Zeppelin's Real Estate Tech

4Q 2018: A Real Estate Newsletter by Zeppelin Real Estate Analysis Limited
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The trade war between the US and China takes a breather via a 90-day truce although many experts don't seem to think it would end anytime soon. In France, there have been protests against a proposed fuel tax, and the UK is still agonizing on the best way to Brexit. Meanwhile, the Hong Kong residential real estate market has seen price drops here and there in various neighborhoods and housing estates. The Hang Seng stock market index hovers around 25000.

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- **Hong Kong residential real estate market: risk guessing**
- **Toronto apartment condos beating the rest**
- **Not about market ups and downs, but return to risk ratios**

"One hasn't really improved if one cannot get a good laugh out of one's past works."

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 spring, summer, fall, and winter) 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 **23rd year** and **89th** 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 Partners 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 based in Hong Kong with associated operations in Mainland China and we also have access to regional and global professional networks.

Who? Me?

Stephen Chung
Managing Director, Zeppelin Real Estate Analysis Limited
Founder and Writer, 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, Sing Tao 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 written 4 real estate books in Chinese to date as follows:

Online book = Easy Real Estate Lectures
Hard copy = Real Estate Investment Know-How above 101
Hard copy = The Real Estate Market Turning Point
E-Report = USA Residential Real Estate Analysis

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Hong Kong residential real estate market: risk guessing

Real Estate Tech, 4Q 2018

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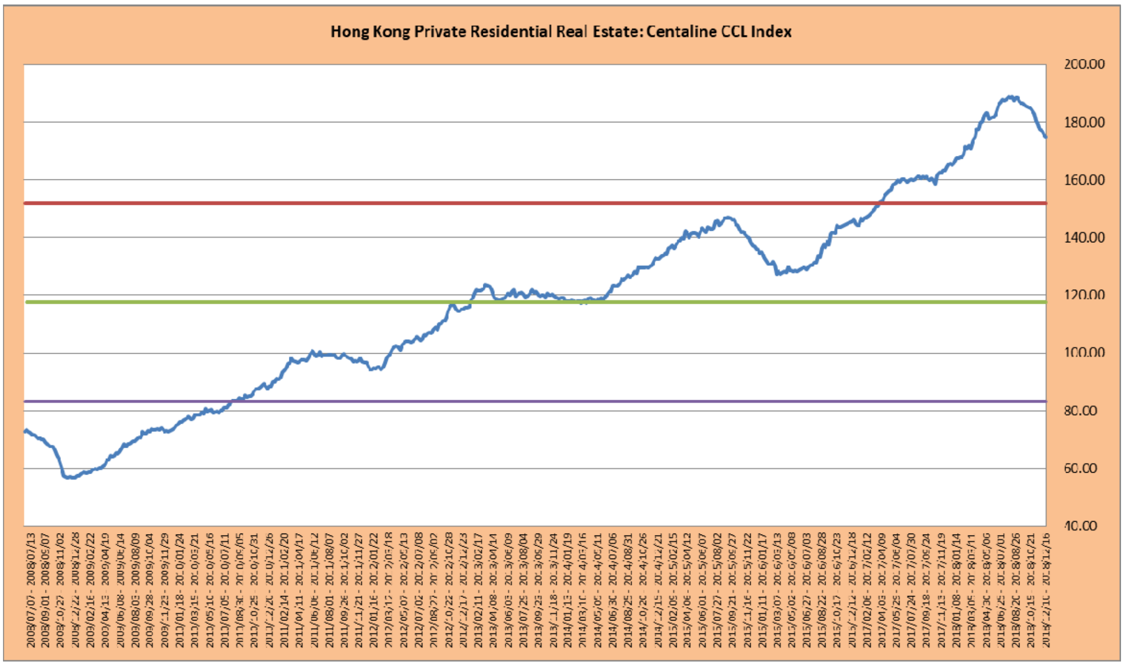
Difficult to calculate at times (Courtesy of publicdomainpictures.net)

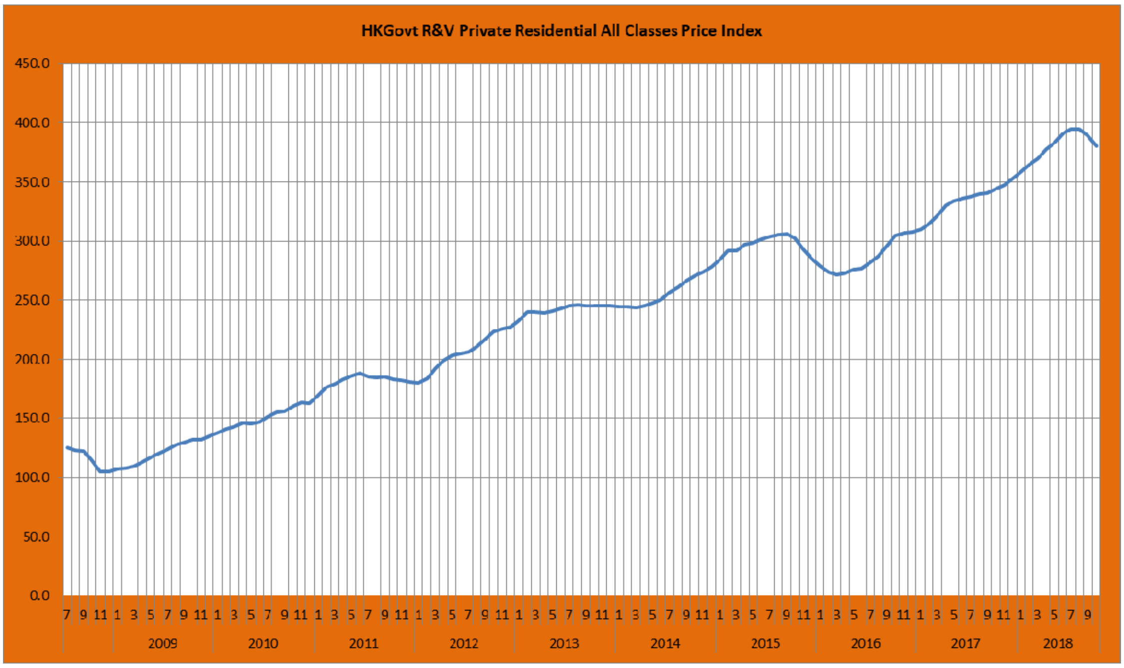
Overall residential real estate prices in Hong Kong appear to have been under pressure lately, either levelling off or dropping a bit. Reasons touted include the US and China trade war, a troubled European Union, Brexit, slowed down emerging markets, volatile Middle East situation, and so on...interesting times.

Notwithstanding the foregoing, your humble author contemplates 'what if' the easy money phenomena (QE, money printing, loose lending, and the like) and the euphoria it created were to reverse course? For clarity, we have no crystal ball telling us a reversal is imminent. Yet, maybe it is time to give some thought to it.

First, let's see how the overall Hong Kong residential real estate market has been performing in the past 10 years or so. Data comes from a) www.centaline.com (CCL index) and we also use b) the statistics obtained from the website of the Hong Kong Government's Ratings and Valuation Department as a cross-check. Here are the charts:



(a) CCL Index

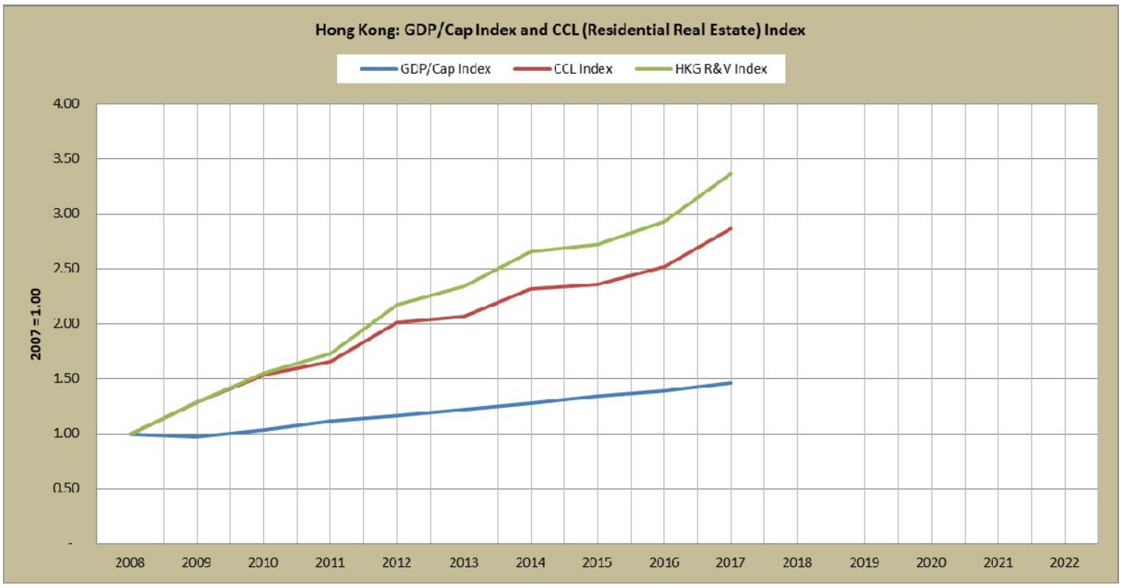


(b) R&V Index

The two charts above closely resemble one another and in fact, the correlation between the two during the period is very high. Note the (a) CCL Index is published weekly based on transactions confined to selected private housing estates, while the (b) R&V Index does so monthly based on all private residential transactions.

What are the three color lines across (a) the CCL Index chart? We shall come to these later, so bear with us.

Second, how does the residential real estate market compare to the overall economy at large? For convenience, we shall use the googled Hong Kong annual GDP per capita data (in US$) to represent the latter and the two indexes above for comparison:



Briefly, residential real estate prices have been rising more rapidly than the economy at large i.e. household income, and thus, the eagerness and anxiety among the general home buying public and the various government measures to 'cool' the market.

Third, back to the first chart related to (a). The three straight color lines cutting horizontally across the CCL price index represent respectively from top to bottom: i) the upper end of the standard deviation (of the price index) in red, ii) the average of the price index in green, and iii) the lower end of the standard deviation in purple. The gap between i and iii represents the typical price fluctuation range of the price index observed during the period.

While there is nothing casting the following in stone, the three lines might help with gauging (guessing) the probable price drops – IF there were to be a reversal and thus price drops.

For instance, it is not difficult (i.e. chances are good) for the current price level to drop by 13% to the top (red) higher end of the standard deviation line. It is chancier to drop by around 33% from the current level to the middle (green) average line. It is even rarer, though not entirely unseen before (remember 1997 to 2003?), to see prices dropping from the current level by more than 50% to the bottom (purple) lower end of the standard deviation line. One may even see these as 'lines of defense'. Naturally, this example has not taken into account any probable administrative 'measures' which may arise.

Disclaimer repeated: your humble author isn't predicting anything here…just that given the global economic-socio-political climate, prudent investors might want to contemplate less than desirable scenarios, and to ready themselves for the challenges ahead.

By avoiding being unpleasantly surprised and caught off-guarded, for instance.

Toronto apartment condos beating the rest

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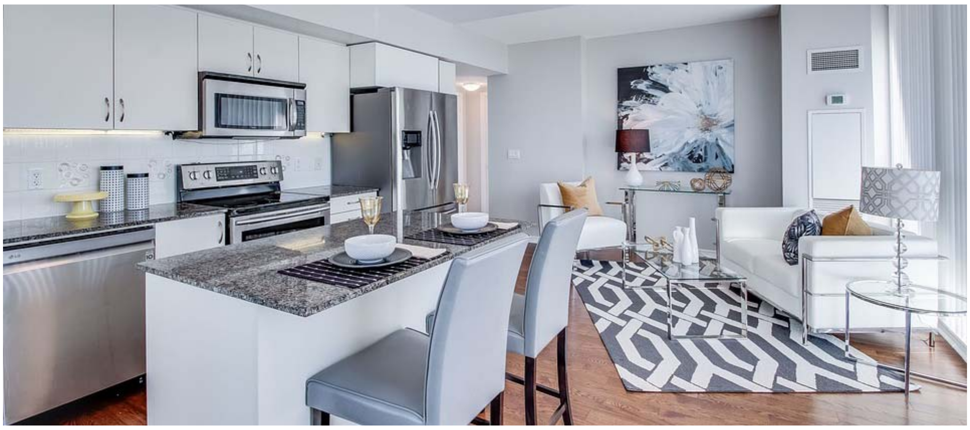

A comfy apartment condominium unit (courtesy of pixabay.com)

If one counts from the last market peak in and around April 2017, then one will find the apartment condo sector, being the only price gainer, has outperformed the other sectors of detached, semi-detached, and townhouse residential units to date (November 2018).

In lieu of wordy descriptions, here are some charts and tables to help visualize their respective performances. Data comes from www.trebhome.com and are limited to the City of Toronto i.e. excluding the suburbs in the Greater Toronto Area (GTA):

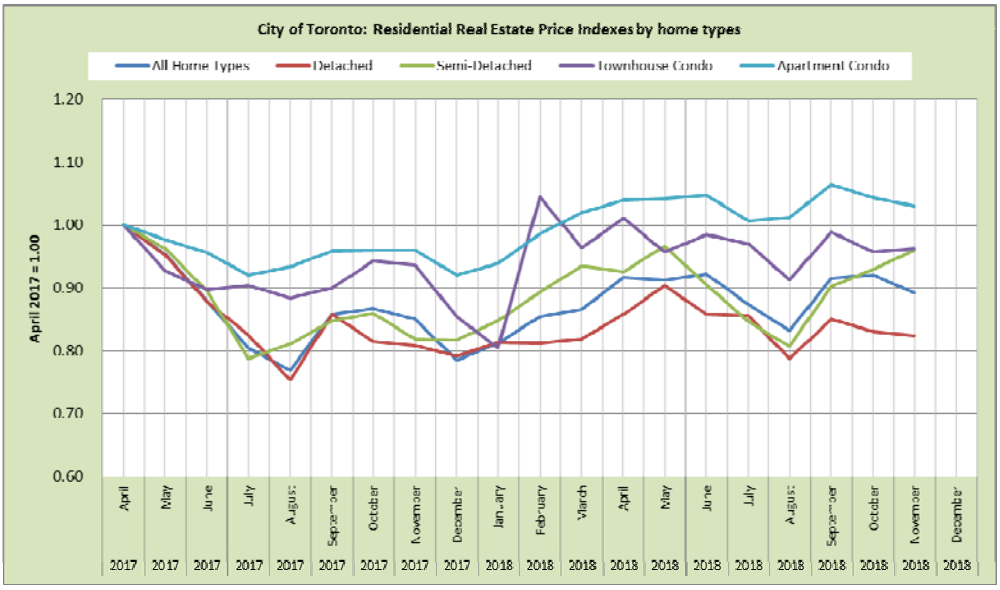
1) Best in cumulative price performances since April 2017

Residential sectors	Price performances % + or – changes since April 2017
All residential sectors	-10.75%
Detached house units	-17.56%
Semi-detached house units	-3.96%
Townhouse units	-3.71%
Apartment condominium units	3.01%

2) Apartment condominium units also offer less than average price volatilities

Metro Region	Residential sectors	Volatility
Metro Toronto	**All Home Types**	**0.0657**
	Detached	0.0670
	Semi-detached	0.0701
	Townhouse	0.0602
	Apartment	0.0461
Metro West	**All Home Types**	**0.0673**
	Detached	0.0683
	Semi-detached	0.0542
	Townhouse	0.0643
	Apartment	0.0559
Metro Central	**All Home Types**	**0.0743**
	Detached	0.0648
	Semi-detached	0.0919
	Townhouse	0.0973
	Apartment	0.0449
Metro East	**All Home Types**	**0.0568**
	Detached	0.0477
	Semi-detached	0.0559
	Townhouse	0.0435
	Apartment	0.0485

3) Combining (1) and (2) above



As for the reasons, your humble author spoke casually with a few industry acquaintances there and collectively, they suspect given the rather huge gap between typical home price and household income, apartment condominium units are the only choice many aspiring homeowners can now afford, especially for recent migrants and immigrants.

Other factors might include changes in lifestyle, demographics, and the attitude toward high rise apartment units which, not too long ago, were considered unsuitable for raising children (yeah, I know, this sounds weird to 99% of Hong Kong households who live in high rises). In any event, the November 2018 average and median prices for all residential sectors are:

Metro Region	Sub-district		October 2018 Average C$	November 2018 Average C$	Difference C$ Nov-Oct2018	Percentage +or- (Nov-Oct)/Oct 2018	October 2018 Median C$	November 2018 Median C$	Difference C$ Nov-Oct2018	Percentage +or- (Nov-Oct)/Oct 2018
Metro Toronto	All Home Types		869,870	842,483	(27,387)	-3.15%	699,000	670,000	(29,000)	-4.15%
	Detached		1,311,265	1,301,382	(9,883)	-0.75%	1,050,000	1,000,000	(50,000)	-4.76%
	Semi-detached		1,026,829	1,060,359	33,530	3.27%	875,000	905,000	30,000	3.43%
	Townhouse	Condo	647,251	650,554	3,303	0.51%	592,295	577,000	(15,295)	-2.58%
	Apartment	Condo	603,153	595,678	(7,475)	-1.24%	535,000	530,000	(5,000)	-0.93%
Metro West	All Home Types		796,120	738,520	(57,600)	-7.24%	706,000	657,500	(48,500)	-6.87%
	Detached		1,138,132	1,064,046	(74,086)	-6.51%	972,516	910,000	(62,516)	-6.43%
	Semi-detached		841,260	872,727	31,467	3.74%	775,000	762,500	(12,500)	-1.61%
	Townhouse	Condo	562,480	581,947	19,467	3.46%	532,000	538,000	6,000	1.13%
	Apartment	Condo	508,790	479,213	(29,577)	-5.81%	468,000	450,000	(18,000)	-3.85%
Metro Central	All Home Types		980,698	959,243	(21,455)	-2.19%	680,000	664,000	(16,000)	-2.35%
	Detached		2,019,854	2,056,344	36,490	1.81%	1,755,000	1,707,500	(47,500)	-2.71%
	Semi-detached		1,357,769	1,377,550	19,781	1.46%	1,126,339	1,207,500	81,161	7.21%
	Townhouse	Condo	838,679	860,314	21,635	2.58%	700,000	711,500	11,500	1.64%
	Apartment	Condo	674,252	669,932	(4,320)	-0.64%	590,000	583,500	(6,500)	-1.10%
Metro East	All Home Types		740,789	727,982	(12,807)	-1.73%	710,000	683,694	(26,306)	-3.71%
	Detached		898,448	920,281	21,833	2.43%	803,500	807,000	3,500	0.44%
	Semi-detached		949,889	936,198	(13,691)	-1.44%	878,500	868,000	(10,500)	-1.20%
	Townhouse	Condo	518,874	543,390	24,516	4.72%	536,000	527,500	(8,500)	-1.59%
	Apartment	Condo	426,287	441,875	15,588	3.66%	395,250	405,000	9,750	2.47%

For a budget of less than C$500K, apartment condominium units seem the only choice.

Not about market ups and downs, but return to risk ratios

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Also about allocation (courtesy of Wikipedia.org)

What is the return to risk ratio? Say you have the chance to invest $1M into a project and based on the same probability and timeframe, you might make a profit of $600K on the upside or make a loss of $300K on the downside. The return to risk ratio is thus two to one, or 2.

Is this a good return to risk (R/R) ratio? It depends. If your competitors are on average making an R/R of 3, then 2 will suck. If they are only making 1, then you can feel smug about yourself. Suffice to say for R/R ratios less than 1, the rule of thumb is to avoid them as much as possible.

As to how the two Rs are derived, there are the various analytical methods which require usually collecting vast amount of past data and analyzing them, be it micro or macro, fundamental or technical, and the like. On the contrary, some investors might rely on their own intuition, instinct, and experience.

Irrespective of the approaches adopted, it does not appear that a “sure-win” method has been discovered, or at least, if it exists, it is being employed in very clandestine manner. Philosophical question to ponder: say you have the ability to foretell all the numbers which will come out in the next lottery, will you play and collect first prizes in each and every draw?

Your humble author has no sure-win investment formula, and he won’t publish it if and when he has one (though fat chance at that). Being free market capitalistic is one reason, making the formula publicly known will render it useless is another, even doing more harm than good.

Back to investment, the R/R ratios can also be used to help with capital / portfolio allocation, whether across different market sectors (residential, office, retail etc) within a broader market (think city), or across different markets (think cities). Given any portfolio’s return to risk criteria, capital may be allocated to a combination of markets and / or market sectors to arrive at the desired R/R criteria. Naturally, the R/R in any particular market or sector can change overtime, thus constant monitoring is required.

Allocation in recent times have become more challenging, especially given the increased influence of factors beyond the usual economic, financial, and demographic types. In short, risks have increased, with unknown knowns and known unknowns.

What can investors do? Reduce debt. This helps to reduce default risks if not the market ones.

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- **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

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