Zeppelin's

Real Estate Tech

1Q 2007: A Real Estate Newsletter by Zeppelin Real Estate Analysis Limited
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2006 has been a good year with most of the world stock markets performing well and real estate making some gains or at least sustaining nicely. Despite the various cooling measures, China real estate continued to push ahead with the exception of Shanghai. In Hong Kong, the prime of the prime office commanded premium rents while a recent luxury residential land sale fetched a world record price of HK$42,000 (or around US$5,300) per ft2 of permitted floor area.

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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 **42nd** 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.

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.

China: 10 Real Estate Market 2006 Summaries

Real Estate Tech, 1Q 2007

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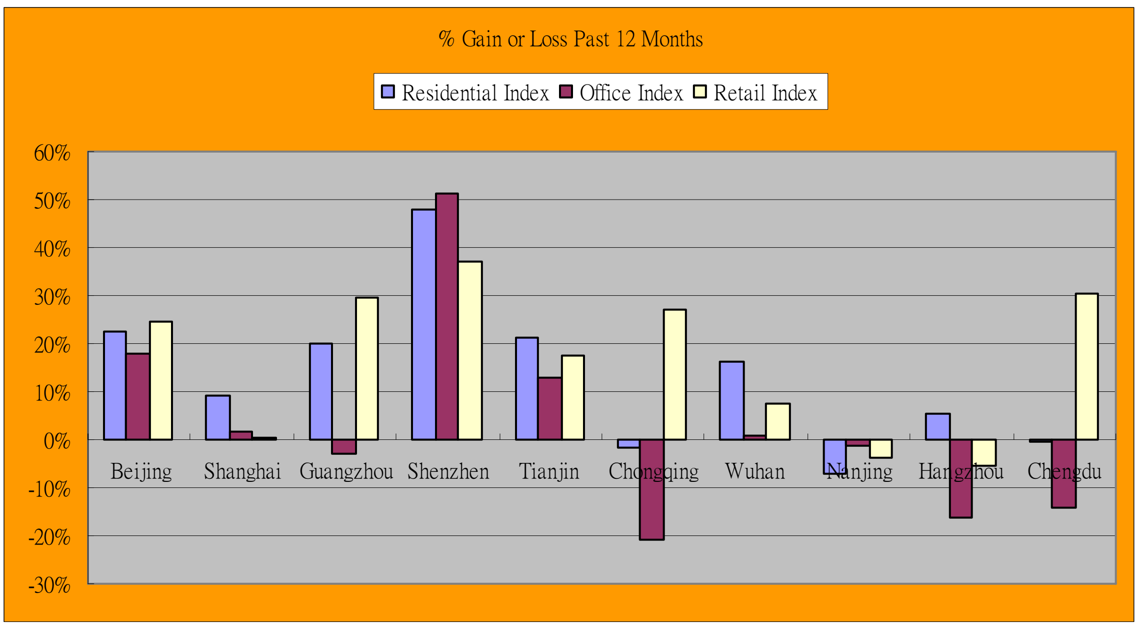
Data: The data and information used herein have come from the China Real Estate Index System (CREIS) of the Soufun Group.

We have reviewed the residential, office, and retail real estate indexes during the 12 months from October 2005 for the following 10 markets (cities); namely Beijing, Shanghai, Guangzhou, Shenzhen, Tianjin, Chongqing, Wuhan, Nanjing, Hangzhou, and Chengdu. The first four are usually considered to be the 1st tier major metropolitans while the rest could be described as important 2nd tier cities, especially Chongqing which covers a population base of over 31,000,000 people.

The results are rather mixed in that it demonstrates that China real estate markets are not one and uniform, notwithstanding there could be correlations between some of them or their sectors thereof. The indexes are based on price sold per floor area (Yuan / m2) and thus there is a possibility that the indexes might be skewed if and when a certain month harbored excessively expensive or inexpensive transactions. In any event, here is a chart showing the gain or loss during the period mentioned:



Several observations could be made:

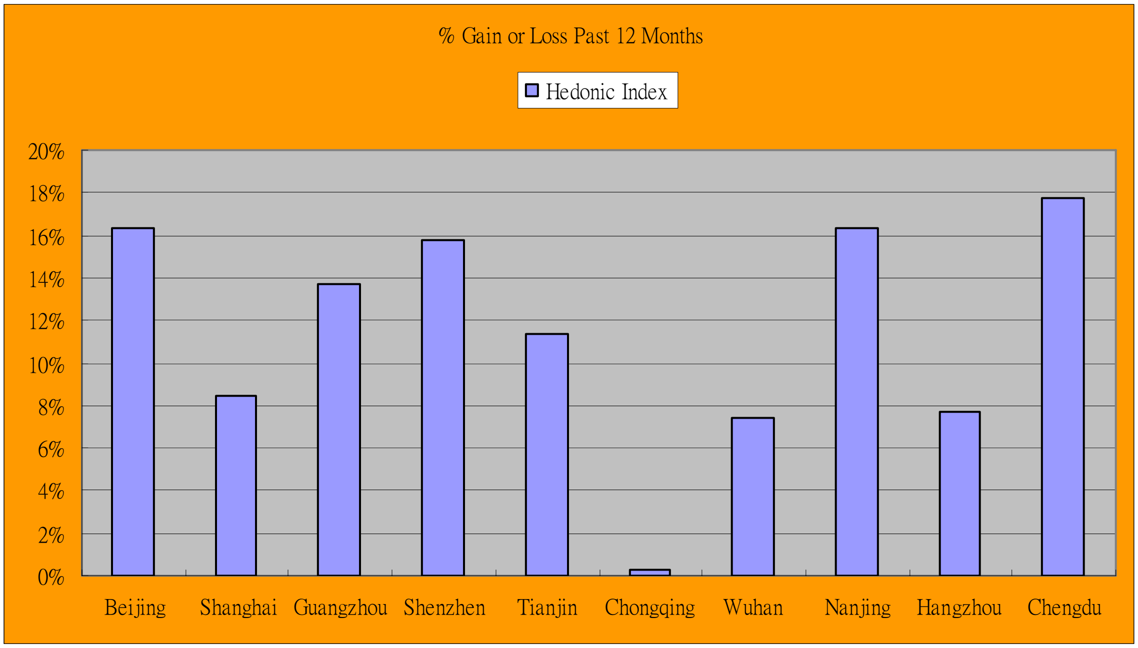
1) Shenzhen was the overall winner = in that its residential, office, and retail sectors offered the best possible returns with gains of around 47%, 51%, and 37% respectively.

2) Shanghai still showed gains = albeit small compared to the other 1st tier cities perhaps reflecting the effects of the various market cooling measures.

3) Beijing offered steady and balanced gains = in all three sectors with around 22%, 18%, and 25% respectively for residential, office, and retail.

4) The 2nd tier cities appeared lackluster compared to the major metropolitans = with some, especially the office sector, losing some ground e.g. Chongqing, Hangzhou, and Chengdu recorded loss of around 21%, 18% and 15% respectively.

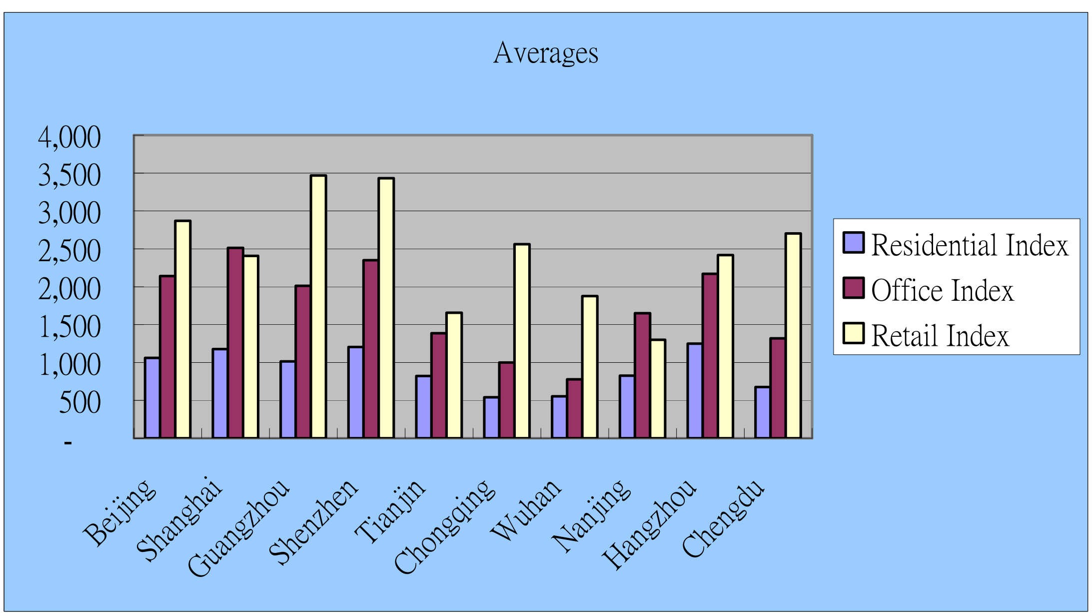
On the residential sector indexes, in order to overcome the probable skew caused by more expensive or inexpensive transactions, hedonic indexes were created to offer a more balanced view. These hedonic indexes reflect the price per floor changes seen from a pool of selected properties of certain defined qualities i.e. the property qualities are more or less stable thus allowing a better comparison of price changes. Here are the results:



As can be observed, none of the markets actually showed a loss and the huge gains seen in some markets e.g. Shenzhen might be in part due to having pricier properties being transacted. Conversely, the losses seen in some markets e.g. some of the 2nd tier cities could indicate a market demand for the inexpensive or more affordable properties.

Please note the above observations were based simply on index (price per floor area) % gained or lost, and rental income yield or the various expenses and taxes related to real estate transactions have <u>NOT</u> been taken into account.

As to the <u>index values</u>, the reader may wish to refer to the chart below:



Again, a few brief observations could be made:

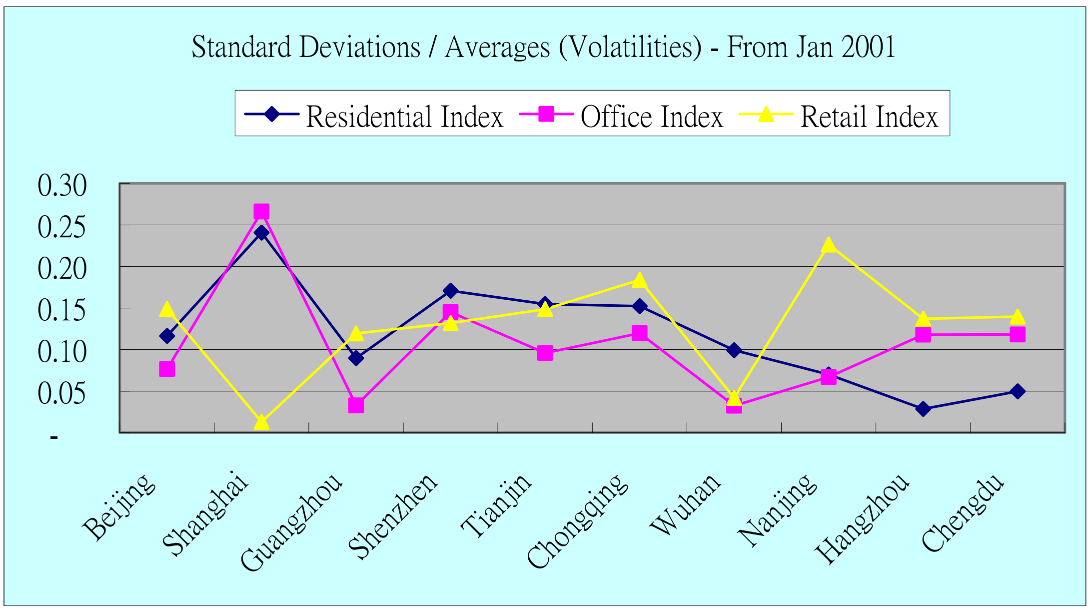
A) The office and retail properties are generally sold at higher prices per floor area than residential properties = irrespective of which city it is, or whether it is 1st or 2nd tier.

B) The price levels are generally higher in the 1st tier cities = than in the 2nd tier cities.

C) Between the office and retail properties = the latter generally sells for more though in some cases it might tie or even be less than the office index.

Please note these price (per floor area) indexes are based on new properties and transactions and second hand properties are not represented herein. The index differentials among the 10 cities and the 3 sectors of residential, office, and retail may also offer investors certain potential insights into the markets.

While investment returns are of paramount importance, the volatilities associated with such returns should not be overlooked. The higher the volatilities, the higher the risks associated with the particular sector of the particular city. The chart below illustrates the volatilities for each of the sector in the 10 cities mentioned (volatility herein is calculated via dividing the standard deviation of a price index by the average of that price index):



While generally less risky cities tend to have lower volatilities for all 3 market sectors, there are exceptions. For instance, Shanghai retail index shows a low volatility yet the residential and office volatilities appear higher than most. So is to a certain extent Nanjing.

One application of the above data and information is to compare the return and risk parameters of each of the city and its market sectors with the other cities and their sectors, thus seeking and selecting ones with the better combinations for further investment analysis.

Real Estate Development Joint Ventures: Basics

Real Estate Tech, 1Q 2007

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Real estate development joint ventures, defined as a mutual cooperation between 2 or more parties, are commonplace. These could be between 2 real estate developers, or a government-public body and a real estate developer, or a non-real estate entity and a real estate developer. In the latter two scenarios, the real estate developer would most likely be the active party in charge of the development progress including all technical aspects while the other entity would assume a passive role, though it may request for regular progress briefings on the project from the developer. Furthermore, it is very likely the developer would contribute all expenses related to building construction including professional fees and government levies while the passive party would contribute the land lot needed for development.

While the two parties naturally would share some common goals, e.g. the successful completion of the new real estate development project, each would also have its own priorities and preferences, e.g. both would seek to maximize their investment in the venture. Thus, in order to ensure the smoothest process and courteous relationship, it is highly advisable that the broad principles, terms, and conditions be clearly stated and agreed to between the two parties prior to development. There is no illusion here that such a cooperation / joint venture agreement would guarantee project smoothness and success, yet it is believed a well written agreement would greatly reduce the possibility of misunderstanding and unnecessary disputes. Naturally, the intent of the parties is paramount in the sense there must be a certain level of goodwill and trust, else no matter how water-tight the agreement appears, there will be disputes. Here we share our thoughts and experience on <u>the joint venture framework</u>:

A) **Revenue Sharing Basis** = use a Gross Revenue approach e.g. if the expected revenue from a project is $100, it would be better for the two parties to split and share it according to pre-agreed portions e.g. 50 / 50. The reason is simple; the scope for disputes is minimized as revenues usually refer to gross sales proceeds or rental incomes which in turn could by and large be reasonably recorded, benchmarked, and procured. As to the split proportions, that would depend on the significance of the contributions made by each party and their relative negotiation strengths and skills.

B) **Actual Property Unit Splits** = i.e. the two parties agree not only on how many units (or floor areas) to which each party will be entitled, but also which units (or floor areas). As to whether the parties would jointly market and sell / rent out their shares, this would depend on market conditions and the circumstances of the parties. The reason for this arrangement is again simple; this minimizes unnecessary misunderstanding.

C) **Upfront Cash Premium** = it is advisable at times for the passive party to forfeit a higher development revenue sharing portion for some cash payment upfront which is paid by the developer regardless of whether the project ends up profitable or not. The reason is that many passive parties do not have as high an investment risk tolerance as the developer and may require some cash to finance its other operations while development is proceeding. Sometimes, the passive party may even be entitled to another cash payment upon project completion and this sum can again be guaranteed and not related to whether profit is made.

D) **Try to avoid using the “revenue – expense = surplus or loss” approach** = as the expense component, consisting mainly of building construction costs and fees, may induce a higher chance for disputes notwithstanding professional input from the project consultants. First, there could be excessive costs, intended or otherwise. Second, building construction and thus building costs are not exact science which works to decimal points. Ask 10 consultants and you will have 10 different answers though the bulk may fluctuate within a normal bell curve. Third, unscrupulous developers are enticed to work up the figures. Thus, the passive entity should seek to avoid having too much of its return based on such a revenue – expense formula.

In summary, real estate development joint ventures can be very viable for both parties. The developer gets to lessen the initial capital outlay while the passive party can look forward to having some of the windfall revenue should the market improves. It is just that parties need to realize apart from cooperation, there is also a competitive angle in the relationship.

China Cities: Degree of Internationalization & International Flights

Real Estate Tech, 1Q 2007

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Data: The data used herein have been collected mostly from www.wikipedia.com, www.soufun.com, and the Hong Kong Airport Authority.

Quite a few cities in China appear to be concerned with whether they are part of the global economy and becoming (or being) internationalized, in the broadest sense or whatever interpretation of the word, is one of the most touted and targeted objectives. Nonetheless, as regular travelers to China may realize, while airports of the major metropolitans such as Beijing and Shanghai do have a sizable international terminal handling numerous flights from all around the world per day, those of the smaller or 2nd or 3rd tier cities are generally much smaller and international flights are comparatively few and far between. Hence, this prompted your humble author to contemplate using a simple way to gauge the degree of internationalization, or its lack thereof, of the many cities in China: by measuring the number of international flights handled per day.

As Hong Kong is a popular spring board for multinational corporations eyeing China business and investment, we sample-measure the flights from Hong Kong (treated by Mainland China as international flights) to selected city destinations, consisting of Beijing, Shanghai, Tianjin, Chongqing, Wuhan, Nanjing, Hangzhou, and Chengdu, in the Mainland. Then we compare the data to various aspects ranging from GDP to real estate indexes. The initial results seem to support the contemplated method [Note: Guangzhou and Shenzhen, though being major metropolitans, are too close to Hong Kong flight-wise and thus are excluded from the sample]:

A) **Cities with more international flights tend to have higher GDP (Gross Domestic Product)** = based on the assumption that international cities do business with the whole world thus enhancing its GDP and perhaps vice versa too.

B) **Cities with more international flights tend to have more expensive office properties** = which is explainable as international business means there are more prospective office tenants including multinationals and local companies doing business with such multinationals.

The following are charts listing the selected cities and their basic statistics including number of flights from Hong Kong [based on randomly selecting a weekday in December 2006]:

Cities:	Beijing	Shanghai	Tianjin	Chongqing	Wuhan	Nanjing	Hangzhou	Chengdu
Population	14,930,000	18,670,000	10,240,000	31,442,300	8,537,236	6,400,000	6,400,000	12,075,203
GDP Yuan Bn	428	915	293	310	224	191	252	237
GDP / cap Yuan	28,700	51,485	28,600	8,540	26,238	33,050	38,858	19,627
Flights from Hong Kong	45	51	3	3	3	4	10	4

Residential Index	City / Market:							
Aspects:	Beijing	Shanghai	Tianjin	Chongqing	Wuhan	Nanjing	Hangzhou	Chengdu
Average	1,060	1,176	823	540	553	826	1,249	677

Office Index	City / Market:							
Aspects:	Beijing	Shanghai	Tianjin	Chongqing	Wuhan	Nanjing	Hangzhou	Chengdu
Average	2,140	2,513	1,386	1,000	777	1,651	2,171	1,319

Retail Index	City / Market:							
Aspects:	Beijing	Shanghai	Tianjin	Chongqing	Wuhan	Nanjing	Hangzhou	Chengdu
Average	2,869	2,407	1,657	2,562	1,877	1,300	2,418	2,702

There are also a few interesting observations as follows:

1) **Population has little to do with the degree of internationalization** = IF the number of flights is considered a good indicator of internationalization.

2) **Residential and retail real estate prices are less correlated with internationalization** = again IF the number of flights is accepted as an indicator of internationalization.

Here are the rough correlations:

R	Flights from HK	R2	Flights from HK
Population	0.2030	Population	0.04
GDP Yuan Bn	0.8542	GDP Yuan Bn	**0.73**
GDP / cap Yuan	0.6033	GDP / cap Yuan	0.36
Residential Index	0.6623	Residential Index	0.44
Office Index	0.7858	Office Index	**0.62**
Retail Index	0.4692	Retail Index	0.22

As to whether (all) cities should set themselves up as international (global) cities, no matter how difficult it is to define internationalization, your humble author harbors some doubts. First, the world does not need and cannot fully utilize a lot of international cities i.e. too many would actually be wasting global resources. Second, being a good competent regional / local / 2nd tier / 3rd tier is NO small feat in itself. Some, especially those in emerging economies, may feel any goal less than international smells of not having enough confidence, boldness, dare, dream, vision, and so on. Your humble author empathizes with such sentiment YET this is totally wrong and even idiotic. Using this logic, all car manufacturers should produce only Rolls Royce. Even BMW and Mercedes are not good enough, let alone the Toyotas and Hondas. The reality is that some of the most successful car makers produce mainly affordable cars, not luxury ones. <u>Being a successful 2nd tier or 3rd tier city beats being an international one in the bottom of the heap</u>.