FIERA REAL ESTATE

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Real Estate Valuations

The Driving Forces

Background and Purpose

Canadian real estate valuations have rarely been more nuanced and complicated than today. Since the Global Financial Crisis ("GFC") in 2008-09, the real estate industry had operated within a favourable macro-economic environment characterized by easily accessible capital, low interest rates, and stable inflation. In that benign macro-environment, the valuation of property was given a gentle tailwind to allow owners to focus solely on growing their future cash flows. That environment, although a positive influence, took the backseat and real estate thereby experienced steady income growth and rising valuations.

The valuation environment has changed dramatically in a very short period, beginning just over three years ago with the onset of the COVID-19 Pandemic. At that time, the Bank of Canada ("BoC") (and many other central banks) responded quickly to lockdown mandates with immense infusions of capital and immediate cuts to policy rates. Risk-assets quickly responded to these actions with exceptionally robust performance throughout the second half of 2020 and all of 2021. However, the adverse consequence to this approach was an overheated economy and the emergence of inflationary pressures not experienced in decades. To combat this, the BoC declared war on inflation in early 2022 through a campaign of rapid rate hikes along with the shrinking of its balance sheet. For the first time since the GFC, the real estate industry faced the reality of both expensive and difficult-to-obtain debt financing. Investment volumes began to markedly slow, capitalization rates ("cap rates") began to rise, and values declined. The macro-environment having such an instantaneous and dramatic influence on values was a harsh reminder that real estate does not operate within an economic vacuum.

This whitepaper sets out to describe the most critical and ever-changing forces influencing the value of real estate in Canada. The key drivers of value that will be highlighted are the under-rated significance of *liquidity cycles* (i.e., the availability of capital) and economic *growth cycles* that together characterize the *macro-economic environment*. This outside force provides the underpinning of any property's ability to grow future cash flows as well as determine where cap rates may trend. The paper will also examine the importance of *replacement costs* to determine scenarios when this "old school" metric has a more significant influence on real estate valuations. Lastly, the analysis will culminate to provide food for thought about how best to consider these forces in navigating through the current market conditions.

Real Estate Valuation Basics

Like all investments, real estate fundamentally derives its value from its capacity to deliver future cash flows. Those future cash flows are measured by a property's Net Operating Income ("NOI"), reflecting rents collected net of the operating costs, as well as any capital investment required to maintain the rentable area and generate competitive rents. The determination of the future cash flows is directly influenced by a property's specific attributes, but broader economic growth headwinds or tailwinds are the key force behind that sustainable growth.

Again, like all other investment classes, the risk and uncertainty around the generation and collection of those net rental streams is reflected though the discounting factor applied to arrive at a present or current value of the property. Although appraisal methodologies apply varying terminology and nuances, this discount factor is often referred to generally as the cap rate. The cap rate is significantly impacted by specific risk characteristics of the property (i.e., the lease expiry profile, probability of renewing existing tenants, market rental rates, etc.), but increasingly more directly correlated to the macro-economic environment that sets the conditions for growth and cost/availability of capital.

Driving Force #1 – The Macro-Economic Environment

The ***macro-economic environment,*** within which the real estate industry operates, ***matters,*** and has a direct influence on the value of all properties within it. That direct relationship between real estate performance and the macro-economic environment can be best understood by segmenting the environment into four quadrants. The two factors that define the segmentation are the rates of change in ***growth*** and ***liquidity cycles.***

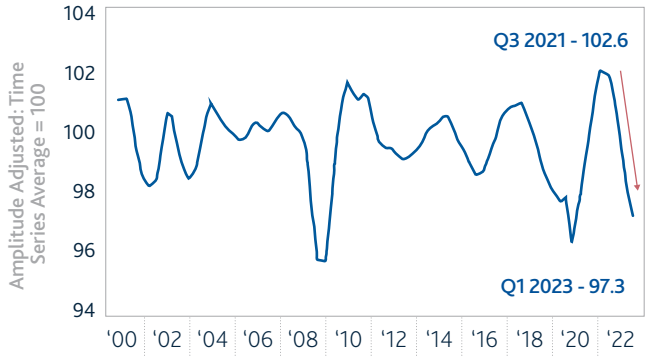
Macro Factor #1: Growth Cycles

Growth cycles refer to economic growth, which typically lifts income and spending levels in an economy and provides an environment for credit creation. There are many economic indicators that can be looked at, such as Growth Domestic Product ("GDP"), inflation, jobs, etc., but those tend to be lagging or coincidental indicators at best. A highly explanatory gauge of growth cycle momentum is the OECD's Composite Leading Indicator ("CLI"). This is designed to provide early signals of turning points in business cycles showing fluctuation of the economic activity around its long-term potential level.

The following is a chart of the current OECD CLI for Canada since Q1 2000:[1]

Chart 1

Growth Cycles - Canada OECD Composite Leading Indicator



Economic growth in Canada collapsed in Q1 2020, as COVID-19 was declared a pandemic. Since that low, an impressive recovery was staged – a rapid improvement off a closed-down economy baseline. Subsequently, Canada's growth has been drastically decelerating since it peaked in Q3 2021 – meaning it has negative momentum and has been consistently under-shooting its full potential. The growth cycle is important to track, as it has leading implications for all investment asset classes, including real estate. NOI is the channel that responds directly to the growth cycle. In a growing economy, rents grow with it; therefore, as is intuitive, the economic growth cycle matters to real estate valuations.

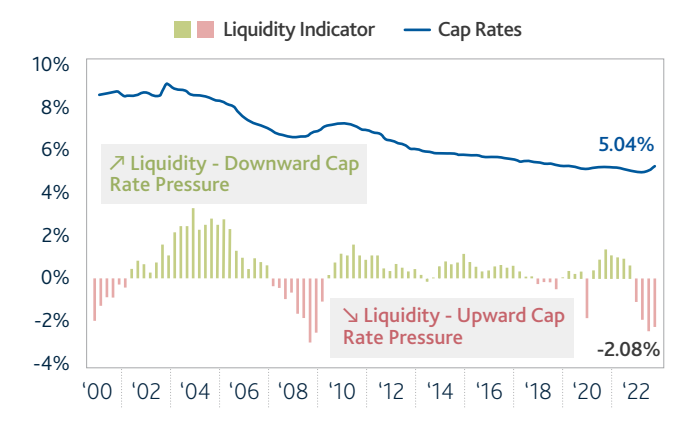
Macro Factor #2: Liquidity Cycles

Liquidity (or balance sheet capacity of the monetary system) is a product and a pre-requisite for economic growth that allows for credit creation, the grease of the economy. If liquidity is disrupted, or decreased on the margin, there will be less cash flow to support income growth and asset valuations. Zooming in on real estate specifically, ample liquidity within the banking system results in accessible mortgage financing at low rates to purchase real estate – a relatively highly leveraged asset class. If real estate investors have access to inexpensive capital, cap rates are more likely to remain low, supporting higher valuations. Much like growth, liquidity tends to move in cycles that, if tracked, can enhance forecasts for the future performance of real estate.

The graph on the right highlights this relationship using Fiera Real Estate's proprietary "Cap Rate Indicator", a liquidity indicator determined by measuring the accessibility and cost of mortgage financing relative to the reward of using leverage. Private real estate cap rates (as measured by the MSCI Canada Quarterly Property Index) tend to respond to this measure with a lag.[2]

Chart 2

Liquidity Cycles – Cap Rate Indicator



The response of cap rates when liquidity conditions decelerate is clear, as best demonstrated during the GFC and in the current environment. Recent liquidity conditions have not been strong enough to sustain current valuations. Essentially, the availability of capital is not only more expensive, but increasingly difficult to access. This condition has been in place since the beginning of Q1 2022 and is beginning to materialize into rising cap rates.

Do These Two Macro Factors Actually Drive Real Estate Values and Performance?

When putting these foundational factors together and measuring the rate of change of growth and liquidity cycles, one can essentially segment the macro-economic environment into four quadrants:

1 **Recovery** (↗ Growth, ↘ Liquidity)

2 **Expansion** (↗ Growth, ↗ Liquidity)

3 **Peak** (↘ Growth, ↗ Liquidity)

4 **Contraction** (↘ Growth, ↘ Liquidity)

As alluded to earlier, NOI is primarily driven by growth cycles and cap rates are primarily driven by liquidity cycles. Here is a table that looks at the historical returns of stocks, bonds, and private real estate. Please note there is a four-quarter lag applied to private real estate returns to account for lease rollover outcomes (affected by growth) and mortgage rollover outcomes (affected by liquidity). Here is a look at how asset classes perform in different macro-economic environments from Q1 1992 to Q1 2023:[3]

Q1 1992 - Q1 2023

Growth: Accelerating / Decelerating

RECOVERY (↗ GROWTH, ↘ LIQUIDITY)		EXPANSION (↗ GROWTH, ↗ LIQUIDITY)	
Asset Class	**Total Return (Annualized)**	**Asset Class**	**Total Return (Annualized)**
Stocks	25.0%	Stocks	24.1%
Bonds	1.9%	Bonds	5.7%
Private Real Estate (MSCI PI - 4Q)	**6.5%**	**Private Real Estate (MSCI PI - 4Q)**	**11.0%**
CONTRACTION (↘ GROWTH, ↘ LIQUIDITY)		**PEAK (↘ GROWTH, ↗ LIQUIDITY)**	
Asset Class	**Total Return (Annualized)**	**Asset Class**	**Total Return (Annualized)**
Stocks	-10.7%	Stocks	0.2%
Bonds	4.1%	Bonds	14.3%
Private Real Estate (MSCI PI - 4Q)	**3.1%**	**Private Real Estate (MSCI PI - 4Q)**	**9.7%**

Liquidity: Decelerating ← → Accelerating

Source: Stocks – S&P/TSX Composite Index (investing.ca), Bonds - FTSE Canada Long Term Bond Index (BlackRock), Private Real Estate – MSCI Canada Property Index (MSCI)

There is a clear bifurcation of returns in different quadrants. Stocks outperform when growth is accelerating, bonds outperform when growth is decelerating, and real estate performs its best when liquidity is accelerating. Real estate only produced annualized total returns of 3.1% in Contraction quadrants, which means capital losses occurred when offsetting the income return. The opposite to the Contraction quadrant is the Expansion quadrant, which provides the best conditions and highest risk-adjusted returns for real estate.

Macro-Economic Environment – Conclusion

The first major growth and liquidity shock in many years, currently placing Canada into the Contraction quadrant, is reminding the industry that real estate values and performance are never solely determined by property particulars; no property is immune from the driving force that is the macro-economic environment.

Driving Force #2 – Replacement Costs

What Do Replacement Costs Mean for Real Estate and Do They Matter?

The real estate industry finds itself in an amplified macro-economic environment that is no longer a passive force, but a predominant one, placing downward pressure on all real estate valuations. Thus, the importance of allocating to high-performing markets and property types has never been more important. This leads to the second driving force that governs real estate valuation trends – replacement costs.

The term "replacement cost," a traditional real estate metric against which current market values are compared, refers to the amount a property owner would have to pay to replace or rebuild a real estate asset at the present time. The replacement cost of real estate ultimately informs the future supply dynamics in any given market, sector, or segment. Supply can be forecasted by viewing current market values relative to their estimated replacement costs, with the following rationale:

Market Values > Replacement Costs = ↑ Development Activity

Market Values < Replacement Costs = ↓ Development Activity

Why does this relationship exist? There will be an incentive to build new supply when the cost of building is less than the cost of purchasing a standing (or existing) property. When that happens, supply increases and the price of standing properties fall. When it is less expensive to buy a standing property, the incentive to develop no longer exists, development stops, and supply falls, thereby increasing the value of standing properties – a self-regulating mechanism that historically keeps values in a natural equilibrium.

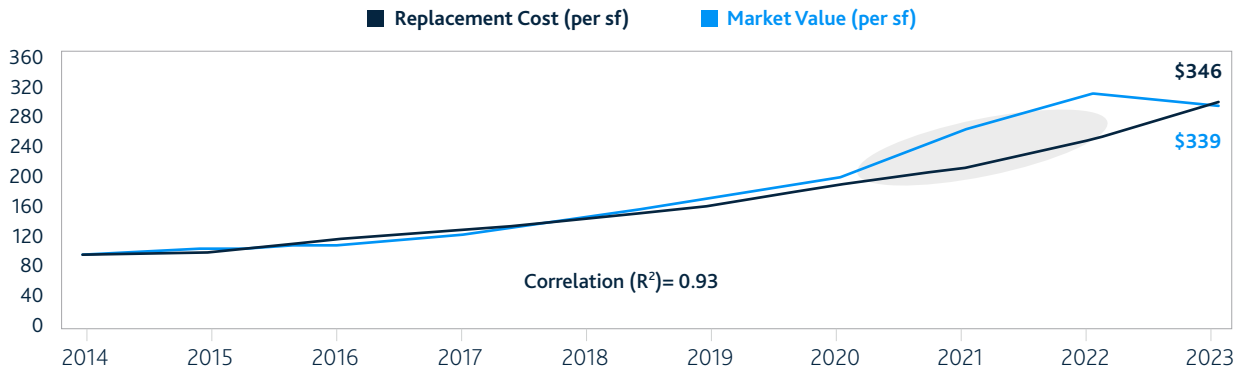
If real estate values are likely to decline in a Contraction regime, then how will replacement costs (an "old-school" pricing approach) play a role in determining where values may trend? Do they even matter? Let's look at two extreme cases for guidance. As they say, "extremes inform the means."

Case Study # 1: Greater Toronto Area Industrial Warehouse Replacement Costs vs. Market Values

First, a look at how market values of the hottest segment in real estate, Greater Toronto Area ("GTA") industrial warehouse buildings, have fared relative to replacement costs:[4]

Chart 4

GTA Industrial Warehouse – Replacement Costs vs. Market Values (per sf)



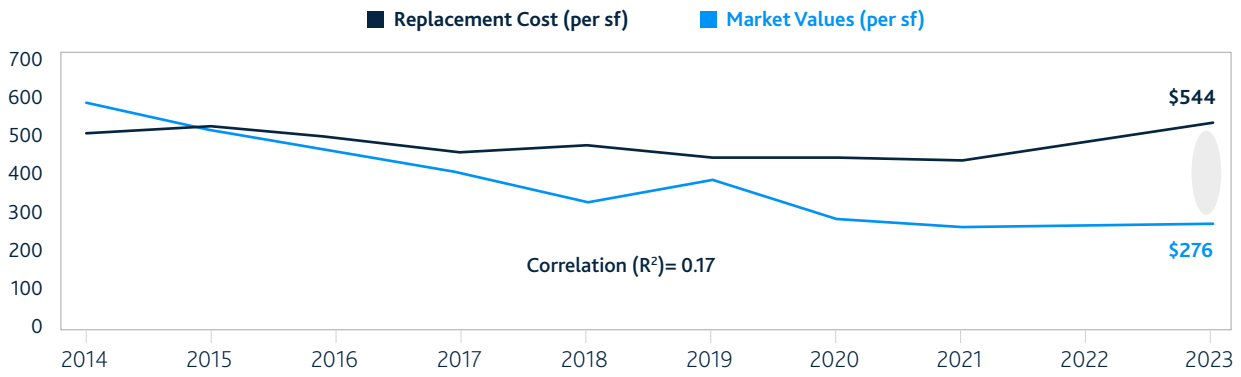
In 2021 and 2022, market values took off and began to diverge significantly from replacement costs, which was the market indicating there was insatiable demand to own industrial properties in the GTA. After all, why would an investor acquire an existing older vintage property when it could develop a brand new one for the same price or lower? This logic proved to hold as the GTA industrial under construction figures have ramped up to an all-time high of 17.6 million square feet in Q1 2023.[5] Unfortunately, this only represents 2.2% of existing stock and a third of it is already pre-leased, providing very little near-term relief for tenants in a 1.2% availability rate market.[6] With the macro conditions adversely shifting in the last year, market values are now converging back to replacement. Essentially, replacement costs acted as a magnet. In fact, the two series have shown a correlation coefficient of 0.93 – extremely positively correlated. Therein lies the question; if real estate is in a weak macro-economic environment, but replacement costs remain quite elevated, can real estate values diverge too far below their replacement costs? Economic fundamentals of real estate development would say "no" to this notion. If values fall too low (assume 20% below their replacement values), developers will likely turn off the tap of new construction, halting new future supply. This, is turn, will provide natural support to current market values.

Case Study # 2: Calgary Downtown Office Replacement Costs vs. Market Prices

Moving to another extreme case, below is a less favourable market segment that has exhibited deteriorating fundamentals for years – Calgary downtown office[7]:

Chart 5

Calgary Downtown Office – Replacement Costs vs. Market Values (per sf)



In early 2014, Calgary downtown office was coveted real estate for institutional ownership. WTI Oil prices were still hovering around $100 USD per barrel and Calgary's economy was in expansion mode. Looking at the graph above, market values were running higher than replacement costs so, as expected, 4.7 million square feet of new downtown office space was added to the construction pipeline (representing 12.1% of existing downtown stock).[8] Once the city's economic prospects adversely turned, Calgary was left with a huge supply-demand mismatch that ultimately led to its poor performance from 2014 to the present day. Since then, the downtown under construction stock from 2014 was delivered into weakening absorption, resulting in a 9.1% vacancy rate in Q1 2014 widening out to a staggering 32.0% vacancy in Q1 2023. Current market values are roughly 50% of estimated replacement costs.[9] Critically, replacement costs theory did not hold true in this case, unlike the high correlation of the two metrics in the GTA industrial case study above. Calgary downtown office market values have a much lower correlation of only 0.17 to its replacement costs – effectively demonstrating little connection between the two series.

Replacement Costs – Key Findings and Conclusion

The observations derived from these case studies are:

1. Markets/segments that are exceptionally tight, characterized by vacancy rates well-below historical averages, tend to have market values that remain well-tethered to their replacement costs (+/- 20%) – high correlation between market prices and replacement costs.
2. Markets/segments that are exceptionally loose, characterized by vacancy rates well-above historical averages, tend to have market values drift further from their replacements costs (~-20-50%) – low correlation between market prices and replacement costs.

Chart 6

Canadian Real Estate Sector Fundamentals[10]

Sector	Current National Vacancy Rate	Average National Vacancy Rate (2000-2023)	Deviation from Trend	Z-Score Measure of Strength/Weakness
Industrial	1.9%	4.8%	-2.9%	-1.9
Multi-Residential	1.9%	2.6%	-0.7%	-1.0
Retail	7.1%	5.4%	1.7%	1.9
Office	17.7%	11.0%	6.7%	2.5

Source: CBRE, CMHC, Oxford Economics

Industrial and multi-residential sectors are clearly exhibiting the best fundamentals. The industrial sector's availability rate is 1.9 standard deviations tighter than its average from 2000 to 2023, while multi-residential is 1.0 standard deviation tighter, as measured by their respective Z-scores.

In plain English, replacement costs should provide the most defensive downside protection to the strongest sectors as they are more likely to remain tethered to the metric.

What Does This Mean for Real Estate Values in the Current Environment?

If the predominant macro-economic environment remains in "Contraction" for the next few quarters, as it has been since Q1 2022, then it is prudent to anticipate that broad real estate cap rates are likely to continue to expand (due to decelerating liquidity) and NOI growth is likely to face the headwinds of deteriorating economic growth. Taken together, the implication of Force #1 is a negative environment for future real estate valuation trends that has emerged to the forefront after a period of having a more muted effect.

Force #2 on the other hand, elevated replacement costs, is creating a potential counter force. If replacement costs remain elevated due to inflationary impacts (such as rising development charges, commodity and labour prices, and lack of land availability), this metric should hold the line for real estate valuations in varying degrees. Sectors with strong fundamental moats are likely to remain more tethered and have less room to diverge lower from the grounded reality and natural protection of their replacement costs.

With the macro-economic environment placing unavoidable downward pressure on all real estate values, portfolios will need to resort to Force #2 to differentiate performance. Portfolios with allocations to the strongest segments will offer better protection from downside valuation pressures. In short, quality portfolio construction matters more than ever to achieve relative outperformance.

Sources

1. OECD - https://data.oecd.org/leadind/composite-leading-indicator-cli.htm

2. MSCI, Fiera Real Estate

3. S&P/TSX Composite Index (investing.com), Bonds – FTSE Canada Long Term Bond Index (BlackRock), Private Real Estate – MSCI Canada Property Index (MSCI)

4. Altus Construction Cost Guides, CBRE Research, CoStar, Fiera Real Estate

5. CBRE Research

6. CBRE Research

7. Altus Construction Cost Guides, CBRE Research, Altus Investment Trends Survey, Fiera Real Estate

8. CBRE Research

9. Altus Construction Cost Guides, CBRE Research, Altus Investment Trends Survey, Fiera Real Estate

10. CBRE Research, CMHC, Oxford Economics, Fiera Real Estate

The Driving Forces – Conclusion

With real estate valuations under significant pressure for the first time since the GFC, the industry is being reminded that the macro-economic environment, specifically economic growth and liquidity cycles, has a significant impact on asset performance, and replacement costs theory can no longer be broadly relied upon. A deeper understanding of true drivers of real estate valuation will be critical in successfully navigating the choppy waters of the current environment.

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