

Zeppelin's Real Estate Tech

2Q 2021: A Real Estate Newsletter by Zeppelin Partners Limited

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Biden. COVID variants. Vaccines. Stock market volatilities. Home prices holding up so far. And ongoing and unfolding geopolitics...

In this issue:

- **Across Canada: the average home price is up 38% but unevenly distributed**
- **Same return, different risk**
- **City of Toronto residential real estate: charts and tables**

"Shoot for the optimal rather than the most."

We also like to hear from readers wishing 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 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 [25th](#) year and [99th](#) 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 has been visited by tens of thousands from all over the world.

Zeppelin Partners Limited is involved in real estate development, investment, and management and offers 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, property management strategy, and building maintenance]. We are based in Hong Kong with access to regional and global professional networks.

Stephen Chung, who created and writes this newsletter, is now Honorary Advisor to Zeppelin Partners Limited. He will continue to write this newsletter.

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Who? Me?

Stephen Chung

Honorary Advisor, Zeppelin Partners 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

We welcome enquiries from interested parties and could be reached as follows:

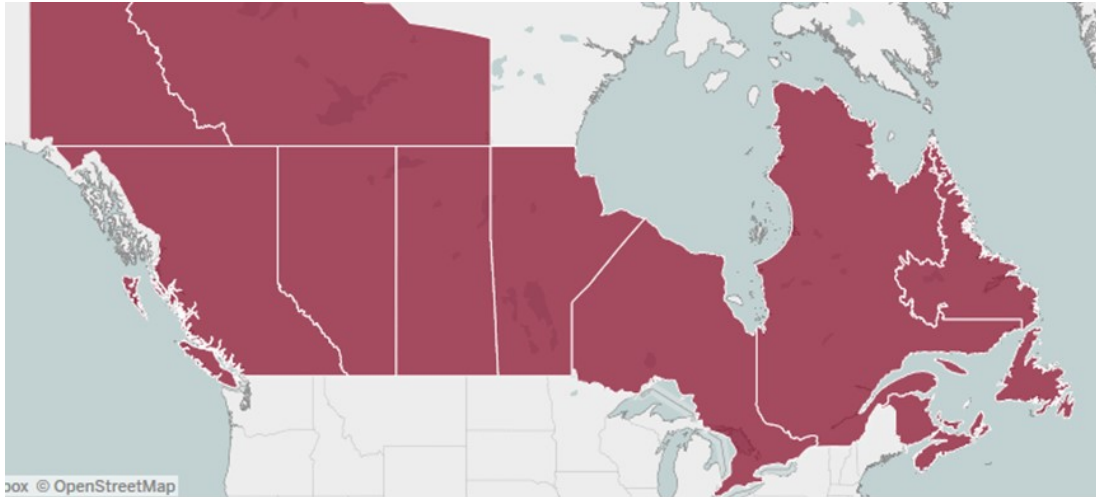
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Across Canada: the average home price is up 38% but unevenly distributed

Real Estate Tech, 2Q 2021

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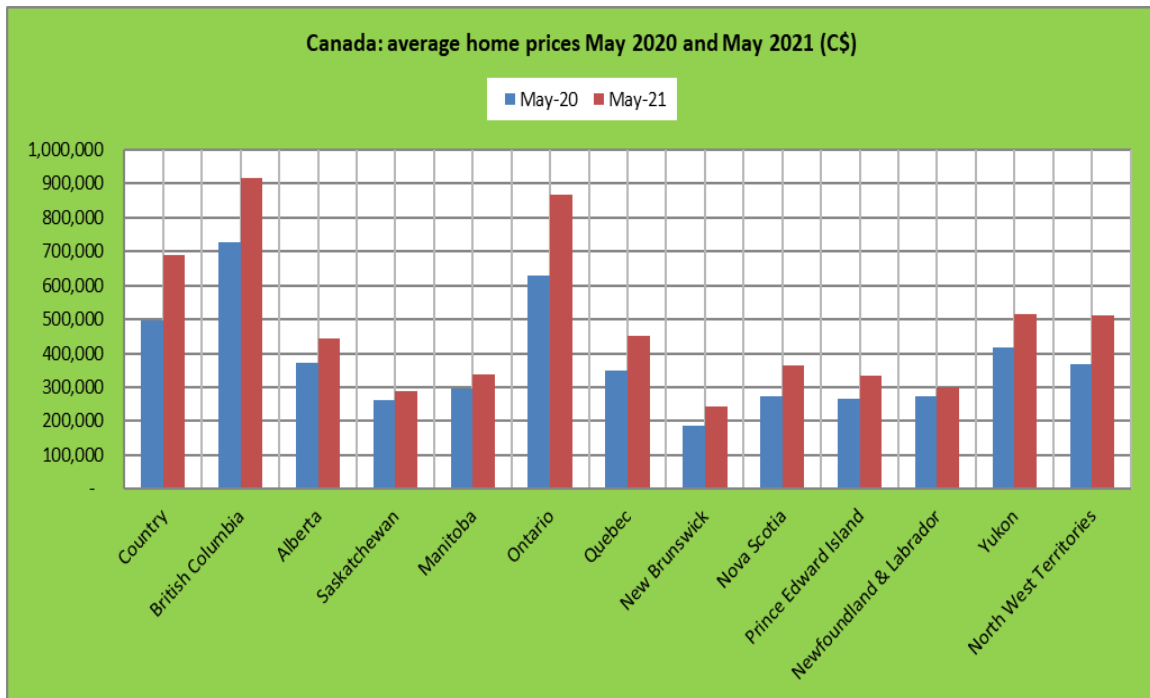
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From far and wide... (Courtesy of <https://www.crea.ca>)

Using the data published in the website (www.crea.ca) of the Canadian Real Estate Association, we have compiled brief charts showing the 12-month (from May 2020 to May 2021) average home price movements of the provinces and territories, plus those of major metros Greater Vancouver and Greater Toronto. Here are the charts (in numbers and graphics):

CANADA		Average C\$	Average C\$	Percentage %
Regions:		May-20	May-21	Change
Country		497,189	688,208	38.42%
British Columbia		726,335	916,741	26.21%
Alberta		371,395	442,808	19.23%
Saskatchewan		260,400	288,300	10.71%
Manitoba		296,101	338,288	14.25%
Ontario		629,402	866,307	37.64%
Quebec		349,755	449,698	28.58%
New Brunswick		185,900	242,100	30.23%
Nova Scotia		274,433	363,330	32.39%
Prince Edward Island		267,011	334,178	25.16%
Newfoundland & Labrador		273,800	300,600	9.79%
Yukon		417,514	516,139	23.62%
North West Territories		369,664	511,369	38.33%
Greater Vancouver		1,028,400	1,172,800	14.04%
Greater Toronto		880,200	1,045,800	18.81%



A few observations:

- 1) Notwithstanding the impressive national average home price increment figure, not all cities, regions, and provinces have seen similar price increases. Casual reading of the numbers (not all are shown here) suggests most urban areas have price increases lower than their provincial averages.
- 2) With the exception of Newfoundland & Labrador, most provinces including Ontario and to its east have higher home price growths than those to the west.
- 3) The stronger than average price growths have occurred mostly in the more remote suburbs and rural areas, especially those in the Atlantic provinces. Some have seen 60% or more in price growths!

As for reasons, the market speculates a) COVID19 might have driven many households to relocate to more remote and less dense regions; b) the increased money flow; and c) the expectation of population growth in the long term, might have influence.

For potential homebuyers and investors, stay within reasonable means and comfortable financing ranges if one is concerned of risks.

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Same return, different risk

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Both fly but differently (Courtesy of www.goodfreephotos.com and www.youtube.com)

Investors look for investment returns. And returns can be expressed in various ways. One such way is the Internal Rate of Return, IRR for short. Question: say two investment options are estimated to offer the same IRR, does that mean there is no difference between them?

The simple answer is NO. The following chart contains two hypothetical (yet inspired by real world leveraged investments) investment scenarios and they both offer the same IRR (18.22% in this illustration) with the same investment timeframe and acquisition cost (\$1M):

Investments	Year 1 Buy	Year 2	Year 3	Year 4	Year 5	Year 6 Sell	Standard Dev
Scenario 1:							
Buy price \$	-1,000,000						
Holding income \$		50,000	50,000	50,000	50,000		
Sell price \$						2,000,000	
Cash flow \$	-1,000,000	50,000	50,000	50,000	50,000	2,000,000	891,628
NPV \$	708,905						
IRR %	18.22%						
Nominal + or - \$	1,200,000						
% total return	\$2,200,000	2.27%	2.27%	2.27%	2.27%	90.91%	
Buy price still outstanding \$		-950,000	-900,000	-850,000	-800,000	1,200,000	
Scenario 2:							
Buy price \$	-1,000,000						
Holding income \$		200,000	60,000	100,000	65,000	1,200,000	
Sell price \$							
Cash flow \$	-1,000,000	300,000	60,000	300,000	70,000	1,122,000	622,682
NPV \$	510,469						
IRR %	18.22%						
Nominal + or - \$	852,000						
% total return	\$1,852,000	16.20%	3.24%	16.20%	3.78%	60.58%	
Buy price still outstanding \$		-700,000	-640,000	-340,000	-270,000	852,000	

Stating the obvious:

- Their risk profiles are different = as shown by their respective 'standard deviation' measurement at the right side of the chart; scenario 1 is riskier.
- Their recoupment speed of investment capital (cost) and thus break-even points are different = in year 5, scenario 1 still has \$800K of the capital outstanding while scenario 2 has only \$270K. That is, if something bad happens in year 5 ending both investments, scenario 1 investor will lose 80% of the capital while scenario 2 investor only 27%.
- Their dependences on the sale price for return are different = roughly, scenario 1 is 90% dependent while scenario 2 is only a bit over 60%.

But you may have observed that scenario 1 provides higher Net Present Values (NPV) and nominal returns too. Shouldn't this be considered too? Certainly but this implies...

d) The needs for their respective capital to work hard are different too = in scenario 1, the capital needs to work harder to produce more money to achieve the same return as scenario 2.

Which brings up another point...

e) The probabilities of achieving the estimated return are different too = assuming higher NPV and nominal gains requires a higher probability of occurrence, scenario 1 is overall harder to achieve than scenario 2.

Of course, in total dollar terms and assuming both investments are realized, scenario 1 investor will have more cash to spend than scenario 2 investor. This is the reward to scenario 1 investor for being more patient in capital recoupment and taking more risks.

Stating the obvious, the above is only a rough example to show that investment considerations are not just about any one single measure, be this NPV, IRR, risk, breakeven, and so on. Better to look at each investment from all or different angles. And then select, if so wish, that one angle which matters most or more to you, given circumstantial and character matches.

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City of Toronto residential real estate: charts and tables

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(Courtesy of www.publicdomainpictures.net)

We have collected data from the website of the Toronto Regional Real Estate Board (<https://trreb.ca/>) focusing on the **City of Toronto's** residential real estate market (largely the secondary market). These data start from April 2017 and end in May this year (2021). Rough charts and tables, mostly self-explanatory, were compiled and some of these are listed below:

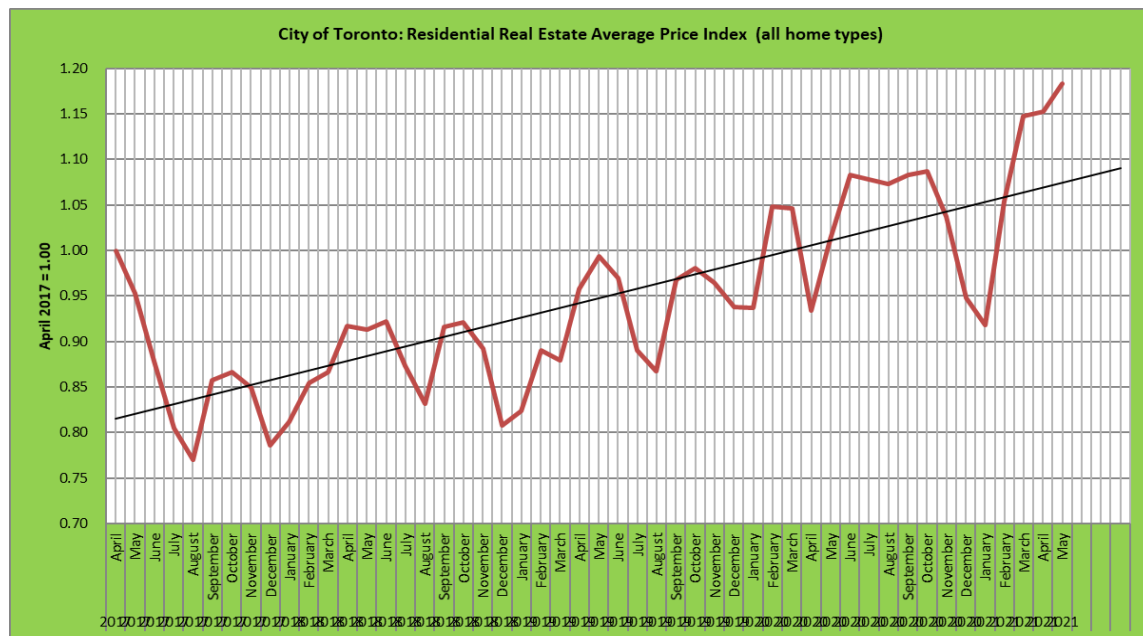
1) From April 2017 (the last price peak) to May 2021 price changes in percentages, major home types

City of Toronto:	Apr17 to May21
All Home Types	18.30%
Detached	8.73%
Semi-detached	20.12%
Townhouse	18.61%
Apartment	23.98%

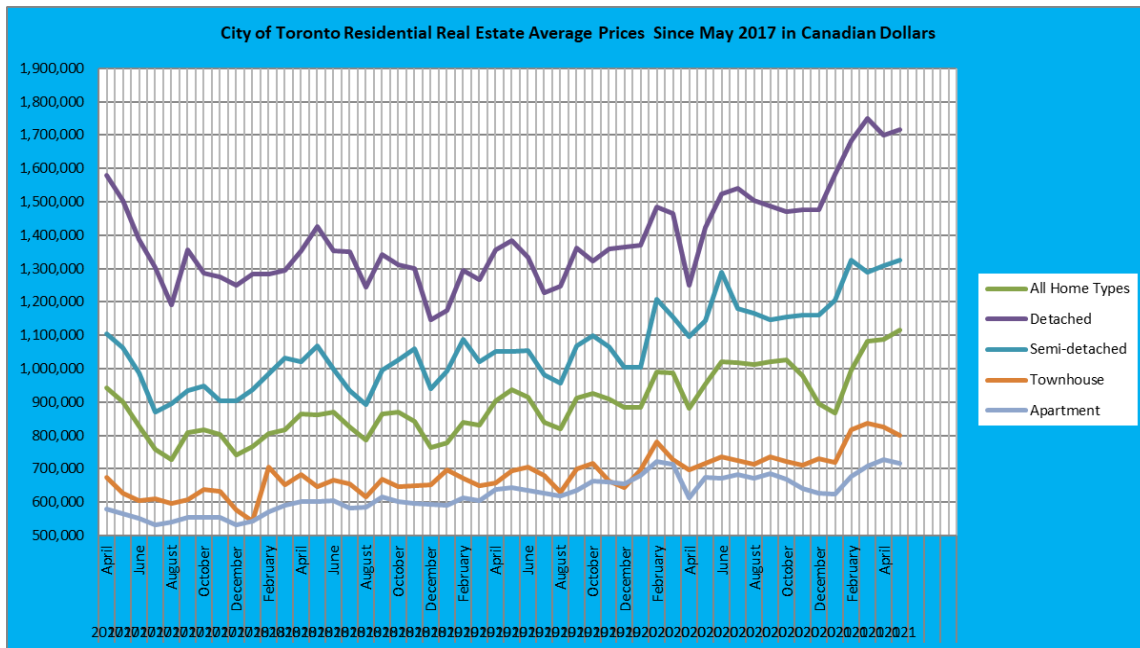
2) April 2021 versus May 2021 average and median home prices, major home types

Metro Region	Sub-district		Apr-21 Average C\$	May-21 Average C\$	Difference C\$ Apr21-May21	Percentage +or- (May-Apr)/Apr 2021	Apr-21 Median C\$	May-21 Median C\$	Difference C\$ Apr21-May21	Percentage +or- (May-Apr)/Apr 2021
Metro Toronto	All Home Types		1,088,021	1,116,736	28,715	2.64%	875,000	890,000	15,000	1.71%
	Detached		1,699,756	1,716,272	16,516	0.97%	1,401,400	1,395,000	-6,400	-0.46%
	Semi-detached		1,308,799	1,326,153	17,354	1.33%	1,215,000	1,189,000	-26,000	-2.14%
	Townhouse	Condo	824,237	801,367	-22,870	-2.77%	760,500	735,000	-25,500	-3.35%
	Apartment	Condo	727,137	716,976	-10,161	-1.40%	645,000	639,000	-6,000	-0.93%
Metro West	All Home Types		1,035,600	1,053,582	17,982	1.74%	910,000	925,000	15,000	1.65%
	Detached		1,475,296	1,497,580	22,284	1.51%	1,321,500	1,300,000	-21,500	-1.63%
	Semi-detached		1,180,035	1,139,012	-41,023	-3.48%	1,017,000	1,040,000	23,000	2.26%
	Townhouse	Condo	759,201	736,916	-22,285	-2.94%	749,900	688,510	-61,390	-8.19%
	Apartment	Condo	648,422	653,752	5,330	0.82%	600,000	595,000	-5,000	-0.83%
Metro Central	All Home Types		1,151,503	1,207,623	56,120	4.87%	799,500	806,000	6,500	0.81%
	Detached		2,457,995	2,524,229	66,234	2.69%	2,186,515	2,255,000	68,485	3.13%
	Semi-detached		1,540,872	1,622,839	81,967	5.32%	1,468,000	1,500,000	32,000	2.18%
	Townhouse	Condo	980,743	941,282	-39,461	-4.02%	835,000	792,778	-42,222	-5.06%
	Apartment	Condo	781,471	766,462	-15,009	-1.92%	680,000	678,000	-2,000	-0.29%
Metro East	All Home Types		1,023,465	1,019,715	-3,750	-0.37%	968,800	950,000	-18,800	-1.94%
	Detached		1,302,263	1,259,428	-42,835	-3.29%	1,158,250	1,150,000	-8,250	-0.71%
	Semi-detached		1,241,972	1,236,063	-5,909	-0.48%	1,215,000	1,179,950	-35,050	-2.88%
	Townhouse	Condo	727,843	717,165	-10,678	-1.47%	690,000	703,445	13,445	1.95%
	Apartment	Condo	580,690	574,871	-5,819	-1.00%	550,000	550,000	0	0.00%

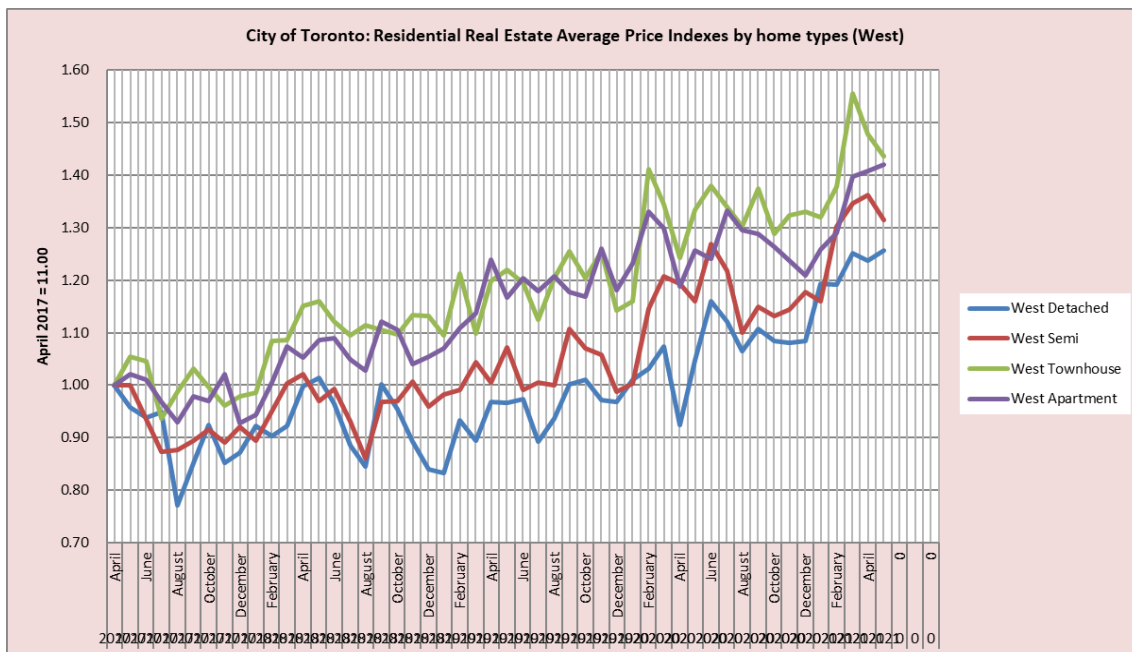
3) From April 2017 to May 2021 home price trend



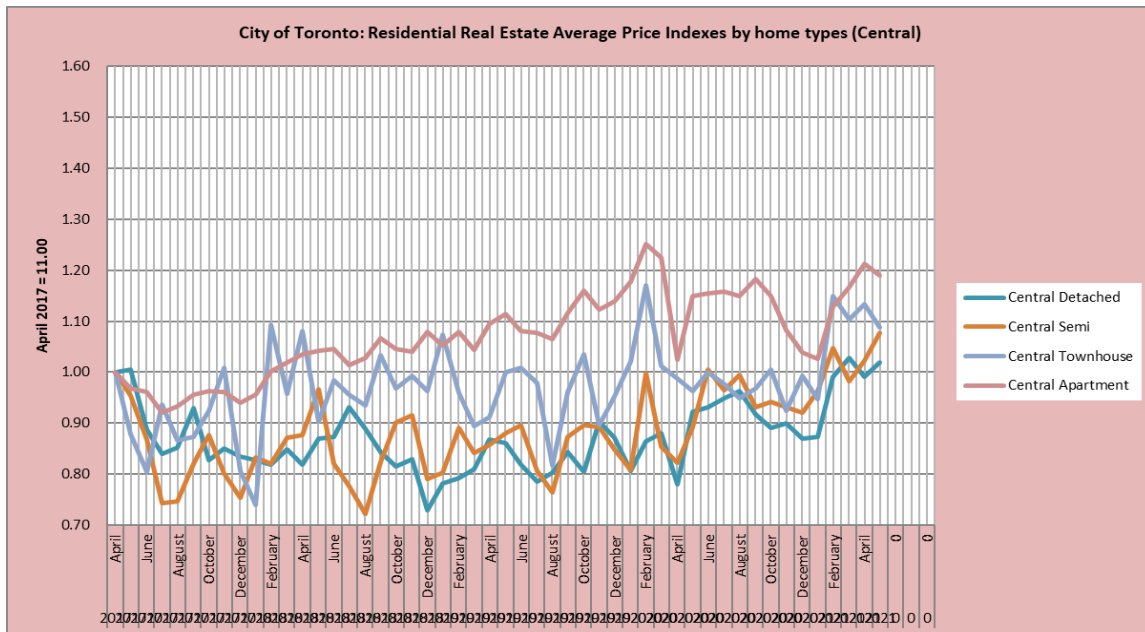
4) From April 2017 to May 2021 average prices of major home types



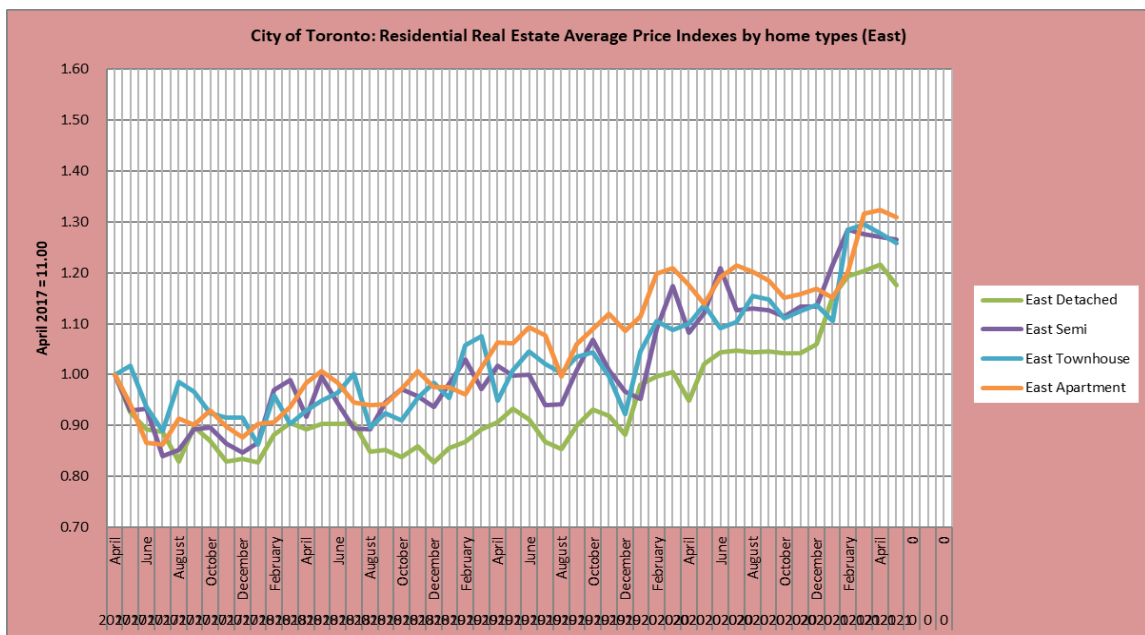
5) From April 2017 to May 2021 average price trends, major home types, West Toronto



6) From April 2017 to May 2021 average price trends, major home types, Central Toronto



7) From April 2017 to May 2021 average price trends, major home types, East Toronto



Overall, from April 2017 to May 2021, the condo apartment sector has the best price performance. In terms of district, Toronto West has it better.

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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**
- **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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