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A Newsletter by Zeppelin Real Estate Analysis Limited of the Zeppelin Group
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Culture, REITS, and demolition: The past few months have seen quite a few real estate related issues being discussed, debated, or even legally challenged by members of the public and legislature. These topics ranged from whether having one bidder for a mega-sized culturally themed project is necessary, via a legally challenged would-be (will-probably-be) REIT IPO, to investors of a public site deciding not to tear down the existing (less than luster) residential towers. Nonetheless, against this background the Hong Kong economy seems to continue the upward march and so does the real estate sector as a whole. Meanwhile, across the Pacific Ocean, George Bush was sworn in for the second term.

In this Issue:

- **Urban Land Use Policy and Patterns in Hong Kong: An Empirical Analysis with Findings**, by invited guest writers Professor Eddie Hui, Manfred Lam, and Vivian Ho, Department of Building and Real Estate, Hong Kong Polytechnic University, and by courtesy of the Editorial Board, Hong Kong Institute of Surveyors for permitting the publication of an abstracted version in this newsletter
- **Hong Kong Retail Real Estate Macro Figures**
- **A Few Notes on Sizing Up the China Real Estate Market**

We are very honored to have the said guest writers in this issue. We would also like to hear from prospective readers / writers who wish to share their real estate knowledge and experience with us.

This quarterly (generally published in January, April, July and October) newsletter is circulated freely via email to over thousands of readers including 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), **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 between. This newsletter is now into its **9th year** and **33rd** 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. We also make available charts, tables, spreadsheets, reports, and the like for reference, the majority of it being free with some requiring a token fee.

Zeppelin Real Estate Analysis Limited is involved in real estate development, investment, and asset management with a focus on **independent analysis**, investment strategy, and portfolio management. It can also assist in setting up real estate analytical systems and content development. It is part of the Zeppelin Group of Companies which collectively also offers real estate project management, facility management, marketing management, building design and architecture, and capital management services.

Urban Land Use Policy & Patterns in Hong Kong: An Empirical Analysis with Findings

Real Estate Tech, January 2005
By Invited Guest Writer Professor Eddie Hui, Department of Building and Real Estate, Hong Kong Polytechnic University
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We are glad in this issue to have **Professor Eddie Hui** from the Department of Building and Real Estate of the Hong Kong Polytechnic University as our invited guest writer who, along with his colleagues **Manfred Lam** and **Vivian Ho**, had kindly agreed to let us do an abstracted version of their research study titled above. We also wish to thank the **Hong Kong Institute of Surveyors** – Editorial Board members who kindly gave us their consent for publishing this abstracted version of the said research article, which full version appeared in page 48 to 54 of the December 2004 Volume 15 Issue No. 2 of the **HKS Journal**.

Executive Summary: the research study unexpectedly discovers that increasing the percentage of residential zoning will decrease the actual floor space that households utilized, thus pointing to a fact that the government's planning system has indeed disturbed the equilibrium of the housing market via segregating the market into various niches, which in turn prevents the free flow of households and the free production of residential flats. A series of housing supply and demand factors have been selected and data are input into a regression model. A more lenient land supply policy is recommended.

1) **Data sources**: household data have been extracted from the Annual Digest of Statistics and the Basic Tables for Tertiary Planning Units 2001, both issued by the Census and Statistics Department, in addition to Outline Zoning Plans produced by the Planning Department. Private and public residential floor area data were provided by the Rating and Valuation Department. The sample data cover 34 districts in 2001.

2) **Supply side factors**: restrictive regulations on land development and land use limit the supply of urban land, and it is decided that the percentage of land designated as residential (including Residential Group A to E, Commercial / Residential-50% assumed, Village, and Comprehensive Development Area-50% assumed) will be used as a measure of the planning constraints. The hypothesis is that a high RE is related to a high actual floor area utilized. Another factor is the average monthly domestic household rent and it is hypothesized that the higher the rent, the higher the actual floor space used.

3) **Demand side factors**: the first hypothesis here is that the higher the average monthly domestic household income, the more actual floor area the household will occupy, and second, a larger population will correlate to a higher actual floor space used.

4) **Dependent variable**: all 4 independent variables above are hypothesized to correlate with the dependent variable, the actual floor area used.

5) **Cross-sectional regression analysis**: the basic equation is F = 1RE + 2POP + 3 IN + 4RENT +………where F is the actual floor area occupied by the residents of each district.

6) **Findings**: Briefly, the rent and population variables are found to correlate with F positively, thus matching their respective hypotheses. However, the residential percentage and income variables are negatively correlated with F, thus contradicting the hypotheses.

7) **Interesting observations**: an increase in the percentage of land zoned for residential will result in a reduction of gross floor area occupied, thus running counter somewhat to intuition. However, closer examination of the data revealed the districts concerned are older ones with public housing blocks built in the 50s and 60s, and their spatial standard tend to be extremely low. Shortages (the difference between the actual and theoretical optimal floor area level) and overcrowding are the norm. On income, while the correlation is negative, it becomes positive if a floor area per capita basis is used, thus confirming that higher household income leads to higher consumption of living space per person.

8) **Implications**: Hong Kong people have been paying high prices for flats / apartments because of the 'restrictive' land supply "policy" or practice, and that at the district level, some suffer severe shortages while others have huge surplus capacities, with the overall not being too far away from the equilibrium.

9) **Conclusion**: The government is urged to consider relaxing its restrictive land supply by making use of abundant non built-up land.

For the full and detail version, please refer to page 48 to 54 of the HKS Journal, Volume 15, Issue No. 2, December 2004, published by the Hong Kong Institute of Surveyors.

Hong Kong Retail Real Estate Macro Figures

Real Estate Tech, January 2005

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The road to the LINK REIT proved rockier than expected especially by way of potential legal challenges. Nonetheless, for both investors and analysts alike, the LINK REIT offer prospectus contains much useful data and information on the retail and parking real estate sectors, thus offering a good (and free) real estate reference. Your humble author has abstracted the following retail figures:

A) **Retail volume is HK$300,000,000,000 plus** = including around HK$50,000,000,000 from tourists and visitors, and the total is roughly 22% of the total GDP in Hong Kong.

B) **Private retail properties total around 9,300,000 m2** = or roughly 110,000,000 ft2, based on 2002 figures. These properties accommodated some 49,000+ retail outlets and around 11,000 restaurants and eateries. The total retail receipts were HK$220B with HK$48B of these being restaurant receipts. Dividing the total receipts by the floor area, each m2 of floor area contributed HK$24,000 per year, and the average revenues for retail outlets and restaurants were HK$3.60M and HK$4.20M per year respectively. Given that these retail outlets and restaurants employed around 386,000 people, the average revenue per employee was roughly HK$570,000.

C) **Of these private retail properties, most were Neighborhood Centers (9,000 m2 or below) and street shops** = occupying around 6,900,000 m2 i.e. around 74% of the total floor area. Next were the District Centers (9,000 to 40,000 m2), totaling around 1,400,000 m2 or some 16% of the total floor area; the Regional Centers (40,000 to 90,000 m2), totaling around 610,000 m2 or 6% of the total floor area; and the Territorial Centers (90,000 m2 or above), totaling roughly 410,000 m2 or around 4% of total. These various scales of retail properties offer different levels of qualities, amenities, conveniences, designs, and facilities, though in general, the larger the premises, the higher the quality scale it tends to be.

D) **Average rent was HK$770 per month per m2** = based on 2002 though figures for 2004 are expected to be similar in ballpark. Kowloon retail properties commanded the highest overall rental rate at HK$870 / month / m2, while Hong Kong Island and the New Territories were HK$800 and HK$600 respectively. Rental growth was highest during 1990 to 1997 versus negative growths in recent years.

E) **Most of the retail space is located in Kowloon** = occupying 40% of the total, while Hong Kong Island and the New Territories are around 34% and 26% respectively. The largest retail owners are the publicly listed real estate groups such as Sun Hung Kai Properties (600,000+ m2), Henderson Land (340,000 m2+), Cheung Kong & Hutchison (350,000+ m2), Wharf (310,000+ m2), and Swire Properties (290,000+ m2).

F) **Retail floor space per capita is low compared globally** = at 1.20 m2 per capita while the USA's is 3.30 m2 and Australia is 1.90 m2. Nonetheless, Hong Kong compares well to most Asian countries e.g. Korea is 1.20 m2, Singapore is 1.0 m2, and Japan is also 1.0 m2.

In summary, the overall vacancy rate of around 11% is not overly poor and retail space supply has been declining since the 1980s. Rental performance seems to correlate to economic performance.

A Few Notes On Sizing Up The China Real Estate Market

Real Estate Tech, January 2005

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Many overseas analysts, be they in funds, stocks / equities, or real estate, would ascertain the various China real estate markets, especially ones related to the major cities such as Shanghai and Beijing, for signs of economic performance, well-being and / or overheating. In many instances, they would more often than not find the real estate markets seriously oversupplied, at price levels that seem difficult to explain, and somehow production keeps on increasing.

Notwithstanding such oversupply or even bubbly conditions, there are <u>certain aspects that analysts and investors may wish to watch out for</u> in order to arrive at a more comprehensive picture when gauging China real estate markets:

A) **A tendency to focus on the luxury / high-end market sectors** = be these residential, office, or retail etc. This is not difficult to understand as most multinationals tend to occupy the best offices and to have their staff accommodated in some of the best residential compounds. Moreover, foreign investment funds also tend only to concentrate on the best quality 'trophy' buildings. Thus, the real estate consultants and brokerages that service these multinationals and investment funds would automatically focus more on such market sectors, formatting the relevant data and information to suit a more global audience. Unavoidably, people may have the impression that real estate prices in the major cities being almost as high as those in New York City or London.

B) **Visual checks on vacancy rates** = some analysts would seek to observe the vacancy in-situ e.g. by counting the seemingly 'occupied' residential units in a complex. This is a good practical way to get a quick gauge YET should be used in conjunction with other tools for cross-vetting and comprehensiveness. The reason is simple, property units that seem 'unoccupied' might have been pre-sold yet have yet to obtain the various building occupancy permits allowing actual moving-in i.e. physical vacancies do not always equate actual vacancies. Also, properties have to be serviced (with utilities etc) in order to become 'livable', and thus significantly incomplete units, while may be counted as vacant units 'statistically', are not really 'effective' vacant units (supply) i.e. they cannot be made livable with a few touch ups or utility connections, thus posing no threats to the market.

C) **Technical definitions** = certain real estate statistics and definitions may be different in meaning and / or calculation method from global practices. For instance, vacancy in China may refer to the amount of real estate produced in a particular year that remain unsold / unoccupied (generally described in so many square meters of floor area, 1 m2 = 10.76 ft2) divided by the total amount of real estate produced / completed only in that particular year. This is different from the typical vacancy which refers to the amount of unsold / unoccupied real estate over the entire real estate stock.

D) **Real estate prices versus reported disposable income levels** = do sometimes suggest a tough time for most households to acquire and service a home, assuming mortgage financing is used. However, as China is a developing economy, with much of the physical / legal / financial / banking etc infrastructures still being in evolving or enhancing stages, taxation system included, certain income may not have been statistically counted, thus giving the home affordability ratio a challenging rating. Readers may be interested to know that your humble author had once seen a street sign in Beijing urging residents to honestly report their income.

In summary, notwithstanding the quality and availability of economic / business statistics, data and information have been getting better, the task of collecting, sieving, assembling, analyzing and compiling such data could still be formidable.