Zeppelin's Real Estate Tech

3Q 2015: A Real Estate Newsletter by Zeppelin Real Estate Analysis Limited

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Interesting times! First, there is the on-going Greek debt problem which if not contained may spread to the other PIGS which in turn may put the EU in doubt. Greece sinks anyway though. Second, there were this sudden dive in the China stock markets and the subsequent propping up via administrative means, putting it mildly. Third, Puerto Rico informed the US that it could not repay the loans. Wonder what else is there?

- **Hong Kong parking spaces: low transaction volume, high price volatility**
- **To taxis drivers: Uber is only a competitor, the self-driving car will be the killer**
- **Same investment return% does not necessarily imply investment indifference**

"The common saying that home prices are so high that even university grads cannot afford to buy one has a subliminal message = university grads should buy a home."

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 the **South China Morning Post, China Daily**, **Hong Kong Economic Journal**, **21st Century Business Herald**, **Apple Daily**, **Sing Tao**, **Quamnet Magazine**, **The Standard**, **MITCRE Alumni Newsletter**, **Surveying Newsletter**, **Reidin.com, Centanet.com, Netvigator.com, Hongkong.com, E-finet.com, Red-dots.com, PacificProperties.net**, **Soufun.com** and **House18.com**. We had also been quoted in the **Asian Wall Street Journal** and interviewed by **USA Today**, **i-Money**, **Ming Pao, Radio Hong Kong**, **Cable TV (Money Café), DBC Radio,** and **Commercial Radio**. We also publish monthly articles and analyses in the months in between. This newsletter is now into its **19th year** and **76th** 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 focuses on China / Hong Kong 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 allocation], project management [architectural design, cost control, and contract administration], and facility management [facility utility assessment, facility strategy, and building maintenance]. We are part of the Zeppelin Group headquartered in Hong Kong with office operations in Mainland China and we also have access to networks covering Asia, North America, and Europe.

Who? Me?

Stephen Chung
Managing Director, Zeppelin Real Estate Analysis Limited
Founder and Editor, Real Estate Tech Quarterly Newsletter
Real Estate Website Developer, www.Real-Estate-Tech.com

Stephen is an independent real estate analyst – number cruncher and chartered surveyor and has been involved in real estate development, investment, and management in Hong Kong / China / Asia and North America.

Stephen provides relevant real estate market insights and macro-micro assessments to real estate developers, investors, owners, financiers, funds, and civic organizations, and possesses many years of experience in building economics, project management, facility strategy, marketing, and research.

Stephen is also a regular real estate writer - columnist and his articles have been published in both English and Chinese media including the following:

- China Daily
- Hong Kong Economic Journal
- South China Morning Post
- Apple Daily
- Quamnet Magazine
- Real estate and finance websites such as Soufun.com, Finet.com etc
- Journals of professional institutes such as the Hong Kong Institute of Surveyors

Stephen is an honorary adjunct professor of the University of Hong Kong and has been invited to speak to audiences from:

- Universities: such as the University of Hong Kong, City University of Hong Kong, York University
- Professional Institutes: such as the Hong Kong Institute of Surveyors, Canadian Institute of Quantity Surveyors, Royal Institute of Chartered Surveyors
- Business Associations: such as the Rotary Clubs

Stephen has 3 real estate books in Chinese published to date as follows:

Online book = Easy Real Estate Lectures

Hard copy = Real Estate Investment Know-How above 101

Most recent and hard copy = The Real Estate Market Turning Point

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Our services can be obtained and delivered via a) tailor-made professional consultation; b) online report purchases; c) emailed discussions and advice; and / or d) phone discussions.

Hong Kong parking spaces: low transaction volume, high price volatility

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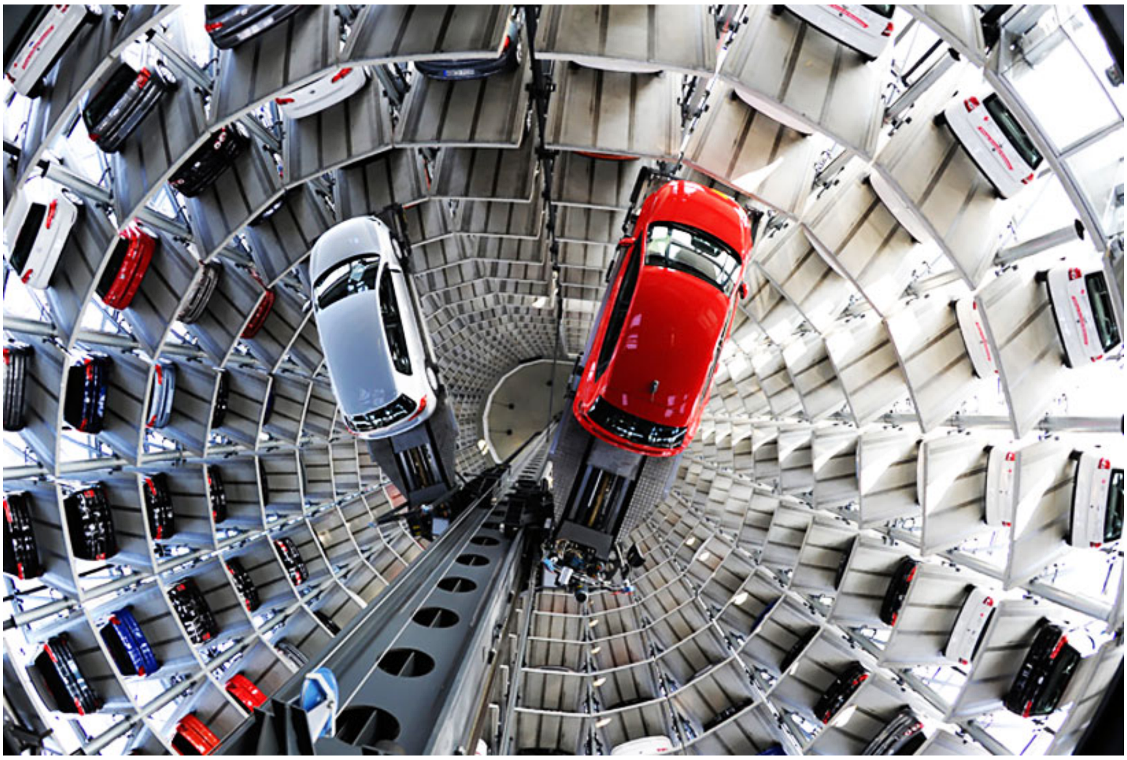
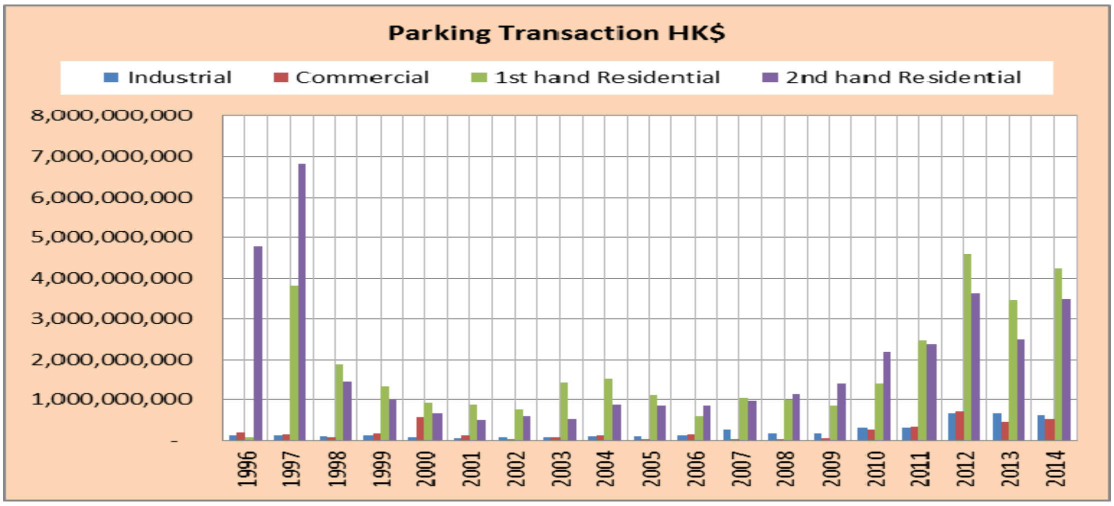


Wow, isn't this neat? (Courtesy of Volkswagen)

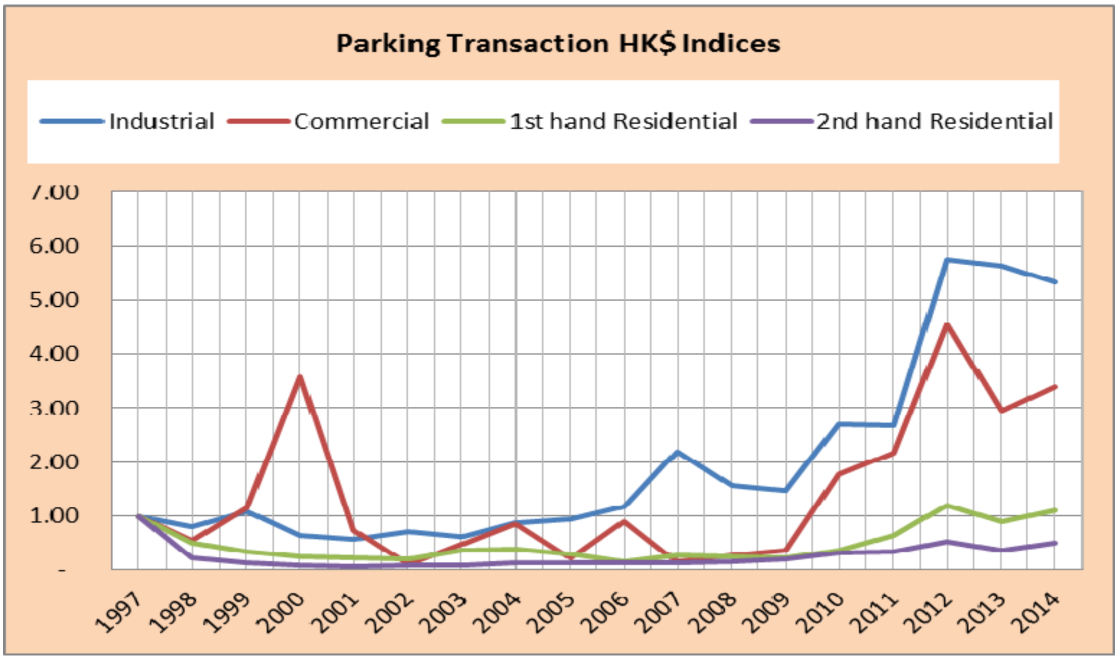
Parking spaces do not come cheap these days and price tags of more than HK$1M (around US$128,000) are commonplace. Here are some macro 1997 to 2014 data on parking spaces, be these located in an industrial, commercial, or residential property. Note that transactions of whole parking complexes are excluded (source: www.centanet.com):

A) The total transacted price tends to be small = in 2014, it was around HK$8.80B, peaking in 1997 at HK$11.00B and reaching a bottom of HK$1.50B in 2002 [see chart below].



Note that the total dollar volumes for both the industrial and commercial parking spaces tend to be smaller than those of residential, 1st or 2nd hand sectors. For instance, in 2014, the industrial and commercial parking space sectors total HK$500M to 600M each, whereas the 1st and 2nd hand residential space sectors scored between HK$3B to 4B each.

B) Dollar volumes can fluctuate immensely year to year = both the transaction volume and price level have been on the increase in recent years, thus leading to higher overall dollar volumes. However, on a year to year basis, the fluctuation in the total dollar volume could be immense [see chart below].



Interesting to note that while the dollar volumes for both the industrial and commercial parking spaces tend to be much smaller, their growths in dollar volumes have outpaced that of residential, in particular the 2nd hand residential parking spaces.

C) The average price of a 2nd hand residential parking space still lags behind the HK$1M mark = its total dollar volume in 2014 is even smaller than that of 1997. In the past couple of years, the average price paid for an industrial, commercial, or 1s hand residential parking space exceeds HK$1M, and sometimes well above it. Nonetheless, some transactions related to industrial or commercial parking spaces might at times contain more than one space, and thus caution is required when comprehending the data which, as such, is only for rough reference.

Investing in parking spaces offer some advantages over the usual property assets = 1) the capital required is smaller; 2) fewer building maintenance headaches; 3) fewer potential complaints from tenants; and 4) parking demand can be strong for popular locations.

Nonetheless, it is not free from misery either. The data shows when the parking space sector encounters an economic downwind, it could turn pretty quiet...and real fast too!

To taxis drivers: Uber is only a competitor, the self-driving car will be the killer
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Care to take a ride? Extra fare for the robotic driver (Courtesy of Total Recall)

Your humble author assumes the readers to have some idea of the self-driving car, or what some may call the autonomous car. Whatever one likes to call it, it is being developed and tested, utilizing the GPS system for route guidance and sensors for preventing the car from hitting something, someone, or one another. For an idea of the latest development, here is a TED clip:

http://www.ted.com/talks/chris_urmson_how_a_driverless_car_sees_the_road

Your humble author is no tech geek yet would speculate that this technology will change the way we live, or at least our driving habits:

A) Self driving cars mean a chauffeur for every car owner = up to this point, most car-owning households drive the car(s) themselves, and only a handful of the better off can afford to hire a chauffeur or two to help with driving the family (or company) car(s).

Not anymore! With the self-driving cars, car owners will each have, as if, his or her own chauffeur. Not only can the car take the passengers (the car owner and extended family included) to where they wish to go, the car can also be "called upon" – via a then invented or popular communication gadget - or time-preset for eventual picking up to head home.

And the "driver" – which can be in a dummy-like form [see the photo above] OR simply non-existent – NEVER sleeps.

B) Demand for parking spaces is likely to decrease = currently people who drive their own cars to a destination will require a parking space either at the destination or nearby. Yet, with the self-driving car, there will be an option of "having it go home on its own" i.e. there will be no need to find a parking space for it.

Naturally, whether the car is to stay at the destination area or go home depends on 1) the availability of parking spaces at the locality; and 2) the cost-benefit analysis of using local parking versus having the car gone home on its own. For instance, if the destination area does not have parking spaces available, the car will then have to go home on its own regardless of what the car owner wishes. Or for that matter, if paying for local parking costs $100 and having the car do a trip home on its own bills $50, assuming similar time benefits, one would choose the latter option.

As such, investors in parking spaces should not just take note of the above possibility but also realize that such technology and its use – if and when it can be and is widely made available and adopted – tend to grow in leaps and bounds i.e. geometrically.

C) Future parking facilities will have different designs, be more automatic, and be more cost-effective = If the car can self-drive, it can also self-park, faster and safer too. And the parking facilities are also likely to become more automatic and efficient to match. All in all, parking facilities may not require as much floor space per parked car in terms of design – with no or very little twists and turns, or for that matter a ramp up the parking levels - and operating costs can be lower over the longer run too. Put simply, we will see less traditional carparks (with ramps, roads, floor slabs etc) yet more 'parking tower- like' structures.

D) Human drivers will be out of work = and not just for taxi drivers because practically all vehicles (cars, vans, trucks, buses, even motor cycles) will be self-driving. Taxis will still exist, just that they do not come with a human driver. Does that mean many will lose their current driver jobs? Yes, including driving instructors.

Recently taxi owners and drivers have been protesting against Uber. This is understandable. However, Uber is only a competitor for business. The self-driving car will render drivers obsolete. The latter is the real (job) killer.

What will the world be like then? Well, one way to gauge this is to watch an old 1990 movie "Total Recall".

Same investment return% does not necessarily imply investment indifference

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Identical twins: each is still an individual person (Courtesy of Scientific American)

IF two investment projects are very similar in terms of scale, nature, resources required, time line, market risk, investment return and the like, does this mean they are quite indifferent from an investment angle? Answer: probably, but not necessarily. Just dig into the investment return factor alone and you can see why:

A) The level of leverage = many investments involve financing in part to boost up the return on equity and to get a bigger bang for the buck. Say there are two almost identical investment projects Y and Z. Project Y borrows 50% of the capital required while Z obtains 75% financing. Assume they offer the same IRR (internal rate of return), project Y is very likely to be the better-return option because if it raises its financing level to 75% thus matching that of project Z, Y's IRR will likely increase and be above the IRR of Z.

B) Components of the return = say there are two real estate investment projects, M and N, from which to choose and both offer the same IRR e.g. 20%. Looking closer, M's 20% IRR is made up from having 10% derived from rental income and the remaining 10% from asset price appreciation, whereas N's 20% IRR is very price appreciation dependent with 15% of the IRR coming from anticipated price increases and only 5% from recurrent rental income. Assuming all other factors being equal, M is likely to be steadier and safer option because rental income, in general, is comparatively easier to project / estimate / guess while real estate price appreciation is the wilder card. What's more, getting a 15% price appreciation is a higher call than 10%.

C) Price fluctuation frequency = say there are two investment choices J and K. Say over a 20-year period, both have the same start and finish points, e.g. both price indexes begin at 100 and end at 500 some 20 years later. Both also have the same price volatility / fluctuation bandwidth e.g. both differ from the 20-year regressed price line by the same percentage up and down.

However, there is a difference. J has a 6 to 7 year price cycle while K has a 20 year price cycle. This means during the 20 year period, J has gone through roughly 3 bottoms and 3 peaks whereas K has done this only once either way. Again, assuming all things being equal, J could be the better investment option because 1) it offers 3 chances for making significant price gains – 3 cycles – 3 chances for buying low and selling high; 2) IF one makes a mistake and buys high, J investors need only around 6 years to recover while K investors have to wait 20 years.

So the next time some investment consultant informs you that both investment options being promoted offer the same return and are thus “just as good as the other”, you would now know what to ask.

Do you need our services? You DO when…

- **In Real Estate Development:** you encounter overestimated proceeds, cost overruns, underestimated time schedules, design and quality issues, construction contractual disputes, joint venture conflicts, or the like…you need an experienced project manager like us

- **In Real Estate Investment:** you encounter challenges in 1) Selecting which markets (cities), sectors (residential, office, retail etc), and properties-projects to invest; 2) Striving for the best possible risk-adjusted portfolio return; or 3) Sensing the volatility of a market or sector; 4) Deciding which corporate strategies, tactics, priorities, properties, and projects to pursue; 5) Getting a INDEPENDENT SECOND OPINION on which you can trust…you need an independent real estate analyst like us

- **In Real Estate Management:** you encounter questions on 1) if it is more economical to buy or rent the real estate facilities and assets, and if so where and what; 2) how best to manage and maintain such facilities and assets; 3) what level of human resources are required, all with a view to maximize their utility to help achieve the corporate objectives… you need a seasoned facility strategist like us

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For details: please download our group introduction at http://www.real-estate-tech.com/ZPG-Group%20Introduction-sOct07.pdf

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