June 9, 2022 - (Vol. VI, No. 50)

Needed: Economic offsets

By Warren Lovely & Ethan Currie

By now, most are familiar with the idea of 'carbon offsets'. We're talking about carbon-reducing efforts/initiatives that compensate for (i.e., offset) emissions and related environmental damage elsewhere, leaving the planet on a no-less-sustainable footing (all else equal). Applying this concept to the economy, we're in the need of 'economic offsets' to an almost-certain housing market correction now that interest rates are racing higher. Specifically, we're hunting for real GDP components that could lean against a contraction in real residential investment, leaving Canadian growth on a more-or-less sustainable footing (or at least reducing the odds of a 'hard landing'). This is a vital exercise, informing our absolute and relative call on interest rates, equities, credit and currencies. So this *Market View* is hardly the definitive word. Our fresh *Monthly Economic Monitor* will explore related themes, while our *Monthly Fixed Income Monitor* embeds the following line of argument.

For starters, let's acknowledge that residential investment (a component of expenditure-based GDP and one way to measure housing's contribution to the economy) is decidedly choppy. Looking at trend growth back to the 1960s, we identify 11 unique downturns in real residential investment (Chart 1). You'd be hard-pressed to find another major GDP component that bounces around as much (Chart 2). Based on this simple count, there have been at least twice as many housing-related downturns as there have been full-blown economic recessions. Note: Canada has endured five recessions over the time period in question, with the C.D. Howe Institute providing the definitive word on business cycle dating. Also noteworthy, the correlation with real GDP growth is weaker for real residential investment than many other components (Table, page 3). If anything, the connection between growth in residential investment and overall GDP is weaker, not stronger, when looking at shorter samples. We'll concede the potential for residential investment to impact GDP growth with a slight lag, but we're generally talking no more than 1-2 quarters (Chart 3). So far then, there's a bit of good news: A housing downturn doesn't always mean a recession, with a historical tendency for other areas to step up when needed. To be clear, help is needed... and quick... as Bank of Canada tightening remains in overdrive.

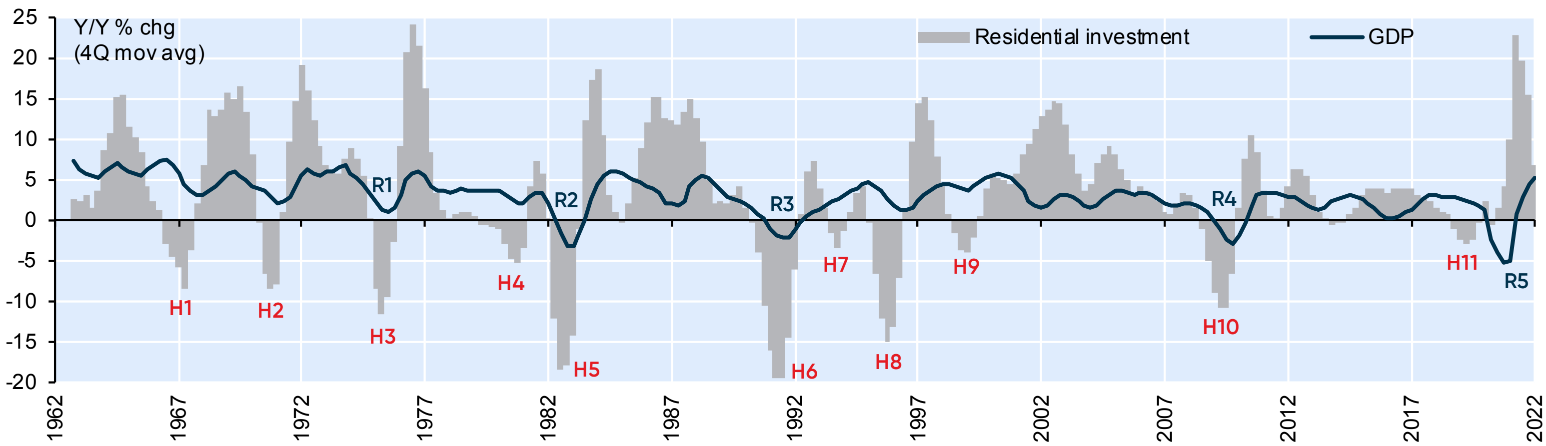
So where are these potential 'economic offsets'? As we highlight in Chart 4, the connection between growth in residential investment and other key components of Canadian GDP is often tenuous. In particular, growth in real business investment has displayed a relatively weak relationship with housing-related fluctuations, almost regardless of your focal range (Chart 5). Perhaps most encouragingly, past monetary policy-induced declines in real residential investment—we count seven rate tightening cycles since the mid-1990s, an eighth getting underway this March—in each case coincided with *gains* in real business investment (Chart 6). Here's hoping that trend continues. We should also note that while housing's economic footprint (as judged by the share of Canadian GDP) has been growing in recent years, there's still as much real economic activity generated from business investment (Chart 7), which is comprised of non-residential structures, machinery/equipment and IP. In this arm-wrestling contest then, we just might have an even match (or near to it).

Empirical analysis is all well and good, but what gives us comfort that housing-related weakness could be offset this go-round? Importantly, Canada's corporate profit picture has brightened appreciably, net income accumulating more forcefully than that observed stateside (Chart 8). That's prospective fuel to drive marginal investment, with the current commodity price backdrop (plus the federal government's new tax regime for CCUS) providing a particular impetus for energy sector activity. Excess profits may not be the sole factor influencing an investment decision, but statistically speaking, profits exert more consistent influence on business investment than interest rates... just saying.

For the nay-sayers on Canadian business investment there are other GDP components that could pick up vital slack. We're thinking of government stimulus via income supports/affordability measures, program spending and infrastructure investment. There's no shortage of firepower. Federal-provincial revenue in 2022-23 currently stands $90 billion higher than what was projected a year ago (in 2021 budgets). Already, $60 billion of that revenue bonanza has been committed to new investments (Chart 9). For a $2.7 trillion economy, this certainly qualifies as material. It could be another game changer, enabling a degree of economic resilience even as housing heads down. Economists may be divided on the Canadian economy's ability to hold up, but rates markets appear more willing to embrace our line of argument of late.

Chart 1: Follow the bouncing housing market, as residential investment tends to oscillate wildly

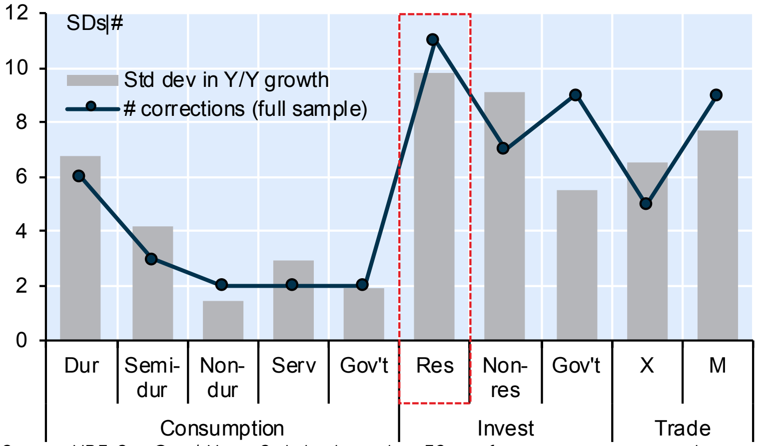
Growth in Canadian real residential investment vs. real GDP, including respective counts of downturns/recessions



Source: NBF, StatCan, C.D. Howe | Note: Labels used to identify downturns in real residential investment (H1 to H11) & economic recessions (R1 to R5)

Chart 2: Housing investment relatively more volatile

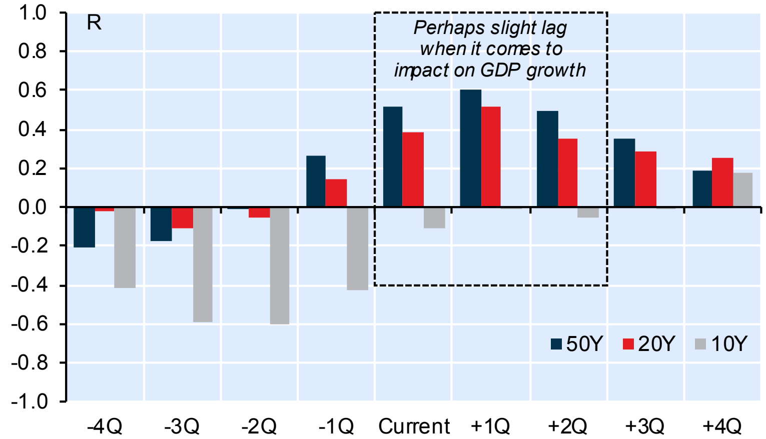
Standard deviation & downturn counts for select Cdn real GDP components



Source: NBF, StatCan | Note: Std dev based on 50yrs of year-over-year growth rates; downturn counts by NBF based on full sample to 1960s

Chart 3: Testing the correlation with real GDP growth

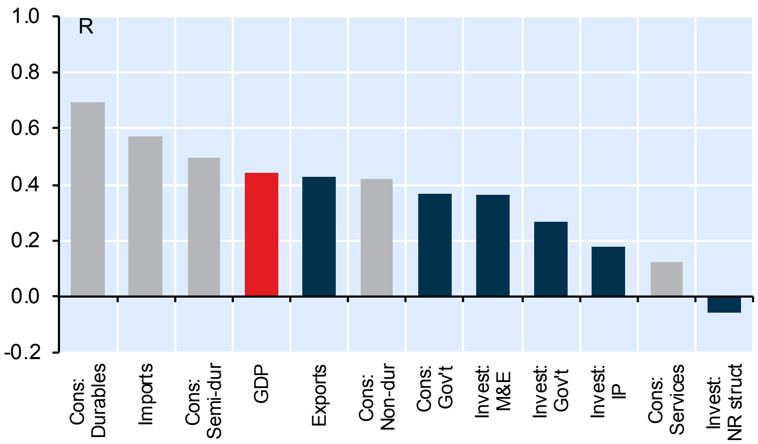
Lag structure in correlation btw Cdn real residential investment & real GDP



Source: NBF, StatCan | Note: Correlations based on year-over-year growth rates; -4Q to +4Q represents lead/lag in real GDP growth relative to residential investment

Chart 4: Limited correlation with other key GDP components

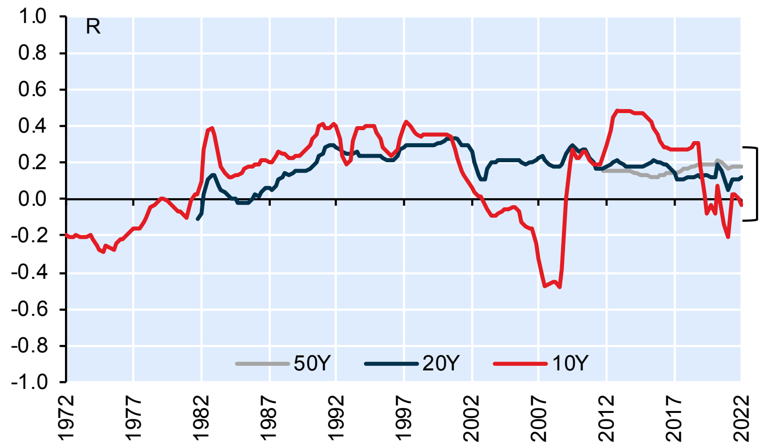
20Y correlation btw Cdn real residential investment & other GDP components



Source: NBF, StatCan | Note: Correlation based on year-over-year growth rates

Chart 5: Little connection between res & non-res investment

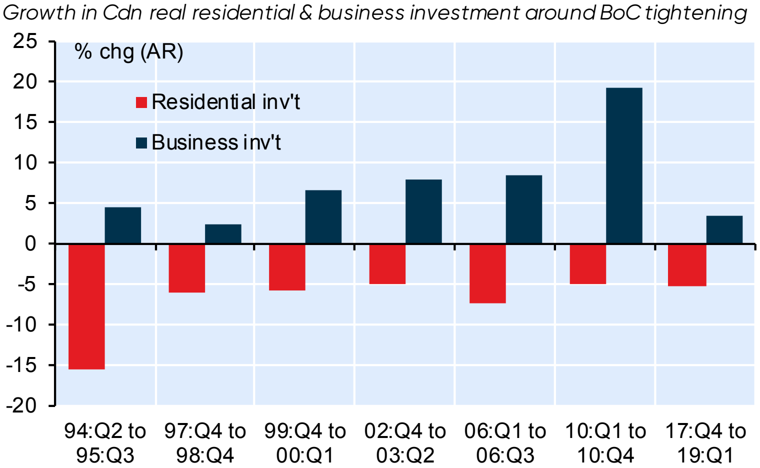
Correlation btw Cdn real residential & business investment



Source: NBF, StatCan | Note: Correlations based on year-over-year growth rates

Chart 6: An historical offset to housing weakness? [Let's hope]

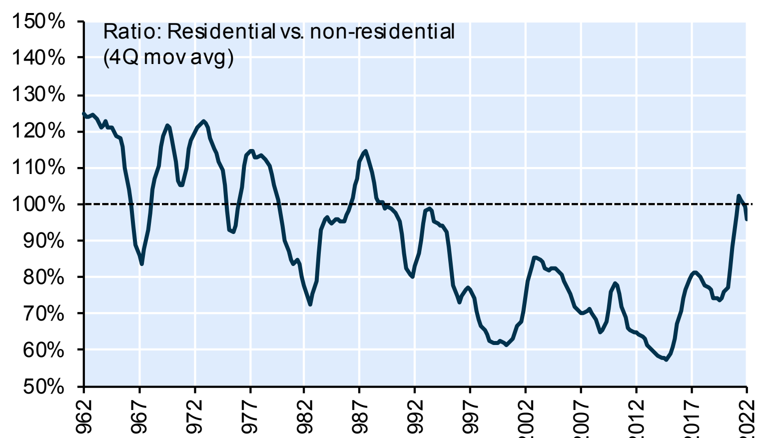
Growth in Cdn real residential & business investment around BoC tightening



Source: NBF, StatCan | Note: Residential investment change is based on peak-to-trough decline in/around seven historical BoC tightening episodes

Chart 7: Call it a tie, in terms of res vs. non-res investment

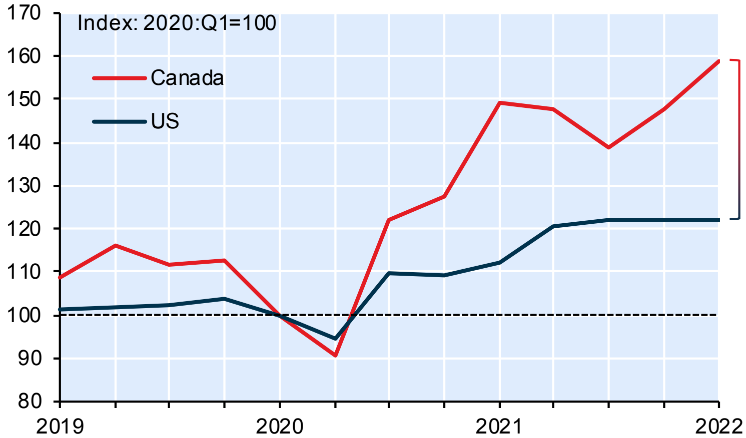
Ratio of Cdn real residential investment vs. real business investment over time



Source: NBF, StatCan | Note: Based on SA real GDP levels

Chart 8: Canadian profit surge could fuel investment

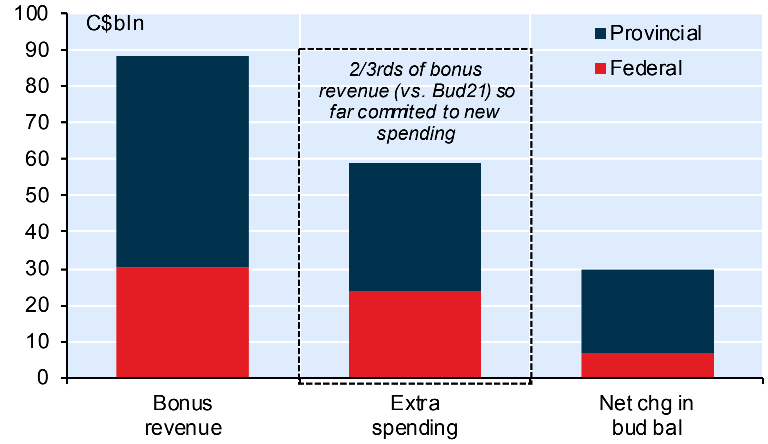
Net operating surplus (corporations): Cda vs. U.S.



Source: NBF, StatCan, BEA

Chart 9: Gov't's steering revenue windfall to new investments

Unplanned gov't revenue & spending vs. Budget 2021 projections: 2022-23 FY



Source: NBF, fed-prov gov'ts | Note:

Table: Testing Canadian economic inter-connectedness, with a spotlight on residential investment

Correlation matrix: Select components of Canadian real GDP, with individual correlation coefficient based on latest 20 years of quarterly data (to 2022:Q1)

		Household consumption						Business investment				Trade		Aggregates	
		Dur	Semi-dur	Non-dur	Serv	Gov't cons	**Res inv't**	Non-res struct	Mach & equip	IP	Gov't inv't	X	M	GDP	FDD
HH cons	Dur	-	0.76	0.48	0.35	0.46	**0.69**	0.05	0.50	0.26	0.17	0.45	0.62	0.62	0.69
	Semi-dur	0.76	-	0.17	0.67	0.67	**0.49**	0.29	0.63	0.27	0.10	0.49	0.70	0.79	0.83
	Non-dur	0.48	0.17	-	-0.11	0.17	**0.42**	-0.12	0.18	0.23	0.19	0.12	0.25	0.19	0.24
	Serv	0.35	0.67	-0.11	-	0.41	**0.12**	0.45	0.58	0.30	0.04	0.53	0.70	0.80	0.80
	Gov't cons	0.46	0.67	0.17	0.41	-	**0.37**	-0.07	0.31	0.13	0.29	0.04	0.35	0.42	0.54
Res inv't		**0.69**	**0.49**	**0.42**	**0.12**	**0.37**	-	**-0.06**	**0.36**	**0.18**	**0.27**	**0.43**	**0.57**	**0.44**	**0.52**
Bus inv't	Non-res struct	0.05	0.29	-0.12	0.45	-0.07	**-0.06**	-	0.67	0.63	-0.19	0.52	0.58	0.54	0.56
	Mach & equip	0.50	0.63	0.18	0.58	0.31	**0.36**	0.67	-	0.75	0.12	0.63	0.85	0.77	0.86
	IP	0.26	0.27	0.23	0.30	0.13	**0.18**	0.63	0.75	-	0.09	0.52	0.65	0.55	0.59
	Gov't inv't	0.17	0.10	0.19	0.04	0.29	**0.27**	-0.19	0.12	0.09	-	-0.24	0.16	-0.12	0.20
Trade	X	0.45	0.49	0.12	0.53	0.04	**0.43**	0.52	0.63	0.52	-0.24	-	0.79	0.81	0.66
	M	0.62	0.70	0.25	0.70	0.35	**0.57**	0.58	0.85	0.65	0.16	0.79	-	0.86	0.93
Agg	GDP	0.62	0.79	0.19	0.80	0.42	**0.44**	0.54	0.77	0.55	-0.12	0.81	0.86	-	0.91
	FDD	0.69	0.83	0.24	0.80	0.54	**0.52**	0.56	0.86	0.59	0.20	0.66	0.93	0.91	-

Source: NBF, StatCan | Note: Correlation coefficients based on year-over-year growth rates

NATIONAL BANK OF CANADA FINANCIAL MARKETS

Economics and Strategy

Montreal Office
514-879-2529

Stéfane Marion
Chief Economist and Strategist
stefane.marion@nbc.ca

Matthieu Arseneau
Deputy Chief Economist
matthieu.arseneau@nbc.ca

Kyle Dahms
Economist
kyle.dahms@nbc.ca

Daren King
Economist
daren.king@nbc.ca

Jocelyn Paquet
Economist
jocelyn.paquet@nbc.ca

Alexandra Ducharme
Economist
alexandra.ducharme@nbc.ca

Angelo Katsoras
Geopolitical Analyst
angelo.katsoras@nbc.ca

Toronto Office
416-869-8598

Warren Lovely
Chief Rates and Public Sector Strategist
warren.lovely@nbc.ca

Taylor Schleich
Rates Strategist
taylor.schleich@nbc.ca

Ethan Currie
Sales & Trading Intern
ethan.currie@nbc.ca

UK Residents

This Report is a marketing document. This Report has not been prepared in accordance with EU legal requirements designed to promote the independence of investment research and it is not subject to any prohibition on dealing ahead of the dissemination of investment research. In respect of the distribution of this Report to UK residents, NBF has approved the contents (including, where necessary, for the purposes of Section 21(1) of the Financial Services and Markets Act 2000). This Report is for information purposes only and does not constitute a personal recommendation, or investment, legal or tax advice. NBF and/or its parent and/or any companies within or affiliates of the National Bank of Canada group and/or any of their directors, officers and employees may have or may have had interests or long or short positions in, and may at any time make purchases and/or sales as principal or agent, or may act or may have acted as market maker in the relevant investments or related investments discussed in this Report, or may act or have acted as investment and/or commercial banker with respect hereto. The value of investments, and the income derived from them, can go down as well as up and you may not get back the amount invested. Past performance is not a guide to future performance. If an investment is denominated in a foreign currency, rates of exchange may have an adverse effect on the value of the investment. Investments which are illiquid may be difficult to sell or realise; it may also be difficult to obtain reliable information about their value or the extent of the risks to which they are exposed. Certain transactions, including those involving futures, swaps, and other derivatives, give rise to substantial risk and are not suitable for all investors. The investments contained in this Report are not available to retail customers and this Report is not for distribution to retail clients (within the meaning of the rules of the Financial Conduct Authority). Persons who are retail clients should not act or rely upon the information in this Report. This Report does not constitute or form part of any offer for sale or subscription of or solicitation of any offer to buy or subscribe for the securities described herein nor shall it or any part of it form the basis of or be relied on in connection with any contract or commitment whatsoever.

This information is only for distribution to Eligible Counterparties and Professional Clients in the United Kingdom within the meaning of the rules of the Financial Conduct Authority. NBF is authorised and regulated by the Financial Conduct Authority and has its registered office at 70 St. Mary Axe, London, EC3A 8BE.

NBF is not authorised by the Prudential Regulation Authority and the Financial Conduct Authority to accept deposits in the United Kingdom.

U.S. Residents

With respect to the distribution of this report in the United States of America, National Bank of Canada Financial Inc. ("NBCFI") which is regulated by the Financial Industry Regulatory Authority (FINRA) and a member of the Securities Investor Protection Corporation (SIPC), an affiliate of NBF, accepts responsibility for its contents, subject to any terms set out above. To make further inquiry related to this report, or to effect any transaction, United States residents should contact their NBCFI registered representative.

This report is not a research report and is intended for Major U.S. Institutional Investors only.

This report is not subject to U.S. independence and disclosure standards applicable to research reports.

HK Residents

With respect to the distribution of this report in Hong Kong by NBC Financial Markets Asia Limited ("NBCFMA")which is licensed by the Securities and Futures Commission ("SFC") to conduct Type 1 (dealing in securities) and Type 3 (leveraged foreign exchange trading) regulated activities, the contents of this report are solely for informational purposes. It has not been approved by, reviewed by, verified by or filed with any regulator in Hong Kong. Nothing herein is a recommendation, advice, offer or solicitation to buy or sell a product or service, nor an official confirmation of any transaction. None of the products issuers, NBCFMA or its affiliates or other persons or entities named herein are obliged to notify you of changes to any information and none of the foregoing assume any loss suffered by you in reliance of such information.

The content of this report may contain information about investment products which are not authorized by SFC for offering to the public in Hong Kong and such information will only be available to, those persons who are Professional Investors (as defined in the Securities and Futures Ordinance of Hong Kong ("SFO")). If you are in any doubt as to your status you should consult a financial adviser or contact us. This material is not meant to be marketing materials and is not intended for public distribution. Please note that neither this material nor the product referred to is authorized for sale by SFC. Please refer to product prospectus for full details.

There may be conflicts of interest relating to NBCFMA or its affiliates' businesses. These activities and interests include potential multiple advisory, transactional and financial and other interests in securities and instruments that may be purchased or sold by NBCFMA or its affiliates, or in other investment vehicles which are managed by NBCFMA or its affiliates that may purchase or sell such securities and instruments.

No other entity within the National Bank of Canada group, including National Bank of Canada and National Bank Financial Inc, is licensed or registered with the SFC. Accordingly, such entities and their employees are not permitted and do not intend to: (i) carry on a business in any regulated activity in Hong Kong; (ii) hold themselves out as carrying on a business in any regulated activity in Hong Kong; or (iii) actively market their services to the Hong Kong public.