Zeppelin's Real Estate Tech

3Q 2013: A Real Estate Newsletter by Zeppelin Real Estate Analysis Limited

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Bernanke gave a reduced QE message and sent jitters across the globe. Stock prices dropped and locally in Hong Kong a few desperate property owners agreed to larger than usual discounts. A land lot was also sold for a less than expected low price though largely the market is holding its own, at least for now. In this issue:

- **Turn! Turn! Turn! To Every Thing There is a Season…**

"A real estate fund may be described based on the number of markets (cities) in which it invests: 1 to 2 = confident and bold, 3 to 6 = calculating and daring, 7 to 12 = better play safe, 13 to 20 = getting a bit indiscriminate, more than 20 = haven't got a clue of what I'm doing."

In this issue we depart from the usual practice of having 3-4 articles and instead focus on a relatively long but vital one. Hope you would enjoy reading it.

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)** and **Commercial Radio**. We also publish monthly articles and analyses in the months in between. This newsletter is now into its **17th year** and **68th** 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.

<u>Who? Me?</u>

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 <u>independent</u> 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 the City 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 2 real estate books in Chinese published to date and is completing a 3rd one. The two published are as follows:

Online book = Easy Real Estate Lectures

Hard Copy = Real Estate Investment Know-How above 101

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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.

Turn! Turn! Turn! To Every Thing There is a Season…

The QE-Induced Real Estate Market Danger

Real Estate Tech, 3Q 2013

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Writings on the wall: way back in the Book of Ecclesiastes and sung in the 1960s [Google Photos]

Your humble author has a book published recently in Chinese titled "樓市轉捩點" [translated it means "real estate market turning point"] and has since then been invited to guest speak at seminars, to participate in TV and radio shows, and naturally to autograph at book promotions. Readers may access some of these here:

The book
http://www.real-estate-tech.com/%E4%BF%A1%E7%B6%B2%E8%B3%BC%E7%89%A9.htm

TV and radio shows
http://cablenews.i-cable.com/webapps/program_video/index.php?video_id=12156280
http://programme.rthk.hk/channel/radio/programme.php?name=pth/ezone&d=2013-06-25&p=795&e=223028&m=episode [the 2nd link]

It has been fun. In any event, for the benefit of our Real Estate Tech subscribers and readers, your humble author would like to highlight some of the salient points in the above and summarize them as concisely as can be. While reading this, one may also view the related power point contained here:

http://www.real-estate-tech.com/Zreal_Smart_Expo_Turnx3.pdf

And for those with a penchant for 1960s songs, here is "Turn! Turn! Turn!" sung by the Byrds whose song inspires the title of this analysis:
http://www.youtube.com/watch?v=W4ga_M5Zdn4

"A time to get, and a time to lose; a time to keep, and a time to cast away………"
Book of Ecclesiastes, chapter 3, verse 6

Markets go up AND down

First, any asset market may behave in one of more of the following ways price-wise:

1) Big ups and downs
2) Big ups, small downs (quite ideal)
3) Small ups, big downs ☹☹☹
4) Small ups, small downs
5) Little ups and downs

BUT NO market has ever demonstrated a one-way upward only price trend in any meaningfully long timeframe. If so, there will be no need for economists, financiers, investment advisors, bankers, fund managers, or analysts like your humble author.

As in the verse above, and as any seasoned investor can tell you, there are times for gains (to get) and times for loss (to lose), and times for acquisition (to keep) and times for disposition (to cast away).

Since 2008 after the financial tsunami, Asia including Hong Kong has mostly been on the get and keep mode. More of this or will it turn?

The QE Saga* will not have a happy ending

Practically all major economies have been printing money or loosening up on liquidity in varying degree presumably hoping to buy time for and to stimulate the economies to get back on their feet.

So far, the results have been lackluster; the USA is still struggling, the EU…well…what can I say…Japan now resorts to financial kamikaze, and economies which did not require much QE help in the first place now have bubbly asset markets. All in all, the global economic and financial system appears to be getting shakier and unstable. Just a whisper of "less QE", let alone canceling it, is already enough to send jitters across markets, as seen recently in late June 2013 after Bernanke's utterance.

At the same time, QE has the (unintended?) effects of:

a) Punishing the conservative investors and savers e.g. a retiree who has US$2M in the bank cannot today rely on the deposit interest for a reasonably comfortable life

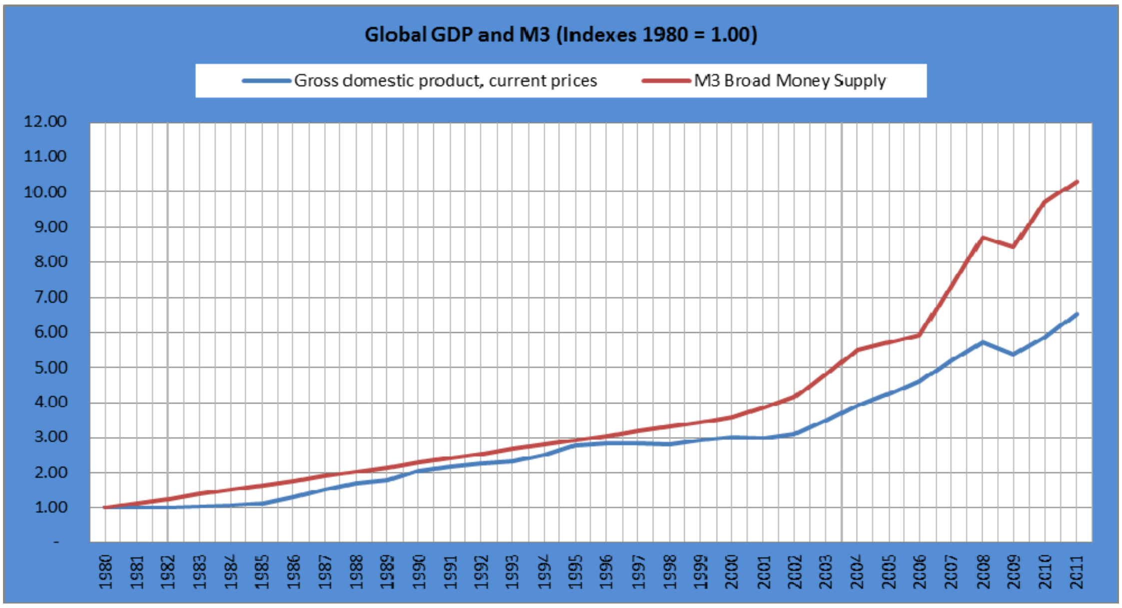
b) Broadening the income and wealth gaps because it is the relative wealthier households who have access to financing

c) Distorting asset prices

d) Creating bubbly markets and risks

Naturally, those in markets which have been benefiting from QE so far – including the Hong Kong real estate market – have been happy and thankful (and your humble author included).

Nonetheless, there is great danger. Look at this chart [data from the IMF and the web]:



Global productivity has not been catching to global liquidity and while the two had been moving in tandem from the 1980s to the mid-1990s, they have been parting ways since, with productivity increasing at much lower pace than liquidity.

This cannot continue indefinitely and at some point in time, productivity will have to catch up to liquidity, failing which, the 'excess' liquidity [and its perceived buying power] will either be inflated away or destroyed via asset bubble bursts. Neither is a desirable outcome.

Conceptually, liquidity (money) is just like most other items. Food for instance, if you don't eat, you die. If you eat 3 square meals a day, you thrive. However, if you eat 6 junk food meals a day, you end up six feet under soon too. Mathematically, it is a parabola. There is an optimal point e.g. 3 nutritious meals a day offer the best possible health and diet option.

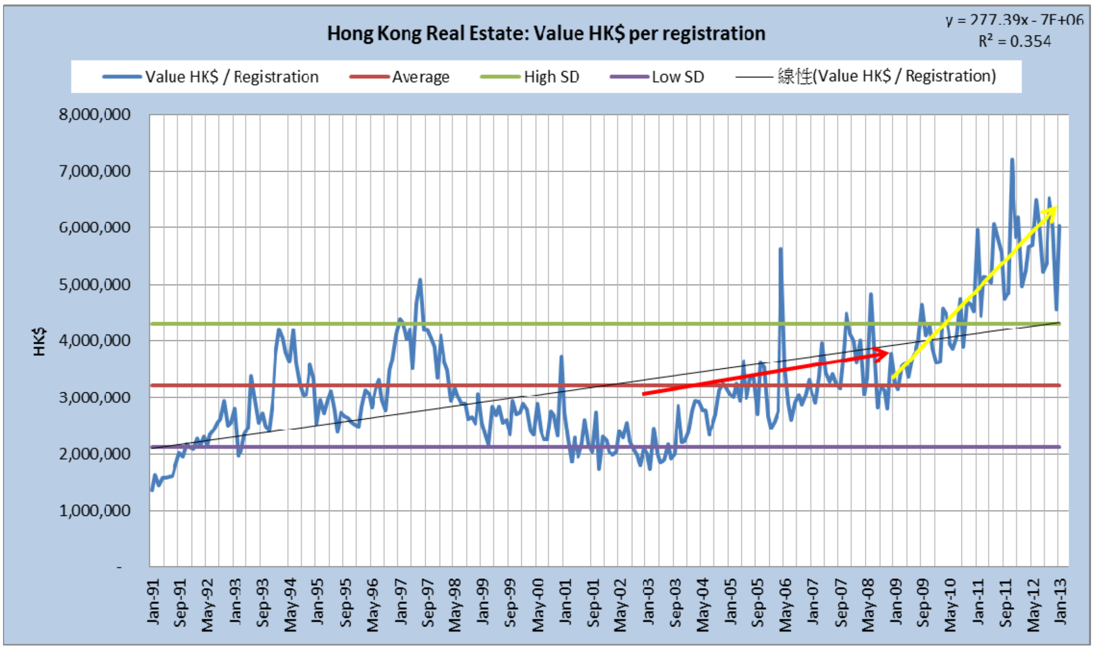
Likewise, too little liquidity, a lot of today's gadgets might not have been invented e.g. smart phones or surgical methods. However, too much liquidity, wasteful consumption and investment are likely to arise. This would not have been too bad IF such excess liquidity is not owed i.e. being equity rather than financing. Yet this is unlikely. For instance, QE is lent, not given.

In short, too much liquidity leads (some) people to do dumb things at times.

More of this or will it turn?

<u>The Hong Kong real estate market stepped on the accelerator since 2008</u>

Look at this chart and you know what I mean:



The above is the average price per transaction which embraces residential, office, retail, industrial, and the like. As such, it is slightly different from the usual residential pattern yet largely similar. The data comes from the website of Centaline Agency.

Here is the interpretation:

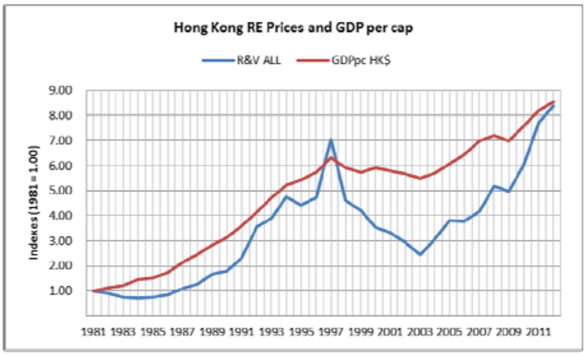
I) First, look at the three inclined lines = a) the thin black one all the way across the chart, b) the red arrow, and c) the yellow arrow.

The thin black line represents the average rate of increase for prices during the period; the red arrow reflects the rate of increase from 2003 to 2007 which by and large is similar to the thin black line; and the yellow arrow is the rate seen since 2008. The accelerator has been on full speed since 2008. Need I say more?

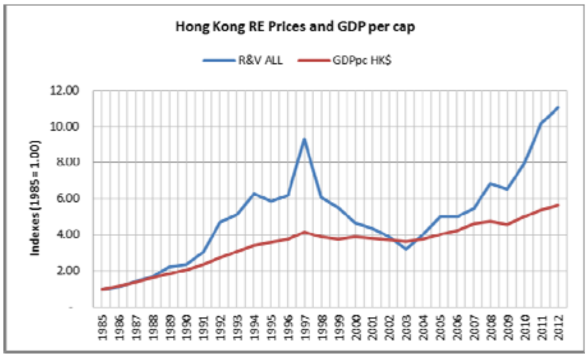
II) Second, look at the three horizontal lines = a) the middle red line is the average price for the whole period, b) the green line on top is the higher standard deviation level, and c) the purple line on the bottom is the lower standard deviation level.

The green and purple lines represents the 'normal' range of price variation for the period observed. The current prices are way above the range thus implying they are on the high side.

Two more charts [data from government departments e.g. Ratings and Valuation]:



(A) Prices and GDP per capita since 1981



(B) Prices and GDP per capita since 1985

Both charts compare the residential price index to the GDP per capita index with the difference being one chart starts in 1981 (chart A) and the other 1985 (chart B).

However, they present very different results:

Chart A shows both the residential price index and the GDP per capita index to be quite close i.e. IF you were a real estate agent and someone is looking to buy, you may use the chart to tell them that residential prices still more or less jive with GDP per capita which can be seen as a proxy for household income i.e. prices are not way above the income level.

Chart B tells the opposite story i.e. residential prices are now way above the GDP per capita index, indicating prices are not quite ‘explainable’. IF you were a real estate agent, you may show a potential seller-vendor this chart to help entice them to list their property for sale.

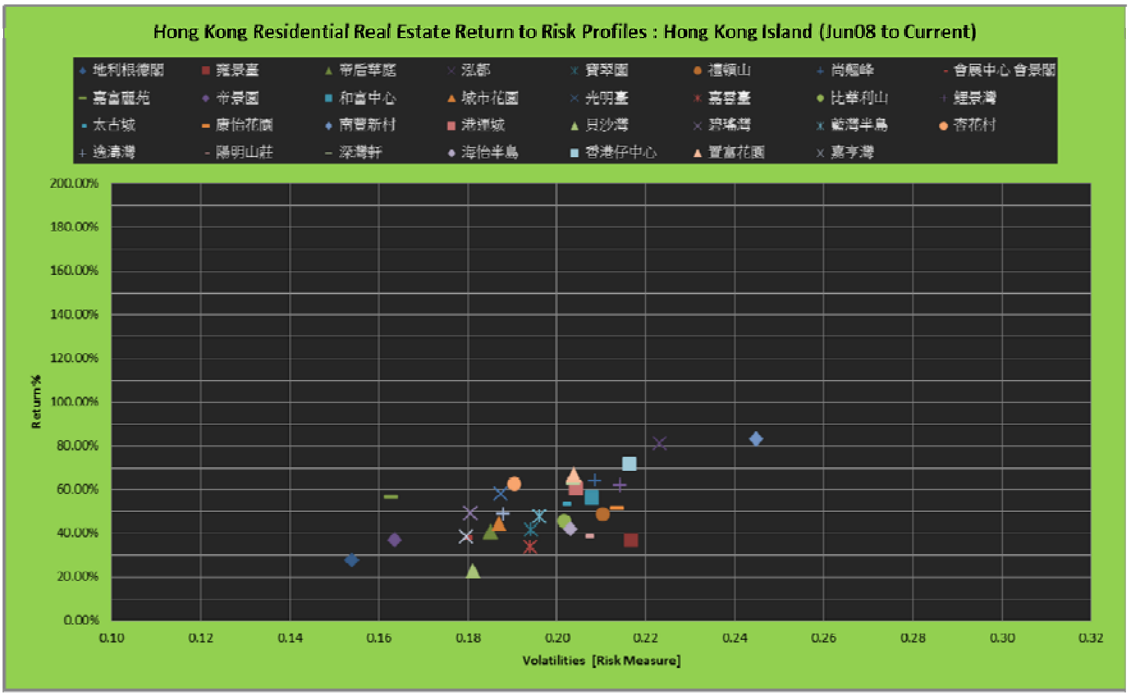
Now, which chart should you pay more attention? A or B or none? Here is one interpretation: Chart A informs us that for now the price to income ratio is not as high as the one seen in 1997 (when price exceeds income) though it is by no means low. Chart B helps us ponder the years ahead via noting the price and income gap in 1997 and the current gap. They are quite similar. All in all, while these charts are not capable of projecting the future, they do confirm the current price levels being on the very high side and that, IF past data and cycles are any indication, downward price adjustments should not be a surprise if and when they occur (soon).

Even more charts:

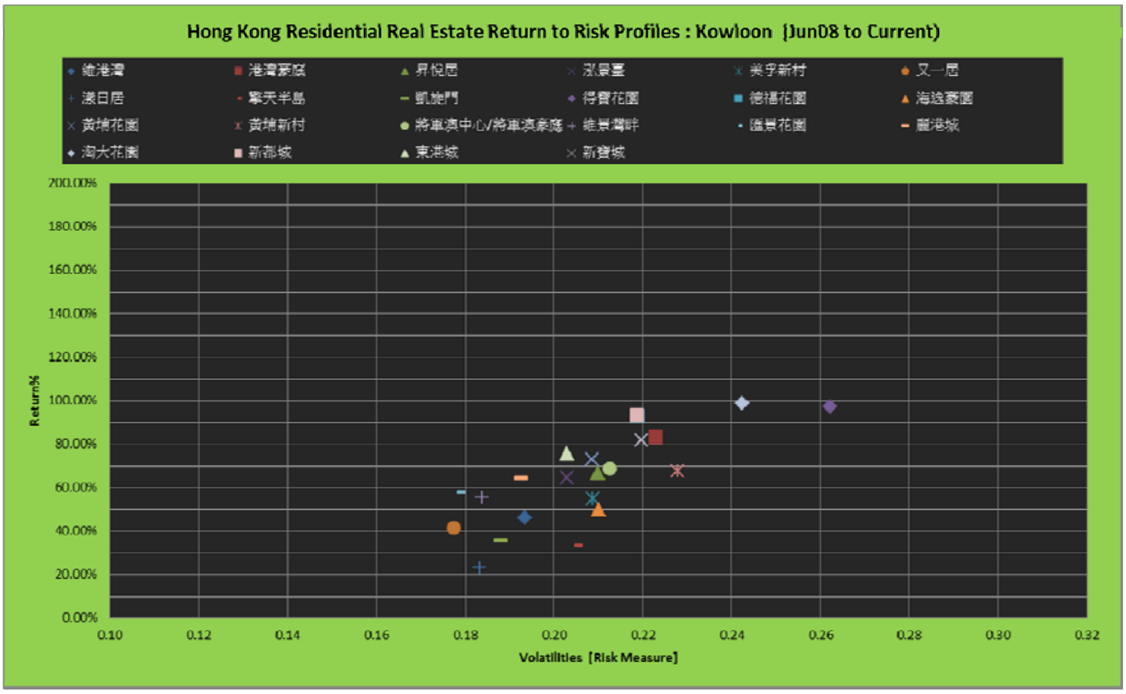
We have so far reviewed some macro charts. Here are some more micro ones as they investigate 98 of the more popular private residential estates in Hong Kong. We have grouped them under the 4 big regions of a) Hong Kong Island; b) Kowloon; c) New Territories East; and d) New Territories West. The charts show the overall price change (% gain in all cases) and the accompanying price volatility (as a proxy for risk) for each of 98 residential estates.

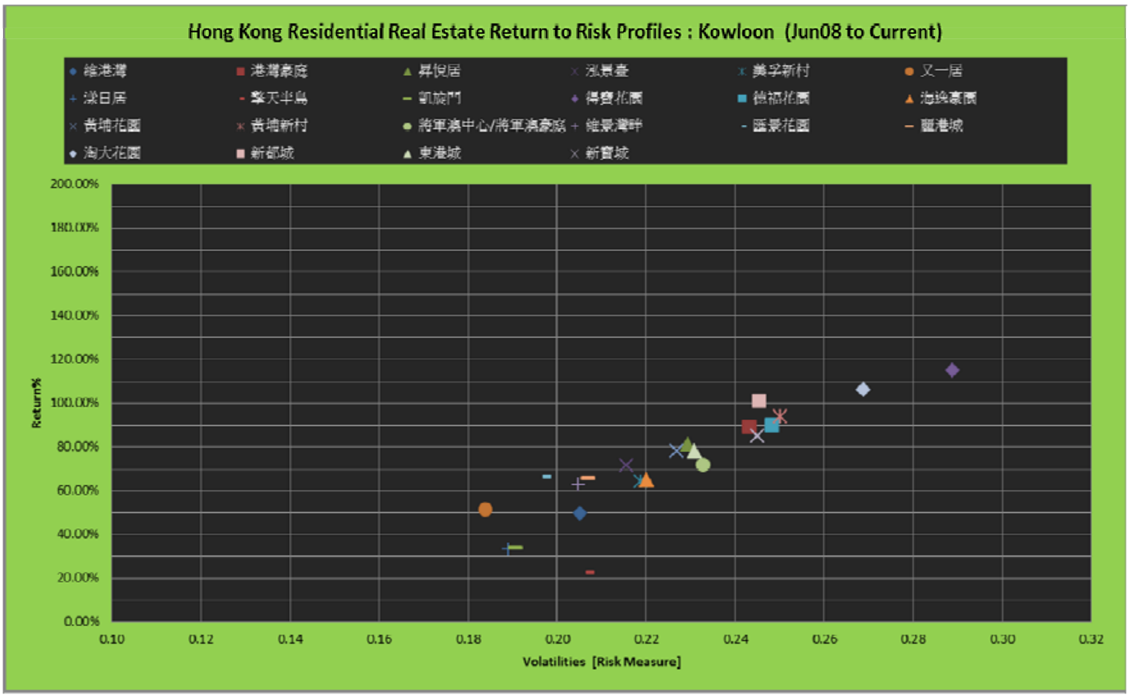
Also, each region comes with 2 charts i.e. a total of 4 x 2 = 8 charts in all. The first chart of each region shows the price change and volatility from June 2008 to December 2012, while the second chart shows the same but to early June 2013. As such, any variation during the 6 month gap in the prices and volatilities could be observed. Here we go [the data again comes from the website of Centaline Agency and it is based on prices per square foot gross]:

Hong Kong Island



Kowloon


Hong Kong Residential Real Estate Return to Risk Profiles : Kowloon (Jun08 to Current)
維港灣
港灣豪庭
昇悅居
泓景臺
美孚新村
又一居
漾日居
擎天半島
凱旋門
得寶花園
德福花園
海逸豪園
黃埔花園
黃埔新村
將軍澳中心/將軍澳豪庭
維景灣畔
匯景花園
麗港城
淘大花園
新都城
東港城
新寶城
200.00%
180.00%
160.00%
140.00%
120.00%
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
Return%
0.10
0.12
0.14
0.16
0.18
0.20
0.22
0.24
0.26
0.28
0.30
0.32
Volatilities [Risk Measure]


Hong Kong Residential Real Estate Return to Risk Profiles : Kowloon (Jun08 to Current)
維港灣
港灣豪庭
昇悅居
泓景臺
美孚新村
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漾日居
擎天半島
凱旋門
得寶花園
德福花園
海逸豪園
黃埔花園
黃埔新村
將軍澳中心/將軍澳豪庭
維景灣畔
匯景花園
麗港城
淘大花園
新都城
東港城
新寶城
200.00%
180.00%
160.00%
140.00%
120.00%
100.00%
80.00%
60.00%
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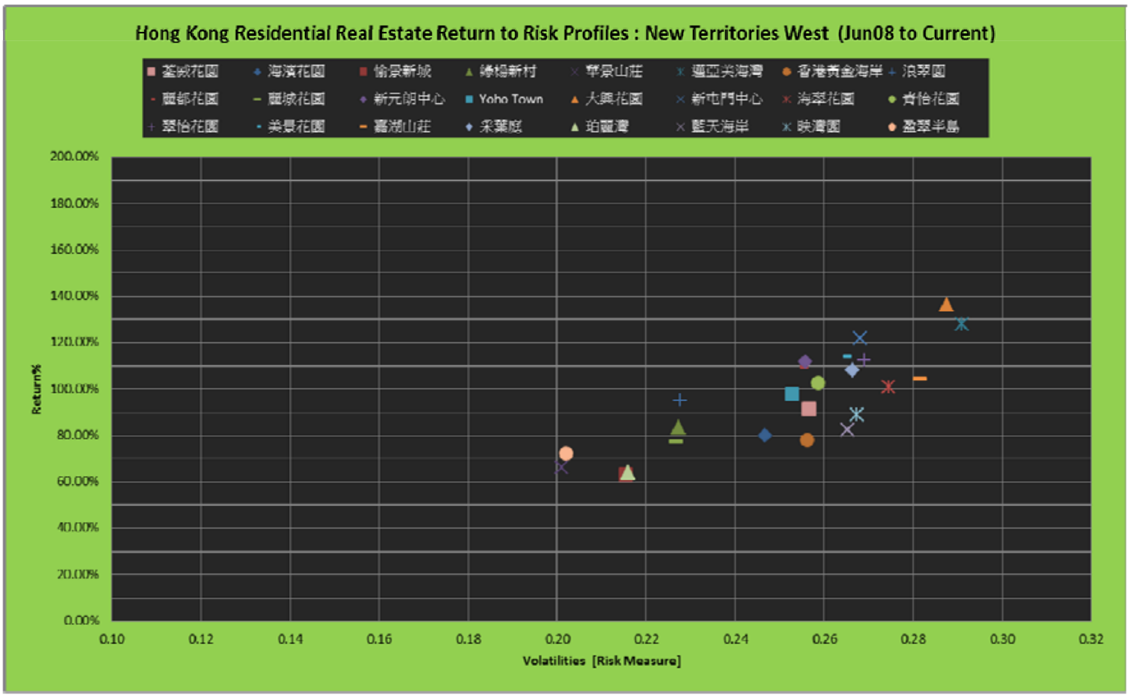
0.32
Volatilities [Risk Measure]

New Territories East

New Territories West



A few observations:

1) The 98 residential estates confirm one thing i.e. in very general terms, the higher the return (% price gain), the higher the risk (volatility). Volatility is calculated using standard deviation. There is no estate which demonstrates huge return for very low risk. There are only estates which returns are lackluster compared to estates with similar risk level.

2) Overall, the New Territories residential estates have been performing better in terms of price gain than Kowloon estates which in turn beat those on Hong Kong Island. Note all the charts share the same scales.

3) Overall, while most residential estates have seen price gains in the 6 months from December 2012 to June 2013, they also see their risks increased.

4) Overall, the statuses (in terms of price performances and volatilities) of the residential estates have been constant within this 6-month period i.e. the laggards are laggards still, while the leaders are still ahead mostly.

Summarizing the foregoing, the Hong Kong real estate market has seen both prices and risks increased whether observed on a macro or micro level.

Moreover, the increased price appreciation rate after 2008 jives with the global QE phenomena to the extent that it is hard to not attribute at least part of the price increase seen to QE, notwithstanding proving it requires a whole lot more data and analytical resources which are beyond this newsletter.

Reasons have also been put forward to suggest that prices will not fall much, if they were to fall, because:

a) Many homeowners do not have mortgages and those who do on average leverage less than 50%.

b) There is plenty of cash in the system and in the banks.

c) Real estate developers are well-cashed thus they will not be forced to discount prices too much.

Your humble author’s counter argument to the above:

A1) Prices are set via buying and selling = yes it is true that many homeowners do not have mortgages and mortgage levels seem low. However, all it takes to depress prices is a few percent of desperate homeowners. Perhaps the down trend would be short-lived due to reason (a) above i.e. after all the desperate sales are gone, prices will bounce back. The point is low mortgage levels cannot and do not prevent price slumps.

B1) From 1997 to 2003, the cash in the banking system had grown yet this did not seem to have helped real estate prices recovered.

C1) Real estate developers are business people and business people hold onto an asset [meant for sale] only if they think the asset will be worth reasonably more in some future date than now, thus justifying sacrificing an immediate sale. That is to say, even if a real estate developer has some financing pressure, he or she would try his or her best to struggle-postpone-wait till the gainful future moment. If however the expectation is that prices will fall, even a financially well-endowed developer will tend to sell right now or soon. No financing pressure is only half the equation, market expectation is another.

By the way, supply is not a major price factor on (residential) real estate prices. Our studies show the correlation between supply and price insignificant most of the time. While the society and government appear bent on increasing supply to deflate prices, which is empathized, they may be barking up the wrong tree.

Aren't there ways to tackle the high residential prices? Yes assuming one eyes the issue with tiger-like [tunnel] vision i.e. as long as residential prices go down, nothing else matter:

A) De-peg or re-peg = your humble author thinks the HK$ is one of the most, if not the most, undervalued currency on Earth and bets its free float rate to be within HK$5 to HK$6 to the US$1. Presto! Real estate prices will go down. Nonetheless, its effect would be beyond and above real estate.

B) Increase the property rates (similar in kind to municipal taxes in other economies) = currently property rates are 5% of rental values and given say a market rental yield of 3%, this means property rates are roughly 5% x 3% = 0.15% of residential prices (assessed values to be exact). This draws envy from practically from homeowners of other cities and countries where municipal taxes based on 1% to 2% of house prices are commonplace. In short, Hong Kong properties are expensive to buy but relatively easy to carry whereas others are easier to acquire but heftier to carry. Technically this is more workable than (A) but then again a tedious process nonetheless if ever taken.

One final point on Hong Kong: the dangers lie outside of Hong Kong, thus focusing on the Hong Kong market and economy alone might give one a false sense of calm.

More of this or will it turn?

China real estate: urbanization is right but not a factor supporting real estate prices

I shall be brief on this section and mention just one point: while many tout urbanization as a factor to be optimistic of real estate prices, your humble author does not think it is. This does not mean prices will not go up; they will and likely there are bumps along the way.

Why? Because real estate is a derivative asset e.g. homebuyers can use $X to buy homes because they have earned $Y, and not the other way round.

However, urbanization, especially with a 3rd or 4th tier cities, would 'seem' to be a price supporting factor in the initial urbanization phase e.g. urbanization means construction which in turn benefits construction industry workers who in turn buys homes and on and on, thus creating an impression that urbanization drives up prices. Perhaps, but when the urban sprawl ends, and if the city does not have one or more non-real estate industries in which it has an edge over other cities to support its economy, it will spell doom for its real estate.

Urbanization and real estate price movement are both the effects of a common cause which usually is economics in nature.

Global real estate: some markets deserve some attention

Again I shall be brief. Essentially, the markets which had seen substantial losses in real estate values in recent years are the potential markets of intrigue. For instance, some markets in the USA such as Las Vegas or Florida. However, attention needs to be paid to the tax systems, the municipal tax rates (as some cities are bankrupt), the transaction costs, the land tenure system, and so on.

Black Swan: highly probable!

According to the author Nassim Nicholas Taleb, black swans refer to unforeseeable events, whether desirable or undesirable. That is, don't be misled by the word 'black' into thinking the term refers to bad stuff only.

Why do I think there will be black swans? Consider these recent trends, many of which were unseen or unmatched before:

1) All the QEs = a reflection of a lack of responsibility-taking and a huge aversion to pain

2) Hundreds of millions baby-boomers worldwide retiring or semi-retiring

3) Many such boomers do not have enough saved for retirement

4) Many governments are also poor and have to rely on money printing for life support

5) Many developed economies have aging populations

6) China changing from a traditional family hierarchy of [1+2+4+8…] into a [4+2+1] pattern

Just to mention some. Given all these trends being simultaneous, it is not unreasonable to expect certain unforeseen and unintended consequences, some of which may mean disasters while others are opportunities.

What will they be? IF it could be foretold, then it would not qualify as a black swan. No, your humble author does not have a crystal ball, just that a world as interesting, challenging, competing, coupling, and fast growing (population wise) as it is will have surprises and plenty too.

*Further QE thoughts:

a) IF QE can really solve economic and financial crises, then conceptually there will be NO MORE economic problems and financial crises.

b) IF QE is so effective, why stop at QE3, or 4, or 5 for that matter? Let's jump right to QE 100 and everything will turn out great, or will it?

c) Admittedly, some aspects of the economy and society can use some QE e.g. bridges and roads in need of repairs. Yet unless the money is specifically targeted, much of it can end up in the pockets of the relatively well to do who in turn may simply use it to acquire investment assets instead of creating businesses and thus jobs.

d) Demographics = most developed economies have graying population (baby boomers to be exact who are now in their 50s and 60s) and versus a young society, and assuming all else being equal, a maturing society will tend to be less entrepreneurial and enterprising, thus perhaps in part explaining the lack of job growth despite all the QE, among other factors.

e) Most developed economies have passed the point of no return and irrespective of the nature of the economic measures taken (e.g. austerity versus QE), someone in somewhere, at some time, and somehow will have to take some economic-financial cuts. Exactly who bears the bulk of the costs, rightly or wrongly, in part depends on the economic structure and political process. In general, perhaps the middle class, which seems to be dwindling in most developed economies, will bear the bigger portion.

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- **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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