Zeppelin's

Real Estate Tech

4Q 2006: A Real Estate Newsletter by Zeppelin Real Estate Analysis Limited
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Globally, it was reported that the housing market in the USA has started to show some signs of slowing or even sluggish sales. In China, further measures to cool the economy and the real estate markets have been adopted and foreign real estate investments are required to have an onshore operation. In Hong Kong, new residential sales have picked up a bit with more realistic pricings and sales packages. Meanwhile, office rents for top grade premises are still on the rise.

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We would also like to hear from prospective readers / writers who wish to share their real estate experience with us.

This quarterly (generally published in January, April, July and October) newsletter is circulated freely via email to over thousands of readers comprising real estate developers, investors, fund managers, financiers, owners, users, top executives, senior managers, prominent academics and related professionals from Hong Kong and abroad. Our content is / has also been published in newspapers and web portals such as **China Daily**, **Hong Kong Economic Journal** (a Chinese daily), **21st Century Business Herald** (China), **The Standard** (a Hong Kong English Daily), **MITCRE Alumni Newsletter**, the **Surveying Newsletter** of the Hong Kong Institute of Surveyors, **Centanet.com, Netvigator.com, Hongkong.com, E-finet.com, Red-dots.com, Realtradex.com, FrogPondGroup.com, Icfox.com**, **PacificProperties.net**, **Soufun.com** and **House18.com**. We had also been quoted in the **Asian Wall Street Journal** and interviewed by **Radio Hong Kong**. We also publish monthly articles and analyses in the months in between. This newsletter is now into its **11th year** and **41st** issue.

We also operate a website **www.real-estate-tech.com** through which we intend to share some of our real estate knowledge and ideas with interested parties. There are close to 1,000 content items, in English or Chinese, including analyses, articles, charts, and tables, plus spreadsheets, tutorials, e-books, and the like, the majority of which is free with some requiring a token fee. The website is regularly visited by thousands from all over the world and should be of interest to people interested in China real estate markets. Visit also our e-store at Amazon:

http://s1.amazon.com/exec/varzea/ts/my-zshop/S18NO6B1Z5GZ9U/104-2707027-7491929

Zeppelin Real Estate Analysis Limited is involved in real estate development, investment, and management with a focus on **independent real estate analysis**. Together with Zeppelin Property Development Consultants Limited, we offer services related to real estate asset management [analysis, investment strategy, and portfolio assessment], project management [architectural design, cost control, and contract administration], facility management [facility utility assessment, facility strategy, and building maintenance], and marketing management [campaign coordination, leasing, and sales]. We are part of the Zeppelin Group headquartered in Hong Kong with office operations in Beijing, Shanghai, and Shenzhen and we have access to networks covering China / Asia, North America, and Europe.

Hong Kong Private Residential Real Estate: Larger Beats Smaller
Real Estate Tech, 4Q 2006

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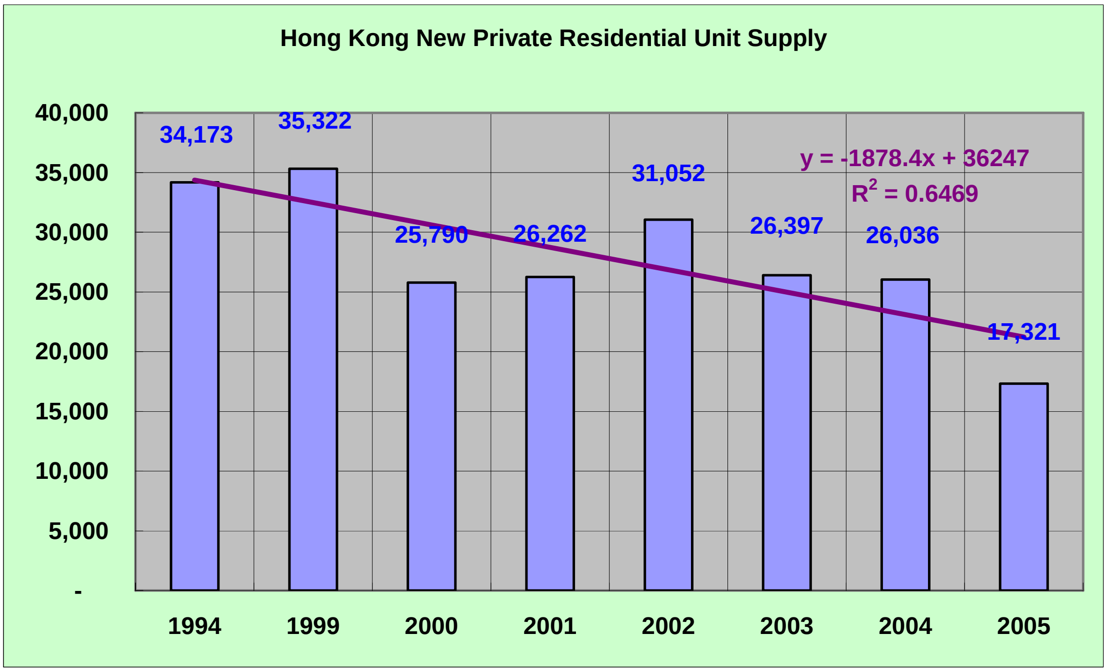
Background Notes: The government classifies the private residential units by saleable floor area (unit size) from category A to E in ascending order as follows = A) 0 to 39m2; B) 40 to 69m2; C) 70 to 99m2; D) 100 to 159m2; and E) 160m2 or more without regard to location, construction quality, and the like. [1 square meter m2 = 10.76 square feet ft2].

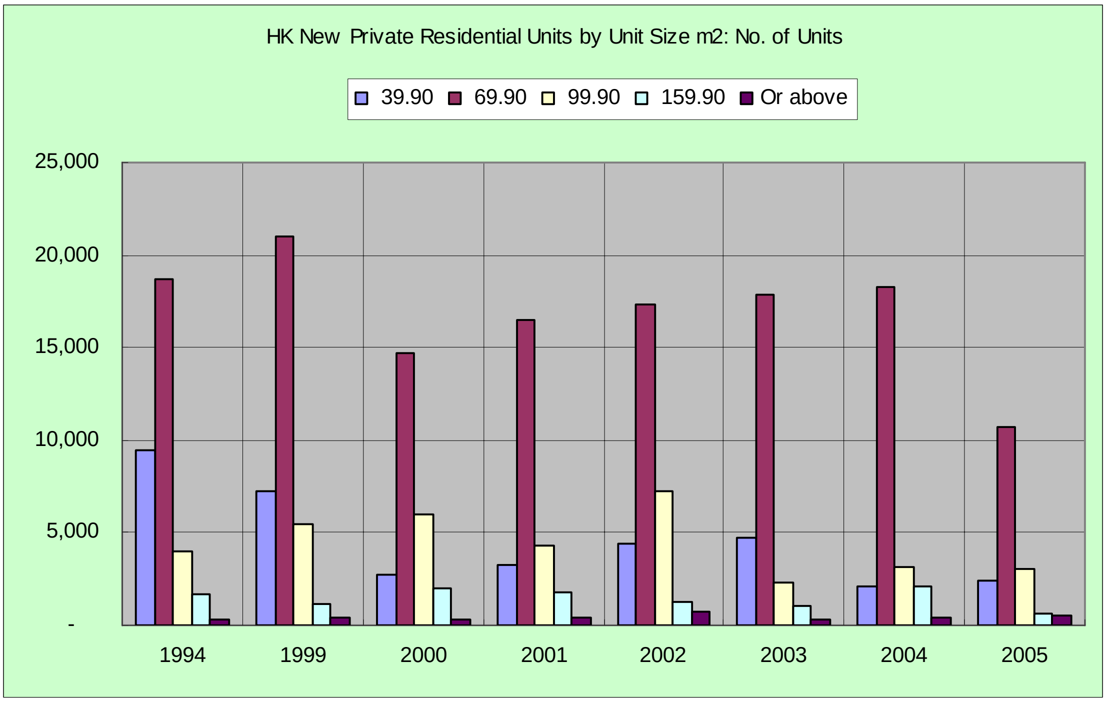
We have collected and studied real estate data and information compiled by the Hong Kong SAR Government and related to private residential real estate market from 1994 to 2005 in Hong Kong and in summary, these appeared to have been the broader trends:

SUPPLY SIDE

A) **During the period studied, the total new annual residential supply, all categories included, has dropped by almost 50%**, from more than 34,000 units in 1994 to a bit more than 17,000 units in 2005, and the trend is downward overall.



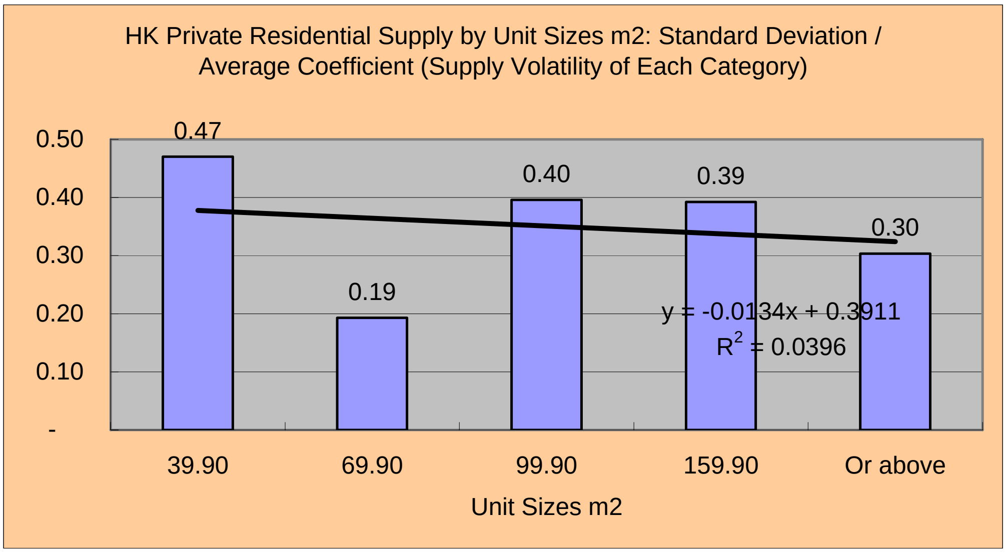
B) **During the period studied, all categories of units, except the largest floor area category E, demonstrated varying degrees of declining supply trend, with the smallest floor area category A declining the most**. Its supply dropped from over 9,000 units in 1994 to a bit more than 2,400 units in 2005 while category E has seen constantly higher supply over its 1994 figure. Trend-wise, all except category E are on a downward path.



C) **During the period studied, in terms of percentage market share by each floor area categories, category A has been losing ground fast to the others, category B and C in particular**. The former dropped from 28% in 1994 to 14% in 2005, while the latter two gained from 55% and 12% in 1994 respectively to 62% and 18% in 2005 respectively. It must be emphasized the percentage (re)distribution was less a result of the others having significantly increased in supply but was a reflection of the significant decrease in supply of category A units.

% of total	Year:	1994	1999	2000	2001	2002	2003	2004	2005
Unit Size m2 range									
Or less	39.90	28%	21%	10%	12%	14%	18%	8%	14%
40.00	69.90	55%	59%	57%	63%	56%	68%	70%	62%
70.00	99.90	12%	15%	23%	16%	23%	9%	12%	18%
100.00	159.90	5%	3%	8%	7%	4%	4%	8%	3%
160.00	Or above	1%	1%	1%	2%	2%	1%	2%	3%
Total Units		100%	100%	100%	100%	100%	100%	100%	100%

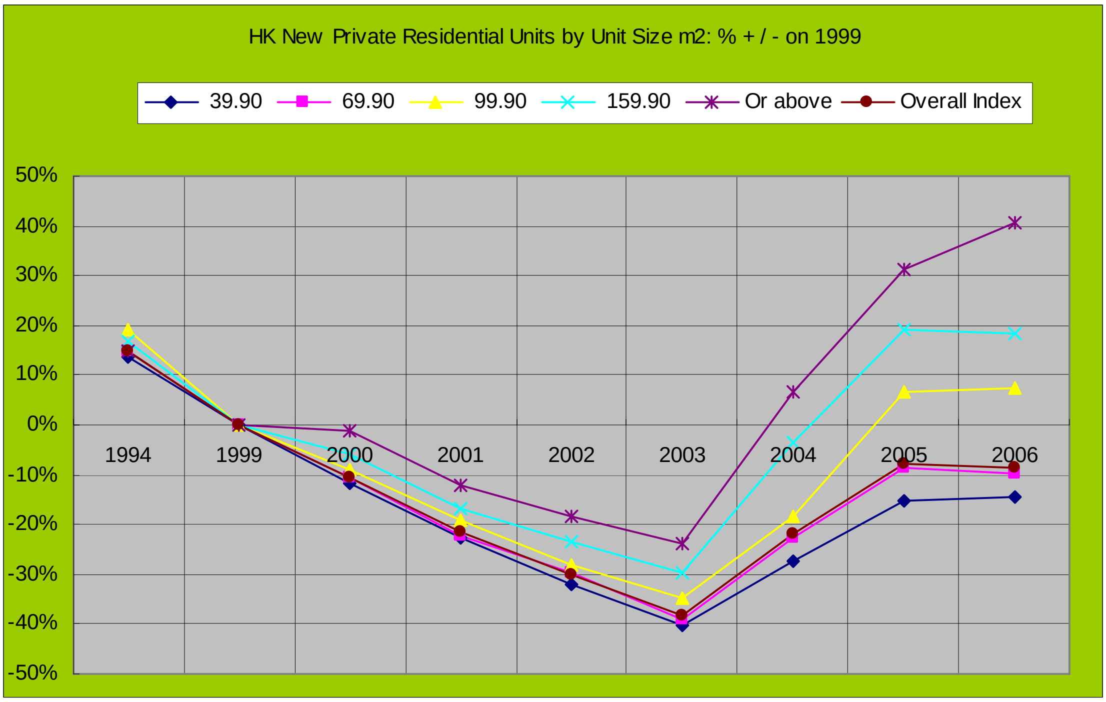
D) **During the period studied, category B has the least volatility in supply** while the others all exhibited higher volatilities.

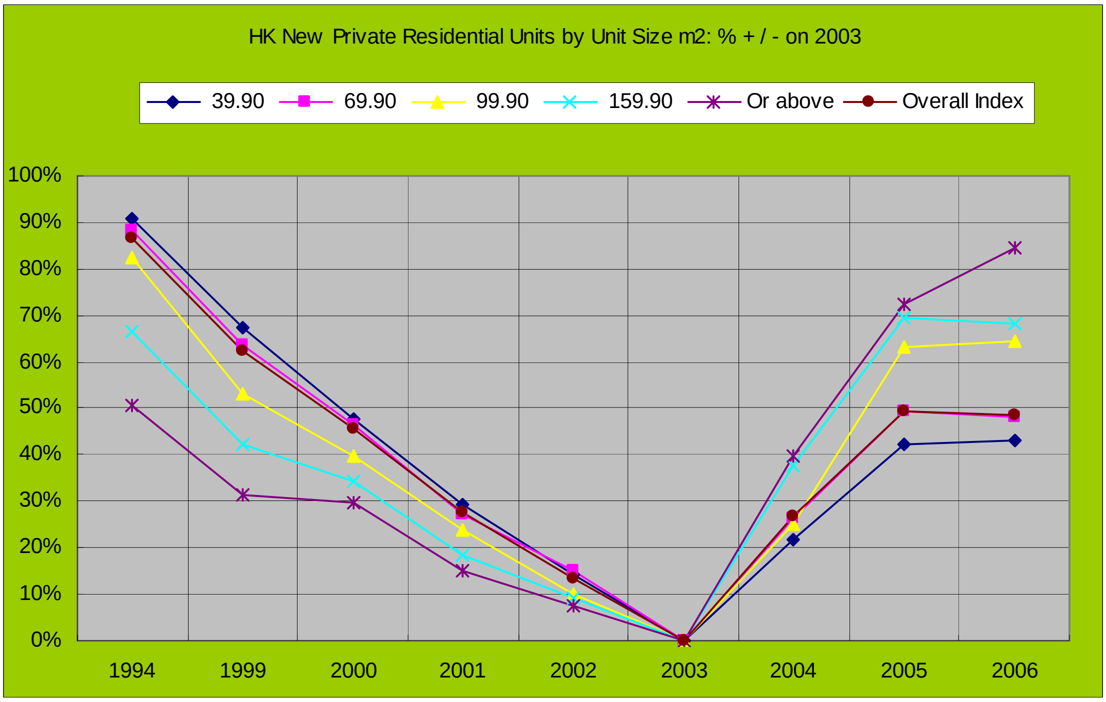


PRICE-WISE

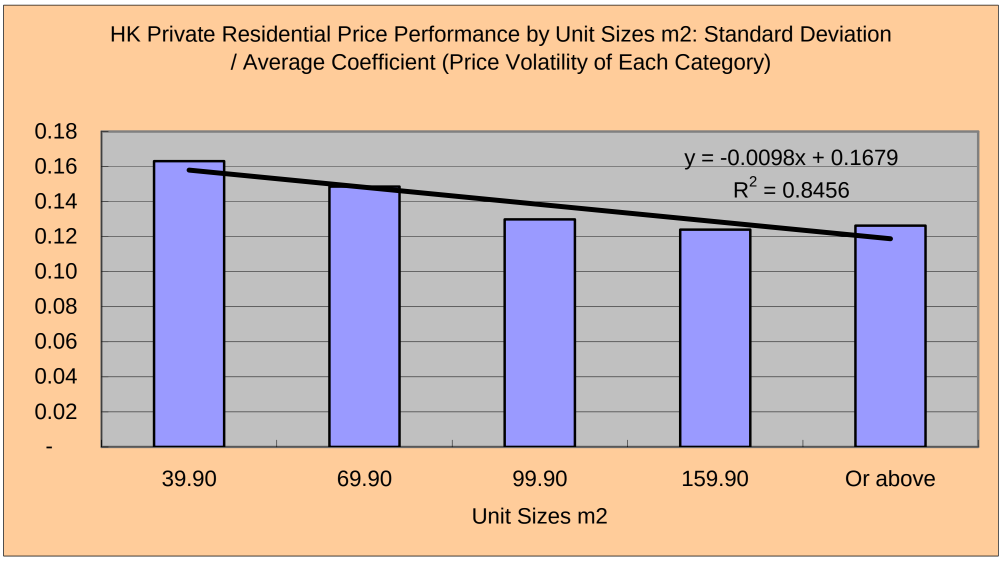
E) **During the period studied, the overall price index level has yet to reach that of 1999**, though the larger floor area categories of C, D, and E have all exceeded their 1999 price index levels. The lagers were category were A and B with A having the poorest performance. [1Q of 2006 figures are also included for reference].

F) **During the period studied, the macro tendency was that the smaller the category, the more volatile the price (index) performance**, the higher the drop in prices when the market was poor, and the lower the gain in prices when the market recovered, irrespective of comparison to 1999 price levels or 2003 price levels.





G) **This appeared to imply the investment risk is less with the larger floor area categories**, such as C, D, and E, than with the smaller floor area categories, such as A and B, notwithstanding that further research and analysis are required to confirm the observation / speculation here. Nonetheless, a simple calculation of the standard deviation / average ratio seemed to support the observation herein.



SUMMARY

In summary, based on the foregoing, it appears that investment in the larger residential units may incur higher return and less risk than investment in the smaller residential units, though if new units are to be preferred, then investors would have to face a more volatile supply pattern.

Nonetheless, such a speculation may only apply to the period studied, and other periods, even including ones which overlap with part of the time period studied herein, may or may not produce the same / similar results and observations. Further detail researches and analyses are required and investors should seek proper professional input and advice prior to making investment decisions.

Common sense, investment acumen, and professional judgment are still called for.

For the full version of the above study, please visit this webpages:

http://www.real-estate-tech.com/zeppelin_to_order.htm
http://www.real-estate-tech.com/simple_study_series_exe_sums.htm
http://s1.amazon.com/exec/varzea/ts/exchange-glance/Y05Y1814565Y2248980/104-2707027-7491929

Real Estate Premium: Sex Appeal, Trophy, and Vanity
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At the time of writing this article, a real estate development group in Hong Kong has enrolled the help of Miss Universe to promote one of their projects in town. If one has any idea of recent real estate ads in the city, in particular those related to residential properties, this one at least shows an elegant lady with a friendly smile, and this in itself is more refreshing than those ads featuring models whose “cool” looks and facial expressions seem to harbor some form of grudge against the world.

Using good looks and good-looking people (men and women) in advertisements is nothing new. Car producers, brand name fashion houses, diamond stores, and even makers of washing machines have been using this approach for ages, just that real estate developers in Hong Kong appear to have caught up with the practice in recent years. The subtle (or not so subtle) message behind is that not only elegant ladies love the quality and design of the real estate being marketed, these lovely ladies would also appreciate the quality and taste of purchasers (or men in particular) who buy such real estate. **Sex appeal** has its place in marketing still.

Nonetheless, not each and every Joe Bloke product can do well with help from a Miss Universe. The product itself has to be something which is special and unique, a marketing edge so to speak. In real estate terms, this could be a prime location, a state-of-the-art building, a design by a well regarded architect, and so on. Sometimes, this could also mean having a historic value, or even a cultural one at that. Put simply, the real estate being marketed has to at least match the status of the icon, else it would feel awkward, like meeting royalties in your pajamas. This thus leads to the idea of **“trophy” properties**, defined as ones which afford their owners more than the tangible bricks and mortar, but some intangible but sought after elements of, for sake of a better word, fame.

This in turn procures the concept of vanity, which instinctive inclination could be to flaunt one’s wealth and status in front of friends and foes alike, and which deeper reflection could represent one’s pursue for greatness and perfection. This implies the trophy-seeker-investor would need to pay a premium for the trophy property, i.e. pay more and thus suffer a lower rental income yield. Naturally, not every investor would crave for this and certainly not every investor is suited to this. Nonetheless, irrespective of one’s opinion on trophy properties, they do offer the following to suitable owners:

A) **They do offer “exposure”** = in terms of image, publicity, visibility (not the height-related type though this could also be the case), and subtle marketing. This is why some multinationals and listed companies like to own their own buildings and / or to rent a substantial portion of a building in order to have the right to name it (after them).

B) **Buy high sell high** = trophy buildings generally command a premium whether the market is up or down. This does not guarantee a buyer will get his money back when he sells, just that he could sell it higher than comparable but non-trophy buildings.

C) **They may even have an “antique” value** = especially with historic and iconic buildings. Not every trophy building harbors this value, yet those which do may also have a subtle antique (sentimental) premium attached to them.

Trophy properties and their premiums sometimes give an impression of being built on quick sands, yet despite its intangibility, <u>vanity does exist (in the minds for instance) and does incur a premium to realize and to satisfy at times</u>.

USA & China Real Estate: Different or Not So Different?
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Instinctively, readers may find the above title a bit puzzling. Intuitively, many of them would think the real estate markets in the USA and China are different. For starters, the USA is a developed country while China is a developing one. Second, the USA has less than 1/4 of the population of China and thus the economics, including any real estate economics, are bound to be unlike. Third, the typical home in the USA is a detached house of around 2,200 ft2 while most households in the more developed coastal regions live in a high-rise condominium averaging around 1,000 ft2. Fourth, construction volume is huge in China as she has the equivalent of around 14M residential apartments, 1,400 office towers, and 1,120 malls under construction. The list can go on further yet perhaps the above would suffice for the time being. Indeed, the real estate markets are different not only in stage of development, but also in size, nature, style, and perhaps quality.

We have looked at some real estate indexes counting from 4Q 2000 to 4Q 2005 on a quarterly basis from both countries and these include the residential, office, and retail sectors. Notwithstanding the indexes may not be 100% comparable or compatible, for instance the China indexes tend to involve mostly new construction while the USA indexes would reflect mostly existing properties, they could be used to obtain a preliminary and rough reference. Naturally, further detailed and perhaps better theorized studies should be done for eventual investments. Here we go:

A) **USA Indexes** = The USA indexes come from the National Council of Real Estate Investment Fiduciaries (NCREIF) and the Office of Federal Housing Enterprise Oversight (OFHEO). NCREIF indexes cover residential, office, and retail while the OFHEO House Price Index (HPI) covers only residential. Also, the NCREIF indexes are concerned with investment properties thus the residential indexes would include multi-family properties, while the OFHEO-HPI index is concerned with single-family housing only. Only the capital appreciation component in the NCREIF indexes is used. The indexes used refer to the USA as a whole.

B) **China Indexes** = The China indexes come from the Soufun Group and are mostly related to new construction covering residential, office, and retail. The indexes are based on selected cities in the sector.

C) **Comparisons** = The NCREIF (residential / apartment) and the OFHEO-HPI single-family housing indexes are compared to the Soufun residential index, with the NCREIF office and retail indexes being compared with the Soufun office and retail indexes respectively.

D) **Residential** = Here we have 6 of the cities in China and apart from Guangzhou, the rest correlate significantly with the USA indexes, with some of the correlations hitting over 0.90.

R2	Beijing	Shanghai	Guangzhou	Shenzhen	Tianjin	Chongqing
NCREIF	0.75	0.63	0.23	0.69	0.80	0.52
HPI	0.97	0.96	0.00	0.89	0.76	0.85

E) **Office** = Here we have 4 cities from China and overall the correlation with NCREIF is not as significant as in residential though Beijing and Shanghai show higher ones than the other two.

R2	Beijing	Shanghai	Shenzhen	Chongqing
NCREIF	0.72	0.53	0.35	0.30

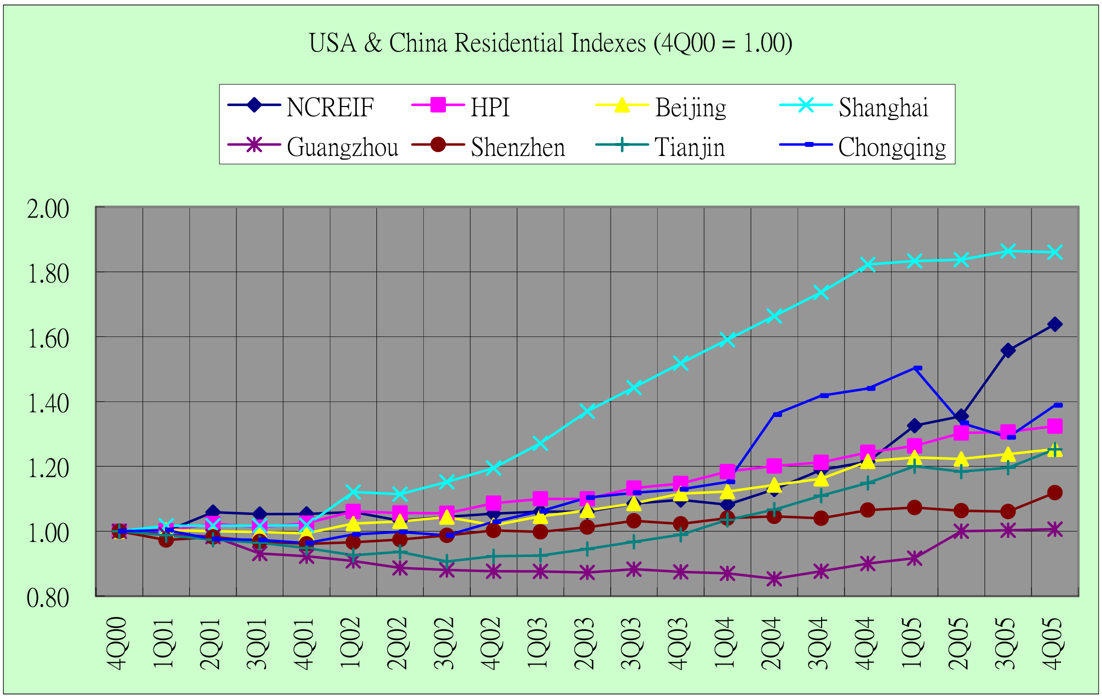
F) **Retail** = Here we have again 4 cities (not exactly the same ones as in office) and all show some significant correlations with NCREIF.

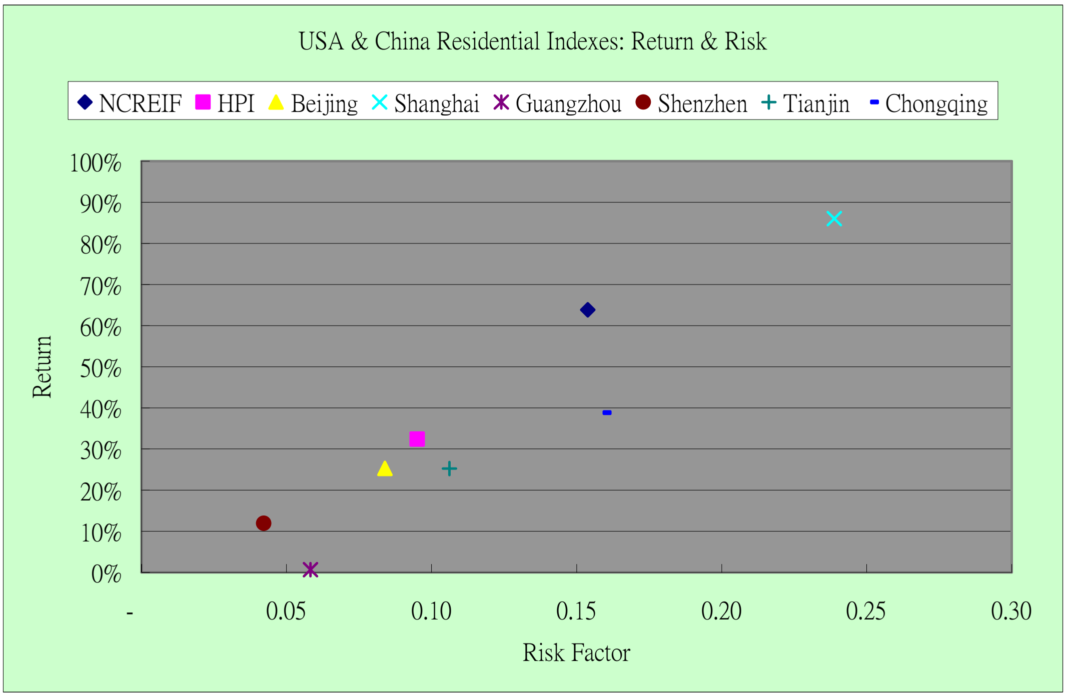
R2	Beijing	Shenzhen	Tianjin	Chongqing
NCREIF	0.80	0.90	0.93	0.80

Notwithstanding the crude approach, it seems that at least the real estate markets and market sectors included herein in China do tend to demonstrate some correlation to the overall USA markets. As to whether there is any connecting reason or this being just a coincidence, this would require the input of economists and statisticians. One guess would be that the thriving USA economy from 2001 to 2005 might have contributed to China in trade and economic terms (and vice versa in terms of borrowings etc) with real estate markets in both countries reflecting the upside. The residential and retail sectors show some of the highest correlations.

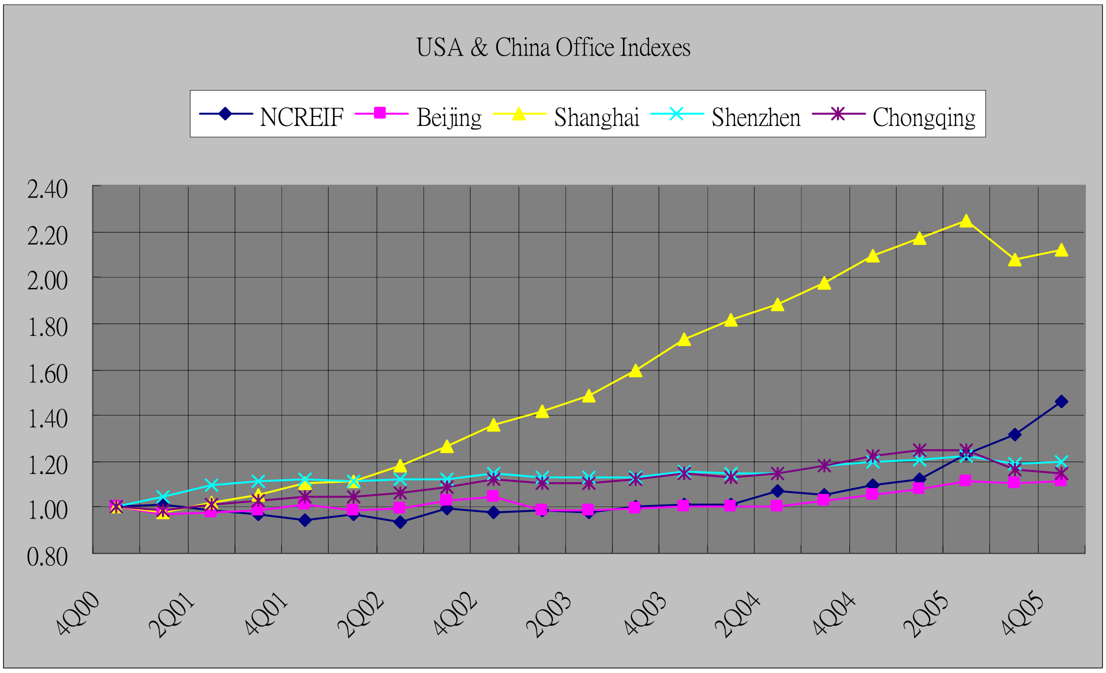
We have also calculated the overall return during the period i.e. 4Q 2005 divided by 4Q 2000 and the volatility and risk aspects. Perhaps these charts would tell the story better:

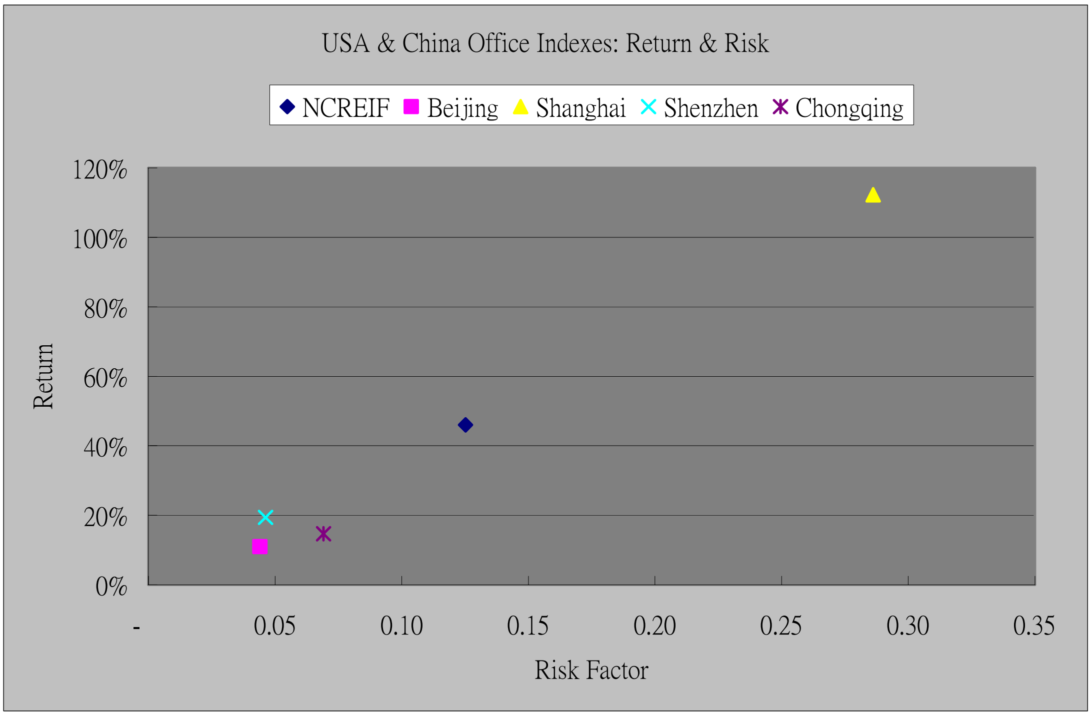
1) **Residential** = among the various indexes, Shanghai offers the highest return during the period albeit having the highest risk factor as well. The NCREIF comes in second harboring also the second highest risk factor. In terms of return and risk combination, Shanghai, NCREIF, OFHEO-HPI, Beijing, and Shenzhen offer varying choices (a comparatively better return for an assumed level of risk).



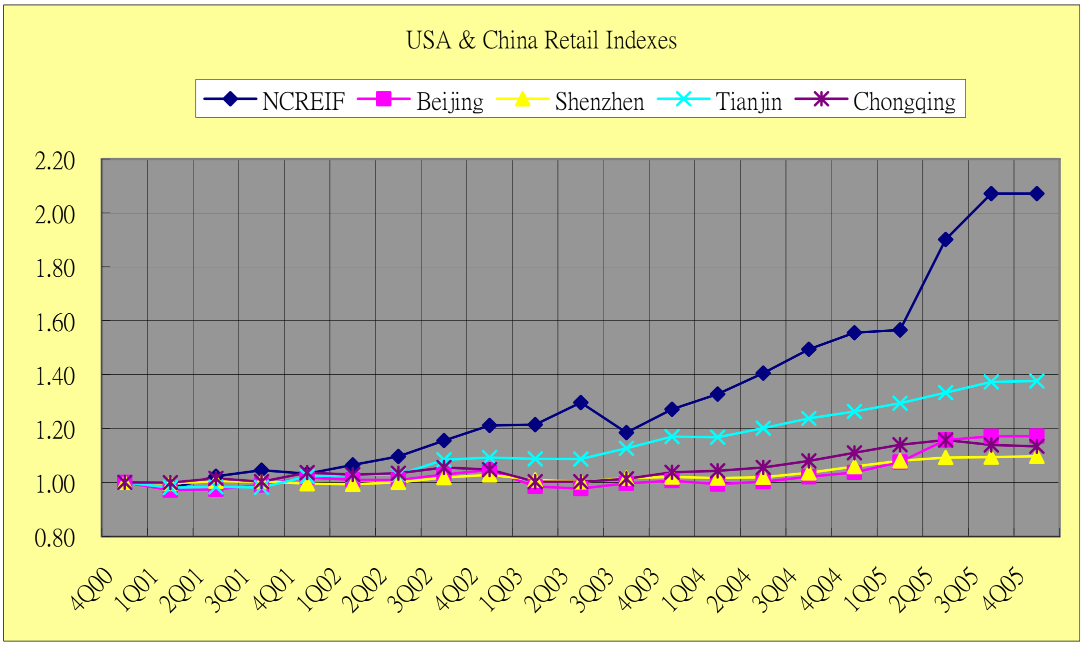


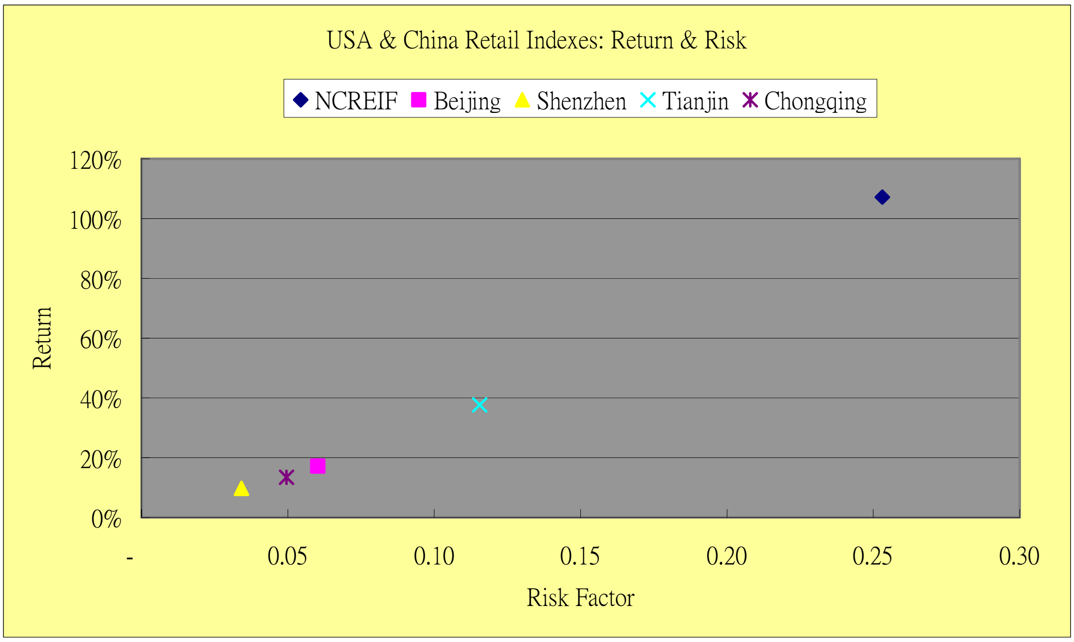
2) **Office** = The Shanghai index is way ahead in terms of return, more the doubling in prices, during the period and again harbors the highest risk factor of all. The NCREIF index offers only a 50% return during the period. In terms of return and risk combination, Shanghai, NCREIF, and Shenzhen offers viable choices among the markets studied.





3) **Retail** = Of the markets studied, NCREIF offers the best return during the period doubling in asset value though harboring the highest risk factor as well (Shanghai is not included here due to the data starting from a later date). In terms of return and risk combination, Beijing and Shenzhen may also be viable choices.





Based on the foregoing and if the trend exhibited during the period studied is assumed to continue, then **the following speculations may apply**:

a) **In terms of risk diversification** = though the USA and China markets are thousands of miles apart from one another geographically, it does not automatically imply there are bound to be risk diversification due simply to such geographical differences. There appear to be some correlations among them. <u>Further studies are required and recommended and investors, from the USA or China, should take note</u>.

b) **In terms of return and risk** = it does seem the maxim of lower / higher risk for lower / higher return generally applies, notwithstanding for an assumed level of risk, some markets offer comparatively return than others. <u>Investors may do themselves a favor via gauging such relationship apart from analyzing relevant market attributes, especially when performing market capital allocations</u>.