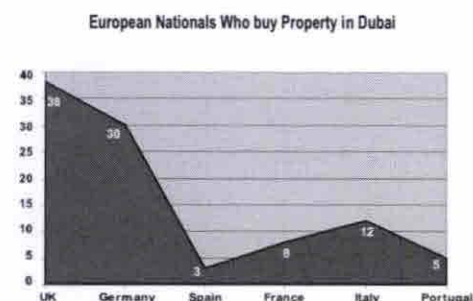
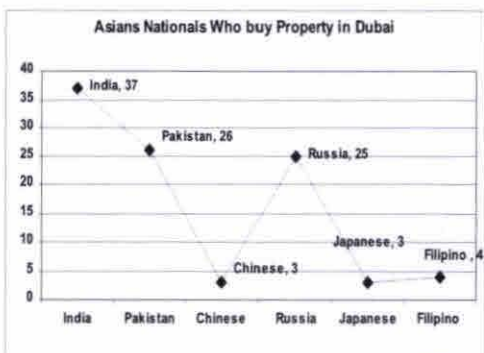
There are also numerous unreported ownership conflicts involving small investors who have been misled by unethical real estate brokers.

In terms of availability of property market information, the situation has improved significantly in the past year with the launch of on-line data by REIDIN.com who have acquired the rights to land transaction data by the Land Department of Dubai. They have recently announced the launch of Dubai Focus in the near future.

REIDIN.com defines DUBAIFocus as the first exclusive online information product tracking real estate deals and transactions in Dubai, with a comprehensive database going back to 1973 providing daily information on all types of

land, villa and flat deals (sales, mortgage, lease, grant, inheritance, etc.) in Dubai. REIDIN.com's exclusive partner and primary data source for this -first of its kind- information service in the Emerging Markets is Real Estate Regulatory Authority of Government of Dubai along with Dubai Land Department. DUBAIFocus is considered to be the most comprehensive and up-to-date information source on Real Estate investment deals for the Dubai market (<http://dubaifocus.reidin.com/>)

AME also provide comprehensive coverage of economic and real estate news from across the Middle East and Dubai. There are other on-line providers of real estate news providing transaction and project launch information such as eqarat.com.

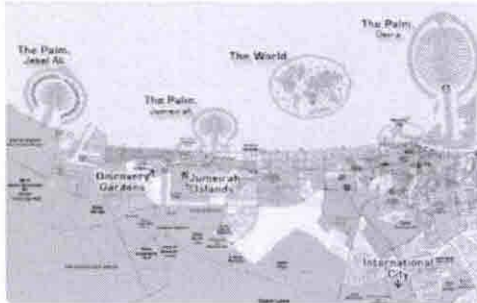


Source: Samarai A, 2006

Iconic "Floating" projects

The waterfront development consists of four mega projects that are expected to house 400,000 people. This development consists of three Palm Islands (in the shape of Palm trees) and the World (which is materialized by formation of various floating islands). As estimated in 2007, the expected cost of this development is US\$ 14 billion. Ben Hamouche et al (2006) and AlRauf (2006) refer to these island projects as "floating projects" and point out that "most of these projects are ironically sharing the same characteristics. Firstly, they are 'floating' both in the figurative sense -economic, social and environmental- and the real sense (as they are all located near or on water in forms of artificial islands). Secondly, all these four projects have mostly targeted tourism and financial sectors. But, it should be noted that although there is an open competitiveness among Gulf countries, these projects are targeting the same population of investors. At the same time and considering the high standards in building of

these projects, there would be a thin population of wealthy users. Thirdly, these all have a very short schedule for implementation due to market pressure and competitiveness".



Economic implications of the current real estate boom

The unprecedented real estate boom and the announcement of the numerous gigantic real estate projects are causing increasing uncertainty over the future of the real estate market. Further anxiety is created as a result of the sub-prime credit crunch and the likely impact on Middle Eastern banks that have been active in the US financial markets. Although central banks and government officials provide assurance about the vitality and health of the local economies, there has been rampant inflation manifested in significant rise in residential rents and cost of food and energy. Risk of Monetary inflation, Devaluation or crash due to the excess financial liquidity and speculation remains a high possibility. There are market signals that reinforce this fear. The cancellation of Palm Deira and announcement by Damac to cancel Palm Jebel Ali created fear amongst investors. Within days of the announcement, the following news item appeared in the local and international press reporting government action to mediate between the developer and investors.

Dubai: Damac's Palm Springs project on Palm Jebel Ali is back on track following mediation by Dubai's Land Department. The Land Department has successfully mediated between Damac and the Palm Springs investors to put an end to the dispute,

according to Sultan Bin Butti Bin Mejrín, director general of the Land Department. Bin Mejrín said the Land Department intervened to protect both investors' interests and Dubai's global reputation as a thriving property market. The Palm Springs project is now due to go ahead five years after its launch. It will be developed in keeping with the original investor contracts and Damac's contract with Nakheel, master-developer of the Palm Jebel Ali.

As Ben Hamouche et al (2006) assert "The near future will inevitably witness the losers and winners among these projects as they are all targeting mostly the same population of local investors. In the absence of other fields of investments and unawareness of investors, they are considered as an easy way of profit making through speculation and auctions sales. Their high building standards and expected low rate occupancy exclude most social categories except the thin wealthy investors. Most of these projects that are destined to entertainment may become parasitic entities that will depend on the existing cities. Reinforce the bazaar economy of these countries that depends mostly on importation".

There are already signs of inflation and devaluation is only delayed due to political pressure on local states by the US government. The indigenous population is protected by generous salary increases sometimes up-to 70 per cent. However, the expatriate community does not enjoy the same protection specially the lower middle incomes.

Social and cultural dimensions

Letting alone other social and cultural considerations, emerging land markets in the Persian Gulf region are not yet matured in terms of regulations and administrative procedure. Furthermore, many illiterate investors have entered the market as a controversial response due to the fragile population structure of the young city states and societies in the Gulf that comprises

an important percentage of expatriate. Social values and community in these projects are the least considerations as most owners and would-be residents have been gathered on the basis of their economic affordability and speculation. As Ben Hamouche et al (2006) argue 'Meanwhile, low and middle classes are discarded and driven away to lower rents areas, a factor that might sharpen social segregation in local societies and initiate a geographic dislocation of social classes and urban activities'. This economic segregation might entrench a cycle of poverty, in some less wealthy Gulf countries, such as in Bahrain. Such gigantic fantasy based developments have started to attract critical analysis from some commentators. According to Davis (2006) 'thanks to his (the ruler of Dubai) boundless enthusiasm for concrete and steel, the coastal desert has become a huge circuit board upon which the elite of transnational engineering firms and retail developers are invited to plug in high-tech clusters, entertainment zones, artificial islands, glass-domed snow mountain, Truman show suburbs, cities within cities – whatever is big enough to be seen from space and bursting with architectural steroids'. Ben Hamouche et al go further by stating that "From another view, these projects are conceived in the most fashionable and exhibitionist way of contemporary styles that reflect globalization; a flat view to heritage and local patrimony. In this regard, local identity considered either in metaphoric figures or by the injection of some design details in a caricature way (e.g. Nakheel and Crescent). Consequently, the way of life promoted through these projects entirely alien to the local culture and promotes the modern values such as individualism and consumerism.

Sustainability and environmental consideration

Despite the impressive marketing brochures promising healthy and sustainable living, the environmental impact of large scale developments on local and regional eco-systems in land and off-shore has not been adequately evaluated. Massive dredging, earthworks and land reclamations for the Palm Islands, and the World projects have

caused significant changes in the marine habitat burying coral reefs, oyster beds and subterranean fields of sea grass (Bagaeen 2007). Regarding the environmental issues, concerns are rarely raised on discussing these projects in mass-media as most of the projects are destined primarily for profit making and leisure; a fact that might have many undesirable effects in the future. The irrational use of land and natural resources such as water and energy and continuous pollution and deterioration of sea life are the most broadly addressed agendas in this view. Furthermore, in the absence of master and structure plans or an urban policy, urban development becomes in the hands of speculators and big investors. At the same time urban growth such as expansion and outskirt projects and extension of road networks are just shaped by speculators' desires and priorities. Subsequently, the shape of the cities is altered by sprawling, leap-frog, ribbon-like and corridor development; leaving large pockets of undeveloped land (Pacione 2005, Ben Hamouche et al 2006).

Conclusion

The rapid urban development in Dubai based on ambitious and gigantic real estate projects has been unprecedented globally. This has been achieved due to Dubai ruler's strategic decision to attract the first community of elite merchants from Persia towards the end of the 19th century. Furthermore Dubai's decision to launch itself as the centre of business, trade and tourism through massive infrastructure projects including Port Rashid and Dubai International Airport has helped diversify its economy away from dependence on oil.

As has been shown throughout its development Dubai has benefitted from regional and global events including the Iranian revolution, the Iran-Iraq war in the 1980s, the Persian Gulf war in the 1991, the 9/11 terrorist attack on the World Trade Centre and more recently the Iraq war in 2003. Dubai's decision to allow foreign ownership of real estate in 2002 and introduction of freehold and leasehold property ownership in 2006 has helped

the emergence of a booming real estate market that has lasted over 5 years.

Targeting of wealthy international investors through aggressive marketing and successful branding of Dubai as a global city has created a real estate bubble. However, the constant launch of gigantic commercial, leisure, retail and residential projects will provide an abundance of real estate space. Dubai has a limited population base and already has more per capita retail and office space than many other mature real estate markets and economies.

Major global and regional events that have helped propel Dubai to its current position could easily undermine the City's future. These include the likely impact of the current global credit crunch, the potential conflict between the United States and Iran that could undermine regional security could have disastrous implications.

The speculative activity in the real estate market requires careful attention through regulation and taxes.

Under conditions of rapid urbanization, land scarcity and competition for secure and serviced land, there is an increasing pressure for a new land policy for rational use of land. This requires establishing a strategic territorial policy for long-term urbanization that guides the land and property market and urban development.

The environmental impact of large scale development must be considered through conduct of impact studies.

There is need for market regulation and increased transparency in the real estate market through provision of independent real estate data. The recent arrest of CEO of Deyyar Properties is an indication of the potential unethical market practices by private and public owned developers and market operators.

As Dubai has targeted international investors, it will be under increased scrutiny. The recent issues concerning the Palm projects should be seen as

strong market signals indicating the potential oversupply of residential, retail and commercial space.

The following news article in the Guardian on 26th April 2008 demonstrates the increased scrutiny by international media that could seriously undermine investor sentiment in Dubai with damaging consequences for the real estate market.

“Dubai's sheikhs have claimed it is “the eighth wonder of the world”, and seen from space the tree-shaped sand and rock formation of the Palm Jumeirah looks exactly that. But after the hype about David Beckham buying a mansion here and the novelty of living four miles out to sea has faded, that claim is starting to look shaky. It seems there is a little trouble in paradise. Four thousand “Palm pioneers” have moved in and are getting to grips with life in the sweltering Arabian Gulf. This week, when the Guardian visited, the gripes were as common as the plaudits among the Brits who are in the vanguard of this new community. Multimillion-pound villas have been squeezed together “like Coronation Street”, air-conditioning bills are hitting £800 a month and persistent snags have led some to joke it is more “eighth blunder” than “eighth wonder”. The villas were developed by the government-owned Nakheel Properties, and many residents believe the company's slogan, “Our vision inspires humanity”, which flutters on flags around the place, is beginning to look over-egged. (The Guardian 2008 , p7 26 April).

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UNLISTED PROPERTY FUNDS: SUPPLYING CAPITAL TO DEVELOPING PROPERTY MARKETS?

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Note: This is a draft working paper prepared as background to a keynote speech at the International Real Estate Research Symposium in Kuala Lumpur, April 2008. It describes ongoing research work which will be updated in future publications. In this draft working paper the author uses the term 'we' to denote the research team at Property Funds Research, whose significant contribution to this work is hereby acknowledged. The input of Maurizio Grilli at Grosvenor and Professor George Matysiak of the University of Reading has also been helpful.

1. Introduction

1.1 Context

High quality real estate is a fundamental necessity for a developed economy. It provides life-enhancing residential security and with it the potential for domestic saving through owner occupation of capital-preserving assets; it produces industrial and office space for the production and processing of output; and it delivers shopping and leisure facilities for the promotion of domestic consumption and tourism. While conformity of high quality design and construction may damage valued cultural differentiation, it also breaks down

barriers between different lifestyles and introduces the possibility of cross-border trade, bringing with it expertise, skills and economic growth.

The production of high quality real estate needs to be financed through large scale equity and debt capital. This requires the presence of an international banking system, but also the entrepreneurship represented by equity capital or foreign direct investment (FDI).

For example, Lapoza (2006) traces the essential role real estate development plays in the development of emerging economies. He finds that foreign real estate capital was a major source of financing domestic property market office

construction in Central Europe after the fall of the Berlin Wall in 1989. By analyzing the correlation of FDI flows to annual construction rates of office buildings, he seeks to explain the location of new or refurbished office buildings in the central business district (CBD) or in non-CBD locations and to test whether there is a positive correlation relationship of FDI flows and new office construction or refurbishment. The results point to the important link between incoming FDI and office construction in domestic city centres.

FDI is greatly supported by a global boom in international institutional investing. An increased investor appetite for global investment in equities and bonds, and later property, has generated a structural market shift in cross-border investing observable since the mid 1990s. In the context of this paper, the change has had two main impacts: first, international property investment has boomed; second, indirect property investment (investing through securities and funds) has become commonplace. Recently both trends have been observable in most European countries with established pension funds.

The recent boom in cross border property investing has been significant. According to major brokerage houses, cross-border property investment has been growing much more quickly than domestic investment in the last five years. Running in parallel with this development has been a boom in listed real estate markets, especially in the Real Estate Investment Trust (REIT) format, and in the number and value of unlisted property funds. The growth of the listed REIT market is largely a matter of public record, but while investing in unlisted real estate vehicles has become an increasingly standard route to attaining international real estate exposure there is little available data describing this trend.

The unlisted sector holds particular interest for this symposium. Rather than REITs or other forms of listed securities, which tend to focus on and be based in developed markets, the unlisted fund has acted as an engine delivering capital from the developed world to developing and emerging property markets.

1.2 Objective

This paper sets out to describe the changing nature of global property investment, to provide background information regarding the nature of unlisted property funds and their managers and investors, and especially the role played by unlisted property funds in facilitating cross-border investing. In particular, it focuses on the development of unlisted funds as intermediary structures carrying institutional capital from developed to developing markets. It presents the results of new research by UK research firm Property Funds Research (PFR) and the University of Reading which explores the extent to which this new vehicle has been effective in delivering capital to emerging markets.

The research relates the number of funds targetting particular countries and to population and GDP per capita. It finds that there is a very strong relationship between the popularity of a country for investment through this vehicle format and these independent variables. More interesting, perhaps, is the identification of outlier countries where the amount of investment is significantly less - or greater - than that predicted by population and GDP per capita.

In this research, we define the emerging markets as the regions outside Europe, Australasia and North America, and focus on the largest 55 countries in these regions by population. This produces a country cut-off of a minimum of roughly 20 million population and includes Asia, Latin America, Africa and the Middle East.

1.3 Limitations

The paper has several limitations.

We acknowledge the inadequacy of our definition of an emerging or developing market. For completeness and for the purposes of comparison, we have included all larger Asian markets, not including Australasia, despite the fact that Asia includes such highly mature markets as Japan, Hong Kong and Singapore.

We have not reported the exposure of listed structures such as REITs to the emerging markets. Data regarding this will be added in future work. Nonetheless, it must be said that the unlisted fund market is less constrained than the REIT market, as tax efficient unlisted fund structures can be established for investment in most markets, but a REIT market cannot exist – and capital cannot efficiently be invested – unless local REIT legislation has been passed. In early 2008, REIT markets in Asia and the emerging regions were limited to Mexico, Singapore, Malaysia, Hong Kong, Taiwan and Korea, although other markets were in the early stages of developing such structures.

The data we use is confined to unlisted funds focussed on a single region. This is by far the most common fund type, but this focus means we have not estimated the target exposures of global funds and those allocating capital to more than one global region. This is not likely to be a highly significant issue, but again will be corrected in future work.

We also report the target exposure of an unlisted fund to a country unweighted by capital raised, so that a big fund with a very great allocation to a selected country will carry no more weight than a small fund with a small target exposure. This will require considerably more maturity in the PFR emerging market funds before more quantitative data can be reported.

Finally, we have not completed a full survey of the limits placed on external or foreign investment in developing economies, nor of the exchange controls which may inhibit cross-border investment into those countries. It is possible that these factors fully explain the outlier countries. This will be added in further work. In this paper we use US dollars as the standard currency for cross-border comparison, with the exception of PFR's market growth graphs (Figures 1, 2 and 3) presented in Euros.

2. Background: the global market

2.1 The value of investable real estate

The value of commercial property owned by institutional investors around the world has been estimated (by DTZ and RREEF, among others) to be around \$16 trillion at the end of 2006. This is the investable stock, meaning stock that is of sufficient quality to become institutional investment product, and which therefore represents the potential for market growth if owner-occupation rates were to tend to zero.

The value of commercial property owned by institutional investors around the world was estimated by Investment Property Databank (IPD) to be around \$4 trillion at the end of 2006. This excludes owner-occupied property, suggesting that the IPD sample represents 25% of the investable stock and that the remaining 75% of that stock is owner-occupied. This is highly unlikely, as we suggest below.

The IPD measure suggests that some relatively small countries offer sizeable commercial property markets. Australia, Switzerland and Sweden have much more established property markets than would be suggested by the proportion of global GDP that they represent. On the other hand, the size of the Italian and Spanish property markets is significantly lower than would be suggested by the share of GDP.

This very substantial under-representation of property within the latter countries reflects the relative lack of transparency of these markets, and the generally low levels of information available by comparison to more mature examples, including the lack of penetration by firms such as IPD. In Asia and the emerging markets of the world, the data inconsistencies are even more stark. For example, we do not know much about the size of the investable property markets in China, India and Pakistan, despite their huge populations and increasingly significant GDP.

Implied owner-occupation ratios are defined as the total non-invested stock as a share of total

stock. As a result, more developed markets with a higher degree of investor activity should show lower owner-occupation ratios than less developed markets. Implied owner-occupation is highest in Asia-Pacific countries, at around 76%, reflecting both the lack of professional investor markets and of a developed services sector, while the ratio is lowest in the USA at 53%. The implied owner occupation in Europe is at around 62%. Again, we suggest that this is much too high an estimate.

The \$16 trillion investable stock of property can be broken down to the regional level and further disaggregated by ownership structure (see Table 1). PFR has made estimates of the gross asset values (GAVs) of stock held in both listed REITs and property companies and unlisted funds.

Publicly available REIT and property company market capitalisation data has been used and grossed up as shown to reflect the use of debt in the capital structure of the typical listed company. Unlisted fund GAVs have been estimated by PFR using a combination of primary research at the individual fund level using the \$1.4 trillion PFR fund universe (see Table 2) and extrapolation. The US and hence North American data is a minimum estimate, as PFR data is still being assembled for this region.

According to PFR estimates, the \$16 trillion investable market splits as follows. \$4.16 trillion or 26% of the total stock is held by listed and unlisted property vehicles, with 16% held in listed vehicles and 10% in unlisted funds. This is more than the IPD estimate of the entire value of commercial property owned by institutional investors around the world, and questions the IPD estimate, which probably excludes many fund-held properties. The remaining \$11.84 trillion or 74% splits into directly held investment stock and owner-occupied property – which could therefore be much less than the 70-75% level implied in previous measures.

The global market is split by GAV into 40% Europe, 38% North America, 17% Asia and 5% emerging markets (defined for this purpose to exclude China and include India). An estimated minimum global \$1.65 trillion is invested in unlisted funds.

Within this split, Europe is relatively fully supplied with unlisted product while Asia is under-supplied. Asia, on the other hand, has been well served by the listed sector.

Table 1: the global property investment universe (\$m)

	Europe	Asia	Emerging	North America	Total
Size of market	6,353,676	3,440,101	485,212	5,872,705	16,151,694
Listed sector market cap	408,983	695,895	113,359	597,517	1,815,755
Estimated gearing listed	61%	30%	75%	25%	
Listed market size	658,463	904,665	198,379	746,896	2,508,402
Unlisted market size	732,298	262,539	180,433	475,905	1,651,175
Direct market size (residual)	4,710,915	2,272,897	106,400	4,649,903	11,740,114

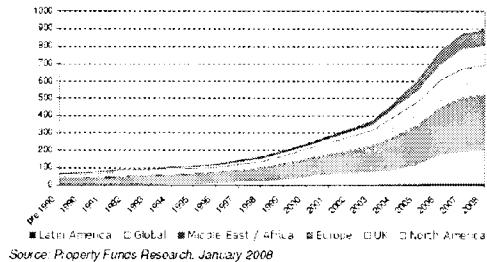
Source: Property Funds Research, RREEF, AME Capital, December 2006

2.2 The global unlisted property market universe

PFR's estimate of the size of this market is around \$1.65 trillion, of which data is held on over \$1.36 trillion or €900bn (see Figure 1 and Table 2).

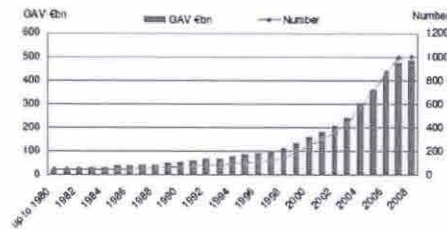
The universe of unlisted property vehicles has grown dramatically over the last ten years with the most dramatic activity being in the last five. In Europe, the number of funds in the PFR Universe has grown on average by over 20% per annum over the past ten years. Over the same period GAV has grown by 10% annually. This explosive growth is demonstrated in Figure 2.

Figure 1: growth in the PR database of unlisted indirect vehicles by GAV (€bn)



Source: Property Funds Research, January 2008

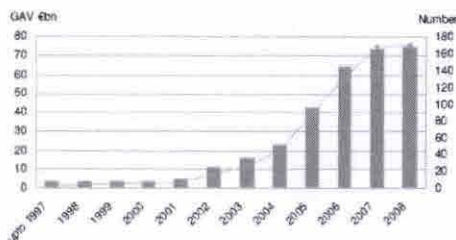
Figure 2: growth of the European (inc. UK) unlisted indirect market



Source: Property Funds Research, January 2008

The largest markets in PFR's vehicle universe are those of Europe, the UK and North America (currently under-estimated, as suggested above). However, increasingly the focus has been turning to the emerging markets of Asia, the Middle East, Africa and Latin America. Recently, Asia in particular has begun to experience a similar boom, as shown in Figure 3.

Figure 3: growth of the Asian unlisted indirect market



Source: Property Funds Research, January 2008

Table 2 shows how the currently held PFR fund data is distributed by region.

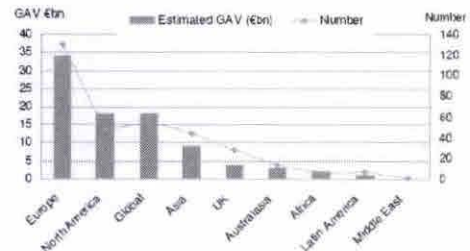
Table 2: PFR's current vehicle universe

Regional focus	Estimated GAV (€bn)	Number
Europe (Excl. UK)	473,529	754
Global (non-region)	298,570	231
UK	238,573	378
North America	190,205	220
Asia	110,096	197
Australasia	33,667	64
Latin America	13,279	63
Africa	5,016	13
Middle East	653	8
TOTAL	1,365,561	1,000

Source: Property Funds Research, January 2008

Figure 4 shows that Europe was the most popular target location for funds launched in 2007 by both estimated GAV and number. North American funds were second most popular in terms of estimated GAV, while global funds surpassed North American funds by number. Asian funds are becoming increasingly popular with 44 being launched in that year.

Figure 4: total number of vehicles launched in 2007 by location and value

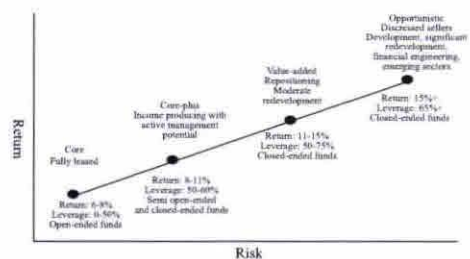


Source: Property Funds Research, January 2008

2.3 Fund styles

Funds are differentiated by risk types. These are often described as shown in Figure 5 below.

Figure 5: unlisted fund risk styles



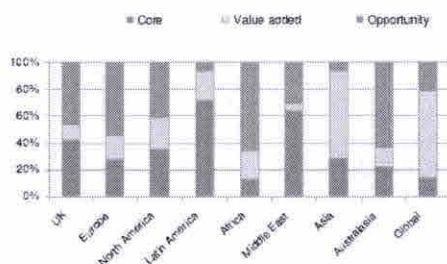
Source: CBRE Investors, January 2008

The vehicles included in PFR's universe are classified as being one of three styles; core, value-added and opportunity. Core funds are low risk funds with no or low gearing, while opportunity funds are higher risk, higher target return funds with high levels of gearing.

Until the end of the 1990s European value-added and opportunity funds were barely in existence. At the beginning of the 1990s core funds accounted for 97% of the market by GAV. This compares to just over 60% at January 2008. Opportunity funds experienced rapid growth between 2000 and 2003 but value-added funds then emerged as the style of choice. The majority of funds launched since 2005 have been value-added.

Figure 6 shows that core funds tend to be the style of choice for the more developed markets of Europe, North America, Australasia, while opportunistic funds are a significant fund type in most developing markets (with Africa currently dominated by the developed South African market).

Figure 6: vehicle style by regional focus



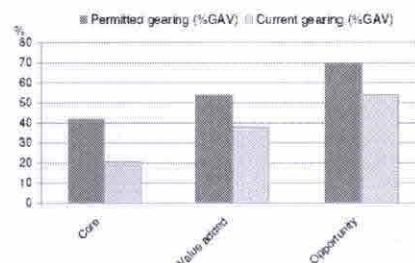
Source: Property Funds Research, January 2008

PFR also records permitted gearing based on the level of debt in a vehicle as a percentage of GAV. Funds have permitted gearing levels ranging up to 85%, although typical gearing levels are far more conservative than this. Figure 7 illustrates that all vehicle styles carry a lower level of debt than is permitted. Actual gearing levels average 25% for core funds, just below 40% for value-added funds, and just below 55% for opportunity funds. Permitted gearing levels are around 40%, 55% and 70% respectively.

Vehicles in PFR's universe have a variety of investment restrictions aimed at limiting the risk of a particular portfolio of investments. Diversified funds may be permitted to invest between 30% and 50% of GAV in a particular sector. Pan-European funds may have prescribed limits on the countries in which they can invest, which may be anywhere

between 30% and 50% of GAV in each country. Development is limited to anywhere between 10% and 30% of GAV. There is likely to be some kind of investment restriction based on the amount invested in any single asset, typically in the region of 15% of GAV. Similarly, income restrictions are likely to be placed on a fund. Income derived from a single tenant/company is typically limited to around 15% of GAV.

Figure 7: current and permitted gearing by fund style



Source: Property Funds Research, January 2008

2.4 International property investors

As suggested in Section 1, the world's top investors are going global. Of the top ten global investors known to PFR, all except two (the Japanese Government Pension Investment Fund and the Federal Retirement Thrift Investment Board) have global investment portfolios with significant use of unlisted funds, or have recently announced plans to invest in global real estate for the first time using unlisted funds (see Table 3).

The listed market has also grown, trebling in size between 2001 and 2006 as the REIT format is applied to more and more countries. But PFR and INREV (the European Association for Investors in Non-listed Real Estate) surveys suggest that there is a lot of potential for further growth. More listed and unlisted property funds will inevitably follow to convert the huge pool of government and owner-occupier held property into an investible form. It is largely expected that growth in the creation of funds will continue, supported by booming fund of funds and multi-manager solutions (a form of indirect investment in which a manager

is appointed to select funds on behalf of an investor). Investors are taking more risk in search of maintaining attractive return levels, resulting in an increased appetite for what are called 'value added' (higher risk) funds. There is also growing interest in emerging markets on the fringes of Europe, the Middle East and North Africa, Sub-Saharan Africa, South America and Russia.

The recent pace of change in investor attitudes has been rapid. Taking UK pension funds as an example, in 2000-2005 balanced, unlisted property funds dominated the UK and European markets and domestic multi-manager mandates were common. In 2005-2006, pan-European pension fund mandates became typical. Global multimanager mandates started to appear in 2006-2007, and in 2007 the first global listed/unlisted mandates are being agreed. Meanwhile, increasingly established derivative markets were, by 2007, allowing property hedge funds (such as Reech AIm's Iceberg fund) to create 'market neutral' absolute return funds. Given time, the standard pension fund mandate will almost certainly become global, and may also develop into a requirement for global listed and unlisted funds as well as permitting long/short solutions to achieve absolute returns.

Table 3: the largest global investors

Capital Source	Capital type	Domicile	Total value of fund (£m)	Fund invests in property
Japanese Government Pension Investment Fund	Pension Fund	Japan	1,002,000	No
Abu Dhabi Investment Authority	Government Fund	United Arab Emirates	665,407	Yes (global)
TIAA-CREF	Pension Fund	US	306,301	Yes (global)
Norwegian Government Pension Fund	Pension Fund	Norway	239,431	Considering global
Algemeen Burgerlijk Stichting Pensioenfonds	Pension Fund	Netherlands	216,300	Yes (global)
California Public Employees Retirement System	Pension Fund	US	195,307	Yes (global)
Kuwait Investment Authority	Government Fund	Kuwait	172,598	Yes
Korean National Pension Scheme	Pension Fund	Korea	166,224	Yes (global)
Federal Retirement Thrift Investment Board	Pension Fund	US	147,875	No
China Investment Corporation	Government Fund	China	136,554	Yes

Source: Property Funds Research, January 2008

2.5 Global fund managers

Table 4 shows the top 25 global managers of unlisted property funds and the value of the assets held in those funds in Europe, North America (NA), Latin America (LA), Australasia and Asia. The top two are European in origin; the next two are originally US-based; and in total there are 13 Europeans, 10 North Americans and 2 Australians. Significantly, there are no large Asian-based managers.

Most of these are institutional fund managers owned by bank or insurance businesses, but many of the risk takers are property companies. In Asia, this is likely to be where the next phase of growth will come from.

Several global exemplars and models exist of property companies moving into fund management. Popular motivations may be to add high quality earnings to volatile development profits to create value through diversifying a mix of risk styles; to maintain employment for a large asset management team when the core business is challenged by low share prices; to add some new expertise motivated by a more direct interest in new business; or to disinvest from large assets while maintaining an interest in ownership, fee flow and a form of control. Hines is an excellent case study of a pioneer in this field (see Appendix).

Table 4: the PFR global manager survey, 2008 – top 25 managers, unlisted funds

Fund Manager	Total	Europe	NA	LA	Australasia	Asia
Blackstone	107,790	67,750	38,201		8,793	3,046
TPG	61,610	22,790	20,983	5	7,748	2,102
Moelis & Company	42,811	33,190	20,895		23	8,569
Warburg Pincus	42,214	2,040	25,903	553	27	2,291
Asia Pacific Capital Management (APCM)	41,690	41,690				190
Meridian Fund Management	39,430	39,787				447
Centimark	33,690					
Global Infrastructure Management	32,367	12,251	13,522	331		6,293
Global Infrastructure Management	29,361	18,842	11,174			5,445
SGR Capital Management (SGR Capital)	26,075	15,020	14,703			674
Alcon	26,474	2,836	22,163	1,021		450
Centimark	25,875	4,530	21,622	319		103
Prostate	25,490	22,544	1,950			876
Prostate	24,528		24,528			48
Global Infrastructure Management	24,520	21,482	474	30		593
Centimark	23,760	12,767	11,019			974
Centimark	21,490	7,730	13,761			
Centimark	19,506	9,953	14,462			861
Centimark	18,207	14,770	564	34		758
Centimark	17,012	11,737				5,275
Centimark	15,841	15,841				
Centimark	15,814	15,814				
Centimark	14,500	14,500				310
Centimark	13,870	13,870	1,760			176
Centimark	12,561					
TOTAL	1,077,173	678,442	384,203	2,008	16,133	35,048

Source: Property Funds Research, March 2008 (using December 2007 financial data)

3. The emerging and developing markets – are unlisted funds investing?

3.1 Introduction

In this research, we define the emerging markets as the regions outside Europe, Australasia and North America, and focus on the largest 55 countries in these regions by population. The regions of interest are therefore Asia, Africa, the Middle East and Latin America. The relevant countries are shown in Table 5.

3.2 The data and research method

41 of the world's largest 55 countries by population are located outside Europe, Australasia and North America. Asia includes China and India, which are the world's largest countries by population size. Africa splits into two broad zones. Activity in North Africa, connected with the Middle East through religion and proximity, is often driven by the emerging financial centres of Dubai and Abu Dhabi. Sub-Saharan Africa, on the other hand, is led by the mature financial markets of South Africa. Latin America includes the powerful BRIC (Brazil, Russia, India, China) economy of Brazil as its core market.

It is to be expected that there is some link between the size of a country and its attraction to an investor or investment manager. Interest in China and India, the world's largest countries, is huge. However, in terms of GDP per capita they remain well behind the developed countries (the USA, the world's third largest country by population, has a GDP per capita of \$45,793, 19 times that of China and 47 times that of India: see Table 5) so that in terms of total economic output they are not yet the world's largest economies. (There is nonetheless little doubt that within 25 years they will be).

It is a combination of population and GDP per capita that will define the gross demand for property and the ability to pay rent to occupy it; and there should therefore be a strong link between the interest in a country defined by the number of funds targeting investment in that market, the population of the country and the GDP per capita.

We set out in this paper to explore that link further by relating the dependent variable – the number of funds targeting a country – and the independent variables of population size and GDP per capita.

Table 5 shows the value for each country of these two independent variables. Tables 6, 7, 8, and 9 show the dependent variable, countries currently targeted by unlisted funds still in their investment phase.

These tables examine each region separately: Asia (including the developed Asian markets), Sub-Saharan Africa, Latin America and Middle East and North Africa (MENA). Funds targeting simply means the number of unlisted property funds whose data is held by PFR which have stated an aim to invest in these countries.

Table 5: emerging market and Asian countries by population and GDP per capita (\$)

Country	Population	Rank by population	GDP per capita	Rank by GDP per capita
China	1,315,644,000	1	2,455	105
India	1,103,371,000	2	965	134
Indonesia	222,781,000	4	1,748	114
Brazil	186,405,000	5	6,670	61
Pakistan	157,935,000	6	645	148
Bangladesh	141,802,000	8	860	150
Nigeria	131,530,000	9	988	136
Japan	125,085,000	10	34,104	23
Mexico	107,026,000	11	8,154	56
Vietnam	84,238,000	12	779	142
Philippines	83,684,000	13	1,562	117
Egypt	77,431,000	15	221	180
Russia	74,030,000	16	1,492	116
Iran	69,618,000	18	4,252	80
Thailand	64,233,000	19	2,470	90
Canada	67,549,000	23	1,462	113
Myanmar	60,519,000	24	289	172
South Korea	47,817,000	25	20,020	34
South Africa	47,432,000	26	5,238	65
Colombia	45,850,000	29	3,860	73
Argentina	38,747,000	30	6,094	69
Tanzania	38,252,000	32	356	167
Sweden	36,330,000	33	1,262	126
Kenya	34,256,000	34	739	159
Algeria	30,484,000	35	3,717	84
Morocco	31,476,000	37	2,155	107
Algeria	29,963,000	38	311	170
Uganda	28,816,000	39	368	156
Uzbekistan	26,590,000	40	2,016	109
Peru	27,965,000	41	3,540	89
Poland	27,152,000	42	993	138
Venezuela	26,749,000	43	8,719	55
Ukraine	26,590,000	44	726	143
Malaysia	25,347,000	45	5,640	62
North Korea	24,678,000	46	13,568	42
Taiwan	22,894,000	47	16,481	37
Spain	22,112,000	49	640	148
Yemen	20,975,000	51	1,633	131
Burkina Faso	20,743,000	52	1,232	121
Mali	16,760,000	54	380	163
Senegal	15,042,000	55	1,316	119

Source: Wikipedia, Property Funds Research, March 2008

Table 6: countries targeted by live unlisted funds, 2008 – Asia

Country	Funds targeting
Japan	56
India	54
China	48
Korea	25
Malaysia	17
Vietnam	3
Philippines	3
Singapore	3
Taiwan	2
Indonesia	1
Thailand	1

Source: Property Funds Research, March 2008

Table 7: countries targeted by live unlisted funds, 2008 – Sub-Saharan Africa

Country	Funds targeting
South Africa	11
Nigeria	1
Cape Verde	1
Senegal	1

Source: Property Funds Research, March 2008

Table 8: countries targeted by live unlisted funds, 2008 – MENA

Country	Funds targeting
UAE	7
Saudi Arabia	3
Kuwait	3
Bahrain	3
Qatar	2
Egypt	1
Oman	1

Source: Property Funds Research, March 2008

Table 9: countries targeted by live unlisted funds, 2008 - Latin America

Country	Funds targeting
Brazil	30
Mexico	19
Chile	18
Argentina	10
Costa Rica	10
Bolivia	1

Source: Property Funds Research, March 2008

Table 10 shows the most and least popular countries defined by the number of funds targeting investment. The investors in these funds are broadly distributed but are concentrated in the non-developing and non-Asian markets. The most common domiciles include the USA, Australia, Canada, the UK, the Netherlands, South Africa, Germany, Switzerland, Ireland, Finland, Denmark but also China, Qatar, Singapore and the United Arab Emirates.

Table 10: emerging market and Asian countries by funds targeting investment

Country	Funds targeting
Japan	56
India	54
China	48
Thailand	30
South Korea	28
Mexico	18
Malaysia	12
Argentina	10
South Africa	9
Vietnam	3
Philippines	3
Saudi Arabia	3
Taiwan	2
Indonesia	1
Egypt	1
Thailand	1
Sudan	1
Pakistan	0
Bangladesh	0
Nigeria	0
Ethiopia	0
Iran	0
Congo	0
Myanmar	0
Colombia	0
Tanzania	0
Kenya	0
Algeria	0
Morocco	0
Afghanistan	0
Uganda	0
Iraq	0
Peru	0
Nepal	0
Venezuela	0
Uruguay	0
Libania	0
Venezuela	0
Si Lanka	0
Mozambique	0
Syria	0

Source: Property Funds Research, March 2008

Tables 11-13 rank the markets by each of population, GDP per capita and funds targeting.

Table 11: emerging market and Asian countries by population and GDP per capita rank and funds targeting investment (ranked by population)

Country	Rank by population	Rank by GDP per capita	Funds targeting
China	1	105	48
India	2	134	54
Indonesia	3	114	1
BRAS	5	81	30
Pakistan	6	149	0
Bangladesh	8	158	0
Nigeria	9	190	0
Japan	10	23	56
Mexico	11	66	18
Vietnam	12	140	3
Philippines	13	112	3
Ethiopia	15	180	0
Taiwan	16	116	1
Iran	18	80	0
Thailand	19	90	1
Congo	20	115	0
Myanmar	24	172	0
South Korea	25	34	28
South Africa	26	68	9
Colombia	28	83	0
Argentina	30	69	10
Tanzania	32	167	0
Sudan	33	136	0
Kenya	34	139	0
Algeria	35	86	0
Morocco	37	107	0
Afghanistan	38	170	0
Uganda	39	196	0
Iraq	40	109	0
Peru	41	89	0
Nepal	42	160	0
Venezuela	43	55	0
Uruguay	44	143	0
Malaysia	45	62	17
Saudi Arabia	46	42	3
Taiwan	47	37	2
China	48	148	0
Venezuela	51	131	0
Si Lanka	52	127	0
Mozambique	54	163	0
Syria	55	119	0

Source: Wikipedia, Property Funds Research, March 2008

Table 12: emerging market and Asian countries by population and GDP per capita rank and funds targeting investment (ranked by GDP per capita)

Country	Rank by population	Rank by GDP per capita	Funds targeting
Japan	10	23	56
South Korea	26	34	25
Taiwan	47	37	2
Saudi Arabia	46	42	3
Vietnam	43	55	0
Mexico	11	56	18
Brazil	5	61	30
Malaysia	45	62	17
South Africa	26	65	9
Argentina	36	69	10
Iran	18	80	0
Colombia	28	83	0
Algeria	34	86	5
Peru	41	89	0
Thailand	19	90	1
China	1	105	48
Morocco	37	107	0
Italy	40	109	0
Colombia	28	113	0
Indonesia	4	114	1
Egypt	16	116	1
Philippines	13	117	3
Syria	88	119	0
Iran	33	128	1
Sri Lanka	32	127	0
Yemen	51	131	0
India	2	134	54
Algeria	9	136	0
Kazakhstan	34	139	0
Vietnam	12	140	3
Uzbekistan	44	143	0
China	49	146	0
Pakistan	6	149	0
Ukraine	39	156	0
Bangladesh	6	159	0
Mozambique	54	160	0
Tanzania	32	167	0
Korea	42	168	0
Philippines	34	172	0
Myanmar	24	172	0
Thailand	15	180	0

Source: Wikipedia, Property Funds Research, March 2008

Table 13: emerging market and Asian countries by population and GDP per capita rank and funds targeting investment (ranked by funds targeting)

Country	Rank by population	Rank by GDP per capita	Funds targeting
Japan	10	23	56
India	2	134	54
China	1	105	48
Brazil	5	61	30
South Korea	26	34	25
Mexico	11	56	18
Malaysia	45	62	17
Argentina	36	69	10
South Africa	26	65	9
Vietnam	12	140	3
Philippines	13	117	3
Saudi Arabia	46	42	3
Taiwan	47	37	2
Indonesia	4	114	1
Egypt	16	116	1
Thailand	19	90	1
Syria	32	128	1
Pakistan	6	149	0
Uzbekistan	8	160	0
Tanzania	9	126	0
Poland	15	180	0
Iran	18	80	0
Colombia	23	113	0
Myanmar	24	172	0
Colombia	28	83	0
Tanzania	32	167	0
Kazakhstan	34	139	0
Algeria	35	86	0
Morocco	37	107	0
Uzbekistan	38	170	0
Ukraine	39	156	0
Italy	40	109	0
Peru	41	89	0
Nepal	42	168	0
Vietnam	43	55	0
Uzbekistan	44	143	0
China	49	146	0
Yemen	51	131	0
Philippines	52	127	0
Mozambique	54	163	0
Syria	55	119	0

Source: Wikipedia, Property Funds Research, March 2008

3.3 Results

GDP per capita and population have been used as independent variables to explain the number of funds targeting an emerging country. Both appear to be correlated with our measure of investment.

Tables 14 and 15 show that GDP per capita is a reasonably good explanatory variable, with a correlation coefficient of 53%, an adjusted R-squared of 26% and a t-ratio of around 4, indicating significance at greater than the 95% level.

Table 14: regression results by GDP per capita (1)

Multiple R	0.532107
R Square	0.283191
Adjusted R Square	0.264811
Standard Error	12.69635
Observations	41

Table 15: regression results by GDP per capita (2)

	Coefficients	Standard Error	t Stat
Intercept	1.819950	2.364816	0.769443
X Variable 1	0.001204	0.000307	3.925279

Tables 16 and 17 show that population is a better explanatory variable, with a correlation coefficient of 71%, an adjusted R-squared of 49% and a t-ratio of over 6, again indicating significance at greater than the 95% level.

Table 16: regression results by population (1)

Multiple R	0.711222
R Square	0.505827
Adjusted R Square	0.493166
Standard Error	10.84174
Observations	41

Table 17: regression results by population (2)

	Coefficients	Standard Error	t Stat
Intercept	2.006307	1.812456	1.10378
X Variable 1	4.11E-08	6.5E-09	6.318236

It is of course possible to combine these variables in one equation by running a multiple regression equation. Details of the equation are shown in Table 18. The number of funds targeting a country is predicted to be equal to (-3.67) plus (0.0000000432)*population plus 0.001312*GDP per capita plus or minus a standard error of 6.06. This equation explains 84% of the variation in the number of funds targeting any country. The two independent variables are highly significant.

Table 18: multiple regression results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.670517	1.225576	-2.994922	0.0048
GDP	0.001312	0.000147	8.929072	0.0000
POPULATION	4.325206	3.755699	1.152275	0.0000
R-squared	0.840713	Mean dependent var		6.075049
Adjusted R-squared	0.832590	S.D. dependent var		14.807420
S.E. of regression	6.062278	Akaike info criterion		6.515734
Sum of squared residuals	1097.007	Schwarz criterion		6.635117
Log Likelihood	-130.5110	F-statistic		100.2817
Durbin-Watson stat	2.284342	Prob(F-statistic)		0.000000

The predicted number of funds targetting the country can be compared with the observed number. The results are shown in Table 19 (those with fewer observed than predicted) and Table 20 (those with more observed than predicted). These are termed the outlier countries.

Table 19: countries with fewer funds targetting than predicted

Country	Funds	Predicted	Error
Taiwan	2	19	17
Saudi Arabia	3	15	12
Venezuela	0	9	9
China	45	55	6
Indonesia	1	8	7
Iran	0	5	5
Pakistan	0	4	4
Colombia	0	3	3
Brazil	0	3	3
Bangladesh	0	3	3
Algeria	0	3	3
Thailand	1	4	3
Peru	0	2	2
Congo	0	1	1
Egypt	1	2	1
Morocco	0	1	1

Table 20: countries with more funds targetting than predicted

Country	Funds	Predicted	Error
Brazil	30	13	17
Malaysia	17	6	11
South Africa	56	47	9
India	54	45	9
Mexico	18	12	6
Argentina	10	6	4
South Africa	9	7	2
Vietnam	3	1	2
Philippines	3	2	1

South Korea has an observed 25 funds targetting and similarly a predicted 25 funds targetting.

3.4 Outliers

The outliers, meaning countries whose observed investment does not fit well with predicted investment using population and GDP per capita as drivers, are shown in Tables 19 and 20.

The countries receiving significantly less investment than that predicted by the equation are Taiwan, Saudi Arabia, Venezuela, Indonesia, Iran, Pakistan, Colombia, Nigeria, Bangladesh, Algeria, Thailand and Peru.

We can also observe that the countries with high population and low investment include Indonesia, Pakistan, Bangladesh, Nigeria, Ethiopia, Egypt, Iran, Congo, Myanmar and Colombia. We have not completed a full survey of the limits placed on external or foreign investment in these economies, nor of the exchange controls which may inhibit cross-border investment into those countries. We may also hypothesise about political risk, currency risk and other related issues, but low GDP per capita appears to explain all cases, as all countries are ranked below 115 (from 183) except Iran.

There is no example of a country with both a high population and high GDP per capital lacking investment, with the possible exceptions of Peru and Iran. Countries with smaller populations, high GDP per capita and low investment include Taiwan, Saudi Arabia and Venezuela. On balance, the unlisted fund market appears to be reasonably efficient in this respect.

The countries receiving significantly more investment than that predicted by the equation are Brazil, Malaysia, Mexico, Argentina and Vietnam. Three of these are located close to the USA, the main supplier of capital in this survey.

Countries with a low population but with high investment include Argentina and South Africa. Countries with low GDP per capita but with high investment include Vietnam, India, Philippines and China. Expected GDP per capita growth almost certainly explains the focus of western investors on India and China. This foreign investment is likely to contribute to the very economic growth which the investment is banking upon.

4. Conclusions

An increased investor appetite for global investment has generated a structural market shift observable since the mid 1990s. International or cross-border property investment has boomed, and indirect property investment (investing through securities and funds) has become commonplace.

The boom in the number and value of listed property funds is largely a matter of public record, but for unlisted real estate vehicles, an increasingly standard route to attaining international real estate exposure, there is little available data. In addition, the unlisted sector holds particular interest as it has been the main engine delivering capital to developing and emerging property markets

This paper set out to describe the changing nature of global property investment, and in particular the role played by unlisted property funds in facilitating cross-border investing. It focussed on the development of unlisted funds in general, and in particular their role as intermediary structures carrying capital from developed to developing markets. We defined the developing or emerging markets as the regions outside Europe, Australasia and North America, and focussed on the largest 55 countries in these regions by population.

The investors in the funds we identified as targeting emerging markets are concentrated in the non-developing and non-Asian markets. The most common domiciles include the USA, Australia, Canada, the UK, the Netherlands, South Africa, Germany and Switzerland.

We found that both GDP per capita and population explain the number of unlisted funds targetting emerging markets. Population is a stronger driver.

There are several interesting outliers, meaning countries whose observed investment does not fit well with predicted investment. Countries with high population and low investment include Indonesia, Pakistan, Bangladesh, Nigeria, Ethiopia, Egypt, Iran, Congo, Myanmar and Colombia. This list includes 7 of the world's 20 most populous countries.

The dominance of an active REIT market would explain a shortage of unlisted fund investment in these markets, but there is no REIT market in any of these states. It is suggested, therefore, that these markets suffer from a clear lack of Western capital as well as a low GDP per capita – and these facts may be connected. It may be that political risk explains this shortage of investment, but it

may also be that Western investors are missing out on the possibility of high returns. It can also be suggested - as a value judgement - that the avoidance by international property investors of large parts of the globe is not healthy in promoting economic development and a global mutuality of interest.

Countries with high GDP per capita and low investment include Taiwan, Saudi Arabia and Venezuela. Several explanatory hypotheses are possible, but these are reserved until further analysis has been completed.

Countries with a low population but with high investment include Argentina and South Africa. Countries with low GDP per capita but with high investment include Vietnam, India, Philippines and China.

Expected GDP per capita growth almost certainly explains the focus of western investors on India and China, which is likely to contribute to the very economic growth which the investment is banking upon.

High quality real estate is a fundamental necessity for a developed economy. Whether the under-invested markets can command their share of capital in future is unclear and depends on a variety of factors outside the scope of this paper. Nonetheless, the promotion of a mutuality of economic interest is in the best interests of everyone, and it is our view that unlisted property funds have the potential to play a significant part in this process. Continued research will be essential in the drive towards the transparency necessary to attract both entrepreneurial and risk-averse institutional investment.

Appendix: Hines - a case study

Founded by Gerald D. Hines in 1957, Hines is a real estate investment and operating company that develops, acquires and manages properties worldwide. With 3,350 employees worldwide, Hines USA is the original and largest business with 2,200 staff, and 1,150 employed by Hines

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